

The Republic of the Union of Myanmar

Ministry of Health

Department of Public Health

Child Health Division

**National Strategic Plan**  
for  
**Newborn**  
and  
**Child Health Development**  
(2015-2018)



**N**ational **S**trategic **P**lan  
for  
**N**ewborn  
and  
**C**hild **H**ealth **D**evelopment  
(2015-2018)



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# List of Acronyms

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AAAQ	Availability, Accessibility, Acceptability and Quality
AIDS	Acquired Immune Deficiency Syndrome
AMW	Auxiliary Midwife
ANCARBO	Antenatal careArbo Virus
ARIART	Acute Respiratory InfectionAnti Retroviral Therapy
ARR	Annual Rate of Reduction
BCC	Behaviour Change Communication
BHSBMS	Basic Health StaffBreast Milk Substitute
C4D	Communication for Development
CBNCB	Community Based Newborn Care
CCM/iCCM	integrated Community Case Management
CEU	Central Epidemiology Unit
CHCHD	Child HealthChild Health Development
CHW	Community Health Worker
CLTS	Community Led Total sanitation
cMYP	Comprehensive Multi-Year Plan
CSO	Civil Society Organization
COIA	Commission on Information & Accountability
DHF	Dengue Haemorrhagic Fever
DHS	Demographic and Health Survey
DoH	Department of Health
DPT	Diphtheria Pertussis Tetanus
DQA	Data Quality Audit
DRR	Disaster Risk Reduction
ECD	Early Childhood Development
ECCD	Early Care and Childhood Development
ECI	Early Childhood Intervention
EENC	Early Essential Newborn Care
EmONC	Emergency Obstetric and Newborn Care

ENAP	Every Newborn Action Plan
EPI	Expanded Programme for Immunization
FDA	Food and Drug Administration
GAPPD	Global Action Plan for Pneumonia and Diarrhoea
GDP	Gross Domestic Production
GGE	General Government Expenditure
HA	Health Assistant
HiB	Haemophilus Influenza B
HH	Household
HMIS	Health Management Information System
HNU	Hospital Nutrition Unit
HSCHR	Health Sub-centreHuman Resources
HSS	Health Systems Strengthening
HTR	Hard to reach
iCCM	Integrated Community Case Management
IEC	Information Education and Communication
IGME	Interagency Group for Child Mortality Estimation
IHLCA	Integrated Household Living Conditions Assessment
IMCI	Integrated Management of Childhood Illnesses (facility/community)
IMNCI	Integrated Management of Newborn and Childhood Illnesses
IMR	Infant Mortality Rate
INGO	International Non-Governmental Organization
IPC	Inter-Personal Communication
IPT	Intermittent Preventative Treatment
IRS	Indoor Residual Spraying
ITN	Insecticide Treated Nets
IYCF	Infant and Young Child feeding
JRF	Joint Reporting Format
KMC	Kangaroo Mother Care
LBW	Low Birth Weight
LNGO	Local Non-Governmental Organization

MARC	Myanmar Artemisinin Resistance Containment
M and E	Monitoring and Evaluation
MCH	Maternal and Child Health
MCV	Measles Containing Vaccine
MDG	Millennium Development Goal
MDR	Multi Drug Resistance
MHSCC	Myanmar Health Sector Coordinating Committee
MICS	Multiple-Indicator Cluster Survey
MMCWA	Myanmar Maternal and Child Welfare Association
MMK	Myanmar Kyat
MNCH	Maternal, Newborn & Child Health
MoH	Ministry of Health
MW	Midwife
NBC	Newborn Care
NCHP	Newborn and Child Health Programme
NGO	Non-government Organization
NHC	National Health Committee
NN	Neonatal
NNC	National Nutrition Centre
ODA	Official Development Assistance
OHT	One Health Too
OOP	Out of Pocket
ORS	Oral Rehydration Salts
ORT	Oral Rehydration Therapy
PMCT	Prevention of Mother to Child transmission
PNC	Post Natal Care
PPP	Public Private Partnership
RDT	Rapid Diagnostic test
RH	Reproductive Health
RHC	Rural Health Centre
RMNCAH	Reproductive, Maternal Newborn Child and Adolescent Health

SAM	Severe Acute Malnutrition
SHI	Social Health Insurance
SOP	Standard Operating Procedures
SPR	Short Programme Review
SQA	Service Quality Assessment
SRHC	Sub-Rural Health Centre
STP	Standard Treatment Protocols
SUN	Scale Up Nutrition
TB	Tuberculosis
TMO	Township Medical Officer
TSG	Technical Strategic Group
U5MR	Under-five Mortality Rate
UHC	Universal Health Coverage
UN	United Nations
UNICEF	United Nations Children's Fund
VBDC	Vector Borne Diseases Control
VLBW	Very Low Birth Weight
WASH	Water, Sanitation & Hygiene
WCHD	Women and Child Health Development
WHO	World Health Organization



# Executive Summary

The Ministry of Health (MoH) led the development of the Newborn and Child Health Strategic Plan, with technical collaboration from the World Health Organization (WHO) and the United Nations Children's Fund (UNICEF). A short review was undertaken to ascertain the status of newborn and child health programmes and to identify the current strengths and gaps to be addressed. Several meetings and a participatory national workshop followed, with a wide variety of stakeholders, to build consensus on the strategy within the Health Systems Strengthening (HSS) framework.

The strategic plan is broadly divided in two parts. Part one has the contextual information, situational analysis, goal, objectives, major strategic directions, guiding principles and targets. Part two consists of the list of interventions by delivery mode, prioritized thrust areas, strategies with indicative activities, strategic information, indicators, implementation mechanism and costing methodology.

The main thrust areas of the strategic plan are identified based on epidemiological profile, high impact interventions and current status. These are (a) newborn care, (b) management of common illnesses, (c) engaging communities/communications for newborn and child survival and cross-sectoral coordination.

The specific objectives of the plan are to:

- Scale up evidence-based, cost effective interventions through effective strategies within a HSS approach and provide equitable coverage with quality.
- Reduce neonatal mortality by improved home-based newborn care, early identification of sick newborns and improved access to institutional newborn care of adequate quality.
- Reduce common childhood illness related mortality (due to pneumonia and diarrhoea in all areas and malaria in endemic areas) by improving key family and community practices, community-based early diagnosis and management and referral care for complicated cases.

Three broad strategies for achieving the above stated objectives are:

- **Strengthening health systems for the provision of newborn and child health services.** The sub-strategies include creating an enabling environment, increasing the

availability of skilled providers and supplies, and to increase the availability and utilization of health management information.

- **Improving access to quality newborn and child health services.** Sub-strategies include prioritizing underserved areas, task shifting, increasing access, improving performance and strengthening referral.
- **Improving demand and utilization by engaging families and communities.** Sub-strategies include implementation of a newborn and child survival Communication for Development (C4D) plan, community mobilization and support for community volunteers.

The newborn and child health plan will be implemented through a continuum of care from the community to facility level and include the provision of home-based newborn and child care through community volunteers, midwives, Non-government Organizations (NGOs) e.g. Myanmar Maternal and Child Welfare Association (MMCWA). Community level care for acute respiratory infections/pneumonia, diarrhoea, and fevers would be scaled up as a medium term measure with a strong community empowerment component. Facility Integrated Management of Childhood Illnesses (IMCI) would be expanded for the treatment of common newborn and childhood illnesses (IMNCI).

Facility level readiness for newborn and young children referred for care is critical for their survival and is therefore emphasized in the plan. Early essential newborn care at all facilities through skilled personnel with standard supplies will be ensured, in a phased manner. Facility based care for small and sick newborns will be strengthened through newborn/childcare units at hospitals. The recently developed Myanmar-specific Every Newborn Action Plan (ENAP) is integrated in this strategic plan.

The national Overarching Communication Strategy and Action Plan on Child Survival has prioritized key family practices and will guide the nationwide efforts for the community engagement and empowerment needed for the improvement of newborn and child health.

A broad cross-sectoral approach is recommended for the plan, with collaboration within the MoH and across other sectors. The expanding partnership consists of professional associations, United Nations (UN) agencies, donors and civil society organizations including international and local NGOs. The bilateral organization is coordinated by the Myanmar Health Sector Coordinating Committee (MHSCC) and its thematic/technical working group. Operational plan(s) will be developed based on this strategic plan to translate the broad activities identified to actionable and costed activities at sub-national level, for newborn and child health, with a focus on equity. The implementation of the plan will be monitored, it is suggested, through a series of outcome- and output-level indicators. A mid-term review and course correction will be necessary in a rapidly evolving programming context.



# 1. Background; Contextual Information

## 1.1 Topography, Administrative Divisions and Demographic Situation

The Republic of the Union of Myanmar, located on the Bay of Bengal and Andaman Sea, is approximately the size of France and England combined. Myanmar is bordered by Bangladesh, India, China, Laos and Thailand on the landward side and has 1760 miles of coastline.

The country is divided administratively, into Nay Pyi Taw Union Territory and 14 States and Regions. It consists of 70 Districts, 330 Townships, 84 Sub-townships, 3,063 Wards, 13,618 Village tracts and 64,134 Villages<sup>1</sup>. Myanmar has three well marked natural divisions; the hills and Shan plateau (Shan, Chin, Kachin, Kayin and Kayah), the delta (Yangon, Bago and Ayeyarwady) besides central plains (Mandalay, Sagaing and Magway) and coastal areas (Mon, Rakhine and Tanintharyi). This topography has practical programming implications for universal coverage.

The Republic of the Union of Myanmar is made up of 135 national races speaking over 100 languages and dialects. The major ethnic groups are Kachin (12 races), Kayah (9 races), Kayin (11 races), Chin (53 races), Bamar (9 races), Mon (1 race), Rakhine (7 races) and Shan (33 races). Based on the 1983 population census, about 90 per cent of the population is Buddhist and around five per cent Christian.

According to the Department of Population, the Ministry of Immigration and the 2014 Myanmar Census, the population of Myanmar is estimated at 51.419 million, with a growth rate of 1.01 per cent and a sex ratio of 98.9 males per 100 females. The majority of the population resides in rural areas and the average population density is 89 per square kilometer, with wide variations.

8.2 per cent of the total population is estimated to be children under five years of age<sup>2</sup> but according to the Census, the corresponding figure is ten per cent<sup>3</sup>.

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<sup>1</sup> Ministry of Health (2013) Health in Myanmar 2013.

<sup>2</sup> Department of Health (DoH) (2013) Activity work plan of DoH for accelerating and scaling up activities to reduce under-five mortality in Myanmar.

<sup>3</sup> Census Report (2014) Government of Myanmar.

## 1.2 Socioeconomic development

The Gross Domestic Production (GDP) growth rate in the last ten years has been above ten per cent<sup>4</sup> (at constant producers price). This is reflected in poverty levels. According to two consecutive Integrated Household Living Conditions Assessment Surveys (IHLCA)<sup>5</sup> in 2005 and 2010, the overall incidence of poverty was reduced from 32.1 per cent to 25.6 per cent in five years.

