

South-East Asia Regional Strategic Framework for Improving Neonatal & Child Health and Development



South-East Asia Regional Strategic Framework for Improving Neonatal & Child Health and Development



© World Health Organization 2012

All rights reserved.

Requests for publications, or for permission to reproduce or translate WHO publications – whether for sale or for noncommercial distribution – can be obtained from Publishing and Sales, World Health Organization, Regional Office for South- East Asia, Indraprastha Estate, Mahatma Gandhi Marg, New Delhi 110 002, India (fax: +91 11 23370197; e-mail: publications@searo.who.int).

The designations employed and the presentation of the material in this publication do not imply the expression of any opinion whatsoever on the part of the World Health Organization concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted lines on maps represent approximate border lines for which there may not yet be full agreement.

The mention of specific companies or of certain manufacturers' products does not imply that they are endorsed or recommended by the World Health Organization in preference to others of a similar nature that are not mentioned. Errors and omissions excepted, the names of proprietary products are distinguished by initial capital letters.

All reasonable precautions have been taken by the World Health Organization to verify the information contained in this publication. However, the published material is being distributed without warranty of any kind, either expressed or implied. The responsibility for the interpretation and use of the material lies with the reader. In no event shall the World Health Organization be liable for damages arising from its use.

Printed in India

Contents

Abbreviations.....	v
Foreword.....	vii
Executive summary	ix
1. Introduction	1
2. Situation Analysis in South-East Asia Region.....	4
2.1 MDG 4 – Regional overview	4
2.2 Newborn health	5
2.3 Child health and development.....	7
2.4 Maternal health.....	10
2.5 Underlying factors affecting newborn and child health	12
2.6 Health service provision along the continuums of care: identifying gaps and opportunities	15
2.7 Issues of health system	17
2.8 Multidimensional inequities in newborn and child health	18
3. South-East Asia Regional Strategic Framework for Improving Neonatal & Child Health and Development.....	21
3.1 Objectives, vision and guiding principles.....	21
3.2 Strategic directions	24
3.3 From strategic directions to national/subnational plans	43
3.4 Strengthening programme management capacity	53
3.5 Monitoring implementation	54
3.6 Operational research	56

4.	Roles and responsibilities	58
4.1	Member States	58
4.2	WHO, UNICEF and other international partners.....	59
5.	Conclusions	61
	References	63

Annexes

1.	Selected indicators on newborn and child health	66
2.	Actions for strengthening health system blocks for effective scaling-up and sustenance of good-quality MNCH services	70
3.	Key interventions across continuum of care by service delivery mode	75
	Further reading materials and weblinks	79

Abbreviations

AIDS	Acquired immune deficiency syndrome
CHW	Community health worker
CRC	UN Convention on the Rights of the Child
DHS	Demographic and health survey
DPT	diphtheria, pertussis and tetanus
ECD	Early childhood development
FCHV	Female community health volunteer
HIS	Health information systems
HIV	Human immunodeficiency virus
IMCI	Integrated management of childhood illness
LBW	Low birth weight
MCPC	Mother and Child Protection Card
MDG	Millennium Development Goal
MICS	Multiple indicator cluster survey
MNCH	Maternal, newborn and child health
MoH	Ministry of Health
MoWCD	Ministry of Women and Child Development
NFHS	National Family Health Survey
ORT	Oral rehydration therapy
PHM	Public health midwife
PMTCT	Prevention of mother-to-child-transmission of HIV

SAM	Severe acute malnutrition
SEA	South-East Asia
SHI	Social health insurance
TWG	Technical working group
U5MR	Under-five mortality rate
UNFPA	United Nations Population Fund
UNICEF	United Nations Children’s Fund
WHO	World Health Organization
WPV	Wild polio virus

Foreword

Over the past two decades, the countries in the South-East Asia Region have made tremendous strides in reducing child mortality rates by nearly 50%, contributing to saving the lives of millions of children. With the fast approaching target year 2015 for achieving MDG 4, the momentum generated by this unprecedented progress, and the scientific and social advances that underpin it, present an historic opportunity for Member States to further accelerate these dramatic declines in preventable child deaths. This can be achieved by significantly improving their maternal, newborn and child health programmes.

There are significant opportunities available to countries to build upon the progress achieved to ensure future success in preventing child deaths. Currently, newborn deaths account for more than half of all under-five mortality. Pneumonia and diarrhoea remain the two main causes of death in childhood – for both effective preventive and curative interventions are available. To address these, health systems need to be strengthened to better meet the needs of maternal, newborn and child care. In addition, undernutrition is an underlying cause in more than a third of under-five deaths, highlighting a critical area to be tackled in national health plans and budgets.

Within South-East Asian countries, significant inequalities, based on economic status, rural–urban location, education status, gender and ethnicity, are on the rise. While addressing the inequalities, an overall progress can also be bolstered by better targeting the affected population subgroups which have the highest child mortality rates and disease and undernutrition burden and adopting a rights-based and gender responsive approach.

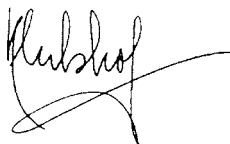
The broad objective of the *South-East Asia Regional Strategic Framework for Improving Neonatal & Child Health and Development* is to guide and assist Member States to strengthen their national strategies and plans for scaling up evidence-based interventions for newborn and child health and development, while specifically addressing inequalities. The Strategic Framework upholds principles of child rights and equity, and encourages the use of local situation assessments, appropriately analysed to contribute to more effective planning. It also emphasizes that other relevant sectors would be required to cooperate throughout the continuum of and efforts would be needed for strengthening health systems and enhancing technical-managerial capacity at national and subnational levels.

The Framework needs to be transformed into action by Member States and the strategic directions should be adapted to specific country contexts, local epidemiological situation, inequity patterns, health-system capacity and existing implementation gaps.

Within the context of the UN Strategy for Women's and Children's Health, and the recently concluded Child Survival Call to Action Forum, 'A Promise Renewed', this Regional Framework forms the basis of joint WHO–UNICEF support to Member States in their efforts to accelerate progress in South-East Asia towards achieving MDG 4 with equity.



Dr Samlee Plianbangchang
Regional Director
WHO South-East Asia



Ms Karin Hulshof
Regional Director
UNICEF Regional Office
for South Asia



Mr Daniel Toole
Regional Director
UNICEF Regional Office
for East Asia and Pacific

Executive summary

The WHO–UNICEF joint South-East Asia Regional *Strategic Framework for Improving Neonatal & Child Health and Development* has been prepared to offer guidance to Member States (Bangladesh, Bhutan, the Democratic People’s Republic of Korea, India, Indonesia, Maldives, Myanmar, Nepal, Sri Lanka, Thailand and Timor-Leste) to develop or strengthen their national strategies and plans to improve newborn and child health and development. The Strategic Framework encourages Member States to incorporate an equitable child health and development perspective into policies and actions within the health system and beyond, so that the whole governments are able to assure a healthy start for each and every child citizen as part of their commitment to child rights and social and economic development. The Framework encourages the use of local situation assessment and emphasizes that the implementation requires multisectoral collaboration, convergence with related Health Programmes, strengthening of health systems and enhancement of planning, technical and managerial capacity at national and subnational levels for the scaling up of evidence-based interventions for newborn and child health and development across the continuum of care.

Despite a significant improvement in child mortality, the South-East Asia (SEA) Region is unlikely to achieve the Millennium Development Goal (MDG) 4 target and needs significant improvement in maternal, newborn and child health (MNCH) programmes in Member States. Alongside the progress in improving sociodemographic and health indicators in most Member States in the SEA Region, more than 3 million foetuses (stillbirths), neonates and children lose their lives every year, and many of these deaths are preventable. Additionally, a high under-5 mortality rate and a high maternal mortality indicate that some population groups are not able to access the simple and cost-effective lifesaving interventions that countries are implementing. Neonatal mortality remains a substantial challenge in Member States.

In addition, estimates suggest that more than 800 000 babies are stillborn each year in the Region – a loss of life often directly linked to determinants of reproductive health including women’s age, health and nutrition as well as the inaccessibility of appropriate maternal and newborn care.

The Framework presents a brief Regional situational analysis that has been used to form the basis for appropriate strategies for child and neonatal health. A brief analysis of the broader determinants beyond the health system such as safe drinking water, sanitation and hygiene, education, gender, is also included, as well as an analysis of coverage levels of existing interventions that helps identify gaps and missed opportunities for strengthening health systems. The Framework uses the principle of continuum of care across the life course, from pre-conception through pregnancy, childbirth, the postnatal period, infancy, childhood and adolescence. Such a holistic approach is important since maternal, neonatal and child health are closely linked with each other, not only intrinsically, but also programmatically. It emphasizes that the services must be organized through a process that preserves functional continuity across different levels of health-care delivery from home/community to first-level health centres and referral hospitals.

The Framework is based upon principles of child rights and equity. It highlights the need to think about the whole child, not just their health, and promotes multisectoral actions. Accordingly, the actions are discussed in terms of:

- (a) Cross-sectoral collaboration and the importance of considering MNCH a “whole-of-government” matter;
- (b) Strengthening the structure and function of the health system to reach the unreached; and

- (c) Improving service delivery with quality, equity and affordability across service delivery modes (family–community oriented, population oriented and individual–clinical oriented) while strengthening the referral linkages between them.

The Framework proposes strengthening public–private partnership to engage the private sector (both non-profit and for-profit) to mobilize additional resources to reach most deprived. It also calls for increased engagement with the community for designing and monitoring MNCH services. It also highlights the need to address the financial barriers to MNCH services faced by the marginalized. The Framework presents a set of parameters that characterize the health-system capacity that would be useful for Member States to decide their national and subnational priorities and develop or revise national and subnational plans accordingly. The importance of strong information systems and ongoing research, both operational and programmatic, that would help inform governments of the effectiveness of their particular strategies and policy decisions and in tracking progress is also highlighted.

The broad objective of the *South-East Asia Regional Strategic Framework for Improving Neonatal & Child Health and Development* is to guide and assist Member States to develop or strengthen their national strategies and plans to improve newborn and child survival, reduce the burden of child morbidity and disability and promote healthy development of the children.

This Framework is intended to be the basis for subsequent joint WHO–UNICEF country support for Member States in the WHO SEA Region for newborn and child health and development.

There have been significant achievements in reducing maternal newborn and child mortality in some Member States the SEA Region, yet the Region still has an unacceptably high under-five mortality rate and maternal mortality rate, second only to sub-Saharan Africa, and it is not on track to achieve MDGs 4 and 5. About one third of all child deaths and over a quarter of all maternal deaths in the world occur in South-East Asia.¹⁻³ High neonatal mortality, accounting for around 52% of all deaths in under-five children, poses a major constraint in the Region. In addition, a substantial proportion of children who survive do not develop to their full physical, cognitive and social potential due to disease, undernutrition and inadequate care for development in their first years of life.

South-East Asia features a high population density and displays great inequities and diversity across and within countries owing to factors like socioeconomic differences, ethnicity, religion, gender, geography, etc. Such factors are often interlinked and severely deprive certain population groups and their children from realizing their human rights and human potential. In designing appropriate strategies, it is therefore imperative to recognize these inequities, which can have an adverse impact on access to essential health services, the quality of care received and health outcomes. An equity-focused approach that targets poorly performing groups has the advantage of not only addressing disparities, but also accelerating progress towards MDGs overall.

There is clearly a need to strengthen actions to improve MNCH and development in the Region to accelerate progress towards MDGs 4 and 5. To achieve this, it is necessary to take stock of the global and regional experience as well as of conceptual advances in the relationship between distal and proximal determinants and the interconnectedness of MNCH. To this end, strategies must

include policies and plans that are developed from a perspective of a continuum of care as well as beyond the health sector to ensure links are made between MDGs 4 and 5 as well as with MDGs 1, 2, 3, 6 and 7 to improve overall newborn and child health and development in Member States.

In the South-East Asia Region, the WHO South-East Asia Regional Office (SEARO) and UNICEF Regional Offices for South Asia and East Asia and Pacific will continue to build upon existing mandates such as the Delhi Declaration on Maternal, Newborn and Child Health of 2005,⁴ the subsequent formation of the Partnership on Maternal, Newborn and Child Health in 2005, and the 2008 joint statement of WHO, the United Nations Population Fund (UNFPA), UNICEF and the World Bank on country support for accelerated implementation of maternal and newborn care.⁵ In the recently concluded Child Survival Call to Action Forum (June 2012) world leaders have pledged commitment for saving children – “A Promise Renewed”. This global commitment along with UN strategy of Women’s and Children’s Health (2010) must be leveraged in the Region towards acceleration of progress to achieve MDG4. Working together, it is proposed to jointly support Member States in the development and strengthening of national strategies and action plans towards reducing maternal, neonatal and child mortality, to promote continuum of maternal, neonatal and child health care, with particular focus on the most deprived in order to reduce disparities and accelerate equitable progress towards MDG 4.

In order to facilitate this, WHO and UNICEF have developed the *South-East Asia Regional Strategic Framework for Improving Neonatal & Child Health and Development* to provide guidance to Member States to develop or strengthen their national strategies and plans to improve newborn and child health and development. The target audience is primarily governments, policy-makers at national and subnational level and international agencies, development partners and NGOs.

The Framework recognizes the ample evidence of interventions that have proven highly effective and affordable in addressing the causes of maternal, neonatal and child mortality, even in the poorest countries. At the same time, it acknowledges that a single model could not apply to all countries, or even within individual countries. Member States must design and implement programmes tailored to the needs and realities of their national and subnational settings, employing a rational mix of good-quality family/community, outreach and clinical services, in the public and private sectors, to scale up known cost-effective interventions. The Framework emphasizes the need to focus on marginalized groups and proposes strategies and differentiated packages for responding to various situations in countries.

2 Situation Analysis in South-East Asia Region

2.1 MDG 4 – Regional overview

Member States in the Region have reported significant progress in child health indices and to some extent maternal mortality, but little progress has been made in reducing neonatal mortality, which is one of the main challenges to achieving MDG 4 by 2015 in the Region. Overall, the SEA Region contributes to about 2 million child deaths in the world annually and newborn mortality accounts for more than half of the under-five deaths in the Region.

Table 1: MDG 4 Status in SEA Region Member Countries

Country	Under-five mortality rate (USMR) per 1000 live births 2010	Target USMR MDG 4 per 1000 live births	Average annual rate of reduction (per cent) 1990-2010	Status MDG4: reduction of USMR by two thirds	Infant mortality per 1000 live births 2010	Measles immunization coverage %age of infants 2010
Bangladesh	46	46	5.3	ACHIEVED	37	94
Bhutan	54	46	4.5	ON TRACK	42	95
DPR Korea	33	15	1.4	SLOW	26	99
India	61	38	3.0	SLOW	47	74
Indonesia	32	27	4.5	ON TRACK	25	89
Maldives	11	35	10.9	ACHIEVED	9	97
Myanmar	62	36	2.6	SLOW	48	88
Nepal	48	45	4.9	ON TRACK	39	86
Sri Lanka	12	10	4.1	ON TRACK	11	99
Thailand	12	12	5.0	ACHIEVED	11	98
Timor-Leste	54	60	5.7	ACHIEVED	46	66

Sources: Mortality data: UN Inter-agency Group for Child Mortality Estimation, 2012
 'On Track' indicates average annual rate of reduction (AAR) in U5 MR is at least 4% over 1990-2011.

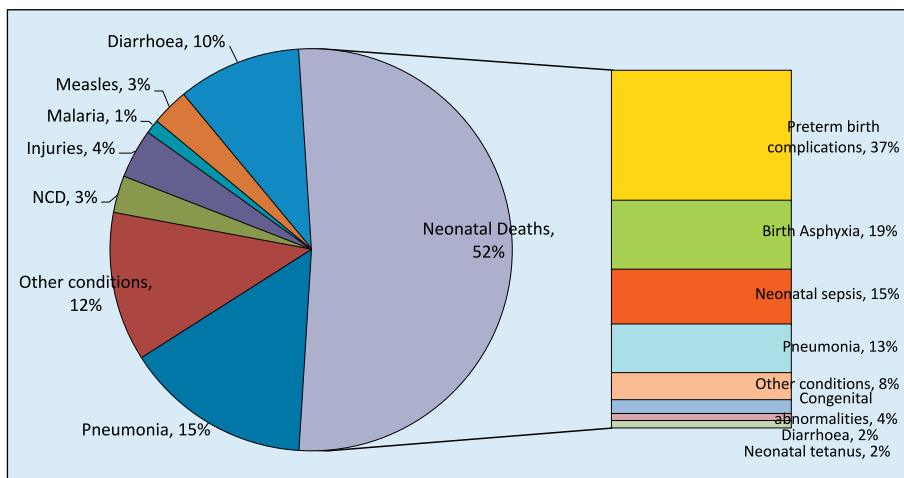
Measles Immunization – World Health Statistics 2012

2.2 Newborn health

Neonatal mortality accounts for more than 50% of under-five mortality in the Region. In South-East Asia the progress in reducing the neonatal component of under-five deaths has been much slower than in the post-neonatal and childhood period, and the proportion of neonatal mortality related to under-five mortality has been increasing.

