

## Maternal and Neonatal Directed Assessment of Technology

Comprehensive technology assessment and analytical tools that help prioritize efforts to reduce maternal and neonatal mortality in low-resource settings

### Global Maternal and Neonatal Mortality

Global maternal and neonatal mortality rates are unacceptably high. More than 98% of these deaths occur in low-resource settings. Strategies to reduce maternal and neonatal deaths need to incorporate improving access to appropriate curative and preventive interventions, especially in home and community settings, where over half of the more than 60 million births per year occur.

Delivering innovative technologies across the continuum of care—including technologies for frontline workers to use in homes, communities, and first-level clinics—may significantly improve pregnancy outcomes. However, no quantitative process currently exists to evaluate and prioritize technology development options based on the potential to save lives in low-resource settings.

RTI International has received a grant from the Bill & Melinda Gates Foundation to create a framework that will enable the global community to approximate and compare the potential of a portfolio of maternal and neonatal technologies to save lives in low-resource settings. This tool will have broad appeal to inventors, investors, donors, and researchers aspiring to use technology to maximize maternal and neonatal lives saved.

### The Critical Need

- 350,000 women die in pregnancy or childbirth
- 3.3 million babies die in the first 28 days of life
- 2.65 million stillbirths occur
- 98% of the mortality takes place in low-resource areas

Note: Above numbers are annual approximations

### The MANDATE Approach

The focus of MANDATE is to provide comprehensive technology assessment and analytical tools that help prioritize efforts to reduce maternal and neonatal mortality in low-resource settings. The initial scope covers

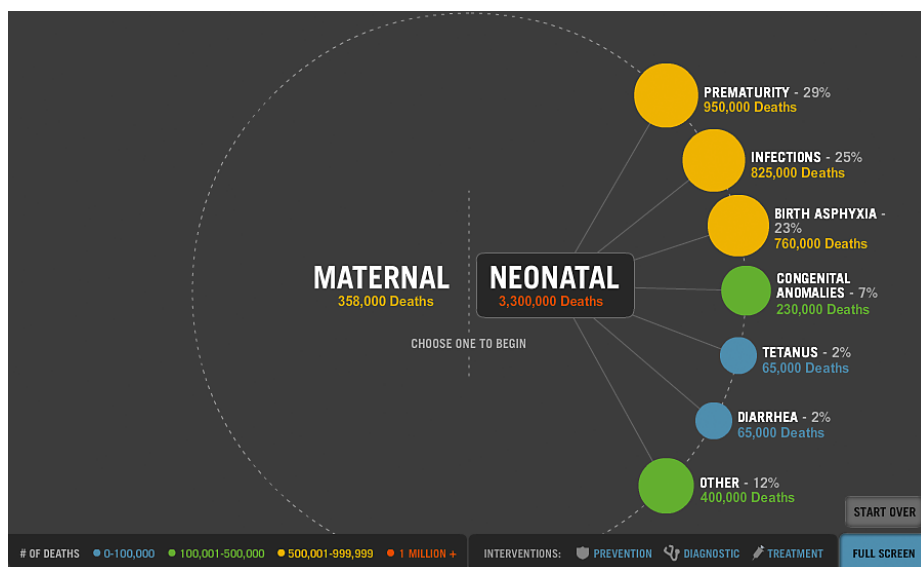
<b>Major clinical conditions</b>	Maternal—hemorrhage, hypertension, infection, complications from abortion Neonatal—preterm respiratory distress syndrome, birth asphyxia, infection
<b>Settings</b>	Home/community, clinic, hospital
<b>Geographic regions</b>	Sub-Saharan Africa, India

## The MANDATE Framework

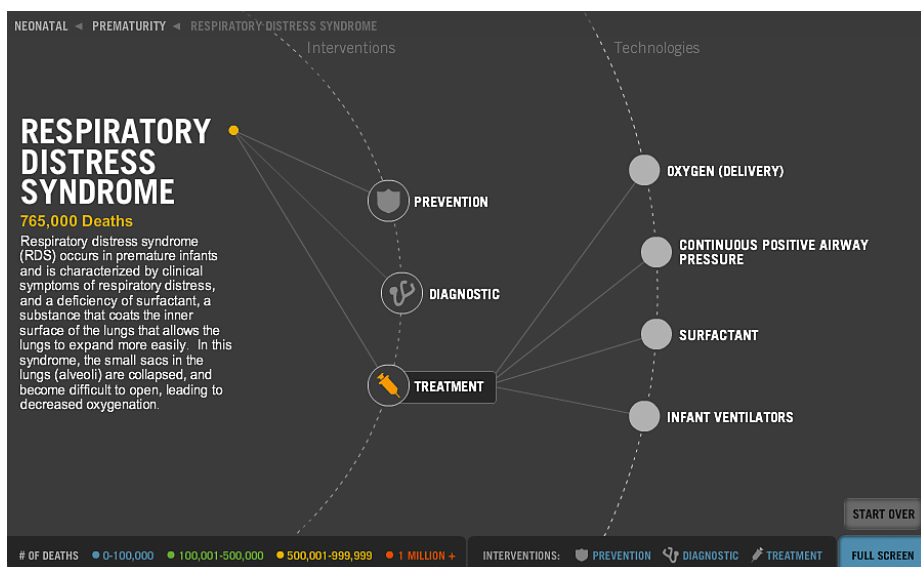
MANDATE offers several decision support tools that guide setting and technology change strategies. Those resource tools include

- **Interactive Cause of Death Tree**— Shows current maternal and neonatal deaths in India and Sub-Saharan Africa by condition and sub-cause, as well as the associated current standard of care technologies for prevention, diagnosis, and treatment.
- **Technology Assessments**—Provides easy access and information on current technologies and technologies in development that could offer improvements in prevention, diagnosis, or treatment.
- **Predictive Model**—Provides a detailed decision support tool that can be used by the global health community and by technology developers to understand the potential mortality impact of various clinical practice (e.g., transfer protocols) and technology interventions within specific or broadly based areas.

MANDATE team members include RTI professionals from public health research, clinical science, and healthcare technology development, as well as subcontractors and consultants who are recognized leaders in their fields. In addition, the MANDATE team collaborates with advisory group members from a variety of global organizations—including the World Health Organization, the United Nations Population Fund, and Saving Newborn Lives—and reaches out to experts in community-based settings in Africa and India.



Current maternal and neonatal deaths by condition and sub-cause.



Condition and sub-cause, as well as the associated current standard-of-care technologies for prevention, diagnosis, and treatment.

### More Information

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