The development of the social sector has received renewed focus in the last few years. Expenditures for health and education have increased considerably, which is critical for improving access and equity to social services. Twenty-four special development regions have been designated across the country, in areas where health and education facilities are being upgraded (as a part of reducing inequity) according to Health in Myanmar 2013<sup>6</sup>.

## 1.3 The Health Care System in Myanmar

The Ministry of Health (MoH) is responsible for the provision of comprehensive health services. The Union Minister of Health heads the MoH with the assistance of two Deputy Health Ministers. Newborn and child health related interventions are implemented by the Department of Public Health in close collaboration with the Department of Medical Care. Within the Department of Public Health there is a newly created Child Health Division headed by a Director.

There are 330 townships that form the principal units for planning and implementing of health services up to each village/urban ward level (since March 2015). For health services delivery each township has several Rural Health Centres (RHC) (at an average population of 20,000 to 30,000) further subdivided into sub-health centers for a cluster of villages (serving 3,000 to 10,000 populations). Community volunteers e.g., Community Health Workers (CHWs) and Auxiliary Midwives (AMWs) at village level are a critical link between the community and formal public health system.

The three delivery modes for high impact newborn and child survival interventions suggested in this strategic plan are in line with the current health care system.

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<sup>4</sup> Central Statistical Organization (CSO) 2011 Statistical Year Book 2011.

<sup>5</sup> Ministry of National Planning and Economic Development, SIDA, UNDP and UNICEF, Integrated Household Living Conditions Survey in Myanmar 2009-2010.

<sup>6</sup> Ministry of Health (2013) Health in Myanmar 2013

## 1.4 Health Legislation and Policy

This section summarizes the constitutional provision, national health policy, health vision and national health plan which together form the foundation for this strategic plan.

### 1.4.1 Constitutional Provision

The following policy guidelines relate to the health sector in the Constitution of the Republic of the Union of Myanmar (2008):

- **Article 28** The Union shall (a) earnestly strive to improve education and health of the people; (b) Enact the necessary law to enable National people to participate in matters of their education and health;
- **Article 32** The Union shall (a) care for mothers and children, orphans, fallen defence services personnel's children, the aged and the disabled;
- **Article 351** Mothers, children and expectant women shall enjoy equal rights as prescribed by law.
- **Article 367** Every citizen shall, in accord with the health policy laid down by the Union, have the right to health care.

### 1.4.2 Myanmar Health Policy 1993

The National Health Policy was developed with the initiation and guidance of the National Health Committee (NHC) in 1993 and placed the "Health for All" goal as the prime objective, using a primary health care approach.

The NHC is a high level inter-ministerial and policy-making body concerning health matters. This committee takes a leadership role and gives guidance in systematically and efficiently implementing the health programmes. It also provides the mechanism for inter-sectoral collaboration and coordination.

Under the leadership and guidance of the NHC, the MoH has been planning and implementing interventions to improve the health status of mothers, newborns and children.

### 1.4.3 Myanmar Health Vision 2013

It aims to; (a) improve the health status of the population, (b) eradicate communicable diseases as public health problems, predict emerging disease problems and make the necessary arrangements for their control, (c) ensure universal coverage of health services for the entire nation, (d) train and

produce all categories of human resources for health within the country, modernize traditional Myanmar medicine and encourage more extensive utilization, (e) develop medical and health research to reach international levels, (f) ensure the availability of quality essential medicines and traditional medicines within the country, and (g) develop a health system in keeping with the changing political, economic, social and environmental situation and with changing technology.

#### 1.4.4 National Health Plan (2011-2016)

The MoH has formulated a National Health Plan (2011-2016), which was prepared within the framework of the National Development Plans for the corresponding period. National plans and strategic approaches in the key programme areas contribute to the realization of the overarching national development plans, including Maternal, Newborn and Child Health (MNCH). The current National Health Plan prioritizes MNCH, communicable diseases and HSS, as well as sector-wide coordination.

### 1.5 Health Financing

Sources of finance for health care are; the government, private households, the social security system, community contributions and external aid. The government has increased health spending on both their current and capital accounts. According to published data<sup>7</sup>, total government health expenditure increased from 7,688 million Myanmar Kyat (MMK) in 2000-2001, to 100,825 million MMK in 2011-2012.

Similarly, government health expenditure as a percentage of GDP and General Government Expenditure (GGE) reveals an increasing trend of health expenditure as a proportion of GGE<sup>8</sup>. See the following table:

Table 1. Government Health Expenditure as per cent of GDP and GGE

Financial Year	Government Health Expenditure as per cent of GDP	Government Health Expenditure as per cent of GGE
2010- 2011	0.20	1.03
2011-2012	0.21	1.05
2012-2013	0.76	3.14

(Source: Financial Allocation to Social Budget, Social Protection Conference, Nay Pyi Taw June 2012.)

<sup>7</sup> MoH 2013 Health in Myanmar.

<sup>8</sup> MoH 2012 Financial Allocation to Social Budget, Social Protection Conference, Nay Pyi Taw June 2012.

However, out of pocket (OOP) expenses in Myanmar are among the highest globally, going from 99 per cent in 2005 to 92 per cent in 2010, constituting almost all of the health expenditure in Myanmar<sup>9</sup>.

Compared with nearby South-East Asian countries, Myanmar received the lowest level of official development assistance (ODA) of US\$338.84 million in 2010. The ODA for health per capita was the lowest, compared to Cambodia and Lao PDR. Moreover, the ODA received for health-related purposes in Myanmar went mainly toward programmes related to the Millennium Development Goal 6 (MDG6); 67.5 per cent, with only 8.6 per cent going toward reproductive health and family planning, in 2009<sup>10</sup>. The funding shortfalls are reflected in the health outputs for maternal and child health. There are currently no regular and systematic estimates for the reproductive age group.

## 1.6 Human and Infrastructure Resources for Child Health

There has been a constant expansion of human and health infrastructure in Myanmar. This is detailed in the following two tables on health manpower and health facilities<sup>11</sup>. Information on volunteers such as CHWs and AMWs is detailed later.

**Table 2. Availability of Health Manpower**

Health Manpower	1988-89	2008-09	2009-10	2010-11	2011-12	2012-13
Total no. Doctors	12,268	23,740	24,536	24,435	28,077	29,832
Public	4,377	9,583	9,728	10,450	11,675	12,800
Private	7,891	14,157	14,808	15,985	16,402	17,032
Nurses	8,349	22,885	24,242	25,644	26,928	28,254
Health assistants	1,238	1,822	1,845	1,883	1,893	2,013
Female Health Visitor	1,557	3,238	3,278	3,344	3,371	3,397
Midwives	8,121	18,543	19,051	19,556	20,044	20,617
Health Supervisor 1	487	529	529	541	612	677
Health Supervisor 2	674	1,484	1,645	2,080	1,718	1,850

<sup>9</sup> WHO: Global Health Observatory, Official Development Assistance (ODA) recipient country profiles, 2000–2010. Available at: [http://www.who.int/gho/governance\\_aid\\_effectiveness/countries/en](http://www.who.int/gho/governance_aid_effectiveness/countries/en)

<sup>10</sup> World Bank: Myanmar Interim Strategy note for the period FY13-14. Washington, D.C: World Bank; 2012.

<sup>11</sup> MoH Health in Myanmar 2013.

**Table 3. Availability of Health Facilities**

Health Manpower	1988-89	2008-09	2009-10	2010-11	2011-12	2012-13
Government Hospitals	631	846	871	924	987	1,010
Total Hospital beds	25,309	38,249	39,060	43,789	54,503	55,305
# of primary & secondary Health Centres	64	86	86	86	87	87
# of MCH Centres	348	348	348	348	348	348
# of Rural Health Centres	1,337	1,481	1,504	1,558	1,565	1,635

From the above tables it is clear that there has been around a nine per cent increase in RHC compared with a 41 per cent increase in hospital beds, since the last five-year Child Health Strategic Plan, possibly underlying facility based curative bias. There are plans to further expand the human and health infrastructure with the aim of universal coverage for MNCH over a period of time.

## 1.7 Partnerships in Child Health

According to Health in Myanmar (2014) there are 57 International and 14 national NGOs working in the health sector in the country. Stakeholders for newborn and child health have significantly increased in Myanmar over the last few years.

Several national programmes (as detailed below) are supporting child health interventions across many MoH departments and sections. Closer collaboration is also being sought from many related Ministries within the government, e.g., Education and Social Welfare.

A partnership with relevant professional organizations like those of paediatrics, obstetrics and gynaecology, nurses and health assistants associations etc., provide critical technical and operational support to the Newborn and Child Health Programme (NCHP).

The NCHP collaborates closely with UN agencies, especially WHO and UNICEF. There are several international and national NGOs who are implementing newborn and child health related activities in the country.

Strengthening partnerships between governments and the private sector could help to mobilize additional resources and expertise and thus expand the range of health care providers. However,

the need for adequate regulatory frameworks to ensure that private providers (both for profit and non-profit) meet the essential capacity, quality and accountability, is critical. Where there are public sector gaps at a given level of service delivery, based on the mapping, available NGOs/partners need to be considered.

## 1.8 Programmes and Projects for Newborn and Child Health Development (CHD)

There are some high impact interventions capable of reducing child mortality by more than half, if the coverage is near universal. These were first identified and published in the child survival series of *The Lancet*<sup>12 13</sup>. There are several units within the MoH responsible for implementing the following illustrative list of high-impact interventions for newborn and child health:

Table 4. High Impact Interventions and Relevant MOH Units

Sr No	Intervention	Relevant MOH Unit
1	Early initiation and exclusive breastfeeding up to six months	Nutrition, CHD
2	Safe and appropriate complementary feeding at 6 months with continued breastfeeding up to 2 years and beyond	Nutrition, CHD
3	Vitamin A supplementation	Nutrition
4	DPT3/ Pentavalent Immunization	EPI unit
5	Measles Immunization	EPI unit
6	Neonatal Tetanus Prevention	EPI unit
7	Oral Rehydration Therapy (ORT) and Zinc for diarrhoea	CHD, Medical Care unit
8	Antibiotics for dysentery	CHD, Medical Care unit
9	Sleeping under an insecticide-treated bed net (malaria endemic areas)	Malaria/VBDC unit
10	Anti-malarial treatment for children	Malaria/VBDC unit
11	Management of severe acute malnutrition	Nutrition
12	Prevention of Mother to Child Transmission of HIV	NAP unit
13	Management of HIV exposed and HIV infected children	NAP unit

<sup>12</sup> Jones G, Steketee RW, Black RE et al. How many child deaths can we prevent this year? *The Lancet* 2003; 362: 65-71.