Three quarters of neonatal deaths occur in the first week of life, and preventing these depends on attention to the causes of death that are unique like birth asphyxia and prematurity. Many neonatal deaths take place within the first 24 hours after birth – at least 1 million per year globally.⁶ The concentration of deaths in the first days of life overlaps with the time during which where most mothers die and points to the importance of improving care during pregnancy, childbirth and in the postnatal period. The main direct causes of neonatal deaths in South-East Asia are preterm birth complication (37%), neonatal infections including sepsis and pneumonia (28%) and birth asphyxia (19%) (Figure 1).

Figure 1: Cause of under-five and neonatal deaths in South-East Asia Region



Source: WHO. Global Health Observatory (http://www.who.int/gho/child_health/en/index.html - accessed Sep 2012)

Neonatal infections are the consequence of poor status of maternal health and nutrition, poor care at delivery, and inadequate essential newborn care during the postnatal period. The underlying causes of *pre-term birth and LBW* are strongly, although not exclusively, related to social, economic and cultural factors such as low maternal age and literacy, undernutrition, inadequate antenatal care, too early (during adolescence) pregnancy and too frequent pregnancies.

In South-East Asia, where the majority of deliveries still occur at home, a lack of skilled attendance at delivery, including prompt resuscitation, contributes to high mortality rates and severe long-term morbidity due to asphyxia. Skilled attendance at birth is quite low in several member states: less than 20% in Bangladesh and Nepal and 30% in Timor-Leste, as compared to the Democratic People's Republic of Korea, Maldives, Sri Lanka and Thailand where it is 97% or more (recent DHSs).

Addressing neonatal mortality requires focusing on several factors from pre-pregnancy to postnatal care at various levels of service provision – from community care to outreach services, to emergency facilities linked through a functional referral system. Despite the high risk immediately after birth, postnatal care has not historically focused on the immediate postnatal period but much later on a six-week follow-up visit for mother and baby when first immunizations are due. For countries where data is available, less than 50% of women receive any form of postnatal care. Evidence shows, however, that particularly in deprived settings, immediate and early postnatal care interventions are critical for saving the lives of mothers and newborns. Skilled health attendants, even community health workers (CHWs), can deliver many interventions at home, although good referral linkages are essential for emergencies in order to ensure timely treatment in hospital whenever required.

2.3 Child health and development

The SEA Region has the highest number of child deaths worldwide after the Africa Region. Diarrhoeal diseases, pneumonia, and other infectious diseases are leading causes of death among children under five in low- and middle-income countries globally, including in South-East Asia. *Pneumonia* is the leading cause of post-neonatal mortality in South-East Asia. More than half of the world's annual new pneumonia cases occur in five countries, of which three are in South-East Asia (Bangladesh, India and Indonesia). *Diarrhoea* is the second most important cause of mortality in the SEA Region. Effective and relatively inexpensive interventions are available but the underlying cause for the high burden appears to be poor access to and utilization of available services.

The incidence and severity of both pneumonia and diarrhoea show a socioeconomic gradient due to exposure to risk factors related to the environment, such as lack of clean water and sanitation, indoor air pollution and crowding, and to impaired immune response caused by inappropriate breastfeeding and undernutrition.⁷

Measles mortality in South-East Asia accounted for three quarters of all (global) measles death in 2008. The goal to reduce by 90% deaths due to measles by 2010 has not been achieved, and the immunity gap for measles is still prevailing (WHO/UNICEF, 2009). The burden of *malaria* deaths in children has recently been found to be much higher than previously reported: studies suggest that undiagnosed malaria death in early childhood could be as high as 55 000 cases.⁸

Recent progress in *polio* eradication in the Region (especially India) is a remarkable public health achievement. It illustrates that a multisectoral response can be sustained with strong political will supported by sound technical strategies (see box).

In most countries in the Region only 0–1% of all child deaths are reported as caused by *AIDS*, but underreporting is likely.⁹ In Thailand,

which has been able to reverse the epidemic trend in the Region, child deaths caused by acquired immune deficiency syndrome (AIDS) represent 6% of total child deaths. Although prevalence of human immunodeficiency virus (HIV) in the SEA Region is still relatively low, changing patterns in the mode of transmission, from injecting drug use and homosexual sex to heterosexual transmission, will lead to larger numbers of children at risk. In fact, in all countries in the SEA Region the female to male ratio among new cases is increasing.¹⁰

Recent success towards polio eradication in India

India is the only country in the South-East Asia Region that had endemic transmission of wild polio virus (WPV) in 2011. Within India, polio transmission has remained endemic in focal areas of only two of the 35 states and union territories – Uttar Pradesh and Bihar. By the end of 2011, as a result of concerted effort over the previous 12–24 months in India, the number of polio cases had decreased by over 99% as compared to 2009. In 2011, there was only one WPV case detected, the lowest number since surveillance was initiated in 1997. Since February 2011, not a single case of WPV has been reported.

The success and lessons learned in building a highly sensitive surveillance network for polio have enabled the expansion and strengthening of surveillance for other vaccine-preventable diseases and monitoring of routine immunization activities.

Strategies adopted to stop polio transmission in India represent a multi-prong approach. Eradication challenges have been approached systematically with specific programmes: the **107 high-risk block initiative** in historically polio-endemic areas of western Uttar Pradesh and central Bihar focused on rapid improvement in sanitation, availability of clean water, hygiene and prevention/control of diarrhoea; **migrant populations** that had played an important role in sustaining and spreading polio were targeted for surveillance and immunization activities; and the introduction of **bivalent oral polio vaccine** provided an additional tool for epidemiologically based supplemental immunization activities. With continued, sustained effort in 2012, we can look forward to a polio-free India and Region.

Child nutrition, growth and development are major factors affecting child health and human potential, both in the short and long term. Over 35% of child deaths can be attributed to undernutrition.¹¹ Low weight, stunting, wasting and micronutrient deficiencies have important consequences on children's susceptibility to infectious diseases and

cause developmental delays which are often irreversible.^{12,13} Child undernutrition plays a key role in the vicious cycle of poverty,¹⁴ but lack of food is not the only cause of undernutrition. Evidence shows that even households with food security may have children that are undernourished or stunted due to inappropriate infant feeding and care practices, poor access to health care and unsafe drinking water, lack of sanitation, and poor hygiene practices. Although reducing child undernutrition is fundamental to improve child health and promoting human capital, progress in the SEA Region to achieve the MDG 1 target by 2015 has been variable. Bhutan, the Democratic People's Republic of Korea, Maldives and Thailand have achieved their 2015 targets; Indonesia, Nepal and Sri Lanka are on track to achieve it by 2015 if their current rates of progress continue, while the progress made by the Bangladesh, India, Myanmar and Timor-Leste has been slow (Recent Country MDG Reports). Within countries, undernutrition is declining more slowly in the poorest households than the richest. In Bangladesh, India and Nepal, the poorest children have an underweight prevalence that exceeds the national average for every country in the world. Severe acute malnutrition (SAM) in children is a medical emergency and carries a high case fatality rate. Prevention and appropriate management of SAM (both community- and facility-based) remains a crucial intervention.

In South-East Asia, the rates of *early and exclusive breastfeeding* and appropriate complementary feeding are quite low: only a few countries have reached above the 50% level. Needless to say, appropriate early feeding practices will go far in preventing child undernutrition and overcoming the cycle of poor health outcomes in the SEA Region.

From conception to the third year of life, disruption of brain development caused by illness, poor nutrition or high stress levels can have an important effect on a child's ability to reach its physical, sensory-motor, cognitive, language and social-emotional potential. In South Asia, about 89 million children under the age of five years are restrained from developing their full intellectual potential due to

disease, undernutrition and lack of early stimulation and care. The 10 countries with the largest number of disadvantaged children (in millions) are: India (65), Nigeria (16), China (15), Bangladesh (10), Ethiopia (8), Indonesia (8), Pakistan (8), Democratic Republic of the Congo (6), Uganda (5), and Tanzania (4). These 10 countries account for 145 million (66%) of the 219 million disadvantaged children in the developing world.¹⁵ Among those SEA Region countries where data is available, all except for Indonesia (23%), Sri Lanka (18%)² and Thailand (12%) feature a stunting prevalence of over 35%. With the exception of Thailand, a large proportion of parents in the SEA Region may not be able to provide effective parenting and stimulation to their children due to extreme poverty, illiteracy, stress and lack of awareness about both opportunities and risks in the first years of life. Even in Thailand, wealthier children receive more support in comparison to children from poor families (MICS, 2008).

2.4 Maternal health

Neonatal health is inextricably linked with the health and well-being of the mother, highlighting the importance of the continuum of care approach along the lifecycle and the importance of linkages within the health system. Evidence has shown that a newborn is 3–10 times more likely to die within its first two years of life without its mother and that the death of a mother affects child development later in life.

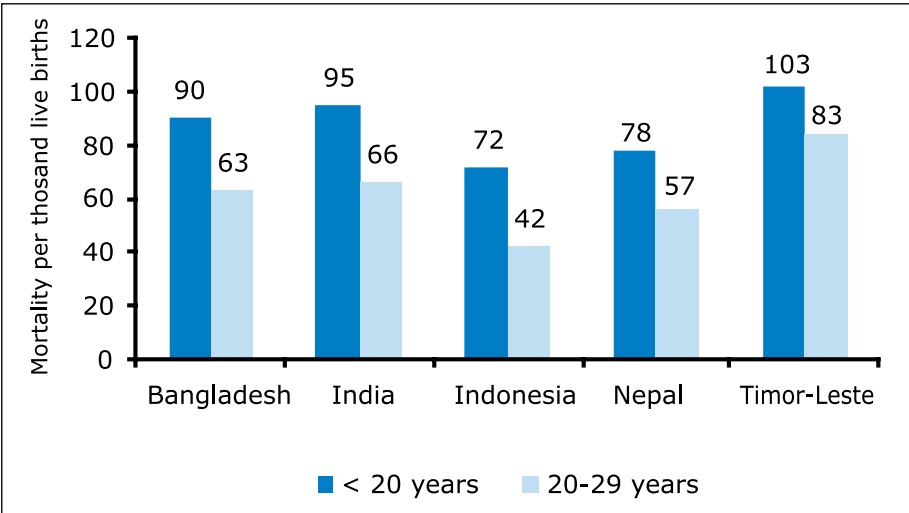
A greater attention to the health and nutrition of young women during pre-pregnancy (adolescence) phase, pregnancy and childbirth will enhance the survival and optimal health of the woman and her newborn.

Access to quality *antenatal care* has a significant impact on maternal health and newborn survival. South-East Asia has among the lowest percentages globally of antenatal care coverage. Less than half of women in Nepal have one antenatal care visit during pregnancy, and only the Democratic People's Republic of Korea, Indonesia, Maldives, Sri Lanka and Thailand reach more than 80% of coverage of adequate antenatal care (four visits).

It is also important to address underlying causes in the Region such as young age (adolescence) at marriage and pregnancy, insufficient birth spacing, and high parity (number of pregnancies) that are often linked to the social status of women in society.

Maternal age: In some countries of the Region, such as Bangladesh, India, Indonesia and Nepal, early marriage of girls is common, as is early pregnancy. Pregnancy at early age (adolescence) is associated with higher maternal and neonatal/child mortality and morbidity (Figure 2). Pregnant adolescents have a higher chance of experiencing obstetric complications and neonatal death; having a low birth weight infant; acquiring HIV/AIDS due to unprotected sex; and suffering the consequences of an illegal abortion. Compared with adult mothers, those who give birth as teenagers are also at increased risk of socioeconomic disadvantage in terms of employment, living arrangements and parity. Furthermore, children of young mothers themselves tend to enter parenthood early, predisposing their female offspring to be more likely to experience teenage pregnancy.¹⁶

Figure 2: Under-five mortality rate by mother's age in selected countries of the South-East Asia Region



Source: Recent DHSs

Maternal nutrition: South Asia has some of the highest rates of underweight and anaemic young women in the world, contributing significantly to adverse reproductive health outcomes as well as survival, growth and development of their children. Conservative estimates calculate that almost 30% of pregnant women are underweight and 42% of pregnant or childbearing age women are anaemic (Bhutta, 2008). Worldwide, India has the highest average of underweight and anaemic young women among countries with available data, at 47% and 58%, respectively.² Maternal undernutrition and anaemia increase the risk of maternal infections and affect foetal growth and neonatal outcomes, particularly the risk of delivering a low birth weight baby (a birth weight of less than 2500 g). Gender differences in nutrition appear in early childhood and become more pronounced during adolescence. The implications of undernutrition in girls are particularly serious when considering the high rate of adolescent girls marrying before the age of 18 and soon becoming pregnant.

2.5 Underlying factors affecting newborn and child health

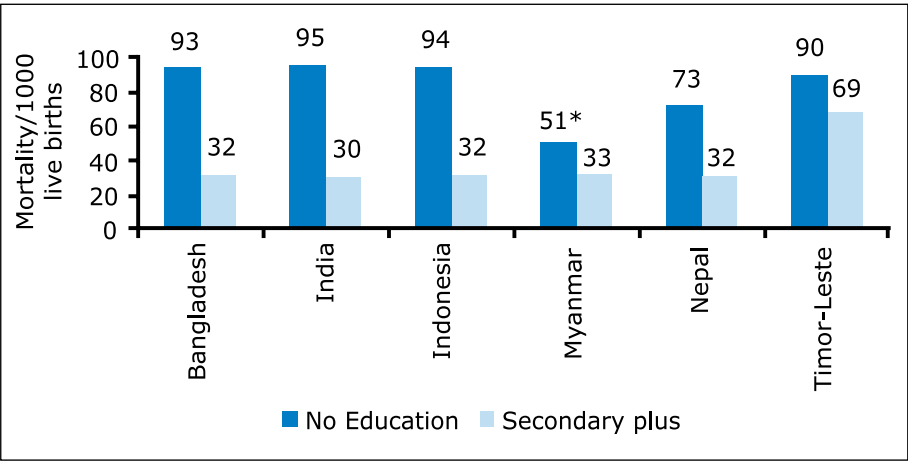
Child health and development outcomes are the ultimate product of a combination of factors that include personal, economic and political dimensions.

Poverty: Disparities in child mortality between the highest and lowest wealth quintile are very large in South-East Asia. Reducing poverty requires profound socioeconomic redistributive reforms and cross-sector policies as well as health policies. In a study conducted in 43 developing countries including South-East Asia, increases in per capita GDP had a higher impact on child mortality among the richest than among the poorest. By contrast, public spending on health had a higher impact on poorer children's survival.¹⁷ A multisectoral approach is needed to reduce the consequences of poverty on child health and development by addressing factors such as maternal education, food security, housing, use of clean drinking water, sanitation and hygiene,

cultural norms, gender issues and, of course, equitable access to quality preventative and curative health services.

Maternal education has a strong association with child survival across South-East Asia. In Bangladesh, for example, a mother who has no education is nearly three times more likely to lose her under-five child than a mother with the highest level of education (Figure 3). In India, a woman with the highest level of education is three times more likely to register her child’s birth than a woman with no education. In Sri Lanka, mother’s education is the greatest source of disparity. In Nepal, a child whose mother has no education is four times more likely to be underweight than a child whose mother has the highest level of education.

Figure 3: Under-five mortality rate by mother’s education in selected countries of the South-East Asia Region



Source: Recent DHSs; *Primary Education

Urbanization: Asia’s urban population is expected to double between 2000 and 2030,¹⁸ creating new forms of vulnerability and new challenges for service delivery. Growth is occurring on the fringes of cities, creating mega-agglomerations of illegal squatter settlements and slums, and there are increasing disparities between the urban poor and their more affluent neighbours. Residents of slums face a variety of challenges, including poor living conditions, lack of property

title, a shortage of clean and safe drinking water, and exposure to a range of environmental hazards. Some conclusions from existing studies show that under-five children living in urban slums suffer more and die more often from diarrhoea and acute respiratory infection than rural children. Moreover, the poor in slums are not registered with or are unable to access formal health service delivery systems; often pay more for services in comparison to other urban residents; and receive services of lower quality. Rural–urban migration makes it increasingly difficult to identify, keep track of and target such most-deprived populations in urban contexts and poses a challenge to policy-makers. These populations remain invisible and uncared.

