

## 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. Delivering innovative technologies across the continuum of care—including technologies for frontline workers to use in homes, communities, and first-level clinics—will significantly improve pregnancy outcomes.

MANDATE, the Maternal and Neonatal Directed Assessment of Technology project, is an evidence-based framework for the global community to prioritize technology development and to estimate the impact of those technologies on maternal, fetal, and neonatal mortality.

RTI International works with the Bill & Melinda Gates Foundation to create decision support tools that will have broad appeal to inventors, investors, donors, and researchers aspiring to use technology to maximize the number of maternal and neonatal lives saved. Our model can assist different users by answering targeted questions:

**Companies and Universities**—What new or improved technologies should I develop to have the greatest impact on reducing maternal and newborn mortality?

**National and Multinational Funding Agencies**—Where should we invest our funds for developing new technologies, buying current technologies, or training birth attendants and health personnel to have the greatest impact on maternal and neonatal mortality?

**Ministries of Health In-Country**—What are the technologies or training in which we should invest our funds to have the greatest impact on reducing maternal and neonatal mortality?

#### The Critical Need

- 250,000 women die in pregnancy or childbirth
- 3 million babies die in the first 28 days of life
- 2.6 million stillbirths occur
- 98% of the mortality takes place in low-resource areas

### The MANDATE Approach

MANDATE provides comprehensive technology assessment and analytical tools that help prioritize efforts to reduce maternal and neonatal mortality in low-resource settings.

<b>Major clinical conditions</b>	Maternal—hemorrhage, hypertensive disorders of pregnancy, infection, complications from abortion  Neonatal—respiratory distress, 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 global maternal and neonatal deaths by condition and sub-cause, as well as the associated current standard-of-care technologies for prevention, diagnosis, and treatment.
- **Technology Assessments**—Provide 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 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 and consultants who are recognized leaders in their fields of public health research, clinical science, and healthcare technology development.

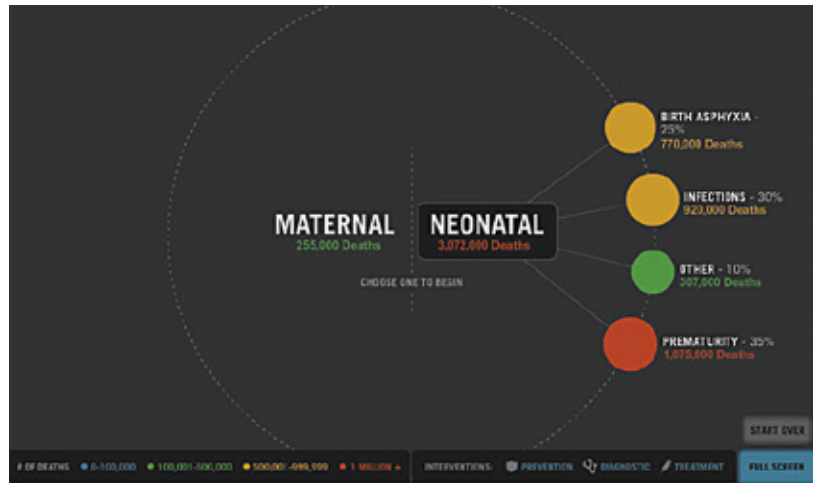
MANDATE collaborators include

- Bill & Melinda Gates Foundation
- World Health Organization
- United Nations Population Fund
- Saving Newborn Lives
- Merck for Mothers Foundation
- USAID
- PATH
- Jhpiego
- Massachusetts General Hospital

### More Information

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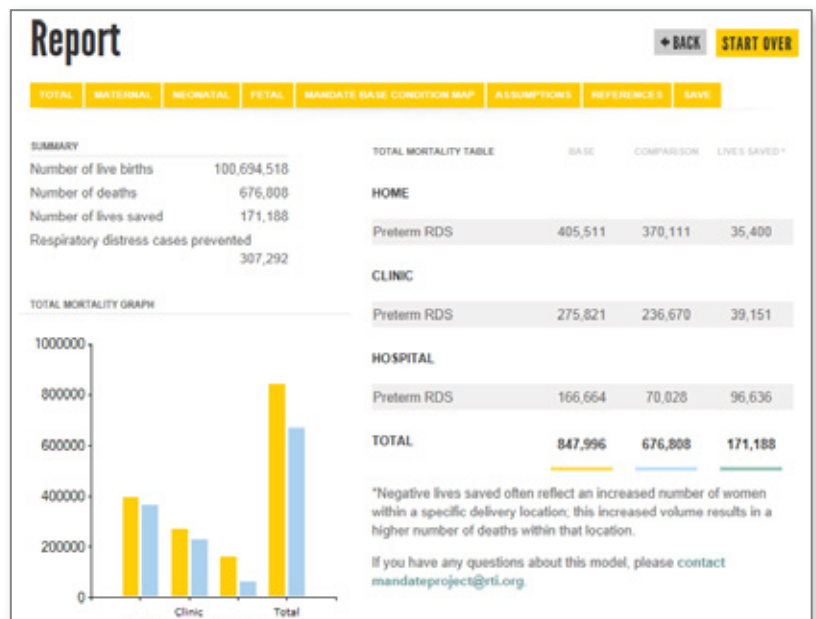
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Current maternal and neonatal deaths by condition and subcause.



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



MANDATE model report.