



The burden of ill-health and death borne by women and children is now widely acknowledged by the global community. The next step is urgent action in countries where the problem is greatest. Such action must be directed by policies, investments and effective service delivery that support a cohesive set of priority interventions.

Contexts and requirements may vary across countries, but a common core of essential interventions exists to improve reproductive, maternal, newborn and child health (RMNCH). The challenge for countries and their partners is to implement these interventions at scale and equitably.

What do we know?

Existing interventions can improve women's and children's health in developing countries, especially when provided in combination as packages.^{1,2} When delivery of these intervention packages is prioritized across the continuum of care, progress occurs in RMNCH outcomes (see Knowledge Summary 2). However, many health systems continue to implement them as vertical interventions, rather than as integrated RMNCH packages (see Figure 1).³

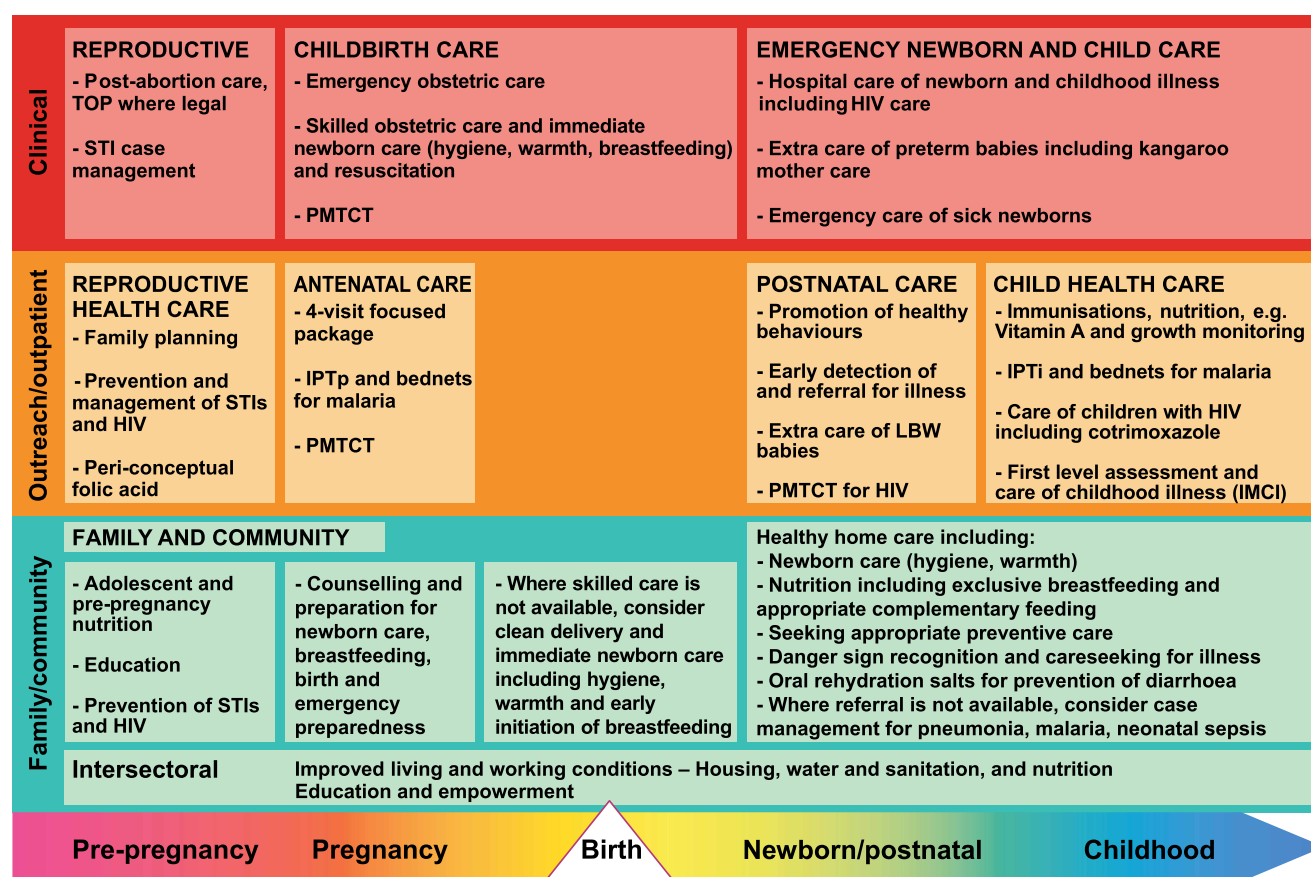
The Partnership for Maternal, Newborn & Child Health (PMNCH) identified and reviewed various interventions shown to be effective by rigorous studies. It arrived at a consensus