Although the intervention packages would be the same, appropriate service delivery channels are needed to reach out to pregnant women, newborns and children in these settings.

Environmental threats: South-East Asia is one of the most rapidly industrializing regions in the world, which implies that environmental threats to children have become an increasingly complex combination of old hazards with new ones. Environmental factors remain fundamental in child health and development in the Region, and disparities in regard to the use of clean drinking water, use of clean toilets and hand washing with soap has increased across Member States, and between urban and rural areas within countries. For under-five children living in developing countries, the number of healthy life years lost to environmental risk factors is five times higher than in the global population.¹⁹ Less than 50% of the population in the SEA Region uses an improved sanitation facility. In Bangladesh, India, Nepal and Timor-Leste the proportion is only 33–39% of the population. Indonesia, the Democratic People’s Republic of Korea and Maldives are doing slightly better, with coverage rates of 55–59%. Children from poor families living in these situations are at greater risk of diarrhoeal disease and subsequent undernutrition.²⁰

2.6 Health service provision along the continuums of care: identifying gaps and opportunities

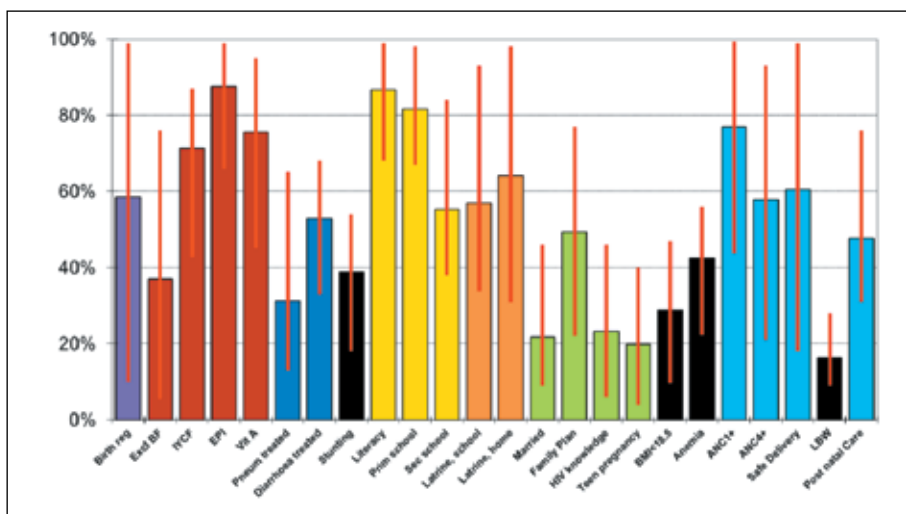
The continuum of care approach has at least three different dimensions with profound implications for the way in which policies, programmes and interventions are organized and executed.²¹

- First, it implies that care must be provided throughout the life-cycle, which includes the preconception period, pregnancy, childbirth, postnatal period, childhood and adolescence, since the benefits of some intervention packages straddle across phases in life course.
- Second, it indicates that care must be provided through a process that preserves functional continuity across different levels of health-care delivery including home/community, first-level health centre and referral hospital.
- Third, the continuum of care also implies interventions in health promotion, disease prevention and control, treatment, rehabilitation and reintegration into society (comprehensive health care).

The goal of addressing these continuums of care is to guarantee the availability of and access to evidence-based interventions that will make it possible to improve the health of mothers, newborns, and children.

In the SEA Region, some countries present very low coverage rates of all or most of the key essential interventions along the continuum of care for the reduction of maternal and newborn mortality. Figure 4 presents Regional averages along with highest and lowest coverage rates across the Region.

Figure 4: Cross-sectoral determinants along the continuum of care for girls and young women in the South-East Asia Region



Source: Recent DHSs / MICS

Only immunization and primary school attendance have sustained coverage at a high level (>80%), and several of the remaining life-saving interventions have a low coverage (below 50%) that is inadequate for the desired impact on newborn survival and child health outcomes.

Furthermore, it must be understood that constraints in some services can prevent coverage at other points along the continuum; for example, constraints that prevent mothers from accessing skilled birth attendance are often those that also prevent them from bringing their newborns for postnatal care, or from using antenatal care services in their subsequent pregnancies.

When designing strategies, therefore, it is important to examine “missed opportunities” where service coverage is lacking along the continuum, and to identify access points and linkages where interventions can strengthen multiple points along the continuum. Home-based antenatal, postnatal and newborn care interventions are not just important for saving the lives of mothers and newborns

but can also establish key behaviours such as early and exclusive breastfeeding, safe disposal of child faeces and hand-washing with soap, which are important foundations for child nutrition and the prevention of childhood illness later in life.

It is important to note that the continuum of care approach also requires thinking and working multisectorally to devise strategies that incorporate the most comprehensive range possible of interventions. Several key interventions for reduction of maternal and newborn mortality can lie outside the health system, such as the use of toilets in schools and the provision of facilities for improved menstrual hygiene management, which helps keep adolescent girls in school, thus delaying marriage and consequent pregnancy.

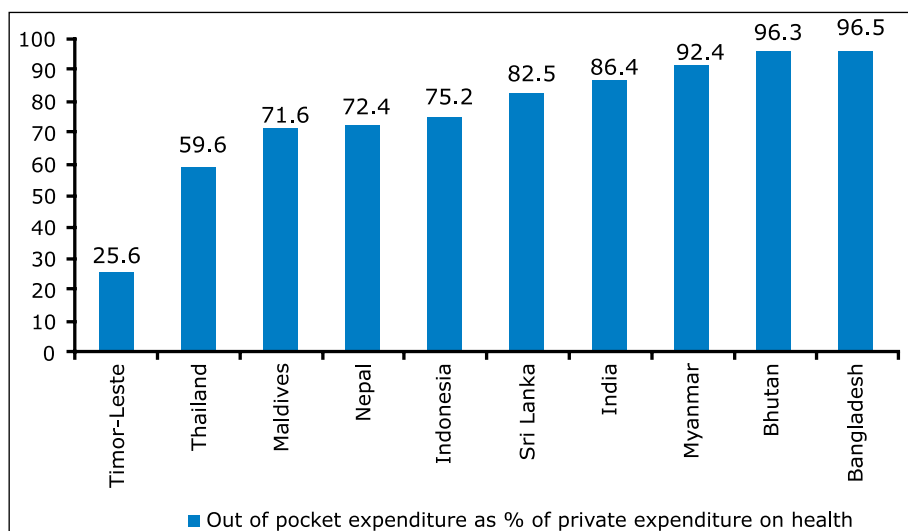
2.7 Issues of health system

Effective and equitable service delivery to ensure access to good-quality health services for all, and in particular for the poor, is central to the reduction of child mortality. Achievements in child health in low and low-middle income countries have shown that well-functioning health systems can be built even in resource-poor countries, putting progress in health within the reach of all.²²

Health expenditure patterns are useful indicators of the commitment of governments towards improving the health of their citizens. Among all regions of the world, expenditures on health are lowest in the SEA Region in terms of both per capita expenditure and percentage of GDP. With the exception of Maldives and Timor-Leste, all other countries in the Region spend less than 6% of GDP on health. Increasing government expenditure in health has showed an impact on health outcomes only in countries with good health policies and functioning health systems.²³

Countries of the Region also vary considerably in the proportion of private expenditure. In Bangladesh, Bhutan and Myanmar, over 90% of private health expenditure is out-of-pocket (Figure 5).

Figure 5: Out-of-pocket expenditure as proportion of private expenditure on health in SEA Region countries (2009)



Source: World Health Organization. World health statistics 2012; Geneva: WHO, 2012.

Achieving equitable and effective coverage is not possible in the absence of adequate investments in the workforce. Investments in the health workforce, its training, deployment and motivation are insufficient in many SEA countries. Only the Democratic People's Republic of Korea, Sri Lanka, Thailand and Timor-Leste have reached the required number of two doctors and midwives per 1000 inhabitants. Programmes based on CHWs are essential to reach the poorest communities and establish links between the health system and the population, but an adequate network of first-level and referral-level facilities adequately staffed with well-trained and adequately remunerated professionals is still crucial to achieve results.

2.8 Multidimensional inequities in newborn and child health

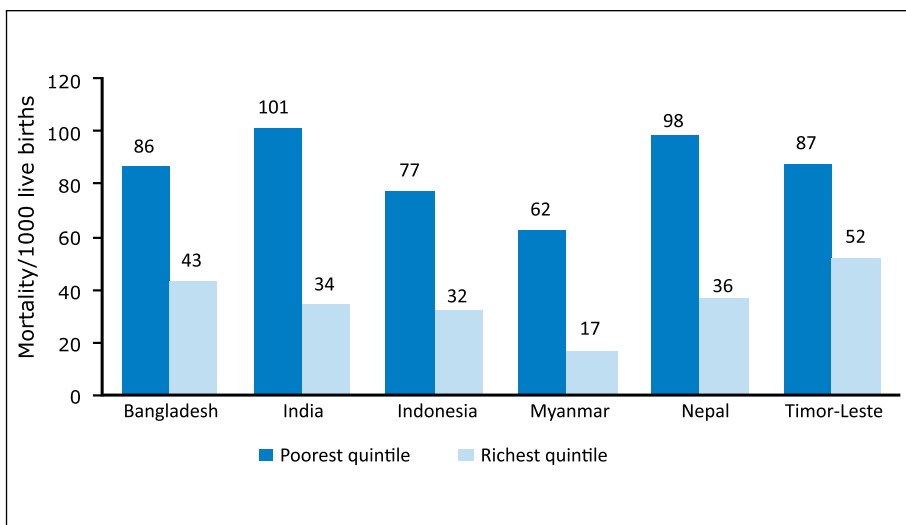
Due to the size, expanse, and diversity of the Region, countries in South-East Asia exhibit widely varying levels of human development. Several Member countries experience the paradox of rapid economic

growth with the persistence of extreme poverty. Contributing factors reinforce the distribution of power and privilege and are underpinned by social norms and practices.

Regional estimates conceal enormous disparities between countries, with newborn mortality rates ranging from 8 per 1000 live births in the Maldives and Thailand to 34 in India, and maternal mortality ranging from 37 deaths per 100 000 live births in the Maldives to 380 in Nepal. Similarly, national averages mask deep disparities within countries, with higher mortality and morbidity among the most excluded and deprived. India, for example, has under-five mortality trends that range from fewer than 15 per 1000 in Goa and Kerala to more than 70 in Uttar Pradesh and Chhattisgarh (National Family Health Survey or NFHS 3).

Drivers that create different layers of increasing disparities include poverty, place of residence, age, caste, ethnicity, tribe, gender, geography, religion, educational attainment, disability and occupation. Poverty in particular is an overwhelmingly important social determinant of health.²⁴ Country DHS reports provide important insight into such disparities within the countries. In India, children belonging to the poorest 20% of the population have on average a 3 times greater risk of dying before the age of five than children belonging to the richest 20%. In Myanmar, the difference is 3.6 times while Nepal and Indonesia show differences of 2.7 and 2.4 times respectively (Figure 6). In Nepal, a “low-caste” Dalit (lower caste-marginalized) woman is 14 times less likely to receive skilled birth attendance than a “high-caste” Brahmin woman from the same region. In the Maldives, despite almost universal coverage of skilled birth attendance (95%), women with no education have the lowest access to services (86%). In Bangladesh, children whose mothers have no education are more than twice as likely (47%) to be underweight as children with highly educated mothers (23%) and skilled birth attendance, while low overall, ranges from less than 5% for women with no education to 27% for women with a high level of education.

Figure 6: Under-five mortality related to wealth quintile in selected countries of the South-East Asia Region



Source: Recent DHSs

Gender disparities in health and education are higher in South Asia than anywhere else in the world. Entrenched gender discrimination results in high levels of female illiteracy and disempowerment, which are both known to adversely affect maternal and child survival.²⁵ For example, a girl in Myanmar is 15% more likely to die between her first and fifth birthdays than is a boy. From pregnancy onwards, gender plays a significant role in parental care-seeking choices and children’s exposure to a variety of risks.

Systematic data collection and sound situational analysis of a country’s health status are critical for devising appropriate strategies for intervention. What is often lacking, however, is innovative analysis beyond the “usual” that might identify statistically significant health gaps that exist not just between rich and poor, but also across other population groups, revealing multiple forms of disadvantage that confer greater risk. This would enable policies to be better aligned with health gaps and constraints in access to key maternal, newborn and child health services.

South-East Asia Regional Strategic Framework for Improving Neonatal & Child Health and Development

3.1 Objectives, vision and guiding principles

The overarching goal of the Strategic Framework is to guide and assist member countries to develop or strengthen their national strategies and plans to improve newborn and child survival, reduce the burden of child morbidity and disability and promote child health and development.

Objectives

More specifically, the objectives of this Strategic Framework are intended to guide countries to:

- (i) Implement and scale up evidence-based, cost-effective interventions through effective service delivery strategies across the continuum of care.
- (ii) Strengthen health systems to ensure equitable access of all mothers, newborns and children to good-quality health-care services, with particular attention to the poorest and most discriminated-against population groups.
- (iii) Promote multisectoral approaches to address the determinants of MNCH.
- (iv) Incorporate a child development perspective into policies and actions within and beyond the health system, and use all contact opportunities with families and communities to promote early childhood development.
- (v) Mainstream child health and development into national development agendas and recognize the responsibility

to ensure a healthy start to children as part of the commitment to children's rights and as a pillar of social and economic development policies.

Vision and guiding principles

The Strategic Framework promotes a systemic and holistic vision for MNCH and nutrition, and child development. The vision is to move from fragmented programmes and projects for introducing and scaling up specific health interventions, to a comprehensive approach. Such an approach would aim at creating an enabling policy environment to address the underlying causes of newborn and child mortality and impaired child development, and would ensure that health, nutrition and development interventions are equitably implemented across continuum of care.

The Strategic Framework, based on the situation analysis and taking into account the commitments of member states, WHO and UNICEF, as well as the most recent developments in the global health debate, is founded on the following principles:

- (a) *Life-cycle approach*: The Framework promotes child health and development through interventions that act across the continuum of care from pre-conception to early childhood and assumes that adequate strategic attention is paid to adolescent and reproductive health as a foundation of MNCH and nutrition.
- (b) *Equity*: The Framework places emphasis on ensuring equitable access to health and nutrition for all mothers and children. This means creating enabling policy environments to target the poor, the disadvantaged and discriminated population groups with innovative delivery strategies and to address gender disparities in health care. It is important to empower these marginalized population subgroups and engage with them right from the planning stage.

- (c) *Child rights*: The Framework incorporates a rights-based focus on newborn and child health interventions to ensure protection of the most vulnerable and to ensure child-centred care for health and development at all levels of the health system.
- (d) *Health system approach*: The Framework recommends to strengthen national health-care systems, by taking into account all the functions and components. This underlines the need to identify the main gaps and priority actions to improve access to, utilization and quality of health services for mothers, newborns and children.
- (e) *Regulation and integration* of the private sector and public-private partnerships.
- (f) *Integration and convergence*: The Framework promotes integration between health services (e.g. maternal health and nutrition/reproductive health, adolescent health and nutrition, newborn and child health and nutrition services) and social and educational services to ensure continuity and coordination using all contact opportunities to promote health, nutrition and care for development and social protection.
- (g) *Multisectoral action and cross-sector collaboration*: The Framework, acknowledging the importance of social, economic and environmental determinants for child health and development, promotes multisectoral action to address the determinants of maternal health and child health and development, as well as coordination of activities between health and other development sectors.
- (h) *Partnerships*: The Framework recognizes the importance of the partnership between governments and UN Agencies, donors, international and national NGOs and professional societies, as well as collaboration with the private sector in order to improve access and quality of services.

- (i) *Community ownership and participation*: The Framework acknowledges the importance of promoting community ownership and participation to generate demand for health, foster improvements in family and community practices, and ensure community support for interventions.

