Sida

Health: Both a prerequisite and an outcome of sustainable development.

[BRIEF]
Child Health

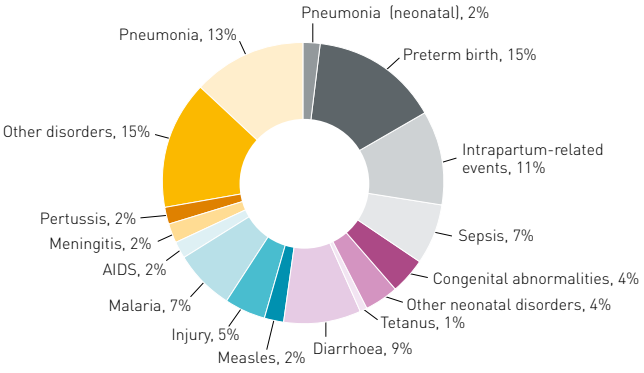
Twenty-five years after the United Nations' (UN) adoption of the Convention on the Rights of the Child, over six million children under the age of five continue to die around the world each year – the vast majority from preventable causes[1]. This brief highlights the importance of investing in the health of children, summarizes current evidence, presents key challenges to deliver on the SDG agenda, and outlines opportunities for Sweden to lead strategically in the quest to end preventable child mortality.

Acknowledgement of a child's rights and vulnerabilities has been accompanied by significant financial and political investment to save and improve the lives of children globally. Considerable progress has been made: under-five mortality has almost halved worldwide, from 90 deaths per 1,000 live births in 1990, to 46 per 1,000 in 2013.[2] In real terms, each year this equates to 6.3 million fewer children dying before their fifth birthday, or some 17,000 lives saved every day.[3]

However, much still remains to be done and reducing child mortality continues to represent one of the greatest challenges in global health.

Four out of every five childhood deaths occur in sub-Saharan Africa or Southern Asia, where a child is 30 times more likely to die before the age of five than a child of similar age living in Sweden[2, 3]. Moreover, national averages hold significant intra-country disparities: illness and mortality rates are consistently higher among rural and poorer communities. Pneumonia, diarrhoea, malaria, birth complications and adverse effects of prematurity continue to account for almost 60 % of all childhood deaths, while over half of all deaths are attributable to underlying malnutrition[3]. This brief is focusing mainly on the health of children under the age of five.

Global causes of child deaths in 2013[4] (children under the age of five)



1 UNICEF. Twenty-five years of the Convention on the Rights of the Child: is the world a better place for children? New York: UNICEF, Department of Communication; 2014

2 United Nations 2014a. The Millennium Development Goals Report 2014: Addendum. United Nations, New York

3 United Nations 2014b. Levels and trends in child mortality 2014. UN Inter-Agency Group for Child Mortality Estimation, New York.

4 Liu L, Oza S, Hogan D, Perin J, Rudan I, Lawn JE, et al 2015. 'Global, regional, and national causes of child mortality in 2000-13, with projections to inform post-2015 priorities: an updated systematic analysis', Lancet, vol. 385, no. 9966, pp. 430-40.

CURRENT EVIDENCE: WHAT WORKS?

A multi-sector approach is needed in order to effectively reduce child morbidity and mortality. Health systems need to be strengthened to deliver quality, integrated care throughout the continuum of pregnancy, delivery and the early years of a child's life. It is fundamental to reduce preventable neonatal and childhood mortality.[5] Some evidence and examples of what works is presented below, within four broad categories:

1. Service integration

- **Integrated Management of Childhood Illness (IMCI)**: Prompt symptomatic recognition and presumptive treatment of common childhood illnesses by first-level health workers has saved money, improved quality of care and health outcomes in many low-income countries.[6]
- **Integrated Community Case Management (iCCM)**: Extending case management of childhood illness beyond health facilities expands access to life-saving treatments.[7] The iCCM package can differ based on particular contexts, but most commonly includes the management of diarrhoea, pneumonia, and malaria, and detection of malnutrition. Newborn health is also commonly included.