on the core set of RMNCH interventions, classified them by their effectiveness and defined the various levels of care.⁴ These interventions and levels have different requirements for commodities and supplies (see Knowledge Summary 5), as presented together in Annex 1. The World Health Organization (WHO) groups these interventions in terms of packages delivered across the RMNCH continuum of care from home to referral level. These include family planning, safe abortion care, pregnancy care, childbirth care, postpartum care for the mother, care of the newborn and care during infancy and childhood.⁵

Figure 1

Integrated maternal, newborn and child health packages along the continuum of care

(For details on essential RMNCH interventions and commodities see Annex 1)



Source: Kinney, MV, et al (2010). *Sub-Saharan Africa's Mothers, Newborns, and Children: Where and Why Do They Die?* PLoS Med Vol 7, Issue 6, e1000294

What works?

Countries that are “resource poor” find it hard to scale up all the necessary interventions and close coverage gaps (see Knowledge Summary 2). This is also a challenge because of the competition between service areas for scarce resources, and outstanding debates on priorities.⁶ Countries and their partners should order and phase interventions based on their projected impact, costs of delivery, as well as local challenges (such as specific diseases, e.g. HIV, or conflict) and strength of the health system.⁷

Skilled care during childbirth is key to reducing mortality

To improve maternal and newborn health, there is little doubt that priority should be given to care during labor and delivery, supported by antenatal and postnatal care.¹ Most maternal and newborn deaths happen at birth, or within 24 hours of birth, so access and provision of emergency obstetric and newborn care are crucial.⁸

Community-based packages are an essential part of integrated care

Studies show the benefits from implementing many interventions through community-based packages.^{9, 10} A recent review of studies found that preventive care during childbirth and the postnatal period, such as clean delivery practices, may reduce maternal deaths by 29%, and training of skilled birth attendants may help reduce newborn deaths by 27%. Similarly, community support services were suggested to reduce perinatal deaths by 21%, and family involvement by 27%.⁹ Other studies show that postnatal home visits in Bangladesh, India and Pakistan helped to reduce newborn deaths by 30% to 61%.^{11, 12, 13}

Preventive care and case management of childhood illnesses reduces child deaths

Priority interventions delivered through



In sub-Saharan Africa, infections account for 23 percent of maternal deaths. Such local contextual issues must be taken into account when prioritising interventions.
Source: Khan KS et al Lancet 2006

the Integrated Management of Childhood Illnesses (IMCI) strategy have reduced the incidence of diseases and improved nutritional levels among the under fives.¹⁴ Multi-country evaluations have shown that IMCI can reduce mortality when local illnesses, such as malaria and diarrhea, are targeted within each region and country.¹⁵

Family planning services help to reduce maternal and child deaths

By improving family planning services, countries and their partners can contribute alongside other interventions to reduce deaths among women from unintended and mistimed pregnancy,

and among children owing to better birth spacing between siblings.¹⁶ A long-term investigation in Bangladesh found that the overall level of maternal mortality fell between 1976 and 2005 by 68% in a study area and by 54% in the control area. Abortion-related deaths in particular fell sharply after 1989. Improved access to family planning, emergency obstetric care and safe abortion services are felt to be responsible for this reduction. Better levels of education among women are argued to have contributed, showing that wider development across sectors other than health is also important¹⁷ (see Knowledge Summary 11).