3.2 Strategic directions

In accordance with its vision, objectives and guiding principles, the Strategic Framework defines actions at three levels:

- (a) Action within the health system to ***implement effective service delivery strategies for the prioritized interventions*** along the continuum of care
- (b) Action within the health system to ***strengthen all health-system components*** (governance and leadership, financing, health workforce, infrastructure and supplies, health information systems or HIS) to improve their ability to ensure equitable access to quality MNCH, nutrition and development services
- (c) Action beyond the health system to promote an enabling policy environment to mainstream child health and development into national development agendas, ***address the key determinants of maternal and child health, nutrition and development*** and address disparities across population groups.

Roles and responsibilities of the global, national and community-level actors can be more easily identified along the three levels of action. The Framework also allows adapting national and local plans according to needs, based on epidemiological situation, health-system capacity and existing implementation gaps, if any.

Sri Lanka: the pay-off of a comprehensive approach

Sri Lanka has achieved one of the lowest child-mortality rates among lower-middle income countries (gross national product per capita in 2008 was US\$ 1790 purchasing power parity). Progress has been continuous over the last four decades, from 66.8 deaths per thousand live births in 1970 to 43.7 in 1980, 29 in 1990 and 15 in 2009, thanks to a combination of cross-sector public policies that have ensured universal access to education for women, clean water and improved sanitation to the great majority (86%), and to health-system developments that have guaranteed universal coverage of essential preventative and curative health interventions to all women and children, as shown by 98% coverage of institutional deliveries assisted by skilled health personnel, 97% coverage of measles and diphtheria, pertussis and tetanus (DPT) immunizations, and the highest breastfeeding rates in the Region. Challenges remain in addressing child undernutrition, starting from LBW rates, and in reducing out-of-pocket expenditures on health, now around 55% of all expenditures.

Strategic Directions

SD 1: Strengthening implementation of evidence-based interventions along the continuum of care: action to improve service delivery for universal coverage

SD 2: Action to strengthen the health system to ensure delivery of quality maternal, newborn and child health services

SD 3: Achieving equity

SD 4: Improving and maintaining quality of services

SD 5: Private sector participation

SD 6: Engaging with families and community

SD 7: Action beyond the health sector to address determinants of maternal, newborn and child health and development

Strategic Direction 1

Strengthening implementation of evidence-based interventions along the continuum of care: action to improve service delivery for universal coverage

Services for MNCH and development could be organized in the following ways:

- (a) ***Family-oriented community-based services***: these services can be provided on an ongoing basis by trained

community health and/or nutrition workers provided with supportive and ongoing supervision by more skilled health staff. Community volunteers, peer counsellors and self-help groups can contribute to promotive and preventive interventions, starting from the postnatal period to impact newborn survival, and prevention and treatment of pneumonia and diarrhoea to impact child survival, as well as for WASH (water, sanitation, hand washing) practice.

- (b) **Population-oriented scheduled services:** these services require skilled health staff to deliver scheduled services, e.g. antenatal and postnatal care, immunization, etc., through outreach activities by first-level health facilities.
- (c) **First-level individually oriented clinical services:** these services will require health workers with advanced skills (registered nurses, midwives and physicians) to be available on a permanent basis, to provide 24/7 services and to provide quality out-patient and in-patient facility-based care including obstetric care, neonatal care and general paediatric care.
- (d) **Referral-level clinical services:** these services will require adequate infrastructure, medical technologies and skilled staff to provide obstetric care for complications of pregnancy and childbirth, neonatal care for LBW/premature babies and general paediatric hospital care.
- (e) **Strengthen referral systems and referral linkages:** For maximum impact it is crucial to establish a functional referral linkage between community-based services, first-level individually oriented clinical services and referral level clinical services.

To support universal coverage of the prioritized interventions, Member States should carefully plan programmes to identify the most suitable mix of family- and population-oriented services with

individual-oriented clinical services at first level and referral level, based on the capacity of their health system.

Nepal

The national Female Community Health Volunteer (FCHV) Programme was introduced in 1988 under the Public Health Division of the Ministry of Health, Government of Nepal. By 1995, the programme had been established in all 75 districts. There are now 48 549 FCHVs assisting with primary health-care activities and acting as a bridge between government health services and the community. They are local women from various ethnic groups; their median age is 38 years, and 42% have never attended school. The intervention has been implemented by training the FCHVs over 5.5 days. FCHVs are provided uniform, standard drug kit and information, education and communication materials, supportive supervision, and a retirement benefit of Rs 10 000 at 60 years of age. FCHVs are responsible for conducting the following activities to cover the continuum of care in all districts:

Six monthly distribution of vitamin A capsules and deworming tablets to children under 5 years of age, provision of health education in family planning, distribution of condoms and pills, treatment of pneumonia with first-line antibiotics, treatment of diarrhoea with zinc and oral rehydration salts, referral of sick neonates, antenatal counselling for pregnant women using the Birth Preparedness Package, and other maternal and child health activities.

It is reported that an increased percentage of pneumonia cases have been treated in programme districts each year since 1995. In these districts, nearly 70% of pneumonia cases were treated compared to only 30% in other districts. There was 98% accuracy in assessment/classification. Between 2003–2004 and 2007–2008, approximately half of all outpatient pneumonia cases treated in the public sector were treated by FCHVs. Nationally, 88% of vitamin A and 82% of deworming (NDHS 2006) were provided by FCHVs.

The Framework encourages innovation to achieve the right mix of delivery modes linked through an effective referral system for maximum impact. Within this mix of service delivery modes, national plans are called upon to emphasize:

- **Primary care** as the basis for the integration of promotive, preventive and curative interventions. This includes the support to community-based health worker programmes to reach rural, urban-poor and marginalized population groups. These health workers will need skills in counselling and

community mobilization, to be trained in the use of simple information technology, medicines and commodities when *legally authorized*, be backed by supervisory systems, *and be properly incentivized*.

- **Family and community empowerment:** To enable and encourage optimal child care, nutrition and development by caregivers in the families and community members, working through community groups will be essential and will require partnership with community-based organizations. Since a considerable portion of all under-five deaths is attributed to neonatal deaths and most neonatal deaths occur within the first 48 hours of life, postnatal care (home visits) should be encouraged (WHO UNICEF Recommendation 2009).
- **Referral care:** Timely access to referral care for at-risk deliveries, sick newborn babies, their mothers and children affected by serious illnesses is critical to save their lives. Barriers to referral and hospital care must be addressed and quality of care at referral level assessed and improved. Referral systems linking the different levels of care should be strengthened where existent and established where non-existent.
- **Technical managerial capacity:** At the same time, an enhancement of the planning, managerial and technical capacity at national and local levels is crucial for data-based planning and implementation of effective delivery approaches.

Prioritizing intervention packages

Countries should ensure scaling up of effective interventions to achieve universal coverage along the continuum of care, thus adopting a life-course approach to achieve the maximum impact upon newborn and child health and development. Countries are also required to prioritize evidence-based life-saving interventions as **essential (E)** and more **advanced (A)** interventions according to the epidemiological situation, availability of resources and capacity of the health system.

Some other interventions may be **situational (S)**, i.e. according to local epidemiology or subgroup risk identification. The details about packages of interventions to be ensured at community-level, first-level and referral-level health facilities are summarized in Annex 3.

Reproductive health, nutrition and pre-conception care:

Reproductive services should provide information and access to family planning to ensure adequate birth spacing and avoiding adolescent pregnancies **(E)**. Prevention of adolescent pregnancy depends on contributions by other sectors like enrolment and retention of girls in schools and social change communication for prevention of early marriage of girls (child protection under the UN Convention on the Rights of the Child or CRC).

Potential mothers (late adolescence onwards) should be provided with folic acid for the prevention of neural tube defects, preferably through food fortification and iodized salt to prevent congenital thyroid problems (during pregnancy as well) **(E)**. Information provision on adverse effects of tobacco and alcohol use during pregnancy should be a focus within the tobacco and alcohol programmes that many countries are implementing **(E)**.

Genetic counselling should be offered to mothers and fathers who are at risk (e.g. Down syndrome on account of mother's age) or are affected by known genetic disease, or with birth defects in their offspring **(A)**.

Pregnancy care:

The interventions include: early registration of pregnant mothers and at least four antenatal care visits that include early detection of complications; advice on skilled attendance at birth; iron and folate supplementation; tetanus toxoid immunization **(E)**; syphilis screening and treatment **(E)**; detection of at-risk cases for HIV/AIDS and prevention of mother-to-child-transmission (PMTCT) and treatment during pregnancy, delivery and in the postnatal period if necessary **(S)**.

Care at childbirth:

Skilled attendance at birth should be ensured to all women and newborn babies **(E)**. Essential care for newborn babies at the community level, including thermal control, early initiation of breastfeeding (including colostrum feeding), infection prevention (hand washing with soap) and management of common neonatal problems and advice on when to seek care, complement the care at birth **(E)**. Childbirth care includes provision of referral for treatment of obstetric complications – EmOC **(E)**. Surveillance of stillbirth should be considered.

Postpartum care for mother and newborn baby:

This consists of postnatal home visits by a health worker within 48–72 hours after birth for information and counselling of mothers on nutrition, breastfeeding, family planning and recognition of danger signs, detection and treatment of common problems and referral for complications **(E)**, and assessment of the newborn, counselling and referral if needed, and advice on well-child visits and immunizations **(E)**. At the institutional level, there should be hospital-based ‘kangaroo mother care’ (KMC) for LBW and premature babies **(E)**. Intensive care for high-risk newborns such as those with very low birth weight (VLBW), extremely premature newborns and those affected by congenital anomalies **(A)** should be made available. Provisions should be made for referral transport vehicles equipped with neonatal intensive care apparatus **(A)**.

Health care in infancy and early childhood:

Member countries should to scale up implementation of integrated management of childhood illness (IMCI) to address the five major causes of mortality among under-five children (pneumonia, diarrhoea, measles, malaria and malnutrition). Several countries have added a neonatal component to IMCI. Training of health-care providers and supportive supervision within the IMCI framework at community-level (integrated community case management), first-level and referral-level facilities should be strengthened **(E)**.

Further scaling-up of immunization with existing vaccines to ensure universal coverage **(E)** must be ensured and introduction of additional vaccines such as the Haemophilus influenzae type B (Hib), rotavirus and pneumococcal vaccines **(A)** considered.

*Scaling up of IYCF including early initiation (within 1 hour of life) of breastfeeding, exclusive breastfeeding up to the age of 6 months^a and timely and appropriate complementary feeding, with dietary inclusion of important micronutrients (especially iodine, iron and vitamin A through fortification or supplements) **(E)**^b.* Prevention of malnutrition should be emphasized in nutrition programmes. Outreach of counselling services to every new mother using multiple communication channels and achieving high coverage will be a priority for improving feeding behaviours.

Children affected by *severe acute malnutrition* need to be identified by community-based health workers and treated in the community with ready-to-use therapeutic foods if there are no signs of complication **(E)**, while those with complications must be managed at the referral level as a medical emergency **(E)**. Treatment of severe acute malnutrition should always be seen as a complement to strong cross-sector action to ensure food security and prevent undernutrition through improved breastfeeding and complementary feeding.

Provision of *insecticide-treated bednets* needs to be scaled up in malaria-prone areas **(S)**. Early diagnosis and treatment will be ensured to HIV-exposed children **(S)**.

^a The Code and subsequent WHA resolutions must be considered together in the interpretation and translation into national measures.

^b Countries should refer to the Global Strategy for Infant and Young Child Feeding and Community-based Strategies for Breastfeeding Promotion and Support in Developing Countries for more comprehensive guidance.

Care of the healthy child and promoting child development

Both health-facility-based and home-based care of healthy children (appropriate feeding, prevention of sickness, including WASH activities, and seeking health care for sickness) are required, together with promotion of early childhood development by enhancing the skills of parents to provide age-appropriate and responsive stimulation to their children through play and communication activities starting from birth **(E)**^c. *Activities and information materials to educate mothers* and the community about appropriate care-seeking must be promoted through family-oriented community-based services provided by CHWs and population-oriented schedulable services and all clinical services at first and referral levels **(E)**. Referral services for developmental delays and caregiver group learning experiences at the community level for disadvantaged children should be promoted and supported.

Health workers are to ensure continuity of information across the system and improve the awareness of mothers and caregivers. In addition, provision of services needs to be coordinated across the health, nutrition, social and education sectors.

^c Refer to WHO-UNICEF package 'Caring for the Child's Healthy Growth and Development'

Early childhood development (ECD) interventions in the first three years of life result in improved child outcomes and in long-term benefits for individuals, households and society.¹² Improvement in the developmental prospects of young infants and preschool children can be achieved by including Care for Development (through age-appropriate play and communication activities) along the continuum of care starting from childbirth, by supporting mother/child bonding through skin-to-skin contact particularly for premature babies, to well-child visits and in all other contact opportunities such as immunization visits and visits for mild illnesses.

WHO-UNICEF package “Caring for the Child’s Healthy Growth and Development” represents the reference standard for age-appropriate feeding and caring practices. The capabilities of health professionals and community health workers to promote ECD and to identify children at risk of developmental delay due to prematurity, LBW, malnutrition or parental neglect should be strengthened by training and retraining programmes. ECD could be incorporated in IMCI pre-service and in-service training using the available tools and training modules.

ECD programmes can be conceived as stand-alone programmes but ideally should be in combination with other health, nutrition and education programmes, also within conditional cash transfers and benefits, such as food supplements. All media, such as radio, TV, the Internet and mobile phone networks, should be used to enhance parents’ knowledge and practices. Child development programmes will involve establishing partnerships with community-based organizations and non-governmental institutions to educate and support parents, deliver services to children and develop capacities of parents and teachers. ECD programmes should be monitored by using simple indicators of caregivers’ knowledge and practices and by introduction of caregiver-based assessment of child development.

Promotion of child development in the Region

In **Sri Lanka**, a law supporting a holistic approach to young children was passed in 2004, supported by five ministries and organizations. The law built on existing programmes, such as the home-based ECD programme initiated jointly by the Family Health Bureau, Ministry of Health (MoH) and UNICEF. The programme reaches communities and caregivers through its network of Public Health Midwives (PHM) and Health Volunteers. The PHM’s capacity is strengthened through a comprehensive training on holistic child development with a focus on psychosocial development. Every child received a Child Health Development Record which includes a growth chart, immunization record, child development checklist and recommendations for families.

Bangladesh is developing a master's degree in ECD. Incorporating ECD into the Bangladesh Integrated Nutrition Project resulted in significant improvements in child development at little additional cost. Plan International improved its parenting programme by incorporating specific practice activities, and found significant improvements in learning and in some responsive feeding skills.²⁶

India: Ministry of Women and Child Development (MoWCD), Government of India implements the national Integrated Child Development Services Scheme. This aims to provide comprehensive services to address the health, nutrition and development needs of children under six. A Mother and Child Protection Card (MCPC) has been developed jointly by MoWCD and the Ministry of Health and Family welfare and disseminated to the states for implementation in the field from July 2010. The card is a comprehensive tool and includes antenatal and postnatal care, growth monitoring of children, immunization and feeding practices. The MCPC card also has messages on child development, developed in consultation with international experts in ECD. Field workers of both departments will be trained to implement the MCPC so that they can effectively promote good feeding and caring practices once children are born in addition to providing antenatal and postnatal care to women.

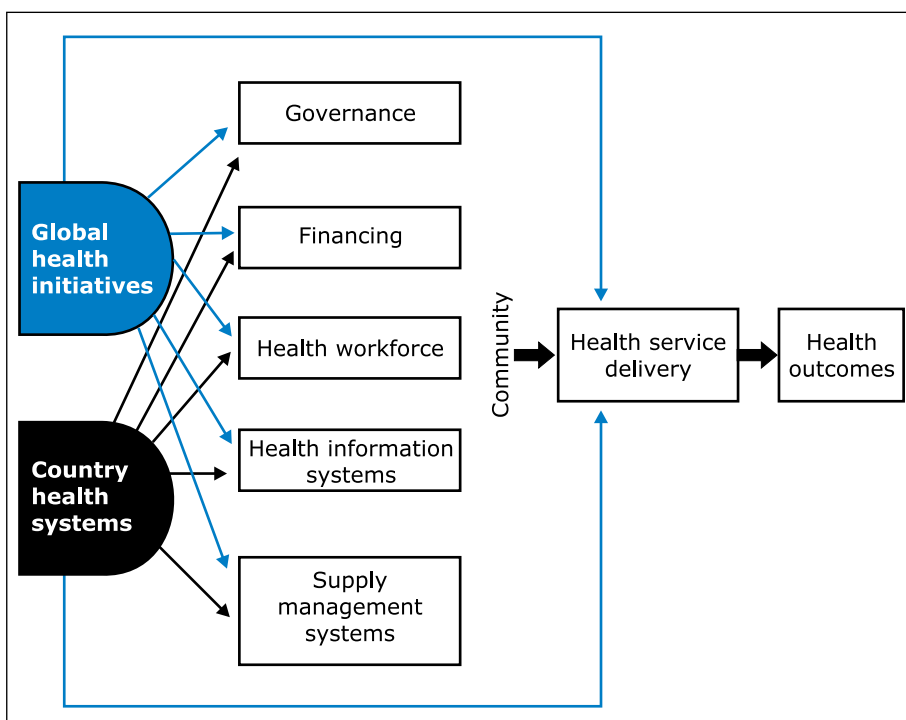
Strategic Direction 2

Action to strengthen the health system to ensure delivery of quality maternal, newborn and child health services

The WHO Health System framework identifies six blocks: Governance, Health financing, Health workforce, Health information systems, Essential supplies and Health service delivery). National governments (prominently, the MoH) as well as global actors need to contribute to all five main functions/components to strengthen the capacity of health systems to ensure health service delivery – the sixth block.