2. Evidence-based practices

- **Immediate thermal care:** Promotion and provision of thermal care (drying, skin to skin contact, delayed bathing) is a simple measure that reduces risk of hypothermia among newborn babies.[8]
- **Early initiation and exclusive breast feeding:** Initiating breast feeding within the first hour after birth and exclusively for the first six months of life is recommended by WHO and supported by significant evidence to achieve optimal growth, development and health of infants. [9, 10]
- **Oral rehydration solution (ORS) and zinc for treatment of diarrhoea:** Full coverage of ORS therapy has the potential to reduce diarrhoea mortality in children by 93 % whilst zinc supplementation alone is estimated to decrease diarrhoea mortality by 23 %.[11]

3. Prevention activities

- **Immunization:** Vaccines prevent more than 2.5 million children from dying each year: global deaths due to measles alone decreased from 476,000 in 2000 to 70,000 in 2011. Newer vaccines, especially against rotavirus (diarrhoea) and pneumococcus (pneumonia and meningitis) are gradually being introduced in many low-income countries.
- **Long-lasting insecticide treated nets (LLINs):** Sleeping under impregnated bednets remains one of the most effective ways to prevent malaria. The number of LLINs distributed annually in malaria-endemic regions of Africa increased from 6 million to 145 million between 2004 and 2010.
- **Prevention of mother-to-child transmission of HIV (PMTCT):** Adherence to current recommendations can reduce the risk of MTCT of HIV to less than 5 % (from a background risk of 35 %) in breastfeeding babies.[12]
- **Nutrition and supplementation:** Vitamin A supplementation is associated with a 24 percent reduction in risk of all-cause mortality among children aged between six months and five years.[13]

4. Novel diagnostic and therapeutic tools

- **Rapid Diagnostic Tests (RDTs) for malaria:** Prompt diagnostic confirmation of malarial infection has the potential to improve treatment outcomes, rationalise health care costs, minimize drug pressure, and assist in monitoring disease trends.[14]
- **Artemisinin-based Combination Therapies (ACTs):** Appropriate use of quality ACTs is ensuring effective treatment whilst combatting emerging drug resistance in many malaria endemic regions of the world.[15]
- **Paediatric drug formulations:** The availability of es-

5 WHO 2005. 'The World Health report: make every mother and child count'. World Health Organization, Geneva.
6 WHO 2015a. 'Integrated Management of Childhood Illness (IMCI)'. World Health Organization, Geneva. See: http://www.who.int/maternal_child_adolescent/topics/child/imci/en/
7 WHO/UNICEF 2012. 'Integrated Community Case Management (iCCM): an equity-focused strategy to improve access to essential treatment services for children.' Joint statement. United Nations Children's Fund, New York.
8 PMNCH, 2011. 'A global review of the key interventions related to repro-ductive, maternal, newborn and child health (RMNCH)'. The Partnership for Maternal, Newborn & Child Health, Geneva.
9 Kramer MS & Kakuma R, 2012. 'Optimal duration of exclusive breast-feeding.' Cochrane Database of Systematic Reviews, Issue 8, Art. No. CD003517.
10 WHO 2011. 'Exclusive breastfeeding for six months best for babies everywhere'. Statement. World Health Organization, Geneva.
11 Munos MK, Walker CL & Black RE, 2010. 'The effect of oral rehydration solution and recommended home fluids on diarrhoea mortality'. International Journal of Epidemiology, vol. 39 (Supp. 1), pp. i75-i87.
12 WHO 2010. 'Antiretroviral drugs for treating pregnant women and pre-venting HIV infection in infants: recommendations for a public health approach'. World Health Organization, Geneva.
13 Imdad A, Herzer K, Mayo-Wilson E, Yakoob MY, Bhutta ZA. 'Vitamin A supplementation for preventing morbidity and mortality in children from 6 months to 5 years of age.' Cochrane Database of Systematic Reviews 2010, Issue 12. Art. No.: CD008524.
14 Bastiaens GJH, Bousema T & Leslie T, 2014. 'Scale-up of malaria rapid diagnostic tests and artemisinin-based combination therapy: challenges and perspectives in sub-Saharan Africa.' PLoS Med, vol. 11, no. 1, e1001590.
15 WHO 2015b. 'Guidelines for the treatment of malaria', third edition, World Health Organization, Geneva.

sential medicines in doses, strengths, and preparations suitable for children is critical to providing appropriate treatment, yet such products are in many instances not catered for by the pharmaceutical industry nor available in resource-poor setting.[16]

CHALLENGES, PRIORITY AREAS, AND OPPORTUNITIES FOR DIALOGUE

Despite substantial progress to improve the health of children worldwide, thousands continue to die unnecessarily each day even though the knowledge and technologies for life-saving interventions are available. Important challenges must be addressed and opportunities exist for Sida and Sweden to take a leading role in fostering dialogue around key priority areas.

Below is a summary of five key challenges and possible entry points for dialogue:

1. Agenda 2030

As the global development community transitions to the post-2015 agenda, it is imperative that momentum is maintained and successes built upon to continue to reduce preventable child mortality and improve the health of children globally. The new, more inclusive set of Sustainable Development Goals, brings added challenges of competing priorities. Evidence-based, locally adaptable and scalable interventions that can sustain progress over time are more prescient than ever.