<sup>13</sup> The Bellagio Group for Child Survival: Knowledge into action for child survival. *The Lancet* 2003; 362:323-327

14	Birth spacing of 24 months or more	MRH
15	Antibiotic treatment of Pneumonia	CHD, Medical Care
16	ANC and skilled attendance at birth	MRH and CHD
17	Post-natal care for newborn and Mother	CHD and MRH
18	Use of improved drinking water source	WASH programme
19	Use of improved sanitation facilities	WASH programme
20	Handwashing and proper disposal of faeces	WASH programme
21	Early Childhood Development	CHD, Nutrition, EPI, NAP, MRH

The high impact interventions listed above are packaged into various programmes as detailed below. This highlights the need for continued close collaboration within various units in the MoH to ensure integration of services at the operational level and to avoid duplication.

## MOH Programmes Contributing to Newborn and Child Health and Related Strategic Plans

Several programmes within the MoH directly contribute to various components of newborn and child health, having discrete strategic plans and resources as listed below:

Table 5. MoH Programmes and Related Strategic Plans Contributing to Child Health

#	Programme	Related Strategic Plan
1	Maternal Health and Immediate Newborn Care	Five-Year Strategic Plan for reproductive Health (2014-2018)
2	Maternal and Child Nutrition	National Food and Nutrition Plan National IYCF Strategy
3	Expanded Programme on Immunization	Comprehensive Multi-Year Plan (cMYP)
4	Prevention and Treatment of Malaria	Strategic Plan for Malaria Prevention and Control (extended up to 2016)
5	Prevention and Care for HIV	Myanmar National Strategic Plan on HIV and AIDS 2011-2015
6	Adolescent Health	Myanmar Adolescent Health Strategic Plan
7	ECCD Policy and Programme	ECCD Strategic Plan/Plan of Action



As observed above, these programmes have separate strategic plans. This strategic plan avoids duplication and seeks strong coordination to ensure continuum of care and, furthermore, is focused on key components directly planned and implemented by the Child Health unit.

Separate technical sections within the MoH can collaboratively plan and budget their activities to make implementation more efficient and equitable, whilst continuing to implement their own plans. Development of an integrated strategic plan may also be considered in future.

## 2. Situation analysis

### 2.1 Trends and Mortality Rates in Neonatal Period, Infancy and Under-Five Children

Overall trends from various sources, as well as subgroup variations, have been analyzed to identify and address some of the important determinants of composite mortality rates.

#### 2.1.1 Overall National Under-Five Mortality Status and Trends

**Sources of Data:** The primary mortality data sources are the Multiple-Indicator Cluster Survey (MICS), UN interagency estimates, census and the latest estimates published in The Lancet. The UN Interagency Group for Child Mortality Estimation (IGME) includes WHO, UNICEF, the World Bank and the United Nations Population Division. IGME annually updates the best estimates of under-five mortality by reviewing all newly available data points, resulting in adjustments to earlier reported estimates<sup>14</sup>. It is not desirable to compare data from different sources due to methodological and other factors.

**Overall neonatal and child mortality rates:** Different sources of data on child survival offer different estimates of mortality in Myanmar for recent years;

- (a) According to the 2013 report<sup>15</sup>, UN IGME estimated the under-five mortality rate (U5MR) for Myanmar as 52 per 1000 live births for 2012 (range from 39-68 per 1000 live births) with the annual rate of reduction (ARR) of 3.2 per cent from 1990 to 2012. Sex specific under-five mortality for males declined from 114 per 1000 live births in 1990 to 99 in 2012 and among females it declined from 58 per 1000 live births to 47 in 1990. The Infant Mortality Rate (IMR) fell from 76 per 1000 live births in 1990 to 41 in 2012. The neonatal mortality rate declined from 41 per 1000 live births in 1990 to 26 in 2012.
- (b) By contrast, according to the MICS 2009-2010, the under-five mortality rate was 46 per 1,000 live births and the IMR was 37.5 per 1,000 live births. Being a rare event, sampling error for this survey-based mortality rate can be substantial, implying large uncertainty regarding true population rate.
- (c) Latest estimates (May 2014) in The Lancet<sup>16</sup> updated the estimates of child mortality for 188 countries with 29,000 data points. On the basis of rate of change from 1990 to 2013, twenty-

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<sup>14</sup> The methodological details are available in the latest IGME report at [www.childmortality.org](http://www.childmortality.org)

<sup>15</sup> IGME (2013) Levels and Trends in Child Mortality, Report 2013.

<sup>16</sup> H Wang et. Al. 2014 Global, Regional and National level of neonatal, infant and under-5 mortality during 1990-2013: A systematic Analysis for Global Burden of Disease Study 2013; the lancet.com, published online May 2, 2014 [http://dx.doi.org/10.1016/S0140-6736\(14\)60497-9](http://dx.doi.org/10.1016/S0140-6736(14)60497-9)

seven of the 138 developing countries are likely to achieve the MDG4 target. One of the successful countries is Myanmar. The under-five mortality rate for Myanmar is estimated to be 37.1 in 2013 (uncertainty range 31.6 to 43.7) with an annualized rate of reduction between 2000-2013 of 5.5. This rate was 3.5 during 1990 to 2000 thus leading to a conclusion of an accelerated decrease in under-five mortality in the last decade. The early neonatal mortality rate (0-6 days) is estimated at 14.3 and late neonatal (7-28 days) is estimate at 3.9, together contributing 49 per cent to the overall under-five mortality.

According to the Myanmar 2014 Census, the U5MR is 72. The UN mortality estimates to be released in 2015 will include Census data and will serve as the baseline for this strategic plan.

Irrespective of the absolute estimates described above, the general trend for neonatal, infant and under-five mortality rates has been declining. The speed of decline has been measured by ARR, which measures the differences compared to the starting value.

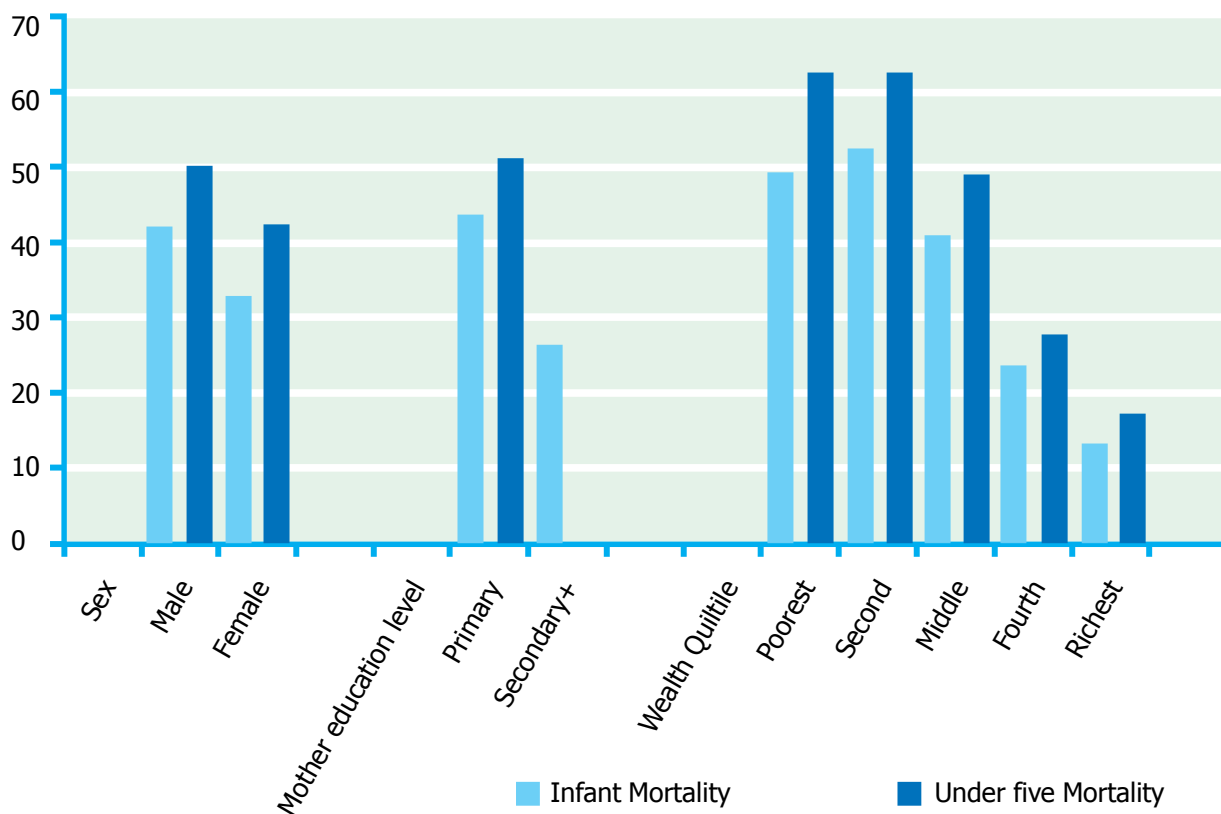
### **2.1.2 Mortality Rates; Variations Between Population Sub-Groups**

Mortality rates vary between various subgroups of population, although the availability of nationally representative, community-based data by subgroups is limited. Data on differentials in child survival across rural and urban areas, as well as educational attainment levels of mothers, and the household income levels, are available only from the MICS 2009-2010.

Child mortality rates were substantially higher in rural areas (IMR of 42.8 per 1,000 live births and U5MR of 52.9 per 1,000 live births) than in urban areas (IMR of 24.5 per 1,000 live births and U5MR of 29.1 per 1,000 live births). It is noted that no attempt has been made to estimate or include precision vs uncertainty for these estimates.

These differences are potentially useful for targeting resources and activities at the regional and sub-regional levels.

Figure 1. Mortality rates; variations between population subgroups



### 2.1.3 Some Determinants Retarding the Mortality Decline

Based on the above analysis of the rate of decline and sub-group variations in the U5MR, the following are some apparent causes retarding the decline in U5MR at country level in Myanmar:

- Inequalities.** There are several inequalities in the high-impact indicators coverage across States and Regions, as per the MICS data and Short Programme Review (SPR), leading to higher mortality rates in low coverage areas. This underlines the need to focus on underserved areas, which is emphasized in this strategic plan, especially for major killers like pneumonia and diarrhoea.
- Slow decline in neonatal mortality.** Neonatal mortality similar to other countries in the region shows a slower rate of decline than overall under-five child mortality. Therefore, scaling up of Newborn Care (NBC) and quality perinatal care is the single biggest thrust area proposed under this strategic plan.
- Mortality-related risk factors beyond the NCHP.** The continued presence of several risk factors, which are significantly associated with neonatal and post neonatal mortality, retard the progress. Some of these are maternal education, inadequate spacing, and inadequate WASH facilities. Thus not only intra-sectoral but also cross-sectoral collaboration is emphasized as a strategic direction.

d) **Other issues.** For example, increased urbanization/urban poor and child health in humanitarian situations are both distinct issues directly affecting child survival and have therefore been included in the strategic planning.