Actions to improve the performance of health systems towards MNCH must be clear and consistent in the approach of the government and across all partners. The government should ensure access to quality care for the most deprived as a priority. Generic actions for strengthening health-system blocks for effective scaling up and sustenance of good quality MNCH services is provided in Annex 2. It is understood that Member States will take strategic actions for health-system strengthening according to local needs.

Figure 7: Conceptual framework of the interaction between global health initiatives and country health systems



Health-system strengthening in the scenario of an ongoing decentralization of the health sector in some Member States deserves close consideration so that essential services such as MNCH services are not adversely affected. Strong programme management capacity at the peripheral level is crucial to prevent any fragmentation of service delivery that could happen during decentralization. Due care needs to be taken to identify actions under all the health-system blocks, and especially to keep HIS intact, safeguard supply chain management and human resources as well as strengthen community support and engagement for improving accountability and efficiency of the system.

Strategic Direction 3

Achieving equity

An equity-focused approach reflects the universality precept embodied in the CRC and recognizes that risks are much higher among the most deprived communities and households. Such an approach has the potential to accelerate progress towards the health MDGs for children at national as well as at local levels. A recent UNICEF study has arrived at the conclusion that an equity-focused approach could bring vastly improved returns on investment by markedly expanding effective coverage of key primary health and nutrition interventions and averting far more child and maternal deaths and episodes of undernutrition.²⁷

Focusing on equity will include a number of programmatic actions. One is to *identify the most deprived children and communities* in order to give priority to strengthening service delivery and increasing demand generation in these communities. Disaggregating national data to identify these groups is fundamental. Several measures are currently available to identify the most deprived children based on the expansion of household surveys such as DHS and MICS. National governments such as that of India are providing enhanced disaggregation of data on child survival and development. Further investment in data gathering and analysis will strengthen the basis for equity-focused action at national and subnational levels.

The second action is to identify and *remove barriers (direct and indirect) to service provision and utilization*, including sociocultural norms and low health literacy among poor communities. Equity-focused approaches can accelerate progress by ensuring availability of commodities and human resources in underserved areas and encouraging poor families to seek and use essential services. Financing mechanisms such as cash transfers can help overcome direct and indirect financial barriers. Information, education and communication solutions are available to surmount cultural and social barriers. To improve utilization of services, the first step is for users to be aware of when and where to access the health services.

Innovative use of mobile telephone technology can greatly diminish the time and distance involved in obtaining services. In the most remote communities, mobile and outreach services or community-based services may be an effective way to improve awareness about care-seeking, hygiene and feeding practices as well as utilization of services.

The third action is *engaging communities* in the provision and utilization of services for health, education and protection of their children. This empowers people to fight discrimination on the basis of gender, ethnicity and disability that excludes women and children from vital services and protection.

Finally, *reducing out-of-pocket expenditures for the poorest* is also central to an effective equity-focused approach. Families are often unable to afford essential services for their children even when these are made available. When they do eventually use these services, it is often at the expense of other items essential for children's well-being, such as food. Many countries are attempting to overcome this problem by devising policies and strategies aimed at reducing direct and indirect costs associated with services. Social protection mechanisms, including cash transfers, social health insurance (SHI) and other forms of assistance are vital ways to protect marginalized families from external shocks and motivate them to ensure that their children use key services. SHI is one of the significant ways of achieving the objectives of universal health coverage in an equitable manner. It can help remove financial barriers to accessing health care and prevent families from falling into the poverty trap due to high-health care costs and high out-of-pocket expenditure. In the SEA Region a number of countries are in the process of implementing health insurance and expanding its role as a health financing mechanism.

Concurrently, programmes should ensure their components *build demand*. In order to do this, the quality and consistency of primary care, and mother and newborn services in particular, must improve, especially in the most underserved areas. Promising strategies include equity-driven human resource policies, task-shifting, standardized

and updated (pre-service and in-service) training, incentivizing health staff according to performance outcome, extensive communication for behaviour change both at household and at facility level, and strengthened monitoring and evaluation systems.

Strategic Direction 4

Improving and maintaining quality of services

While scaling up coverage of priority interventions, attention needs to be paid to the quality of care at all levels. The lack of quality, besides putting at risk the health of mothers, newborns and children, leads to inefficiency in use of resources, resulting in high net cost for both the health system and households, without any return in effective care. There are unacceptable differences (by social status, gender, ethnicity etc.) in the quality of care delivered, and these contribute to inequity in health outcomes. Studies in Bangladesh, both at first and referral level showed that quality was substandard or frankly poor in a substantial proportion of health facilities^{28–30}. Perceived bad quality may result in decreased confidence in health systems and ultimately in reduced care-seeking, while perceived good quality has been shown to significantly increase access even in remote areas. Studies in Nepal indicate that improved physical access has only a modest impact, whereas improving the quality of health posts in rural areas can increase the utilization of certain health-care services, such as antenatal care or child immunization.³¹

Ensuring quality is essentially a whole-health-system matter since all the health-system components, from governance to training, supervision and management of human resources, information systems and adequate supplies and technologies are necessary to ensure service delivery. Even sophisticated quality assurance approaches are unlikely to improve service quality if the basic requisites are not made available. An important factor to ensure quality is supportive supervision of health workers, focusing on empowering staff to identify and resolve problems.

National- or subnational-level assessments of the quality of care at all levels should be undertaken, followed by quality improvement. A number of assessment tools and reviews on quality improvement have been developed by WHO and extensively used in many countries including in the SEA Region.

Strategic Direction 5

Private sector participation

The private sector has an important and increasing role in the provision of health services throughout the Region, Bhutan and the Democratic People's Republic of Korea being the two exceptions where there is no private sector in health services. There is no point in developing strategies and plans that only apply to the public sector when it provides only part of the services. Partnership between governments and the private sector could help to *mobilize additional resources and expertise* and expand the range of health-care providers. Decentralization of the health system offers an additional opportunity to engage private sector as an equal partner in order to ensure, expand and sustain the delivery of an affordable essential package of services.

The private sector must be made a partner for the achievement of the health-related MDGs. Governments need to develop adequate regulatory frameworks to ensure that private providers meet the essential capacity, quality and accountability requisites, and that private services do not exclude vulnerable populations. High reliance on the private health sector if not properly checked and regulated, can exacerbate the deprivation of the poor or increase the negative consequences of incurring high, sometimes catastrophic costs. Regulation of the private sector, both for-profit and non-profit, helps in controlling performance and making agreements to improve quality and coverage of services through *certification and licensing mechanisms*.

Governments of some countries in the Region may lack the technical capacity to regulate private health providers. Multilateral agencies, bilateral donors and NGOs have an important role to play in building this capacity through the harmonization of legislation pertaining to private practice, private training institutions, standards in production and use of drugs and medical supplies.

Strategic Direction 6

Engaging with families and community

Child health programmes will benefit from involving families and communities from the planning stage. The knowledge and experiences of families should be used to design better health delivery systems building on their own commitment to their (and their children's) health, well-being and development. There should be a sustained focus on providing families and communities with essential knowledge and skills to empower them with effective choices and improved practices for preventing illness and promoting the health and development of their children. Awareness among the community about when and how to seek health services for their newborns and children leads to creation of demand for services. Communication strategies should accordingly be designed to empower families and communities to demand and seek good-quality health care.

At the same time, child health programme planning and implementation should recognize and utilize the community's role in monitoring service delivery to ensure quality of services and accountability as well as improvement of the system's efficiency.

The use of emerging information and communication technology (e-health and m-health) for community engagement and mobilization should be effectively harnessed.

Community action to improve sanitation in Bangladesh

Bangladesh has recorded an important increase in the use of improved sanitation facilities among the poorest 40% of the population. In the late 1990s and early 2000s, Bangladesh pioneered Community-Led Total Sanitation. This approach, rooted in the promotion of behaviour change through a change in social norms, is centred on the concept of “total sanitation” and the establishment of open defecation-free villages, in which all residents use latrines. The case of Bangladesh demonstrates that such a community-driven approach is compatible with equitable progress, even in an area as complex as sanitation.

Strategic Direction 7

Action beyond the health sector to address determinants of maternal, newborn and child health and development

Factors outside the health sector, such as social and economic policies, child protection (e.g. early marriage, and birth and death registration) food security, investment in public services (education, social protection, water, sanitation and hygiene, transport infrastructure, etc.) have an important direct or indirect impact on MNCH and development outcomes.

In view of the evidence of the links between cross-sector policies and MNCH outcomes and child development, and recognizing also the impact that improved maternal newborn and child outcomes may have on overall social and economic development, MNCH should be a “whole government” matter.

It is understood that many of the necessary actions will be beyond the direct influence of the MoH. However, the health sector should constantly engage and encourage other sectors and government ministries/departments to undertake these actions to address the determinants of maternal, newborn and child health and development.

According to the MDG framework, cross sector actions to achieve MDG 4 and improve child health and development should include but not be limited to:

- (i) Action to eliminate extreme poverty through redistributive economic and social policies, cash transfers and family benefits for the poorest (MDG 1).
- (ii) Action to improve food security and nutrition through agricultural development policies, food fortification programmes and food vouchers for children (MDG 1).
- (iii) Action to increase female literacy to ensure universal girls' enrolment and completion of primary and secondary school (MDG 2).
- (iv) Action to promote gender equality and fight gender based discrimination at all levels of society including government services (MDG 3).
- (v) Action to ensure adequate access to clean water and adequate sanitation to all population groups, (MDG 7).
- (vi) Action to ensure or subsidize public transport particularly when used for education, health and health related purposes by women and their children (MDGs 2 and 5).
- (vii) Action to improve awareness about the importance of appropriate family practices including educating girl child, health care and parenting practices and to improve availability of day-care and support to working parents (MDGs 2 and 3)
- (viii) Government expenditure on health and health-related sectors should be gradually increased to reach WHO recommended levels and investment plans to strengthen maternal and child health services should be adequately reflected in multi-year plans, SWAPs and PRSPs (MDGs 4, 5 and 6).
- (ix) Legislation should be adopted to meet the requirements of the CRC with respect to children's rights to health, development and social protection. Legislation and policies should be adopted to prevent domestic violence (MDGs 2, 5 and 6).

3.3 From strategic directions to national/subnational plans

Development of National Newborn and Child Health Strategy

To strengthen the systematic approach to programming newborn and child health in Member States and achieving regional and global goals, it is desirable to have a national strategy and plan in place for newborn and child health, ably supported by national policy. Member States are encouraged to develop a National Strategy for Newborn and Child Health based on the guidance provided by this Framework. Having a dedicated national strategy is the first important step towards garnering political support, securing adequate resources, developing national strategic and implementation plans and ensuring their effective implementation and management.

Formulation of national/subnational plans

Although simple and effective interventions to reduce child deaths are being implemented in Member States, these are often not reaching the children who need them most. Therefore, better planning and management of child health programmes is urgently needed. Managing programmes to improve child health is an ongoing cycle, of planning, implementing, monitoring, evaluating and adjusting, carried out in somewhat different ways at different management levels. The overall programme planning and management cycle has two parts: the strategic planning cycle and the implementation planning cycle.

At the national and state level, child health programme managers and partners must select the most cost-effective and evidence-based child health interventions for implementation, based on the primary causes of morbidity and mortality and the feasibility of implementation. This data-informed planning is very important. Programme managers should be able to identify all the opportunities and potential barriers in the process of implementation.

Child health programme managers at the district level must take the vision for child health described at national or state levels to action, delivering priority interventions by carrying out activities in health facilities and communities. They must be fully informed of the child survival, health and development issues in their district and understand the strategic plan and framework specified at the national and state level. They must then plan the ongoing, effective implementation of the selected interventions for child health and periodically evaluate what has been achieved, especially among the most deprived population groups. The capacity of district health programme managers is therefore critical for successful implementation of any health programme.

Investment Cases

Useful tools have been applied in selected Member States. In response to the need to re-focus on equity and the growing interest in strengthening health systems to be more efficient and more equitable, UNICEF and partners, in close collaboration with governments, have established several *Investment Cases*. By using the MBB (Marginal Budgeting for Bottlenecks) tool, the Investment Case process incorporates the most effective evidence-based strategies for health systems planning and budgeting. This process analyses health systems constraints (bottlenecks) along the supply and demand side and identifies strategies to overcome these constraints to scaling up priority MNCH interventions. It models the impact and costs of different scale-up scenarios to enable comparison. “Mining” of data is one of the initial steps required in the Investment Cases process, followed by bottleneck analysis. The process is also a powerful advocacy tool, helping governments refine existing strategies and providing evidence regarding their cost-effectiveness. With health system strengthening and equitable coverage along the continuum of care at the very foundation of the Investment Case process, common strategies such as Joint Assessments of National Strategies and SWAPS (Sector wide approaches) become increasingly possible to implement, and bring greater alignment among donors across the health sector.

Member States may wish to consider the following actions in the process of developing or revising their national strategies and plans for MNCH and development:

- (i) Create/strengthen National Coordination mechanism:** Identification of a high-level national *coordinating*

and supervisory body is highlighted. Such a body should have participation of the MoH and other relevant ministries, civil society and non-government institutions, with the mandate to formulate comprehensive national plans, based on the review and analyses. The body should ensure a clear definition of roles for all stakeholders, and accountability mechanisms to track resource flows for child health activities as part of National Health Accounts.

(ii) Establishment of a national technical working group

(TWG): A working group should be constituted by the government (MoH) in partnership with UN agencies, donor partners, civil society, related sectors like WASH, education, nutrition, social development and academia. The TWG should prepare a situation analysis, based on trends and distribution across population groups and geographical areas of health outcome and coverage indicators, and identification of gaps along the continuum of care. The analysis should include a review of cross-sector policies, laws and regulations that influence maternal and child health and development as well as health-system barriers that impede effective service delivery. The WHO Child Health Short Programme Review tool is available to facilitate a quick structured review, identify gaps and suggest solutions/recommendations based on local data to strengthen the child health plan.

(iii) Develop a monitoring and evaluation mechanism:

The *monitoring and evaluation mechanisms and systems* and indicators to track progress will be decided in consultation with partners and stakeholders. The indicators should cover the guiding principles of this Framework and also reflect the three-tiered strategic approach described earlier. The indicators should be disaggregated so that comparisons can be made about the impact of different policy and programme measures

in different population segments and geographical areas. Monitoring systems should build on existing national and international mechanisms and may be complemented with ad hoc surveys that particularly focus on implementation issues, barriers to access, etc. The data generated from the monitoring and evaluation activities should feed into *periodic programme reviews* and should result in appropriate and timely mid-course adjustments. Strengthening HIS, especially in regard to reporting of newborn deaths and stillbirths, remains a challenge in the SEA Region.

(iv) Develop and implement a communication strategy:

Communication for advocacy is required to increase awareness among key stakeholders like political leaders, policy makers, donors, managers and technical experts. A communication strategy is also required for behaviour change to improve practices and increase demand for child health services by reaching parents, families and the community.

(v) Actions to engage families and communities:

Caregivers and families are the primary stakeholders for ensuring health and development of the children. Adequate attention is to be given to enable and encourage caregivers in the families and community members to support optimal childcare, nutrition and development. Working through community groups is essential and requires partnership with community-based organizations. Such activities should be an integral part of national health plans, especially those focusing on MNCH.