Scaling up

Prioritize low-cost and high-impact interventions and phased implementation

Newborn care delivered at the community level is argued to be very cost-effective in sub-Saharan Africa and south-east Asia. This is particularly true when backed up by antenatal interventions (such as tetanus immunization), supported by skilled health workers at health facilities, and more comprehensive interventions at the

referral level. Although facility-based care during childbirth typically requires more resources than home-based care, it is often more cost-effective in preventing deaths.¹⁸ Skilled care at delivery, while an immediate priority, has to be complemented by addressing specific diseases or local problems and broader strengthening of the health system (see Knowledge Summary 8).⁷ Estimates from modelling show that a 20% increase in coverage for specific

community-based/outreach interventions in sub-Saharan Africa could save 486,000 lives among women, newborns and children, and would cost US\$1.21 per capita. Quality improvements in facility-based care could save 105,000 lives at an additional cost of US\$0.54 per capita.¹³ Meeting the need for family planning would reduce unintended pregnancies by two-thirds and would cost an additional US\$3.6 billion per year.¹⁹

Context matters in implementing what works

It is clear what needs to be done, and the challenge now is to understand more about overcoming the barriers to implementation. Specific studies may, for example, show that technical interventions are cost-effective, but they need to be executed at scale, in varied, real-world and complex socio-economic and political environments. The ultimate impact of interventions is affected by local issues, such as access to services, quality of care, available finances and co-existing illnesses (e.g. malaria or HIV).

Local needs assessments, which then lead to tailored implementation of interventions, including strong management, are crucial to effectiveness and sustainability.²⁰

Some terms explained

Intervention: “Drug treatments, procedures or non-medical inputs such as information about danger signs in pregnancy.”

Package: “Combinations of single interventions.”

Extracted from: Campbell, O and Graham W (2006). Strategies for reducing maternal mortality: getting on with what works, Lancet 2006; 368: 1284–99

Conclusion

Women and children need timely and effective care. Evidence has shown that lives can be saved and health can be improved through simple, cost-effective interventions, delivered equitably and at scale through integrated packages at every stage of the continuum of care (see Knowledge Summaries 2, 3, 8, 9). These need to be delivered with adequate attention to quality to achieve RMNCH targets.

Useful resources

- UNICEF, UNFPA, WHO, World Bank (2010). Packages of interventions for family planning, safe abortion care, maternal, newborn and child health (PDF). http://whqlibdoc.who.int/hq/2010/WHO_FCH_10.06_eng.pdf
- WHO (2010). WHO Technical Consultation on Postpartum and Postnatal Care (PDF). http://whqlibdoc.who.int/hq/2010/WHO_MPS_10.03_eng.pdf
- WHO (2009). Science in action: Saving the lives of Africa's mothers, newborns, and children (PDF). www.who.int/entity/pmnch/topics/continuum/scienceinaction.pdf
- WHO (2003). Safe abortion: technical and policy guidance for health system (PDF). <http://whqlibdoc.who.int/publications/2003/9241590343.pdf>
- WHO and UNICEF (2009). Home visits for the newborn child: a strategy to improve survival (PDF). http://whqlibdoc.who.int/hq/2009/WHO_FCH_CAH_09.02_eng.pdf

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- 9 Darmstadt GE, et al (2005). “Evidence-based, cost-effective interventions: how many newborn babies can we save?” *Lancet*; 365: 977–88.
- 10 Lassi ZS, et al (2010). “Community-Based Intervention Packages for Preventing Maternal Morbidity and Mortality and Improving Neonatal Outcomes.” 3ie Synthetic Review (PDF). http://www.3ieimpact.org/admin/pdfs_synthetic2/SR%20005-%20Bhutta%20on%20child%20mortality.pdf
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- 13 Bhutta ZA, et al (2008). “Implementing community based perinatal care: results from a pilot study in rural Pakistan.” *Bull World Health Organ*; 86(6):452–9.
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Available on-line at <http://portal.pmnch.org/>