### Cause Specific Mortality in Children Under-Five Years of Age

**Data Source:** An Under-Five Mortality Survey, with nationally drawn representative sample, was completed in Myanmar in 2002 and 2003<sup>17</sup>. A similar survey was completed in 2015 to provide nationally representative estimates. These data reconfirm that the main causes of mortality are in line with the estimates detailed in the countdown update<sup>18</sup>.

**Main Causes of Mortality:** The following table on the cause of under-five deaths in Myanmar has been compiled based on the latest data available in 2015<sup>19</sup>. It shows that the majority of child deaths are caused by preventable/treatable conditions.

Table 6. Cause of Death in Children Under Five Years Old, 2015

Cause	Neonates %	Post neonatal %
Prematurity	36	-
Birth Asphyxia	26	-
Neonatal Jaundice	15	-
Congenital Anomalies	5	7
Sepsis	12	9
Pneumonia	2	28
Diarrhoea		16
Brain Infections		10
Malaria & DHF		3
Beriberi		17
Others	4	10
<b>Total</b>	<b>100</b>	<b>100</b>

**Neonatal Mortality:** Deaths in the neonatal period represent 48 per cent of children who died before their fifth birthday. The causes of death were prematurity (36 per cent) followed by birth asphyxia (26 per cent), neonatal jaundice (15 per cent) and sepsis (12 per cent). This survey reconfirmed that the majority of neonatal deaths were due to preventable causes, such as prematurity/low birth weight (LBW), birth asphyxia and sepsis.

<sup>17</sup> MoH & UNICEF (2002-2003) Nation wide Overall and Cause-specific Under Five Mortality Survey.

<sup>18</sup> WHO & UNICEF (2013) Accountability for Maternal, Newborn and Child Survival countdown 2015, 2013 update.

<sup>19</sup> MoH (2015) Study on Causes of Under-Five Deaths in Myanmar.

## Causes of Neonatal Mortality Hospital Statistics, Myanmar 2013<sup>20</sup>:

Table 7. Main Cause of Neonatal Deaths in Hospitals, 2013

Cause	% of Total Neonatal Deaths 2013
Disorders related to short gestation and low birth weight	29.7
Birth asphyxia	20.5
Bacterial sepsis of newborn	13.3
Neonatal jaundice from other and unspecified causes	7.4
Respiratory distress of newborn	4.2
Septicemia	2.8
Neonatal aspiration syndrome	2.5
Congenital malformation	2.8

Neonatal deaths are concentrated in the first few days of life, especially the first 24 hours, underlying the need to prioritize interventions in the first days of life, when risk of death is at its highest. Improving quality and coverage of facility-based births is a key evidence-based strategy to reduce maternal and neonatal mortality. Neonatal deaths are related to the health status of the mother, especially maternal nutritional status, pregnancy related maternal complications, health care services during delivery, and post-natal care. Therefore the quality of Antenatal Care (ANC), skilled birth attendance and facilities for essential newborn care, including Kangaroo Mother Care (KMC) are crucial requirements for reducing neonatal mortality. Reaching neonates very early in life will require more emphasis on providing skilled birth attendance, including skilled early newborn care at home, and on increasing the proportion of newborns that are taken to skilled providers early in life. Many of these issues are addressed in the Reproductive Health Strategic Plan.

**Post Neonatal Mortality.** The major cause of post neonatal mortality includes acute respiratory infections (ARI) or pneumonia (28 per cent) followed by diarrhoea (16 per cent), brain infections, malaria & Dengue Haemorrhagic Fever (DHF) (13per cent). Since Vector Borne Diseases Control (VBDC) implements malaria control, prevention of pneumonia- and diarrhoea-related deaths is the core component proposed under this plan.

<sup>20</sup> MoH (2015) MNCH indicators from HMIS; presentation June 2015.

## 2.2 Morbidity In Children Under Five Years Old

### 2.2.1 Community Based Morbidity Data

Overall, 6.7 per cent of under-fives had diarrhoea and 2.6 per cent had Acute Respiratory Infections (ARI) in the two weeks preceding the nationally representative survey (MICS 2010).

According to a global<sup>21</sup> estimate, there are 0.43 episodes of pneumonia per child-year and that of ARI per child-year is one. Estimated episodes of diarrhoea per child-year are approximately 2.5. About 6,000 cases of ARI (pneumonia) and fourteen deaths were reported per 100,000 of under-fives<sup>22</sup> in Myanmar, in 2011.

According to the Annual Public Health Statistics report for the year 2011, the number of diarrhoea cases per 100,000 population was highest in Chin (1800) followed by Rakhine (1234), Kayah (1178) and Kachin (1116). The lowest rate was in Yangon Region (118). The overall dysentery incidence at 270/100000 had similar variation in States and Regions. As in all developing countries not all who were ill are captured in the Health Management Information System (HMIS) statistics.

### 2.2.2 Hospital Based Morbidity Data

The pattern of morbidity from hospital statistics is not an accurate reflection of the overall morbidity, since only a small proportion of children who are sick are treated in the public sector hospitals. Neither is malnutrition included in the statistics since this is rarely considered a primary condition for which the child is brought in for treatment.

The causes of morbidity in the hospitals in Myanmar<sup>23</sup> for the latest year available, 2011, are summarized in the table below. Diarrhoea, ARI and neonatal conditions together constitute the majority of the consultations.

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<sup>21</sup> WHO Bulletin (2008) Epidemiology and Etiology of Childhood Pneumonia (May 2008).

<sup>22</sup> MoH (2013) Myanmar Public Health Statistics for the Year 2011.

<sup>23</sup> MoH DHP (2013) Annual Hospital Statistics Report, 2011.

Table 8. Main Causes of Under-Five Morbidity Treated in Hospital, 2011

Cause	% of under-five morbidity in 2011
Diarrhoea and gastroenteritis of presumed infectious origin	18.6
Other acute upper respiratory infections	10.1
Pneumonia	7.9
Other conditions originating in perinatal period	10.7
Hypoxia/birth asphyxia	2.9
LBW and disorders related to short gestation	2.3
Other infections specific to perinatal period	2.1
Malaria	3.3
Other ARBO fevers (including DHF)	1.6
Other viral diseases	6.8
Injuries	2.1
Acute Bronchitis/Bronchiolitis	2.1
Respiratory TB	1.1
Others	19.9

### 2.3 Malnutrition in Children Under Five Years Old

Child nutrition, growth and development are major factors affecting child health and human potential, both in the short and long term. Over 35 per cent of child deaths can be attributed to under-nutrition<sup>24</sup>. Maternal and adolescent nutrition status is an important determinant, which is monitored by the National Nutrition Centre.

**Child Malnutrition.** Overall, 22.6 per cent of under-fives in Myanmar are moderately underweight, and 5.6 per cent of children are severely underweight; 35.1 per cent are moderately stunted or too short for their age while 12.7 per cent are severely stunted; 7.9 per cent of children are moderately wasted or too thin for their height; and 2.1 per cent are severely wasted. Children in rural areas are more likely to be underweight and stunted than children in urban areas. Under-nutrition is much more common in Rakhine and Chin states than in other states and divisions of the country, and also much more common amongst the poorest families<sup>25</sup>.

<sup>24</sup> 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.

<sup>25</sup> MICS 2009-2010.



Underlying causes of young child malnutrition include inadequate food, poor hygiene practices and limited access to clean water and health care services, but also inappropriate care and feeding practices. Care of the care-providers and birth spacing are also important factors.

The overall rate of stunting remains relatively high, suggesting problems with long-term nutrient intake including the quantity, quality and frequency of feeding for children under five. Stunting increases with the age of the child, and is higher among children in low income and rural populations. Rates of stunting and wasting are higher in children who are born with a low birth weight. Thus, there is a need for investment in adolescent girls' nutrition and screening/management of malnutrition among pregnant women during ANC.

**Low birth weight (LBW).** The proportion of babies that were estimated to be low birth weight (less than 2.5 kilograms at birth) was 8.6 per cent according to MICS in 2010. It is noted that 56.3 per cent of the newborns surveyed had reportedly been weighed. This is consistent with a community-based study, which reported the LBW rate to be 7.9 per cent<sup>26</sup>. Percentage of LBW newborns in hospitals in Myanmar was 3.3 per cent amongst males and 3.4 per cent for females, according to the annual health statistics report for 2011.

LBW is difficult to estimate. Estimates based on recorded weight obtain data from only a sub-set of all babies. Also, the timing and the accuracy of the weight measurement are subject to error. Finally, survey-based estimates based on mother's recall of size are subject to reporting and recall error.

LBW infants are a common underlying cause of deaths in neonates. It is not only an indirect indicator of maternal nutrition, it is also a predictive indicator of potential neonatal death and malnutrition if the child survives. WHO estimates that LBW babies have a three to four times greater risk of dying from diarrhoea and acute respiratory infections. LBW babies can be saved by simple home caring practices.

**Micronutrient Malnutrition.** Main micronutrient deficiencies in Myanmar are vitamin A, Iodine, Iron and vitamin B1. A micronutrient deficiency in a young child is associated with impairment in cognitive and physical development that may not be reversible.

Overall, child nutrition remains an important problem in Myanmar and ongoing efforts and achievements are discussed under section 4.2 in this document.

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<sup>26</sup> NNC and UNICEF (2010) Community Based Survey for Low Birth Weight in Myanmar.

### 3. Coverage Status of Child Health Components

This section summarizes the ongoing programmes and estimates the reach and coverage using various available data sources. Although national surveys are conducted periodically and are the best sources to estimate coverage rates, the data from the last national survey is many years old, making it therefore difficult to assess the impact on coverage.

#### 3.1 Newborn Care Programme

Interventions for newborn care by levels of service delivery are classified into three parts; (a) early essential newborn care, (b) interventions during the antenatal and intranatal period, and (c) interventions for small babies. The list of interventions by level of health care is tabulated under Section 7. It can also be represented as (1) first embrace (2) prematurity/LBW and (3) sick newborn as below;

Figure 2. Newborn Care Interventions, showing for All and for those At Risk

	Intrapartum Care	Newborn Care
<b>All</b>	First Embrace <ul style="list-style-type: none"> <li>● Labour Monitoring (Partograph)</li> <li>● Intrapartum care</li> </ul>	<ul style="list-style-type: none"> <li>● Drying</li> <li>● Skin-to-skin contact</li> <li>● Clamping and cutting the cord appropriately</li> <li>● Initiating exclusive breastfeeding</li> <li>● Routine care- eye care, vitamin K immunization, weighing and examinations</li> </ul>
<b>At Risk</b>	<b>Preterm and Low Birth Weight</b> <ul style="list-style-type: none"> <li>● Elimination of unnecessary inductions and C-sections</li> <li>● Antenatal steroids</li> <li>● Antibiotics for Preterm PROM</li> </ul>	<ul style="list-style-type: none"> <li>● Kangaroo mother care</li> <li>● Breastfeeding support</li> <li>● Immediate treatment of suspected infection</li> </ul>
	<b>Sick Newborns</b> <ul style="list-style-type: none"> <li>● <b>Obstructed/ Prolonged Labour Foetal Distress</b></li> <li>● Assisted delivery</li> <li>● C-section</li> </ul>	<ul style="list-style-type: none"> <li>● <b>Not breathing at birth</b></li> <li>● Resuscitation</li> <li>● <b>Suspected sepsis</b></li> <li>● Antibiotic treatment</li> </ul>

Two main strategies to implement the above interventions are (a) Community Based Newborn Care (CBNBC) and (b) Facility Based Newborn Care, which are linked through a functional referral system.

