



**Maternal, Child
and Reproductive
Health Initiative**

ISGlobal
Barcelona
Institute for
Global Health

Maternal, Child and Reproductive Health Initiative

The Maternal, Child and Reproductive Health (MCRH) Initiative works towards the reduction of infant mortality, and the improvement of maternal health, in developing countries. At the heart of the Initiative's work model is the concept of knowledge translation: the transfer of scientific evidence into concrete action. The three main areas of research are: malaria in pregnancy, causes of maternal mortality and the human papillomavirus (HPV). Through its advocacy and educational programmes, the Initiative builds on the evidence generated from its research projects to influence policy and train health professionals in different countries.

Despite improvements in women's and children's health over the last decade, both groups still face disproportionate inequalities in access to quality health care. For many women, pregnancy and childbirth are particularly frightening and dangerous times in their lives, when illness and even death happen all too frequently. This not only affects women but also their families and communities. However, solely addressing the direct obstetric causes of maternal mortality is not enough. Taken together HIV/AIDS, malaria and tuberculosis are among the leading causes of maternal mortality in low- and middle-income countries.

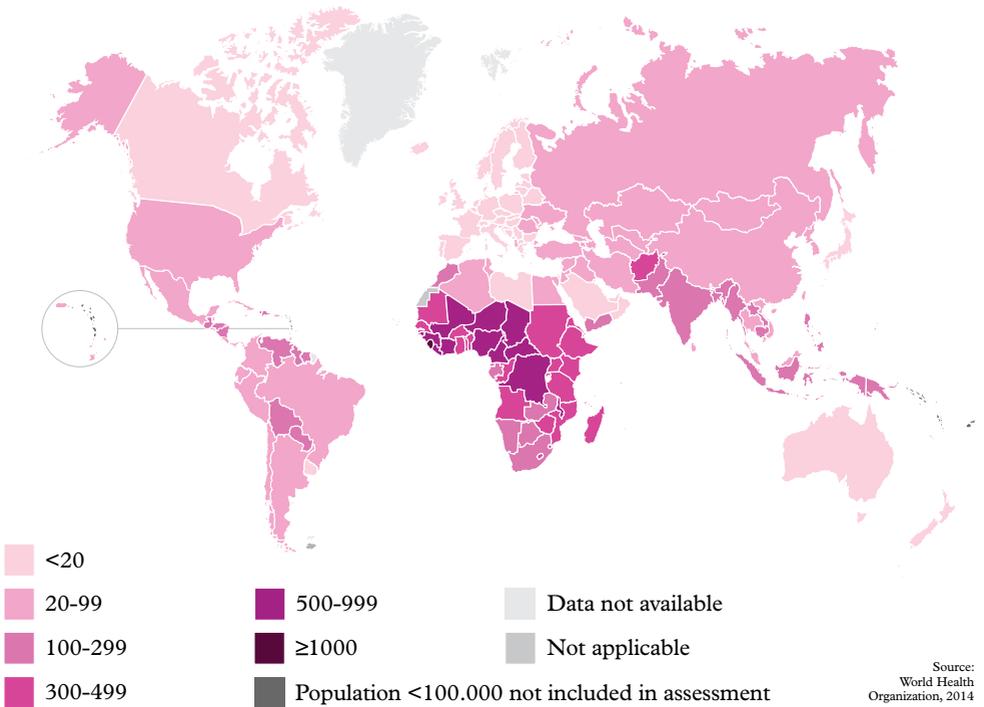
Moreover, one of the problems which continues to hamper progress in the reduction of maternal mortality is the lack of reliable data on the levels and causes of mortality.

Every year 289,000 women die from complications related to pregnancy, childbirth, and postpartum, most of them preventable

Carrying out Complete Diagnostic Autopsies, the gold standard methodology to inform on cause of death, is not feasible in rural areas of the developing world, not only for the technical expertise required but also because there may be problems with cultural and/or religious acceptance, negatively influencing consent. Thus, other more practical tools for cause of death ascertainment need to be developed.

Cervical cancer is one of the most common causes of death for women in less developed countries. The vaccine against HPV is instrumental to reduce the burden of cervical cancer. However, although vaccines are available, their implementation strategy is challenging: it needs to be based on what is affordable, feasible and culturally acceptable in each country, and the target group — girls between 9 and 13 years old —, is not included in routine vaccination schemes that mostly target infants and pregnant women.

Maternal mortality ratio (per 100,000 live births), 2013



Over 80% of all births occur in countries where maternal causes of death data don't exist or are incomplete

Pregnant women are twice more likely to die from malaria than other adults

Research

ISGlobal has a long tradition in the study of malaria. In recognition of the institution's work and achievements in this field, ISGlobal was officially designated a World Health Organisation (WHO) Collaborating Centre for Malaria Control, Elimination and Eradication, in 2013.