(vi) Develop an implementation plan: In developing national or subnational action plans, there is always a need to define a phased approach, primarily to account for budget limitations but also to allow sufficient managerial capacity to be developed and basic health-

system requisites to be put in place. Defining what interventions should be prioritized and whether and how to adopt a geographical phased approach is also crucial. Geographical phasing should take into account the need for an equity-focused approach and therefore give priority to underserved high-risk communities. It should also take into account the readiness of the health system to take on new activities related to implementation of additional interventions in that geographic area. This requires attention to all the building blocks of the health system. For example, improving care around birth in an underserved community will entail establishing an outreach community programme, training staff, adopting a communication strategy, identifying partners in the community, but also identifying means of transport and addressing contributing factors such as nutrition, sanitation and hygiene.

Scenario-based approach for prioritizing policy actions and interventions

A *scenario-based approach* is proposed to guide countries in identifying the combination of policies that is most suitable to their needs and institutional capacity and, on this basis, in formulating national action plans for newborn and child health and child development.

In accordance with the analytical framework proposed in the present document, scenarios (below table) are based on a four-dimension assessment of the country context, taking into account:

- the status of policies addressing the key determinants of MNCH;
- the funding, financing and capacity of health systems;
- the coverage of effective interventions;
- the outcome indicators.

Based on the existing HIS, a set of indicators is proposed under these four dimensions to classify the prevailing scenario for each country or subnational region area (Table 2). By no means is this an exclusive or exhaustive list, but only indicative. The levels of achievement/coverage are also indicative only.

Table 2: Scenario-based approach

Indicators	Scenario A	Intermediate scenarios	Scenario B
Enabling policies/health determinants			
% girls completing primary school	< 50		>90
% population using an improved sanitation facility	< 60		>90
% birth registered	< 80		>95
Health-system funding, financing and capacity			
Expenditure on health as % of on total government expenditure	<5		>8
Out-of-pocket expenditure as % of total health expenditure	>60		<40
No. of doctors, nurses and midwives/1000 population	<1		>2
% institutional deliveries	<60		>90
Coverage of effective interventions			
Skilled attendance at delivery (%)	<60		>90
BF (exclusive, first 6 months) (%)	<30		>60
% receiving antibiotics in pneumonia	<50		>80
% receiving oral rehydration therapy (ORT) for diarrhoea	<50		>80
Measles/DPT coverage, 1 year (%)	<80		>95
Outcome indicators			
Neonatal mortality rate	> 30		<10
U5MR	> 60		<20
% children under 5 underweight	> 30		<10
Inter-quintile (1st to 5th) ratio for U5MR	> 2.0		<1.5

On this basis, Member States are expected to analyse their situation with reference either to scenario A, scenario B or an intermediate situation that is somewhere in between the two. Scenario A is associated with high child mortality as the consequence of several factors like insufficient cross-sector enabling policies, low investment on health, poor coverage of essential health interventions and sub-optimal health-system capacity. Scenario B is associated with relatively low child mortality as the result of policies to improve determinants of health, strengthening of the health system and consequently a high coverage of essential interventions along the continuum of care. In such a scenario it may be possible to further add advanced interventions for newborn and child health if required, while in scenario A the capacity of the health system may be enough only to handle the most essential interventions, until the system is further strengthened to accommodate more.

Each country (or subnational administrative entity) can accordingly prioritize policies and actions as described below.

The following are examples of different combinations of policies and interventions that countries may consider including in their national and/or subnational plans as per the scenario analysis.

Scenario A: Poor indicators

- (a) **Delivery of specific interventions** (see Annex 3 for more details)
 - Antenatal, childbirth (with gradual shift to universal institutional delivery) and neonatal care provided by skilled health professionals, with referral for severe cases and complications, with focus on most deprived populations and marginalized groups
 - Birth defect prevention activities like folate supplementation and food fortification, avoidance of medications in first trimester, prevention of tobacco and alcohol use during pregnancy

- Routine immunizations for children and mothers
- Integrated case management for common newborn and childhood illnesses (IMNCI) and care for development (ECD)
- Protection, promotion and support of exclusive breastfeeding until six months of age followed by appropriate complementary feeding and vitamin A and iron supplementation
- Acceleration of sanitation programming, especially focused on the elimination of open defecation
- Intensification of the promotion of hand washing with soap and the home treatment of drinking water
- Prevention of exposure to indoor air pollution for prevention of pneumonia

(b) Health system policies

- Gradually increase the investment in MNCH within an increased spending in health to achieve the minimum recommended by WHO
- Ensure universal access to essential package of interventions (see below) through a variety of approaches like prepaid systems, social insurance packages, subsidized packages or other financial means, and target most-deprived, marginalized and disadvantaged populations
- Ensure adequate training and deployment of skilled health workers, including in underserved areas
- Strengthen CHW programmes and enable the workers to deliver essential community-based interventions for MNCH including ECD
- Ensure an adequate network of first-level and referral-level facilities to deliver facility-based interventions, and strengthen referrals systems accordingly

- Involve the private sector wherever its contribution is key to the delivery of effective and safe interventions

(c) **Cross-sector policies**

- Ensure accelerated action towards universal access to primary school for all girls
- Ensure food security for the population in terms of calorie intake through a range of approaches like subsistence farming and (conditional) vouchers for food supplements to children from poor households
- Improve infrastructure to ensure universal access to clean water and sanitation
- Ensure universal birth registration
- Formulate and implement policies addressing early child marriage

Scenario B: Relatively good indicator level

Over and above the activities/actions recommended for scenario A, the following may be added, if the health system has the capacity to support them.

(a) **Delivery of specific health interventions** (see Annex 3)

- Include genetic counselling and antenatal diagnostics to reduce the burden of birth defects and genetic disease
- Ensure institutional delivery for all women and essential neonatal care to all newborn babies, and timely referral to specialized centres when necessary, including intensive care for premature babies
- Consider expansion of the immunization programme with additional vaccines

- Strengthen and expand the scope of IYCF (Infant and Young Child Feeding) programmes to prevent obesity and improve physical activity in children
- Introduce/expand child injury prevention activities
- Increase government investments in sanitation and hygiene programmes

(b) Health system policies

- Expand the basic MNCH package including institutional health care (see below)
- Ensure adequate training and deployment of skilled health workers to ensure universal coverage of service delivery through skilled health workers and related health technologies at all levels of health systems, including tertiary-level care
- Improve quality of services by approaches like certification of providers and licensing and re-licensing mechanisms

(c) Cross-sector policies

- Ensure action to move towards universal secondary education for all girls
- Ensure safe drinking water, hand washing facilities and separate toilets for girls and boys (and teachers) in all schools
- Ensure gender equality in all sectors of public administration, starting from the health sector
- Collaborate with the education sector to promote early childhood development/parenting programmes with priority for children from disadvantaged poor communities and children with special needs
- Ensure protection of mothers and children from environmental hazards, including adoption and enforcement of legislation on working places and road and home safety

It is recognized that there is substantial diversity across and within Member States in the SEA Region, and therefore there are no typical scenarios or policy combinations that can perfectly fit one whole country or different countries. A variety of intermediate scenarios would certainly exist, requiring prioritization of the interventions to be implemented/scaled up and possible combinations. Also, it is possible that the countries with a low child-mortality profile may still have specific gaps in cross-sector action or health-system development or pockets of low performance that need to be addressed.

The adaptation of the Framework to specific national and subnational contexts will therefore need comprehensive situation analysis. What needs to be re-emphasized is that national strategies and plans should take a comprehensive approach and look at actions that, by addressing determinants of health as well as health-system components, create the enabling environment for effective interventions to be delivered.

3.4 Strengthening programme management capacity

Better planning and management of child health programmes is urgently needed. Although simple and effective interventions to reduce child deaths are available, they often do not reach the children who most need them. Programmes that are well planned and managed are more likely to improve intervention coverage and therefore reduce child deaths. Programme managers need to excel in management skills to be able to plan and monitor the implementation of child health programmes effectively at state and district levels.

WHO has developed packages for strengthening planning and management, such as the Strategic Planning Tool for national and subnational planning, and the Short Programme Review for child health that facilitates a structured review of intervention coverage and programme activities. The package on Managing Programmes to Improve Child Health develops district managers' essential knowledge

and skills to improve programme management. These packages have been usefully applied in Member States in the Region.

3.5 Monitoring implementation

Periodic monitoring of implementation of interventions for newborn and child health in terms of coverage is necessary to measure progress and identify bottlenecks in implementation. Member States should identify a limited number of indicators that it would be feasible to measure periodically (once in one to two years) within the existing HIS as far as possible. If a routine monitoring system is not well developed (or not functioning well), countries may have to depend on periodic surveys from relatively small representative samples. For this purpose sentinel sites may be identified to conduct household and facility-based surveys. Programme reviews (WHO Short Programme Review tool) offer a structured process to analyse such monitoring data at national and subnational levels to strengthen programme planning for the next period. The data should also be disaggregated according to wealth quintile, social groups, sex and place of living to analyse any child health inequities.

The Commission on Information and Accountability for UN Strategy for Women's and Children's Health recommends 11 indicators for monitoring maternal and child health (see box).

Monitoring activities must be budgeted in the national and subnational implementation plans with adequate allocation of funds (up to 5% of plan cost). In addition, it is important to monitor resource flows for newborn and child health programmes within the reproductive, maternal, newborn, child and adolescent health budget and total health budget of the countries. The Commission on Information and Accountability for Women's and Children's Health strongly recommends that all countries develop national capacity for such resource tracking to foster accountability.

Commission on Information and Accountability for Women's and Children's Health

The 11 indicators of maternal, newborn and child health

One set of indicators has been selected to monitor the status of women's and children's health:

- Maternal mortality ratio (deaths per 100 000 live births)
- Under-five child mortality, with the proportion of newborn deaths (deaths per 1000 live births)
- Children under five who are stunted (percentage of children under five years of age whose height-for-age is below minus two standard deviations from the median of the WHO Child Growth Standards)

These three health status indicators are essential for monitoring MDGs. Stunting, a nutrition indicator, is important for understanding not only outcomes but also determinants of maternal and child health. Nutrition is also a useful proxy indicator for development more broadly.

These indicators are relatively insensitive to change and do not show progress over short periods (in the absence of birth and death registration systems they can only be measured with substantive time lags). Therefore, more sensitive and timely data that can monitor almost real-time changes in a set of key interventions to improve women's and children's health are needed.

This objective can be achieved by monitoring a tracer set of eight coverage indicators:

- Met need for contraception (proportion of women aged 15–49 years who are married or in a union and who have met their need for family planning, i.e. who do not want any more children or want to wait at least two years before having a baby, and are using contraception)
- Antenatal care coverage (percentage of women aged 15–49 with a live birth who received antenatal care by a skilled health provider at least four times during pregnancy)
- Antiretroviral prophylaxis among HIV-positive pregnant women to prevent vertical transmission of HIV, and antiretroviral therapy for women who are treatment-eligible
- Skilled attendant at birth (percentage of live births attended by skilled health personnel)
- Postnatal care for mothers and babies (percentage of mothers and babies who received postnatal care visit within two days of childbirth)
- Exclusive breastfeeding for six months (percentage of infants aged 0–5 months who are exclusively breastfed)
- Three doses of the combined DPT vaccine (percentage of infants aged 12–23 months who received three doses of this vaccine)
- Antibiotic treatment for pneumonia (percentage of children aged 0–59 months with suspected pneumonia receiving antibiotics)

3.6 Operational research

Countries in the region are encouraged to adopt appropriate policies for developing or strengthening health research capacity for maternal and neonatal health and child health and development, including multidisciplinary research and qualitative methods. Countries should allocate adequate resources to provide direct support for research, and to develop and sustain research skills and capacity. Limited resources and research capacity can best serve the national plan if countries begin to identify research gaps in relation to the plan and prioritize areas of research. Countries should give priority to the following two areas: operational research to improve health-care service delivery, and demand-side determinants.

Operational research would help improve service delivery for the prioritized interventions at multiple levels across health systems including community-based delivery, first-level facilities, and referral facilities and other high-level providers. To support operational research in Member States, standardized research protocols will need to be developed for different settings. Studies conducted will be designed to provide sufficient information to benefit the implementation of the national child health strategy. Research findings and possible solutions for effectively implementing programmes will be shared among Member States.

Research on demand-side determinants is important to better understand demand for services from caregivers, families and the community to ascertain ways to overcome barriers and improve use of services. Possible areas of research on demand-side determinants include:

- Care-seeking behaviours of families and caregivers: Research will assist in ascertaining community, family and caregiver preferences and barriers for care, and identify where awareness-raising, marketing, or potential partnership with other health providers may be appropriate.

- Areas in which the community can be actively engaged in the delivery of health interventions (including health promotion, education, advocacy and building community support).
- Service delivery modes most suited to the community: Research will seek to identify the culturally appropriate and innovative methods of intervention delivery.

4 Roles and responsibilities

4.1 Member States

The government of each country will lead the adoption of national strategies and action plans and their effective implementation in the country. Governments will steward the following:

- (a) *Policy review, development and monitoring*: putting in place the mechanisms and the steps to develop, implement and monitor national and subnational plans to accelerate action to improve MNCH and development.
- (b) *Resource allocation*: allocating adequate funding, prioritizing neonatal health and child health and development interventions based on identification of gaps along the continuum of care, constraints to implementation and underserved areas and population groups.
- (c) *Developing partnerships* with national actors, public and private, and between sectors as well as with international partners within and outside UN system to encourage and ensure effective resource mobilization.
- (d) *Capacity-building*: strengthening national capacity to plan, coordinate, implement and monitor implementation of the actions included in national plans and to improve management, particularly at the local level.
- (e) *Ensuring communication and social mobilization* for maternal, neonatal and child health and child development interventions and practices.
- (f) *Developing a framework for monitoring and evaluation* that includes gathering relevant data, tracking and reviewing progress, reporting and sharing experiences with other countries in the Region.

- (g) *Organizing operational research* in priority areas to improve policy, planning, implementation and scaling-up of cost-effective child health and development interventions.

4.2 WHO, UNICEF and other international partners

Over the last decade a number of alliances and global health partnerships have been established to ensure stronger and more harmonized actions at both global and country level. WHO, UNICEF, UNFPA, the Joint UN Programme on HIV/AIDS (UNAIDS) and the World Bank (the H4+ agencies) are collaborating closely in the area of reproductive, maternal, neonatal and child health.

Within this context of increased harmonization and responsibility, WHO and UNICEF will aim to fulfil their responsibilities within the H4+ framework by focusing on support for implementation, monitoring and evaluation, and accelerating efforts in achieving the MDGs as per the agreed division of responsibilities.

In the context of this Strategic Framework, WHO and UNICEF will jointly:

- (a) Provide technical support to countries to conduct equity-focused programme reviews, develop and revise their plans for maternal and neonatal health and child health and development, paying attention to ensure that new policies adopted at country and local level are accompanied by adequate monitoring and evaluation plans and that mechanisms are established to hold key actors accountable for their commitments.
- (b) Support and strengthen institutional capacity at national and subnational levels, focusing on health-system management and in particular on effective and equitable implementation of prioritized evidence-

based interventions, continuums of care, and quality assessment and improvement approaches.

- (c) Support country efforts to improve data collection and analysis by strengthening health information and vital registration systems as well as by undertaking additional surveys to measure mortality, coverage and financial flows and by emphasizing the need for indicators able to capture the process and outcome dimensions of equity and quality of care and child development.
- (d) Support the generation of evidence through operational research aimed at identifying the most effective methods of service delivery specifically benefitting vulnerable, deprived and marginalized populations; disseminating best practices in implementing the interventions; and exchanging experience and cooperation with particular emphasis on involving and regulating the private sector.
- (e) Advocate for mobilization of adequate resources from domestic sources and draw the attention of national partners to the need for progressive and equitable health-system financing policies and regulatory policies responding to the right to health of women and children.
- (f) Improve the targeting of donor funding for equity-focused reproductive, maternal, newborn, and child health and ensure that funding is predictable, consistent and responsive to national needs and plans.

In the South-East Asia Region, too many children die or are unable to reach their full physical, cognitive and social development potential due to preventable and treatable diseases and modifiable underlying risk factors. Risks are much higher among the most deprived communities and households, due to socially determined differential vulnerability.

Improving neonatal health and child health and development in South-East Asia through a comprehensive policy approach and a focus on equity responds to the universality precept embodied in the CRC, increases the potential to accelerate progress towards MDGs and is critical for the future development of the countries in the Region. A more equity-focused approach is needed in the SEA Region since it is one of the most densely populated areas in the world, where rapid economic growth and extreme poverty coexist. Efforts are needed towards accelerated support for newborn and child health, nutrition and development, strengthening the continuum of care of maternal, newborn and child health and nutrition interventions, and application of best practices, particularly to address issues of inequity in the Region.