As a follow up to the preceding National Newborn and Child Health Strategic Plan, several preparatory steps for the development of a newborn care programme in Myanmar were completed. This includes standardized supplies for NBC and training manuals. The national IMNCI manuals included early newborn care to become IMNCI manuals for facility based NBC. For community based NBC five-day training manuals were developed, pre-tested and are now standard training material.

The readiness for scaling up of NBC in Myanmar has been assessed according to the 32 point Benchmark<sup>27</sup>, which includes agenda setting, policy formulation and policy implementation components. The majority of these benchmarks are fully or partially met. However, some benchmarks need policy level action for the successful scaling up of neonatal health in Myanmar. These are discussed under section 5.1 related to child health policy.

### **Community Based Newborn Care (CBNBC)**

The pilot of a CBNBC package began in Myanmar in 2011. Standards on CBNBC have been developed and implemented in eleven townships across four states and three regions. Health volunteers are trained for five days in the provision of NBC, in the areas which are identified by physical access. The health volunteers provide breastfeeding advice, assessment and identification of danger signs, thermal care, prevention of infections, weighing of newborns, management of LBW babies, and referral of sick newborns. In addition, they provide health education and counselling on clean delivery, newborn feeding and recognition of illness. According to monitoring reports, more than 80 per cent of newborns received three Post-Natal Care (PNC) visits by volunteers. Eighty four per cent of villagers interviewed were aware of the services but the attrition rates for health volunteers were high. Supportive supervision increased the motivation. Recommendations include financial or non-financial incentives for retention, supervision and refresher training for skill deficits, and referral support. A provision for referral transport is an important area for strengthening.

### **Facility Based Newborn Care (F-IMNCI)**

IMCI manual (Health Centre Based) includes the first week of life on IMNCI charts and training materials in Myanmar in 2011. NBC is included in facility based (hospital based) IMNCI and standard protocols have been developed. For referral care of sick neonates, hospitals generally have oxygen, bags and masks for newborn resuscitation (supplied in two-thirds of townships in the last

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<sup>27</sup> Save the Children "Scale-up Readiness Benchmarks" tool

two years under the Women and Child Health Development [WCHD] programme), and supplies for the management of sick newborns. Hospital based Kangaroo Mother Care (KMC) for LBW and premature babies and intensive care for high-risk newborns, such as those with very low birth weight (VLBW), extremely premature newborns and those affected by congenital anomalies, needs to be strengthened.

Thus, a successful implementation of newborn care at community and facility level has been started, which needs to be rapidly scaled up, with quality and equity.

## 3.2 Nutrition

The Nutrition Programme area under the National Health Plan has two components; nutrition, and household food security. The National Nutrition Centre (NNC) of the Department of Public Health has developed the strategic plan, which aims to achieve a state of nutrition conducive to health and longevity. Recent endorsement of the Scale Up Nutrition (SUN) initiative is technically supported by the government-led Myanmar Nutrition Technical Network representing all stakeholders including non-health ministries.

### Micronutrient Related Efforts

Iodine deficiency is addressed by ongoing salt fortification and through improved monitoring of iodization and remedial action in selected townships. From nearly 33 per cent goiter rate in six to eleven year old children in 1994, the universal salt iodization strategy showed most indicators to be close to IDD (Iodine Deficiency Disorder) elimination target.

Two major micronutrient deficiencies in young children, vitamin A and iron, are being addressed by bi-annual nationwide campaigns for vitamin A supplementation and deworming of two to nine year old children, with a reported coverage of over 90 per cent. (Source: Health in Myanmar 2013.)

**Vitamin A:** Vitamin A deficiency was regarded a public health problem in Myanmar in the 1990's (prevalence of Bitot's spot in under-fives was 0.6 per cent) but has successfully achieved virtual elimination due to bi-annual vitamin A supplementation reaching more than 90 per cent of six to fifty nine month old children. (Bitot's spots prevalence 0.03 per cent in 2000.)

**Anaemia:** About 64 per cent of children below five years old, 45 per cent of non-pregnant women, and 26 per cent of adolescent girls, are anaemic. The main cause of anaemia is iron deficiency. The continued high prevalence suggests that the intake of iron, folate, vitamin B12 or other nutrients

may be low. One of the contributing factors for anaemia in young children in Myanmar, is worm infestation in and the rate is expected to be lower in children receiving deworming tablets. Over 90 per cent of under-fives received a de-worming tablet in the preceding 6 months according to reported data.

**Beriberi:** Beriberi was a cause of death in 7.1 per cent of infant deaths according to the 2003 nationwide cause of death study. Since it is preventable and easily treatable, once recognized, a national programme has been in place since 2007.

**Acute and chronic malnutrition-related issues:** There is a two-pronged approach of prevention and treatment in young children. Capacity development has been undertaken in selected high-risk areas, of health service providers and state/ region nutrition teams for hospital-based and community-based treatment of severe acute malnutrition, together with establishing nutrition surveillance systems. Treatment of severe acute malnutrition can be seen as a complement to strong cross-sector action to ensure food security and prevent undernutrition through improved breastfeeding and complementary feeding.

The age-appropriate infant and young child feeding (IYCF) strategy was updated in 2012 to include infant feeding in emergencies and in the context of HIV. Advocacy and orientation on code of marketing for breast milk substitutes is continuing. Scaling up of IYCF, including early initiation (within one hour of life) of breastfeeding, exclusive breastfeeding up to the age of 6 months and timely and appropriate complementary feeding, is a priority for improving feeding behaviour by Information Education and Communication (IEC) activities using multiple communication channels. The exclusive breastfeeding rate has increased from 16 per cent in 2000 (IYCF survey, NNC) to 23.6 per cent in according to MICS data 2010. Although the regional variations are high, with the maximum (47 per cent) in Mon state and the minimum in Rakhine (1.3per cent), there is negligible difference by wealth quintiles and limited rural-urban differentials<sup>28</sup>.

**Indicators:** Indicators relevant for child survival tracked by the NNC include; the percentage of infants aged 0-6 months who are exclusively breastfed; early initiation of breastfeeding (per cent); per cent of infants aged 6-9 months who are breastfed and receive complementary food; per cent of children aged 6-59 months who received at least one high dose vitamin A supplement in the last six months; per cent of households consuming iodized salt. Also, at impact level LBW newborns (per cent); per cent of under-fives suffering from moderate and severe underweight, wasting and stunting.

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<sup>28</sup> UNICEF 2013 Myanmar MNCH profile.

### 3.3 Prevention and Treatment of Common Illnesses (IMNCI/WCHD/CCM)

The main approach to prevention and treatment is scaling up the implementation of integrated management of childhood illness (IMCI) to address the major causes of mortality among under-fives (pneumonia, diarrhoea, malaria and malnutrition) after the inclusion of neonatal component (IMNCI).

#### 3.3.1 Prevention and treatment of malaria (VBDC)

According to the Myanmar Nationwide Overall and Cause-specific Under-Five Mortality Survey (2003), malaria is the third most common illness in under-fives in Myanmar. It is one of the priority diseases and a re-emerging public health problem due to climatic and ecological changes, uncontrolled population migration and the development of multidrug resistant mosquitoes.

The current National Strategic Plan for Malaria Prevention and Control has been extended to 2016, to match the Global Fund new funding cycle. 284 townships out of 330 are classified as endemic townships.

According to provisional 2013 National Malaria Control programme data<sup>29</sup>, malaria morbidity was 4.78 cases per 1,000 pop., and mortality rate was 0.48 deaths per 100,000 population. While there is no data on Annual Blood Examination Rate, slide positivity rate with microscopy was 20.1 per cent and Rapid Diagnostic Test (RDT) positivity rate was 29.9 per cent. Mortality for all ages was 0.48 per 100,000; there were 16,531 reported cases of malaria in under-five children and deaths were only 28 underlying low case fatality. Thus, young children do not appear to be over-represented in the reported morbidity or mortality data for malaria.

**Malaria Prevention.** Indoor Residual Spraying (IRS) is conducted only as a part of an outbreak response and in high-risk areas like new and resettlement/development areas. The Insecticide Treated Net (ITN) policy of providing two ITN per household is being implemented but current coverage data is not available. Furthermore, overall rates have no value in Myanmar since high-risk malaria transmission is geographically restricted to some areas.

Intermittent Preventative Treatment (IPT) for children has not been adopted but is being explored as a potential way of preventing malaria in infants, with possible linking to routine immunization schedules. IPT in young children is the subject of new research. In Myanmar IPT for pregnancy is not currently practiced due to unstable (low) malaria transmission.

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<sup>29</sup> VBDC/ DoH(2014) Provisional data for Malaria 2013.

**Malaria Treatment:** Artemisinin-based Combination Therapy for children is ongoing in the entire country at all levels of health care. Severe malaria and/or cerebral malaria constitute less than one per cent of total confirmed cases with treatment at hospital level. Artemisinin-resistance is a growing problem in Myanmar and is addressed by the Myanmar Artemisinin Resistance Containment (MARC) framework, now being implemented in more than 50 townships.

**Indicators** relevant for child health and tracked by the VBDC programme include the proportion of children sleeping under ITN and the per cent of suspected malaria cases taken to an appropriate provider. Sources are either household survey or, in its absence, expert opinion.

### 3.3.2 Prevention and Treatment of Pneumonia and Diarrhoea/iCCM (IMNCI/WCHD)

ARI and pneumonia are common causes of morbidity and mortality of under-five children as observed in earlier section.

Facility-based integrated Management of Neonatal and Childhood illness (F-IMNCI) is a care package which trains health care providers to manage newborn and childhood illnesses at facility level/inpatient care, providing the important link for the care of sick neonates and children reaching these facilities from primary health care level and the community. F-IMNCI has been initiated in five townships in Myanmar. IMNCI package is to train primary health care staff/basic health staff in managing newborns in outpatient care. It has been implemented in 233 townships with the support of UNICEF and WHO.