2. Addressing the "know-do gap"

The vast majority of childhood deaths in low- and low-middle income countries remain avoidable through effective delivery of low-cost and evidence-based preventive or therapeutic interventions. This "know-do gap" needs to be addressed through the dissemination of knowledge and uptake of key medicines and technologies where they are most needed. Translational research to improve the quality of care throughout pregnancy, childbirth, and newborn continuum has the potential to further reduce the high number of babies dying intrapartum or soon after birth.

Knowledge of the emerging global threat of antimicrobial resistance is widespread, but many countries are ill-equipped to face this challenge. Expanded cooperation between academia and sectors within the pharmaceutical industry, complemented by policies to rationalise patterns of antimicrobial use, and education of health care providers, patients and caregivers, is essential to combat an issue that threatens the lives of millions of children around the world.

3. Improving neonatal health outcomes

Many interventions to reduce avoidable neonatal deaths are low-cost and involve simple technologies, yet many countries fail to task-shift or invest in these as traditionally they have not been viewed as a priority. Increasing the capture of vital registration and health data will assist governments and partners to target investment and scale-up appropriate interventions like those mentioned earlier in order to reduce needless newborn deaths.

4. Recognising the needs of older children and adolescents

Older children have a different disease pattern and suffer disproportionately from other causes of diseases and mortality, such as injuries. Today's 1.2 billion adolescents is the largest in history, contributing a significant and growing proportion to the population of many low- and middle-income countries.[17] Particularly with regard to sexual, reproductive and mental health, adolescents suffer disproportionately. They also have less access to health information and services, especially comprehensive sexuality education and health care related to reproductive health.[18]

5. Building more resilient health systems

The funding of health interventions has both a direct return in terms of improved health, and also indirect effects associated with improved economic return in the long run. Effective health systems are complex entities requiring robust foundations in service delivery, sustainable financing, a trained health workforce, reliable supply of medical products and technologies, access to current information and research, and leadership/governance.

Despite the best efforts of governments and partners, in many countries health care continues to be delivered piecemeal and not accessible for all. Local private sector constitutes an important source of care for many people in low- and middle-income countries, not least the poor who often pay out of pocket for services, yet this has often been over-looked when trying to improve health systems in many settings.

Health systems need to be strengthened in order to respond to emerging challenges. Threats posed by novel epidemics (for example the 2014 West African Ebola outbreak), the direct and indirect impacts of climate change, and double burdens posed by increasing rates of non-communicable diseases require integrated approaches to prevention and treatment, beginning with effective policy setting.

16 Ivanovska V, Rademaker C, van Dijk L, Mantel-Teeuwisse K, 2014. 'Pediatric drug formulations: a review of challenges and progress'. Pediat-rics, vol. 134, no. 2, pp. 361-72.

17 UNFPA 2003. Making 1 billion count: Investing in adolescents ' health and rights (State of the World Population 2003), United Nations Population Fund, Geneva.

18 Bearinger L, Sieving R, Ferguson J, Sharma V, 2007. 'Global perspectives on the sexual and reproductive health of adolescents: patterns, prevention, and potential', Lancet, vol. 369, pp. 1220-31.

Entry point(s) for Sida:

- Advocacy for a rights-based approach to child health, ensuring that children's rights are protected and upheld.
- Support interventions that are proven to reduce child morbidity and mortality, including low-cost, evidence-based interventions to decrease prevent-able neonatal mortality and stillborn deaths.
- Work towards improved quality of care delivered throughout the continuum of pregnancy, delivery (including skilled birth attendance), and the new-born period.
- Support the strengthening of country-level data collection, including gender specific information, in order to inform policies and to support the delivery of tailored interventions to the most disadvantaged populations.
- Recognise and promote the vital importance of basic civil registration: many countries still lack systems to count every newborn.
- Highlight the importance of translational research in country-level partnerships that engages and builds capacity within local communities.
- Support multi-sector approaches to combat emerging global health challenges such as the great risk associated with antimicrobial resistance.
- Mainstreaming sexual and reproductive health and rights (SRHR) into the adolescent health agenda.
- Promoting action to address the social determinants of health, particularly as they apply to older children and adolescents.