Malaria in pregnancy

Malaria infection during pregnancy is one of the main contributors to both maternal and neonatal mortality, mostly through low birth weight and prematurity, and by causing maternal anaemia or maternal malaria infection (placental parasitaemia). As a result, an estimated 10,000 women and 200,000 infants die every year in Africa. Research undertaken by the MCRH Initiative in this area includes:

- An evaluation of the safety and efficacy of alternative drugs to sulfadoxine-pyrimethamine for Intermittent Preventive Treatment during pregnancy (IPTp).
- A study of the epidemiological and clinical features of *Plasmodium vivax* malaria in pregnancy.
- Studies of the cost-effectiveness of malaria control interventions in infants and pregnant women.
- The development and evaluation of the Intermittent Preventive Treatment in Infants (IPTi), a cost-effective strategy to prevent malaria in the first year of life, and whose findings have led to the recommendation by the WHO to be implemented in malaria endemic areas.

Cervical cancer is the second most common cancer in women worldwide

Causes of maternal mortality

The MCRH Initiative has undertaken the largest necropsic study of maternal deaths in Africa and is participating in a multi-centre study to design and assess Minimally Invasive Autopsy (MIA) tools as a feasible alternative to complete autopsies.

Human papillomavirus vaccine

Nearly all cervical cancer cases (99%) are linked to genital infection with human papillomavirus (HPV). ISGlobal is collaborating with the Manhica Health Research Centre and the Ministry of Health of Mozambique on a pilot demonstration project, in preparation for the implementation of a national HPV vaccination programme in pre-adolescent girls.

Maternal immunization

Maternal immunization offers an exceptional opportunity to protect pregnant women and their babies from diseases that cause substantial morbidity and mortality. ISGlobal has recently adopted maternal immunization in its research portfolio, and aims to determine the burden of vaccine-preventable diseases that affect pregnant women and their infants in preparation for the evaluation of vaccines during pregnancy in resource poor settings.

Policy and Global Development

ISGlobal advocates for equity and quality care in MCRH, pushes for R&D in the existing knowledge gaps and promotes the design of evidence-based programmes and policies, which are key to improving quality of care for pregnant women with malaria. We use the results of multidisciplinary evidence-based analysis to inform the post 2015 Development Agenda, and to intervene directly on the ground through international development projects seeking to transfer the results to society and ensure their impact through concrete actions.

The **Initiative develops alliances** with social and political actors who share common areas of focus in MCRH, such as the UN Secretary General Initiative for Women's and Children's Health (Every Woman Every Child), The Partnership for Maternal, Newborn and Child Health and the Malaria in Pregnancy working group of the Roll Back Malaria Partnership.

ISGlobal also **participates in decision-making forums** and helps to raise awareness and inform the public debate by regularly **producing policy papers and case studies**, particularly on the link between inequity and maternal and child health.

99% of maternal deaths occur in developing countries and are concentrated in certain regions (sub-Saharan Africa and South Asia)



Training and Education

ISGlobal coordinates various **training programmes, capacity building workshops and academic courses** on MCRH, with the support of the University of Barcelona and in collaboration with other academic and research centres. Upgrading the technical knowledge and leadership skills of key players in the field of MCRH who come from high burden countries is one of the Initiative's key priorities. Examples of the Training and Education Programme's activities include:

- **“Safe Mothers and Newborns. Accelerating the Reduction of Maternal and Neonatal Mortality: A Leadership Workshop”**, organised by ISGlobal together with the Maternal Health Task Force at the Harvard School of Public Health and the Aga Khan University
- A **module on Maternal and Reproductive Health** is included in the Master of Global Health, co-organised by ISGlobal and the University of Barcelona.
- **Short courses** on “Maternal and Reproductive Health and Nutrition” and “Food Security from the Global Health Perspective”, in collaboration with Médicos Sin Fronteras-Spain.
- **Training of health and education professionals** in Mozambique, for example, in preparation for the future nationwide implementation of the HPV vaccine supported by “la Caixa” Foundation.
- **Training of researchers at PhD level.**



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ISGlobal's mission is to promote health equity through excellence in research and the translation and application of knowledge. Our vision is a world in which all people can enjoy good health.

ISGlobal Initiatives

- **Antibiotic Resistance Initiative**
- **Chagas Initiative**
- **Malaria Elimination Initiative**
- **Maternal, Child and Reproductive Health Initiative**

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