To accelerate action to achieve MDG 4 and to improve the chances of children for optimal growth and development, this Strategic Framework recommends that action is taken at three levels: adopting appropriate cross-sector policies, fostering health-system development, and improving service-delivery modes to scale up packages of evidence-based technical interventions. The Framework recognizes the need to ensure effective action along the continuum from adolescence and the pre-conception period to childhood and to promote the incorporation of care for development. The Framework recommends scaling up essential interventions as well as additional interventions known to work, particularly to reach the

most disadvantaged and hard-to-reach population groups in order to reduce existing inequity.

To achieve its goals, this Strategic Framework needs to be translated into action by the Member States. The strategic directions described in the Framework will need to be adapted based on the specific country context and local needs, inequity patterns, epidemiological situation, health-system capacity and existing implementation gaps. Responsibility lies with the whole government of each country, not only with the MoH. Progress will require extended partnerships within countries, including with the private sector, intergovernmental co-operation and support from WHO, UNICEF, and other UN agencies and international partners. The Framework has identified possible roles for the governments and development partners. A joint WHO–UNICEF country support mechanism in Member countries will evolve in line with the Strategic Framework.

References

1. United Nations Children's Fund. *Levels & trends in child mortality report 2010*. New York: UNICEF, 2010.
2. United Nations Children's Fund. *The state of the world's children 2011: adolescence: an age of opportunity*. New York: UNICEF, 2011.
3. World Health Organization. *Trends in maternal mortality: 1990 to 2008*. Geneva: WHO, 2010.
4. *The Delhi declaration on maternal, newborn and child health. April 9, 2005*. http://www.aesmatronas.com/descargas/doc_otros/DECLARACION_DE_DELHI_2005.pdf - accessed 15 May 2012.
5. World Health Organization. *Joint country support: accelerated implementation of maternal and newborn continuum of care as part of improving reproductive health*. Geneva: WHO, 2008.
6. Lawn JE, Cousens S, Zupan J, Lancet Neonatal Survival Steering Team. 4 million neonatal deaths: when? Where? Why? *The Lancet*, 2005, 365(9462):891-900.
7. Rudan I, Boschi-Pinto C, Biloglav Z, Mulholland K, Campbell H. Epidemiology and etiology of childhood pneumonia. *Bulletin of the World Health Organization*, 2008, 86(5):408-416.
8. Dhingra N, Jha P, Sharma VP, Cohen AA, Jotkar RM, Rodriguez PS, et al. Adult and child malaria mortality in India: a nationally representative mortality survey. *The Lancet*, 2010, 376(9754):1768-1774.
9. United Nations Children's Fund, East Asia and Pacific Regional Office. *Report: East Asia and Pacific regional partnership forum on children and HIV AIDS, 31 Mar – 2 Apr 2008, Bangkok, Thailand*. Bangkok: UNICEF East Asia and Pacific Regional Office, 2008.
10. World Health Organization, Regional Office for South-East Asia. *HIV/AIDS in the South East Asian Region: 2009*. New Delhi: WHO-SEARO, 2009.
11. Black RE, Allen LH, Bhutta ZA, Caulfield LE, de Onis M, Ezzati M, et al. Maternal and child undernutrition: global and regional exposures and health consequences. *Lancet*, 2008, 371(9608):243-260.
12. Engle PL, Black MM, Behrman JR, Cabral de Mello M, Gertler PJ, Kapiriri L, et al. Strategies to avoid the loss of developmental

- potential in more than 200 million children in the developing world. *The Lancet*, 2007, 369(9557):229-242.
13. Bryce J, Coitinho D, Darnton-Hill I, Pelletier D, Pinstrup-Andersen P, Maternal and Child Undernutrition Study Group. Maternal and child undernutrition: effective action at national level. *The Lancet*, 2008, 371(9611):510-526.
 14. World Bank. *Repositioning nutrition as central to development: a strategy for large-scale action*. Washington: World Bank, 2007.
 15. Grantham-McGregor S, Cheung YB, Cueto S, Glewwe P, Richter L, Strupp B; International Child Development Steering Group. Developmental potential in the first 5 years for children in developing countries. *The Lancet*, 2007, 369(9557):60-70.
 16. Klein JD. Adolescent pregnancy: current trends and issues. *Pediatrics*, 2005, 116(1):281-286.
 17. Houweling TA, Caspar AE, Looman WN, Mackenbach JP. Determinants of under-5 mortality among the poor and the rich: a cross-national analysis of 43 developing countries. *International Journal of Epidemiology*, 2005, 34:1257-1265.
 18. United Nations Population Fund. *State of world's population 2007: unleashing the potential of urban growth*. New York: UNFPA, 2007.
 19. World Health Organization. *Preventing disease through healthy environments : towards an estimate of the environmental burden of disease*. Geneva: WHO, 2006.
 20. United Nations Children's Fund. *Progress for Children: A report card on water and sanitation (No. 5)*. New York: UNICEF, 2006.
 21. World Health Organization, Regional Office of the Pan Americas. *Regional strategy and plan of action for neonatal health within the continuum of maternal, newborn, and child care*. Washington: WHO-PAHO, 2008.
 22. World Health Organization. *World health report 2010: health systems financing: the path to universal coverage*. Geneva: WHO, 2010.
 23. United Nations Economic and Social Commission for Asia and the Pacific. *Achieving the health millennium development goals in Asia and the Pacific- policies and actions within health system and beyond*. New York: UNESCAP, 2007.

24. World Health Organization. *Closing the gap in a generation: health equity through action on the social determinants of health: final report of the commission on social determinants of health*. Geneva: WHO, 2008.
25. Gakidou E, Cowling K, Lozano R, Murray CJ. Increased educational attainment and its effect on child mortality in 175 countries between 1970 and 2009: a systematic analysis. *The Lancet*, 2010, 376(9745):959-974.
26. Hamadani JD, Huda SN, Khatun F, Grantham-McGregor SM. Psychosocial stimulation improves the development of undernourished children in rural Bangladesh. *Journal of Nutrition*, 2006, 136:2645-2652.
27. United Nations Children's Fund. *Narrowing the gaps to meet the goals*. New York: UNICEF, 2010.
28. Nolan T, Angos P, Cunha AJLA, Muhe L, Qazi, S, Simoes EAF, Tamburlini G, Weber M, Pierce NF. Quality of hospital care for seriously ill children in less-developed countries. *The Lancet* 2001, 357:106-10.
29. Arifeen SE, Blum LS, Hoque DME, Chowdhury EK, Khan R, Black RE, Victora CG, Bryce, J. Integrated Management of Childhood Illness (IMCI) in Bangladesh: early findings from a cluster-randomised study. *The Lancet*, 2004;364:1595-602.
30. Baqui AH, Arifeen SE, Williams EK, Ahmed S, Mannan I, Rahman SM, Begum N, Seraji HR, Winch PJ, Santosham M, Black RE, Darmstadt GL. Effectiveness of home-based management of newborn infections by community health workers in rural Bangladesh. *Pediatric Infectious Disease Journal*, 2009;28(4):304-10.
31. Acharya, LB, Cleland J. Maternal and child health services in rural Nepal. Does access or quality matter more? *Health Policy and Planning*, 2000, 15(2):223-229.

Annex 1

Selected indicators on newborn and child health

(a) Child mortality status

Country	Total population (in 000s)* 2010	Population under 5 years (in 000s)** 2010	Neonatal mortality rate*** 2011 (per 1000 LB)	Infant mortality rate*** 2011 (per 1000 LB)	Under-five mortality rate*** 2011 (per 1000 LB)	Annual no. of under-five deaths (in 000s)*** 2011
Bangladesh	148 692	14 707	26	37	46	134
Bhutan	726	71	25	42	54	1
DPR Korea	24 346	1 704	18	26	33	12
India	1 224 614	127 979	32	47	61	1 655
Indonesia	239 871	21 579	15	25	32	134
Maldives	316	26	7	9	11	0
Myanmar	47 963	3 956	30	48	62	53
Nepal	29 959	3 506	27	39	48	34
Sri Lanka	20 860	1 893	8	11	12	5
Thailand	69 122	4 361	8	11	12	10
Timor-Leste	1 124	193	24	46	54	2

Sources: * World Health Statistics 2012

** The State of the World's Children 2012

*** The UN Inter-agency Group for Child Mortality Estimation, Levels & Trends in Child Mortality, Report 2012

Note: Readers are referred to Countdown Report 2012 (published June 2012) for more recent data available for six countries in the SEA Region: Bangladesh, DPR Korea, India, Indonesia, Myanmar and Nepal.

(b) Selected indicators related to newborn health

Country	Pregnant women who received* 2005–2011		Births attended by skilled personnel (%)* 2005–2011	Births in health facility (%)** 2006–2010	Annual no. of live births (000s)** 2010	Still birth rate (per 1000 births)* 2009	Neonatal mortality rate*** 2011
	1+ ANC Visit (%)	4+ANC Visits (%)					
Bangladesh	54	23	27	23	3 038	36	26
Bhutan	74	77	58	63	15	22	25
DPR Korea	100	94	100	95	348	13	18
India	75	50	58	47	27 165	22	32
Indonesia	93	82	77	46	4 372	15	15
Maldives	99	85	95	95	5	13	7
Myanmar	83	43	71	23	830	20	30
Nepal	58	29	36	18	724	23	27
Sri Lanka	99	93	99	98	378	17	8
Thailand	99	80	99	99	838	4	8
Timor Leste	84	55	30	22	44	14	24

Sources: * World Health Statistics 2012

* World Health Statistics 2012

** The State of the World's Children 2012

*** The UN Inter-agency Group for Child Mortality Estimation, Levels & Trends in Child Mortality, Report 2012

(c) Selected immunization indicators

Country	Newborns immunized with BCG (%)** 2010	Immunization coverage among 1-year-olds (%)* 2010		Pregnant women immunized with 2 or more doses of tetanus toxoid (%)** 2010	Number of diseases covered by routine immunization* 2010
		Measles	DTP3		
Bangladesh	94	94	95	93	7
Bhutan	96	95	91	89	7
Democratic People's Republic of Korea	98	99	93	91	7
India	87	74	72	87	7
Indonesia	97	89	83	85	7
Maldives	97	97	96	95	7
Myanmar	88	88	90	93	7
Nepal	94	86	82	81	7
Sri Lanka	99	99	99	86	7
Thailand	99	98	99	91	7
Timor-Leste	71	66	72	81	7

Sources: * World Health Statistics 2012

** The State of the World's Children 2012

(d) Selected nutrition indicators

Country	Low birth weight newborns (%) 2006-2010	Early initiation of breast-feeding (%) 2006-2010	% Of children (2006-2010) who are:		% Under-five # (2006-2010) suffering from:				Vitamin a supplementation coverage (2 doses) (6-59 months) (%) 2010	% Of households consuming iodized salt 2006-2010
			Exclusively breastfed (months)	Breastfed with complementary food (6-9 months)	Underweight		Wasting	Stunting		
					Moderate & severe ⁰	Severe ¹	Moderate & severe ²	Moderate & severe ³		
Bangladesh	22	43	43	74	41	12	17	43	100	84
Bhutan	10	59	49	67	13	3	3	34	-	96
DPR Korea	6	18	65	31	19	4	5	32	99	25
India	28	41	46	57	43	16	20	48	34	51
Indonesia	9	44	32	75	18	5	14	37	80	62
Maldives	22	64	48	82	17	3	11	19	-	44
Myanmar	9	76	24	81	23	6	8	35	94	93
Nepal	21	35	53	75	39	11	13	49	91	-
Sri Lanka	17	80	76	87	21	4	15	17	85	92
Thailand	7	50	15	-	7	1	5	16	-	47
Timor-Leste	12	82	52	78	45	15	19	58	48	60

Sources: * The State of the World's Children 2012

Readers are referred to Countdown Report 2012 (published June 2012) for more recent data available for six countries in the SEA Region: Bangladesh, DPR Korea, India, Indonesia, Myanmar and Nepal

⁰ Underweight – Moderate & Severe: Proportion of children aged 0–59 months who are below minus two standard deviations from median weight for age of the WHO Child Growth Standards.

¹ Underweight – Severe: Proportion of children aged 0–59 months who are below minus three standard deviations from median for age of the WHO Child Growth Standards.

² Wasting – Moderate & Severe: proportion of children aged 0–59 months who are below minus two standard deviations from median weight for height of the WHO Child Growth Standards.

³ Stunting – Moderate & Severe: Proportion of children aged 0–59 months who are below minus two standard deviations from median height for age of the WHO Child Growth Standards.

Annex 2 Actions for strengthening health system blocks for effective scaling-up and sustenance of good-quality MNCH services

Leadership and governance

- (i) Strong, visible and consistent leadership is needed for building the investment case within national and local governments and donors and for adequate data-based prioritization of MNCH interventions.
- (ii) Countries should establish mechanisms and bodies that involve the government, non-governmental institutions, the private sector, community-based organizations and civil society, including professional organizations, for supporting and monitoring implementation.
- (iii) Appropriate policy and regulatory frameworks should ensure, through certification and periodic relicensing mechanisms, that health-care providers (including private providers) have the appropriate competencies and requisites for providing services and are held accountable for them. Health workforce associations/unions and civil society organizations and private actors are involved in planning and monitoring of interventions.
- (iv) Regulatory frameworks are also required to protect the rights to health of mothers, newborn babies and children belonging to poor population groups, minorities and other vulnerable groups. Legislation should be combined with strong political initiative, advocacy and communication strategies to fight stigma and prejudice.

Financing

- (i) Resources allocated to MNCH and nutrition and development programmes should be adequate, linked to the incremental costing of scaling up programmes and traceable within national/subnational health accounts.
- (ii) Measures should be taken to reduce out-of-pocket expenditures, particularly among the poor segments of the population. Packages of interventions along the continuum of care (see below) should be either included in social insurance schemes or subsidized based on vouchers or conditional cash transfers.
- (iii) The poorer countries or areas within countries may require substantial external funding from external donors and/or national governments to meet the requirements of the national action plan.
- (iv) Budget decentralization must be accompanied by adequate accountability systems and capacity-building for assessment, planning and management.

Health workforce

- (i) Countries should assess and review human resources requirements for the effective and timely implementation of national plans and ensure that sufficient numbers of the required health professionals, including health managers, are adequately trained and deployed, particularly in underserved areas. Countries will make a careful assessment of the most suitable delivery modes and context-specific mix of skilled health workers, volunteers, and private practitioners where the role of the private sector is prominent. Deployment may well require a package of carefully researched incentives to retain health workers in underserved areas.

- (ii) Evidence-based policy decisions should be made regarding task shifting when necessary and appropriate. The use of CHWs, for example, may be a more feasible option to ensure universal access and outreach as the health system transitions towards ensuring a higher quality standard of health professionals. Similarly, the role of midwives and nurses in MNCH services including essential antenatal and delivery care, essential newborn care, the initial triage and management of sick children could be expanded to incorporate wider responsibilities.
- (iii) Focal points at district and sub-district level should be identified to coordinate and supervise the implementation of MNCH and nutrition activities. Supportive supervisory tools and mechanisms should be included in local health-system development plans and individual and/or facility-based performance-based financial and non-financial incentives piloted and evaluated.
- (iv) Pre-service curricula should be revised, as well as in-service training of doctors, nurses and midwives, to ensure appropriate and updated focus on essential obstetric neonatal and child care, communication skills and community approaches. Training methods should be essentially based on interactive problem-based learning. Training and continuing medical education requirements for private practitioners should be established and periodically assessed.

Infrastructure and supply system

- (i) Investments in health-care facilities clearly need to be made, with particular attention to adequate infrastructure in disadvantaged areas, and to ensure adequate and timely referral systems.
- (ii) Careful identification of appropriate technologies by level of care should be made to avoid unnecessary costs,

generation of inappropriate demand and to improve rational use and maintenance.

- (iii) Affordable access to essential drugs should be promoted by encouraging the production and use of generic drugs for MNCH interventions and taking steps to implement policies to improve drug and supply procurement and planning. Appropriate regulations should ensure the supply and quality of drugs provided by the private sector.
- (iv) Regional collaboration should be promoted in research, production and distribution of medicines. Legislation on intellectual property rights should exploit, to the maximum extent possible, the flexibilities afforded to countries under the Agreement on Trade-related Aspects of Intellectual Property Rights.