#### Treatment of Pneumonia

**MICS Data:** The proportion of children with suspected pneumonia who sought care from an appropriate provider in 2010 was 69.3 per cent, which is an improvement on 65.5 per cent in 2003. The rural rate (67 per cent) was less than urban (74 per cent).

Contrary to the exclusive breastfeeding rate, which is embedded in tradition, the proportion of under-fives with symptoms of ARI and/or fever seeking treatment from an appropriate provider was higher (77.3 per cent) in the wealthiest quintile compared to the poorest (62.5 per cent). This underlines the need to focus on poor and unreached areas through community based approaches, to reduce the equity gap and increase coverage.

Approximately 34 per cent of children received antibiotics as per MICS. This data does not allow for the appropriateness of antibiotic treatment to be assessed. It is possible that the proportion of children taking antibiotics is higher than that reported in the MICS survey, since care-seeking from rural/private providers (pharmacists and other providers) is common and antibiotics from these sources may not be admitted to surveyors during data collection.

Nearly one third of children with suspected pneumonia are still not taken to an appropriate provider and the percentage is much higher in the poorest households (33 per cent) than in the wealthiest (17 per cent). Together with a low proportion receiving antibiotics, the need for Community Case Management (CCM) to improve access and demand is highlighted.

**Facility based management of pneumonia (F IMNCI):** The proportion of under-five children with severe pneumonia was reported to be 0.2 per cent of all cases treated at facilities, and only 1.1 per cent of under-fives with pneumonia required referral to higher levels, in 2011, according to a MoH-published report.

**Community Case Management (CCM):** The Department of Public Health has implemented CCM of pneumonia and diarrhoea by trained, supplied and supervised health volunteers in five townships, and developed a national implementation guide.

**Achievements:** Health volunteers working in hard-to-reach (HTR) villages managed up to 2 per cent of expected ARI cases and 11 per cent of diarrhoea, as per the monitoring report. Nearly 90 per cent of health volunteers used standard handbills/protocols for case management and up to 90 per cent volunteers had diagnostic classification and treatment consistency. Thus, CCM volunteers and their advice/treatment is well accepted and community referral compliance has been very high in all townships (86 – 100 per cent).

**Challenges:** No incentive and significant drop-out (from 0 to 20 per cent); variable performance, probably reflecting the effectiveness of training, and supportive supervision has been observed; social mobilization, active community participation is essential at different stages of implementation.



## Treatment of diarrhoea.

**F IMNCI:** 21.7 per cent of under-fives who attended clinic were suffering from diarrhoea. Of these cases, only 2.5 per cent had severe dehydration. Overall, 96.4 per cent of children with diarrhoea in the facility received ORT (range by state/region is 99.2 to 99.7 per cent)<sup>30</sup>. Nationwide estimates on the proportion of children with diarrhoea who received ORT, are available through MICS 2010 and was reported to be 66.3 per cent overall which is an increase from the rate reported in 2003 (53.1 per cent). The equity gap is reflected in the fact that the rate increased from 56.1 per cent to 71.1 per cent from lowest to highest wealth quintiles, requiring a focus on underserved areas.

The figures for zinc treatment are not available from a large-scale house-to-house survey, but may be relatively low due to supply side constraints. Zinc is still not universally used for diarrhoea, although it is included in national guidelines.

### 3.3.3 Care-Seeking for Illness; Behaviour Change Communication (BCC/C4D)

Early care seeking for a sick child is an important first step for reducing mortality. The proportion of mothers who knew at least one danger sign for seeking care was estimated to be; fast breathing 15 per cent, and difficult breathing 21 per cent in 2010, an improvement of 8.1 and 14.4 respectively over that recorded in 2003, according to MICS data. Nevertheless, mothers' knowledge of danger signs remains relatively low.

## Reproductive Health

The recently developed Reproductive Health (RH) strategic plan aims to reduce rates of maternal, perinatal and neonatal morbidity and mortality by increasing equitable access to maternal and newborn services and improving the quality of those services.

The interventions for pregnancy care include early registration of pregnant mothers and at least four ANC visits that will include; early detection of complications, advice on skilled attendance at birth, iron and folate supplementation, tetanus toxoid immunization, and syphilis screening and treatment. Critical interventions are skilled attendance at birth and provision of referral for treatment of obstetric complications. Currently 23 per cent of births take place in a health facility and skilled providers attend 67 per cent of births.

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<sup>30</sup> Public Health Statistics 2012 MoH, Republic of Union of Myanmar.

The key strategies for the plan are;

1. Strengthening health systems to enhance the provision of an essential package of RH interventions.
2. Increasing access to quality, integrated RH services at all levels of care.
3. Engaging the community in the promotion and delivery of RH.
4. Incorporating gender perspectives in the RH strategic plan.
5. Integrating RH response in humanitarian settings.

All these objectives and strategies are very relevant for the Newborn and Child Health Strategic Plan, which although distinct, is also interdependent, which is vital for synergy.

**Indicators tracked by RH programme** and relevant for newborn and child health include; maternal mortality ratio, total fertility rate, contraceptive prevalence rate and unmet need for family planning, per cent of births attended by skilled personnel, per cent of women receiving ANC (at least once and four visits), institutional delivery rate, and per cent of stillbirths per 100 live births. Surveillance of stillbirth needs to be considered for inclusion.

Expanded Programme for Immunization

The programme is reaching all areas and administers eight antigens including Hepatitis B and Hib through a combination of three strategies, i.e. fixed centres, mobile teams and outreach. Planning, logistics, training and surveillance of vaccine preventable diseases is done by the central Expanded Programme for Immunization (EPI) and Central Epidemiology Unit (CEU) of the Department of Public Health. Achieving the neonatal tetanus elimination status, zero polio case status and more than 90 per cent reduction in measles morbidity and mortality against 1990 baseline are some of the salient achievements of the programme.

**Coverage:** According to the JRF (Joint Reporting Format) 2012, the highest coverage antigen is DPT/Pentavalent vaccine first dose at 89 per cent, followed by BCG and Polio at 87 per cent and Measles Containing Vaccine (MCV) first dose 84 per cent. There is a drop out of 8 per cent between MCV 1 and 2 and 6 per cent between DPT/Pentavalent first and third dose. These official estimates in JRF are based on reported administrative coverage, in the absence of a recent coverage survey.

**Low Coverage Townships and Equity:** 126 townships out of a total of 330 reported coverage of DPT 3 less than 80 per cent in 2012 and are classified as low coverage/underserved townships. A disaggregation of data at RHC level in each township further identifies the areas to be targeted for intensification of routine immunization. This is one of the criteria for identifying underserved areas due to a variety of reasons and is further explored in section 10.3 on addressing equity.

Data from the IHLCA Survey (2010) indicated that coverage of measles immunization is considerably lower for the poor than non-poor at 75.5 per cent and 85.6 per cent respectively. Similarly, measles immunization coverage is lower in rural areas (79.6 per cent) than in urban areas (91.5 per cent).

In 2012, the areas with unstable population due to displacement and conflicts, and uncovered by routine immunization services, e.g., self-administrative areas in Eastern Shan State, were provided routine immunization in three consecutive months by an EPI unit after advocacy to the local authority. The temporary camps for Internally Displaced Persons in Kachin State were covered by measles catch-up immunization, followed by routine monthly immunizations.

**New Vaccine Introduction:** Pneumococcal vaccine would be the next antigen to be considered for introduction, in order to prevent significant cases of pneumonia in young children. However, major up-gradation of the cold chain system would be required as a precondition. Rota and HPV would be introduced after 2016.

**Indicators:** Vaccination indicators relevant for child survival, which are tracked by the EPI programme, include; percentage of newborns immunized with BCG (per cent), measles coverage among one year olds (per cent), DPT 3/Pentavalent coverage among one year olds, pregnant women immunized with two or more doses of tetanus toxoid (per cent), and drop out rates between highest- and lowest-coverage antigens.

## **Tuberculosis**

Tuberculosis (TB) is a major public health problem in Myanmar. The country is listed among the high TB burden and high TB/HIV burden as well as high Multi Drug Resistant (MDR) TB burden countries. The government is committed to TB control, which is among the top priority diseases.

The National Strategic Plan is built around the six components of the Stop TB Strategy, i.e. high quality DOTS expansion and enhancement, address TB/HIV MDR-TB and other challenges, contribute to health system strengthening, engage all care providers, empower people and communities through participation and promote research.

**Tuberculosis in children:** According to the latest annual public health statistics for Myanmar, 10 per cent of total cases in 2011 were reported in under-five children and only 2 per cent of all deaths were young children. BCG vaccinations are provided to all newborns as part of the EPI. For the

prevention of TB in children, household contacts of infectious pulmonary TB cases are screened, including screening of babies born to mothers with smear positive TB. Children who are close contacts of MDR-TB patients receive clinical follow-up.

**Challenges:** Fine needle aspiration cytology for extra-pulmonary TB in children at township level needs to be strengthened.

## HIV/AIDS

Although the HIV epidemic in Myanmar is in the declining phase, it still has one of the highest HIV prevalence and caseloads in Asia. The current National Strategic Plan for HIV and AIDS (2011-15), aims to reduce the new infections by 40 per cent of the estimated level of 2010 and bring anti retroviral therapy (ART) to 80 per cent of those who are eligible for treatment. The target of 80 per cent of positive women receiving antiretroviral prophylaxis treatment, to reduce the risk of mother-to-children transmission, is one of the most relevant components.

The government is committed to eliminating mother-to-child transmission of HIV, which is reflected in the scale-up of Prevention of Mother to Child Transmission (PMCT) services to 255 townships out of the total 330. In spite of this geographic coverage, only about 35 per cent of estimated pregnant women in Myanmar are tested for HIV. ARV prophylaxis is delivered to 69 per cent of estimated HIV-positive pregnant women. The national guidelines on PMCT include counselling on voluntary contraception, natural vaginal child delivery and exclusive breastfeeding<sup>31</sup>. Early diagnosis and treatment for HIV-exposed children is an integral component of the programme.

**Challenges:** Although the programme has successfully achieved the targets laid out in the strategic plan for 2012, many challenges still exist. Facility based coverage for HIV testing during ANC is only 50 per cent. Less than 10 per cent of exposed infants had a virological test within two months and only 15 per cent of children were tested at 18 months of age. Less than 10 per cent of HIV-positive children have been referred for paediatric ART. Unavailability of mechanisms to identify and treat HIV infected children early in life results in 50 per cent mortality by two years of age.

New actions to address above constraints include scaling up virological testing to all PMCT facilities, strengthening referrals for paediatric ART and introducing web-based and mobile technologies to improve reporting, quality of care, lower loss to follow up and referral.

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<sup>31</sup> MoH/UNICEF (2013) Mid-Term Review of PMCT component of NSP 2011-2015.