Country case study Rwanda

Fast track to reducing preventable child mortality

Rwanda has made progress towards improving the health of children and remains one of few sub-Saharan African nations on track to achieve its MDG 4 target (UNDP 2014).[19] The under-five mortality rate has declined from 152 to 52 deaths per thousand live births between 1990 and 2013 – a reduction of almost two-thirds at an annual rate of 4.7 % (United Nations 2014b).[20]

- Investments both within and outside the health sector have driven the country's progress in reducing child mortality (Rwanda Ministry of Health et al 2014),[21] in addition to general improvement in socioeconomic conditions.
- Improving access to health facilities: the 2005 National Health Sector Policy prioritised the development of health infrastructure in response to gaps in geographical accessibility of health services, resulting in improved access to district hospitals and health centres particularly for the country's largely rural population.
- Expanding the health workforce: scaling up of Community Health Worker (CHW) pro-grammes and training of midwives has increased the number of skilled health workers, who deliver improved quality of care under new professional and performance-monitoring standards.
- Increasing coverage of key interventions: ex-clusive breastfeeding (increased to 85 %) and full child immunization (increased from 69.8 % to 90.1 %) have helped prevent some of the most important causes of childhood deaths.
- Enhancing education opportunities for girls: adopted in 2008, a Girls' Education Policy has progressively eliminated gender disparities in school attendance by improving enrolment, retention, completion, and transition to higher levels of education. Improved educational status in women has been shown to delay pregnancy, reduce fertility rates, improve contraceptive use, and is related to lower child mortality rates.

Country case study Bangladesh

Cash transfers to improve childhood nutrition

Bangladesh has achieved significant gains in reducing child mortality, but it is still among the 10 countries with the highest prevalence of malnutrition. The WHO estimates that 41 % of children under the age of five are stunted. In 2015 the World Bank supported a $300 million financing agreement for the Government of Bangladesh to provide cash transfers to some of the country's poorest women in order to improve their children's nutrition and cognitive development (World Bank 2015b).[22] Pregnant women and mothers of children under the age of five receive payments to incentivise regular visits to antenatal care services and child nutrition and development awareness programmes, and to regularly monitor the child's weight and height.

Emerging evidence suggest households receiving transfers spend more on food, resulting in improvements in the nutritional status of family members, especially children (DFID 2011).[23] By involving mothers in a gender-sensitive design, cash transfers address gender imbalances in education: putting money directly into the hands of women can increase their bargaining power within the home and improve intra-household allocation of resources for human development (ibid).

19 UNDP 2014. Millennium Development Goals final progress report 2013: Rwanda. United Nations Development Programme, Kigali.
20 United Nations 2014b. Levels and trends in child mortality 2014. UN Inter-Agency Group for Child Mortality Estimation, New York.
21 Rwanda Ministry of Health, PMNCH, WHO, World Bank, AHPSR, participants in the Rwanda multistakeholder policy review 2014. Success factors for women's and children's health: Rwanda.
22 World Bank 2015b. 'Project signing: World Bank provides $300 million to improve child nutrition and income of 600,000 poorest mothers in Bangladesh.' See: http://www.worldbank.org/en/news/press-release/2015/02/09/world-bank-provides-usd300-million-to-improve-child-nutrition-and-income-of-600000-poorest-mothers-in-bangladesh
23 Department for International Development, 2011. 'Cash transfers: evidence paper'. Policy Division. DFID, London. See: http://www.who.int/alliance-hpsr/alliancehpsr_dfidevidencepaper.pdf

KEY READING

Countdown to 2015: maternal, newborn, and child survival, 2014. 'Fulfilling the health agenda for women and children: the 2014 report'. Countdown to 2015 Secretariat, Geneva. Specific country-level reports are also available via the Countdown to 2015 website: http://www.countdown2015mnch.org

Alfven T, Axelson H, Lindstrand A, Swartling Peterson S, Persson A. The under-five mortality is decreasing – however still 7 million children die each year. Läkartidningen. 2013, No. 1-2 (in Swedish).

Liu L, Oza S, Hogan D, Perin J, Rudan I, Lawn JE, et al. Global, regional, and national causes of child mortality in 2000-13, with projections to inform post-2015 priorities: an updated systematic analysis. Lancet. 2015;385(9966):430-40.

UNICEF. Twenty-five years of the Convention on the Rights of the Child: is the world a better place for children? New York: UNICEF, Department of Communication; 2014.

The Partnership for Maternal, Newborn & Child Health, 2011. 'A global review of the key interventions related to reproductive, maternal, new-born and child health (RMNCH)'. PMNCH, Geneva.

Demographic and Health Surveillance Reports contain nationally-representative data on a range of child health indicators from a number of coun-tries.
Published reports are available for public download from http://dhsprogram.com

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