Health Information Systems

- (i) HIS should be reviewed to improve data collection methods and to broaden the indicators to reflect the aspects of continuum and quality of care that need to be reinforced. Since nutrition is an important determinant of newborn and child health it must be ensured that key nutrition indicators are included in the HIS. An equity lens should be applied in data collection and analysis, including subgroups and sex-disaggregated data on births.
- (ii) As a fundamental right and a prerequisite for effective health-care and information systems, birth and death registration must become universal through incentives and conditionality, also to increase the opportunities for contact with the most hard-to-reach households and population groups.

- (iii) Capacity should be built for local analysis and interpretation of data at the local level, including mortality and critical events review by professional teams, community participation (maternal death reviews and perinatal audits), and data-based situation analysis and service planning.
- (iv) Internationally recommended surveys need to be harmonized in their timing and contents to improve information coverage, timeliness and impact, and improved in their capacity to capture the equity and quality dimensions.

Annex 3 Key interventions across continuum of care by service delivery mode

(Adopted from the WHO Package of interventions for Family Planning, Safe Abortion care, Maternal, Newborn and Child Health; and PMNCH – A Global Review of the Key Interventions Related to Reproductive, Maternal, Newborn and Child Health)

E = Essential care to be ensured universally

S = Situational, depending on epidemiological context

A = Advanced care, based on health-system capacity

Interventions	Home-/Community-based services		Individual-oriented clinical services	
	Family-oriented community-based services	Population-oriented schedulable services	First-level health-facility-based services ^a	Referral-level services
Preconception care				
Provision of full range of family planning methods and related counseling	E	E	E	E
HIV prevention, testing and counseling ^b	S	S	S	E
STI prevention and management	E	E	E	E
Information on avoidance of alcohol and tobacco	E	E	E	E
Peri-conceptional folic acid	E	E	E	E
Genetic counseling			A	A
Pregnancy care^c				
Antenatal package (4+visits)	E	E	E	
Iron-folic acid supplements	E	E	E	E
Tetanus Immunization		E	E	E
Deworming		S	S	S

^a Whether some services are placed only at referral level or also at first level depends on characteristics of the health systems

^b HIV testing is available at referral level only in some countries

^c Please refer for full list of interventions during pregnancy and childbirth to "PMNCH 2011: A Global Review of the Key Interventions related RMNCH"

Interventions	Home-/Community-based services		Individual-oriented clinical services	
	Family-oriented community-based services	Population-oriented schedulable services	First-level health-facility-based services ^a	Referral-level services
Advice on avoidance of medications during first trimester; Avoidance of alcohol and tobacco during pregnancy; Control of diabetes during pregnancy	E	E	E	
Screening and treatment for syphilis			E	E
Prenatal test for birth defects				A
Antibiotics for preterm prelabour rupture of membranes			E	E
Costicosteroids to prevent respiratory distress syndrome in preterm babies			E	E
Childbirth care including postpartum care				
Skilled attendance at birth	E		E	E
Detection and management of common obstetric complications			E	E
Neonatal resuscitation			E	E
Early and exclusive breastfeeding	E		E	E
Home visits in postnatal period (within 48 hours from discharge)	E			
Prevention of neonatal hypothermia, and infections, including hand washing with soap, hygienic cord and skin care	E		E	E
Identification and care of LBW (including Kangaroo Mother Care and Feeding support) and sick infants, referral when appropriate	E		E	E
Provision of neonatal intensive care, including the use of surfactant (for preterm), assisted ventilation, presumptive antibiotics for the risk of bacterial infection				A

Interventions	Home- / Community-based services		Individual-oriented clinical services	
	Family-oriented community-based services	Population-oriented schedulable services	First-level health-facility-based services ^a	Referral-level services
Provision of obstetric care for severe complications, including caesarean section as indicated to save the life of the mother/baby				E
PMCT	S		S	S
Case management of neonatal jaundice, sepsis, meningitis and pneumonia			E	E
Infancy and childhood care				
Exclusive breastfeeding for infants up to 6 months	E	E	E	E
Complementary feeding	E		E	E
Therapeutic feeding of severely acutely malnourished children	E		E	E
Advise on stimulation and play for early childhood development	E	E	E	E
Immunizations basic schedule		E	E	E
Immunizations expanded schedule (newer vaccines)		A	A	A
Iron-folic acid supplementation	E		E	E
Vitamin A supplementation from 6 months of age ^d	S	S	S	
Prevention of diarrhea through WASH activities	E	E	E	E
Prevention of pneumonia through avoidance of indoor air pollution	E			
Advice on prevention of child injuries	A		A	

^d Please refer to "WHO-2011. Guideline: Vitamin A supplementation in infants and children 6-59 months of age."

Interventions	Home-/Community-based services		Individual-oriented clinical services	
	Family-oriented community-based services	Population-oriented schedulable services	First-level health-facility-based services ^a	Referral-level services
ORT/Zinc for treatment of diarrhea	E		E	E
Treat pneumonia with antibiotics	E		E	E
Vitamin A – Treatment for measles			E	E
Malaria prevention and treatment	S	S	S	S
Regular deworming		S	S	S
Antibiotic for dysentery			E	E
Treatment of severe disease: pneumonia, diarrhea, malaria, measles, meningitis				E
Management of complicated severe acute malnutrition				E
HIV early detection and treatment			S	E
Comprehensive care of children infected with, or exposed to, HIV			S	E

Further reading materials and weblinks

1. The Partnership for Maternal, Newborn & Child Health. 2011. *A global review of the key interventions related to reproductive, maternal, newborn and child health (RMNCH)*. Geneva: PMNCH, 2011. http://www.who.int/pmnch/topics/part_publications/essentialinterventions14_12_2011low.pdf - accessed 11 May 2012.
2. United States Agency International Development. *Two decades of progress: USAID'S child survival and maternal health program*. Washington: USAID. http://pdf.usaid.gov/pdf_docs/PDACN044.pdf - accessed 11 May 2012.
3. Kerber KJ, de Graft-Johnson JE, Bhutta ZA, Okong P, Starrs A, Lawn JE. Continuum of care for maternal, newborn, and child health: from slogan to service delivery. *Lancet*, 2007, 370(9595):1358-1369.
4. United Nations Children's Fund. The continuum of care across time and location: Risks and opportunities. In: UNICEF. *The state of the world's children 2009: maternal and newborn health*. New York: UNICEF, 2009. pp 45-66. <http://www.unicef.org/sowc09/docs/SOWC09-FullReport-EN.pdf> - accessed 11 May 2012.
5. United States Agency International Development. *An analytical report on female community health volunteers of selected districts of Nepal*. Kathmandu: USAID, 2008. http://pdf.usaid.gov/pdf_docs/PNADN017.pdf - accessed 11 May 2012.
6. World Health Organization. *Pocket book of hospital care for children : guidelines for the management of common illnesses with limited resources*. Geneva: WHO, 2005.
7. World Health Organization, Western Pacific Region. *Newborn care until the first week of life: clinical practice pocket guide*. Manila: WHO-WPRO, 2009.
8. Pasha O, Goldenberg RL, McClure EM, Saleem S, Goudar SS, Althabe F. Communities, birth attendants and health facilities: a continuum of emergency maternal and newborn care (the Global Network's EmONC trial). *BMC Pregnancy and Childbirth*, 2010, 10:82.
9. Lassi ZS, Haider BA, Bhutta ZA. Community-based intervention packages for reducing maternal and neonatal morbidity and mortality and improving neonatal outcomes. *Cochrane Database of Systematic Reviews*, 2010, Nov 10; (11):CD007754.

10. World Health Organization and United Nations Children's Fund. *WHO/UNICEF joint statement: home visits for the newborn child: a strategy to improve survival*. Geneva/New York: WHO/UNICEF, 2009. http://whqlibdoc.who.int/hq/2009/WHO_FCH_CAH_09.02_eng.pdf -
11. Nair N, Tripathy P, Prost A, Costello A, Osrin D. Improving Newborn Survival in Low-Income Countries: Community-Based Approaches and Lessons from South Asia. *PLoS Medicine*, 2010, Apr 6; 7(4):e1000246.
12. Maternal Health Task Force, UNFPA, AMDD. *Improving transportation and referral for maternal health: knowledge gaps & recommendations: technical report: May 19, 2010*. http://www.amddprogram.org/d/sites/default/files/Giovine%20and%20Ostrowski_2010_Transport%20referral%20meeting_technical%20report.pdf - accessed 11 May 2012.
13. World Health Organization. *Increasing access to health workers in remote and rural areas through improved retention: global policy recommendations*. Geneva: WHO, 2010.
14. Lee AC, Lawn JE, Cousens S, Kumar V, Osrin D, Bhutta ZA, et al. Linking families and facilities for care at birth: what works to avert intrapartum-related deaths? *International Journal of Gynecology and Obstetrics*, 2009, 107 Suppl 1:S65-85, S86-8.
15. Oestergaard MZ, Inoue M, Yoshida S, Mahanani WR, Gore FM, Cousens S, et al. Neonatal mortality levels for 193 countries in 2009 with trends since 1990: a systematic analysis of progress, projections, and priorities. *PLoS Medicine*, 2011, Aug; 8(8):e1001080.
16. Beck S, Wojdyla D, Say L, Betran AP, Merialdi M, Requejo JH, Rubens C, Menon R, Van Look PF. The worldwide incidence of preterm birth: a systematic review of maternal mortality and morbidity. *The Bulletin of the World Health Organization*, 2010, 88(1):31-38.
17. Dolea C, Stormont L, Braichet JM. Evaluated strategies to increase attraction and retention of health workers in remote and rural areas. *The Bulletin of the World Health Organization*, 2010, 88:379-385.
18. United Nations Children's Fund. *A continuum of care for adolescent girls in South Asia: defining the issues, synthesizing evidence, and working towards a policy agenda*. Kathmandu: UNICEF Regional Office for South Asia, 2010.

19. United Nations Children's Fund. *Tracking progress on child and maternal nutrition: a survival and development priority*. New York: UNICEF, 2009.
20. International centre for research on women. *Solutions to end child marriage: what the evidence shows*. Washington: ICRW, 2011.
21. World Health Organization. *Monitoring emergency obstetric care: a handbook*. Geneva: WHO, 2009. http://whqlibdoc.who.int/publications/2009/9789241547734_eng.pdf - accessed 14 May 2012.
22. World Health Organization. *Essential interventions, commodities and guidelines for reproductive, maternal, newborn and child health*. Geneva: WHO, 2011. http://www.who.int/pmnch/topics/part_publications/201112_essential_interventions/en/index.html - accessed 14 May 2012.
23. World Health Organization. *Packages of interventions for family planning, safe abortion care, maternal, newborn and child health*. Geneva: WHO, 2010. http://whqlibdoc.who.int/hq/2010/WHO_FCH_10.06_eng.pdf - accessed 14 May 2012.
24. Imdad A, Yakoob MY, Bhutta ZA. Effect of breastfeeding promotion interventions on breastfeeding rates, with special focus on developing countries. *BMC Public Health*, 2011, Apr 13; 11(Suppl 3):S24.
25. World Health Organization. *Systems thinking for health systems strengthening*. Geneva: WHO, 2009. http://whqlibdoc.who.int/publications/2009/9789241563895_eng.pdf - accessed 14 May 2012.
26. Schäferhoff M, Schrade C, Yamey G. Financing maternal and child health--what are the limitations in estimating donor flows and resource needs? *PLoS Medicine*, 2010, Jul 6; 7(7):e1000305.
27. United Nations Children's Fund. *Narrowing the gap to meet the goals*. New York: UNICEF, 2010.
28. The World Bank. *Attacking inequity in the health sector: a synthesis of evidence and tools*. Washington: The World Bank, 2009.

29. Mulholland E, Smith L, Carneiro I, Becher H, Lehmann D. Equity and child-survival strategies. *Bulletin of the World Health Organization*, 2008, 86(5):399-407.
30. Kruk ME, Prescott MR, de Pinho H, Galea S. Equity and the child health Millennium Development Goal: the role of pro-poor health policies. *Journal of Epidemiology & Community Health*, 2011, 65(4):327-333.
31. Houweling TA, Kunst AE, Huisman M, Mackenbach JP. Using relative and absolute measures for monitoring health inequalities: experiences from cross-national analyses on maternal and child health. *International Journal for Equity in Health*, 2007, 6:15.
32. Barros FC, Victora CG, Scherpbier R, Gwatkin D. Socioeconomic inequities in the health and nutrition of children in low/middle income countries. *Rev Saúde Pública*, 2010, 44(1):1-16
33. Althabe F, Bergel E, Cafferata ML, Gibbons L, Ciapponi A, Alemán A, Colantonio L, Palacios AR. Strategies for improving the quality of health care in maternal and child health in low- and middle-income countries: an overview of systematic reviews. *Paediatric and Perinatal Epidemiology*, 2008, 22 (Suppl 1):42-60.
34. World Health Organization, Regional Office for Europe. Making pregnancy safer: *assessment tool for the quality of hospital care for mothers and newborn babies*. Copenhagen: WHO-EURO, 2009.
35. Silimperi DR, Franco LM, Veldhuyzen van Zanten T, MacAulay C. A framework for institutionalizing quality assurance. *International Journal for Quality in Health Care*, 2002, 14 (Suppl 1):67-73.
36. Acuin CS, Khor GL, Liabsuetrakul T, Achadi EL, Htay TT, Firestone R, Bhutta ZA. Maternal, neonatal, and child health in southeast Asia: towards greater regional collaboration. *The Lancet*, 2011, 377(9764):516-525.
37. Bhutta ZA, Chopra M, Axelson H, Berman P, Boerma T, Bryce J. Countdown 2015 decade report Countdown to 2015 decade report (2000–10): taking stock of maternal, newborn, and child survival. *The Lancet*, 2010, 375(9730):2032-2044.
38. Darmstadt GL, Walker N, Lawn JE, Bhutta ZA, Haws RA, Cousens S. Saving newborn lives in Asia and Africa: cost and impact of phased scale-up of interventions within the continuum of care. *Health Policy and Planning*, 2008, 23(2):101-117.

39. Victora CG, Hanson K, Bryce J, Vaughan JP. Achieving universal coverage with health intervention. *The Lancet*, 2004, 364(9444):1541-1548.
40. World Health Organization. *Investing in maternal, newborn and child health: the case for Asia and the Pacific*. Geneva: WHO. <http://www.who.int/pmnch/topics/investinginhealth.pdf> - accessed 15 May 2012.
41. Teerawichitchainan B, Phillips JF. Ethnic differentials in parental health seeking for childhood illness in Vietnam. *Social Science and Medicine*, 2008, 66(5):1118-1130.

Despite a significant improvement in child mortality, the South-East Asia (SEA) Region is unlikely to achieve the Millennium Development Goal (MDG) 4 target and needs significant improvement in maternal, newborn and child health (MNCH) programmes in Member States. The broad objective of the WHO–UNICEF joint South-East Asia Regional Strategic Framework for Improving Neonatal & Child Health and Development is to guide and assist Member States to develop or strengthen their national strategies and plans to improve newborn and child survival, reduce the burden of child morbidity and disability and promote child health and development.

The Strategic Framework encourages Member States to incorporate an equitable child health and development perspective into policies and actions within the health system and emphasizes that the implementation requires multisectoral collaboration. Member States are encouraged to use local situation assessment, improve convergence within Health Programmes, and to strengthen health systems and enhance the capacity in planning and management of the child health programmes for the scaling up of evidence-based interventions for child health and development.

The Framework presents a brief Regional situational analysis that has been used to form the basis for appropriate strategies for child and neonatal health. A brief analysis of the broader determinants beyond the health system such as safe drinking-water, sanitation and hygiene, education, gender, is also included, as well as an analysis of coverage levels of existing interventions that helps identify gaps and missed opportunities for strengthening health systems.

The Framework is based upon principles of child rights and equity. It highlights the need to think about the whole child, not just their health. The Framework uses the principle of continuum of care across the life-course, from pre-conception through pregnancy, childbirth, the postnatal period, infancy, childhood and adolescence. Such a holistic approach is important since maternal, neonatal and child health are closely linked with each other, not only intrinsically, but also programmatically. It emphasizes that the services must be organized through a process that preserves functional continuity across different levels of health-care delivery from home/community to first-level health centres and referral hospitals.

This Framework is intended to be the basis for subsequent joint WHO–UNICEF country support for Member States in the WHO SEA Region for newborn and child health and development.



Regional Office for South-East Asia
World Health House
Indraprastha Estate,
Mahatma Gandhi Marg,
New Delhi-110002, India
Web site: www.searo.who.int