**PMCT, integration and HSS framework:** The PMCT services, including couples counselling, is integrated into routine MCH and ANC services and linked to ART clinics for adults and children, but is still a vertical programme with separate training, monitoring, reporting, supply management and financial management, even though services are offered by Basic Health Staff (BHS) offering MNCH services. Programme coverage and quality is hindered by overstretched primary health care capacities.

**Indicators relevant to child survival** and tracked by the HIV programme, include HIV prevalence among pregnant women who came for HIV counselling and testing, per cent of estimated pregnant women living with HIV receiving antiretroviral prophylaxis during pregnancy, per cent of HIV exposed children tested for HIV before two months of age, and per cent of HIV positive children born to HIV positive pregnant women who are receiving ART.

### 3.4 Water Sanitation and Hygiene (WASH)

The activity work plan for accelerating activities to reduce under-five mortality in Myanmar notes “In striving to reduce the mortality of under-five year old children environmental sanitation – safe water supply and utilization of sanitary latrines plays an important role”<sup>32</sup>.

**Safe Drinking Water:** Access to improved water sources is estimated to be above 82 per cent, according to MICS 2009-2010, against 32 per cent in 1990. The Department of Developmental Affairs in urban areas, and the Department of Rural Development in rural areas support this initiative. Drinking water surveillance conducted in very high risk townships revealed that up to 90 per cent of the water samples tested may have evidence of contamination.

**Sanitation:** According to MICS 2009-2010, more than 84 per cent of the population has access to improved sanitation/sanitary latrine coverage, against only 39 per cent in 1990. Yangon region had the highest reported coverage (93per cent) and Rakhine state lowest (55.5per cent). Community Led Total Sanitation (CLTS) is being undertaken in some high-risk townships in the states of Rakhine, Kachin and Chin states. To ensure synergy and improved outcomes, these townships also need to be taken up on a priority for coverage with three core components of this strategic plan. There is a need to review and update the available of WASH components e.g., running water and toilets in the health facilities and prioritize the same for action.

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<sup>32</sup> DoH (2013) The activity Work Plan of the Department of Health for accelerating and scaling up activities to reduce under-five mortality in the Union of Myanmar.

**Hand washing:** As the tracer intervention for hygiene, hand washing is the most critical practice. Based on a household sample of 6000 drawn from 24 townships in 9 states/regions a KAP study commissioned by UNICEF<sup>33</sup> observed that only 69 per cent of caretakers wash their hands with soap and water after defecating, and that although 91 per cent of adults were eating their meals with fingers only, only 40 per cent washed hands with soap before eating. Average number of talks per BHS on environmental sanitation was 17 for the union in 2011, signifying that imparting knowledge on environmental sanitation is undertaken regularly at a grass roots level. However, translating hygiene knowledge into good practice needs to be prioritized and the current communication strategy includes these efforts.

### 3.5 Child Health in Humanitarian Situations

**Background:** A humanitarian situation is defined as any circumstance where humanitarian needs are sufficiently large and complex to require significant external assistance and resources, and where a multi-sectoral response is needed, with the engagement of a wide range of international humanitarian actors<sup>34</sup>.

Many different types of humanitarian situations have been experienced in Myanmar, e.g., natural disasters like cyclones, floods and mudslides, earthquakes; health threats like specific disease outbreaks, acute malnutrition; and complex emergencies like civil unrest, and various types of conflict leading to displaced populations. The Ministry of Social Welfare, Relief and Resettlement lead the response and is supported by a health subcommittee that takes action according to the standing orders. Humanitarian action in Myanmar is designed to support not only rapid response but also recovery and long-term development.

The Inter-Agency Standing Committee's recommended cluster-based approach has been used in Myanmar since super cyclone Nargis in 2008, for the effective coordination of all partners in each sector. Health sector coordination is led by the WHO and MoH. Young child needs are addressed within the National Disaster Risk Reduction (DRR) and National Emergency Response Plan. All major public health actions in humanitarian situations are included in Myanmar's National Emergency Response Plan, with child health a separate category.

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<sup>33</sup> UNICEF (2011): KAP study into Water, sanitation and Hygiene in 24 townships in Myanmar.

<sup>34</sup> IASC, Geneva 2006 Inter-Agency Standing Committee, 'Guidance Note on Using the Cluster Approach to Strengthen Humanitarian Response'.

The Child Health response in humanitarian situations includes specific interventions like vaccinations, outbreak control and supplementation. Community based management of Severe Acute Malnutrition (SAM) is activated in humanitarian situations and nutrition surveillance is conducted in high-risk areas e.g., in Chin. The age appropriate infant and young child feeding (IYCF) strategy was updated in 2012 to include infant feeding in emergencies. Pre-positioning of emergency drug kits and other supplies has been instigated, as has training on emergency response.

The new draft Disaster Management Law for Myanmar has been developed and is awaiting final endorsement by the Vice President. This will further enhance the policy and regulatory framework for specific actions. It is important that newborn and child health related preparedness and responses are regularly reviewed and updated to include latest developments and lessons learned.

Indicators on child health in humanitarian situations, which are tracked under the response, are those included in rapid assessment and those that are part of the response e.g., vaccination coverage, per cent access to health care, and number of emergency referrals etc.

## **4. Opportunities, Strengths and Weaknesses of the Programme**

### **4.1 Opportunities for Newborn and Child Health**

Myanmar is undergoing waves of reforms over the last few years and the provision of basic health services is a recognized need. There is a great amount of political will for improving MNCH, which is seen as an entry point for universal health care. Commitment to under-five mortality reduction has been made at the highest political level. There is a steady increase in financial allocation to the health sector and an effective coordination system exists at national level. Translating these opportunities into effective programmes requires adequate policies/guidelines, a strengthened health system and the reduction of coverage disparities. These issues are briefly discussed below, based on a short programme review of child health.

### **4.2 Policy/Guidelines Related to the Child Health Strategic Plan**

A review of supportive policies for child health was undertaken in relation to the five priority policies identified by the countdown initiative. These are related to BMS (Breast Milk Substitute) marketing, new formula Oral Rehydration Salts (ORS), zinc for diarrhoea, HiB vaccination and CCM for common illnesses. Newborn related policy issues identified by global newborn care guidelines were also reviewed.

The International Code of Marketing of Breast Milk Substitutes is actively under consideration for adoption as national policy in Myanmar. The recent achievement has been an order by FDA (Food and Drug Administration) on the code of Marketing of Breast Milk Substitutes for infant and Young Children (0-23 months) coming into force from July 2014. As a part of the implementation of the revised national IYCF strategy, the maternity leave period has been increased up to six months in the public sector.

New ORS formulae and use of zinc in diarrhoea management have already been adopted as national policy in Myanmar. In 2012, with the introduction of Pentavalent vaccine, Hib vaccination has become an integral component of the National Immunization Schedule.

Efforts towards making a national policy for trained health volunteers to manage pneumonia and other common illnesses in the community are underway, and national guidelines for the same have been developed. This needs to be further expedited for a rapid scale up of CCM.



The readiness for scaling up of NBC in Myanmar has recently been assessed using the 32-point benchmarks<sup>35</sup>. The following policy/guideline-related gaps need to be addressed for scaling up quality newborn care:

- Nationally endorsed newborn health policy in Myanmar.
- Newborn health fully integrated into other health policies/strategies.
- Essential drugs list to include injectable antibiotics at the primary health care level.
- Community based cadres (AMWs) need to be empowered to perform neonatal resuscitation.

### 4.3 Health Systems Including Human Resource

According to Health in Myanmar 2013 as well as the SPR, an important barrier in universal coverage with MNCH services is the inadequate health workforce, especially the overloaded BHS. The ministry has a long-term aim to secure at least one midwife or a well-trained and equipped AMW per village to provide MNCH care. As a short- to medium-term response to Human Resources (HR) shortage, the MoH is focusing on enhancing the capacity of AMWs as an alternative human resource. More than 30,000 AMWs and 40,000 CHWs are providing health services at village level (HMIS 2011). Access to community based newborn care and management of common illnesses under child health have been successfully piloted in the last few years in Myanmar, through task shifting. This requires effective skill transfer during training, adequate logistics support and mentoring during supervisory visits.

The Child Health Unit, part of the MoH, is entrusted with the responsibility of providing technical as well as managerial leadership to the entire country and requires additional human resource and infrastructure-strengthening, to provide more effective leadership in the new environment of gradual decentralization of programme planning and implementation.

The gradual increase in government health expenditure in last few years has been detailed in an earlier section. This needs to continue with substantial increases in MNCH allocation, which needs to be tracked as a distinct entity, to enhance the access to and utilization of quality child health services.

The availability of essential commodities for newborn and child health has improved remarkably in recent years due to the provision of essential drugs up to SRHC (Sub-Rural Health Centre) level for MNCH. However, the logistics system needs further strengthening including warehousing, a switch

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<sup>35</sup> MoH and UNICEF (2013) Assessment of newborn health in Myanmar.

from push to pull system, computerized inventory at all levels and end-use monitoring.

**Quality of Care.** The quality of paediatric care in 40 randomly selected hospitals was assessed by comparing prescribed standards of drugs, supplies & equipment and case management skills for common illnesses<sup>36</sup>. Regarding compliance with guidelines for newborn and child health care, drugs management, essential laboratory tests and transportation for referral, only one hospital was classified good and 37 per cent were found to be poor. The assessment of case management skills of hospital staff revealed a need to improve capacity for the management of fever, malnutrition and sick newborns.

The HSS Programme in Myanmar aims to achieve improved service delivery of essential components of MNCH, including nutrition and environmental health, by strengthening programme coordination, health planning systems, and human resources management. This overarching HSS framework is very relevant for implementing strategic plans.

Under the HSS initiative, health system assessments are being conducted in Myanmar in townships with HTR areas including;

- (a) Planning & Management
- (b) Mapping of HTR Areas
- (c) Human Resources
- (d) Community Participation
- (e) Infrastructure & Transport
- (f) Essential Drugs & Logistics System
- (g) Finance and Financial Management
- (h) Data Quality Audit (DQA) & Service Quality Assessment (SQA).

Based on this assessment, RHC and the Station Health Unit Coordinated Health Plan are being developed, including health system assessment, Monitoring and Evaluation (M and E) baseline, annual activity plan and costing. The implementation plan under section 10.3 recommends a strong linkage with HSS initiative of MoH.

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<sup>36</sup> MoH and WHO 2014 Assessment on Quality of Care of Newborn and Children in 40 Hospitals.

## 4.4 Improving Equity and Access to Child Health

A recent UNICEF study<sup>37</sup> has concluded that an equity-focused approach could bring vastly improved returns on investment, as it recognizes that risks are much higher among the most deprived communities and households, and thus can accelerate progress in newborn and child health. Achieving equity is a strategic direction identified in the situation analysis under section 3. The WHO regional strategic framework for improving neonatal and CHD outlines many steps to achieve equity. The steps are described below and are addressed in various sections of this strategic plan.

Identifying the most deprived children and communities through disaggregated data is the first step to reduce the equity gap. This needs to be followed up with identifying and removing barriers. These twin steps have been dealt with in detail, using Myanmar specific data and examples under section 10.3, which deals with implementation plans that have a focus on equity.

The third step is engaging communities in the provision and utilization of services. This step is an integral component of the overarching communication strategy for child survival finalized recently by MoH. As a part of C4D, the activities under this step are discussed under section 8.2.

Another step to increase equity is ensuring the quality of services, as studies indicate that the quality of care is substandard or frankly poor in many facilities, contributing to inequity in health outcomes<sup>38</sup>. It has been suggested that improving quality can be more effective than improving physical access, when increasing the coverage with immunization and ANC<sup>39</sup>.

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<sup>37</sup> UNICEF (2010) narrowing the gap to meet the goals.

<sup>38</sup> Kruk Me et. al. (2011) Equity and Child Health MDG: role of pro-poor health policies. Journal of Epidemiology & Community Health- referenced in WHO framework for improving Neonatal & Child Health Development.

<sup>39</sup> Houweing TA et.al.(2007) International Journal for Equity in Health- quoted in WHO framework for improving Neonatal & Child Health Development.

## 5. Goal, Objectives and Targets

### 5.1 Guiding Principles and Strategic Direction

#### 5.1.1 Guiding Principles For Newborn And Child Health Strategy

This strategic plan, based on a recent SPR, builds on an earlier plan and incorporates the recent developments in Myanmar and globally. It is founded on the following principles:

**Continuum of Care:** Similar to the previous Child Health Strategic Plan of Myanmar, this plan promotes newborn and child health and development through interventions that act across the continuum of care from pre-conception to early childhood, recognizing that adequate strategic plans are prepared for adolescent and reproductive health as a foundation of MNCH and nutrition. Also, the continuum of care approach is supported through delivery mechanisms like family and community, outreach and facility based individual clinical care.

**Equity:** The plan places emphasis on ensuring equitable access to quality newborn and child health intervention packages, through targeting the poor and unreached/underserved population groups, with community based NBC and case management successfully piloted in Myanmar for disparity reduction.

**Health system approach:** The plan aims to strengthen national healthcare systems, taking into account various components, by identifying the main gaps and priority actions to improve availability, access, utilization and quality of health services for mothers, newborns and children.

**Integration, convergence and cross-sector collaboration:** The plan intends to strengthen linkages and integration between the newborn and child health strategic plan and programmes contributing to newborn and child health, through separate strategic plans (see details in 2.8 above) e.g., reproductive health, nutrition, immunization, malaria, HIV/AIDS etc.) in order to achieve continuum of care. Collaboration is also sought with social and educational services to promote multi-sectoral action, to address the determinants of maternal and child health and development.

**Partnerships:** The plan emphasizes partnership, coordination and joint programming among stakeholders including UN agencies, INGOs, NGOs, professional societies and communities, to maximize resources and avoid duplication. Collaboration with the private sector, within a regulatory framework to improve access and quality of services, can be considered.

**Rights-based approach:** The plan incorporates a rights-based focus on newborn and child health interventions to ensure protection of the most vulnerable and child-centered care for health and development at all levels of the health system.

**Community ownership and participation:** The strategic plan acknowledges the importance of promoting community ownership and participation to generate a demand for health, foster improvements in family and community practices, and ensures community support for core components, through effective implementation of the overarching communication strategy for child survival.

### 5.1.2 Strategic Directions For Newborn And Child Health

The WHO South-East Asia Regional Framework recommends action at three levels; improving service delivery with focus on equity, health system development, and cross-sector collaboration for improving newborn and child health and development.

#### Strategic Direction 1

Implementation of prioritized interventions through three service delivery modes with a focus on equity to accelerate progress.

Mortality and morbidity risks are much higher in deprived communities due to socially determined differential vulnerability. Equity will be improved through mapping of HTR/underserved areas, based on coverage with interventions and the Availability, Accessibility, Acceptability and Quality (AAAQ) framework, which identifies availability, access, acceptability/utilization and quality of care as the determinants for coverage.

Availability refers to supplies and skilled personnel while accessibility has a physical as well as socio-economic dimension. Acceptability is reflected in the utilization of available and accessible services, while quality has a technical and client-oriented dimension. The strategic plan recommends an AAAQ framework to identify bottlenecks leading to low coverage and addressing them through local planning and action.

## Strategic Direction 2

Strategic actions for HSS.

The strategic plan outlines the feasible actions using the building blocks of the WHO Health System Strengthening Framework. These are classified under; leadership and governance; financing; health workforce; infrastructure and supply/logistics and HIS. Some generic national/sub-national actions are suggested in Annex 1 and specific activities are identified under section 8 on strategies and key activities.

## Strategic Direction 3

Cross-sector collaboration.

The strategic plan aims to take a comprehensive approach and looks at actions beyond the health sector, which could, by addressing the determinants of health as well as health system components, improve the newborn and child health outcomes of interest. Examples include WASH, Early Childhood Development (ECD) and newborn and child health response in humanitarian situations.

## 5.2 Goal

The goal of the National Newborn and Child Health Strategic Plan is in accordance with the President's directive aiming to ensure children under five are free from disease and enjoy longevity of life with physical, mental, social and all round development to become better citizens in the future.

## 5.3 Objectives

- Scale up evidence-based, cost-effective interventions through effective strategies within the HSS approach and equitable coverage with quality.
- Reduce neonatal mortality by improved home-based NBC, early identification of sick newborns and improved access to institutional NBC of adequate quality.
- Reduce common childhood illness-related mortality (due to pneumonia and diarrhoea in all areas and malaria in endemic areas) by improving the key family practices, community based early diagnosis, and management and referral care for complicated cases.
- Promote an inter-sectoral approach for continuum of care and cross-sectoral approach to address MNCH determinants.

## 5.4 Targets for Achieving the Objectives

### 5.4.1 Impact Targets

- Reduce the under-five mortality rate from 52/1000 live births to 39/1000 live births by 2018 (Vision 2030).
- Reduce infant mortality rate from 41/1000 live births to 30/1000 live births by 2018 (Vision 2030).
- Reduce neonatal mortality rate from 30/1000 live births to 16/1000 live births by 2018 (RH plan).

### 5.4.2 Coverage Targets

- 100 per cent of newborn babies born at home received cord care with chlorhexidine within 24 hours of birth.
- 90 per cent of newborn babies received postnatal visit for essential NBC within two days of childbirth.
- 50 per cent of babies not breathing after birth received bag and mask resuscitation.
- 40 per cent preterm babies weighing less than 2000 grams received KMC and other supportive care.
- 50 per cent of newborns with possible serious bacterial infection received appropriate antibiotic therapy.
- More than 60 per cent of infants exclusively breastfed from birth up to six months of age.
- 80 per cent of newborns received breastfeeding within first hour of birth.
- 80 per cent of infants received breastfeeding and appropriate complementary feeding between 6-9 months of age (earlier 80 per cent).
- 95 per cent of children 6 - 59 months old received vitamin A in the preceding 6 months (earlier 95 per cent).
- Near 100 per cent of children under five years old, who came to a health facility with diarrhoea, receive ORT and other appropriate treatment (HMIS current 96 per cent).
- More than 80 per cent of children under five years old, who had diarrhoea, treated correctly with ORT and 40 per cent with zinc.
- 90 per cent of children with suspected pneumonia taken to appropriate service provider (from current 70 per cent).
- 70 per cent of children aged 0 - 59 months with suspected pneumonia treated correctly with antibiotics recommended by the national programme.
- 30 per cent caregivers of young children are aware of at least two danger signs.
- 75 per cent of caregivers and children practice improved hand washing with soap.

## 6. Interventions for Improving Newborn and Child Survival

The details of comprehensive packages of interventions, suggested globally at community-level, first-level and referral-level health facilities, are summarized in Annex 1, along with the main health outcomes that are influenced by each intervention.

Myanmar Health Vision 2030 aspires to move towards Universal Health Coverage (UHC) with an essential health package. Different components of the package for universal coverage would be rolled out in phases. Making a MNCH essential package available to all is considered the first phase. The evidence-based life-saving interventions package suggested in this strategic plan is considered minimum at present and is expected to be updated based on an epidemiological, financial and health systems context.

The list below is adapted from The Lancet Neonatal Survival series, The Lancet Child Survival series and the WHO list of interventions for improving newborn and child survival. The interventions listed below do not include some high impact interventions (e.g., during pregnancy, labour, birth) for under-five mortality reduction, which are included under continuum of care under RH and nutrition strategic plans.

Table 9. Newborn Care Interventions in Myanmar

Newborn Intervention	Township	Station	RHC	SRHC	Community
<b>Immediate essential newborn care (at birth)</b>					
1. Immediate thermal care	X	X	X	X	X
2. Early initiation of exclusive breast feeding	X	X	X	X	X
3. Hygienic cord and skin care	X	X	X	X	X
4. Neonatal resuscitation	X	X	X	X	X
5. Newborn infection/sickness management (sepsis, pneumonia, jaundice)	X	X	X	X	X
<b>Interventions during antenatal and intranatal period</b>					
6. Antenatal corticosteroids for preterm births	X	X	-	-	-
7. Neonatal tetanus prevention	X	X	X	X	X
8. Intranatal care package	X	X	X	X	
9. Antibiotics for premature rupture of membranes	X	X	X	-	-
<b>Interventions for small babies</b>					
10. Kangaroo mother care for preterm and LBW	X	X	X	X	X
11. Extra support for feeding small and preterm babies	X	X	X	X	X
12. Home visit for newborn care by health volunteers	-	-	-	-	X



Each intervention for NBC listed above can be unpacked into several layers of technology and skills e.g., neonatal resuscitation can range from bag and mask to ventilator. Therefore, national newborn operational guidelines need to be articulated urgently, defining the minimum standards of care at each level of the health system, and steps taken to make these interventions operational.

Many interventions that have proven effectiveness at facility level, lack evidence at community level<sup>1</sup>, and all seriously sick and most small newborns would need facility based care. Three levels of progressively higher facility based newborn care are envisaged, linked to institutional delivery care and management of obstetric complications and synchronized with skilled attendance, basic emergency obstetric care and comprehensive emergency obstetric care facilities.

**Table 10. Post-Neonatal Interventions in Myanmar**

Interventions for post neonatal period	Township	Station	RHC	SRHC	Community
Early initiation and exclusive breastfeeding up to six months	X	X	X	X	X
Safe and appropriate complementary feeding at 6 months with continued breastfeeding (up to 2 years and beyond)	X	X	X	X	X
Vitamin A supplementation	X	X	X	X	X
DPT3/ Pentavalent Immunization	X	X	X	X	X
Measles Immunization	X	X	X	X	X
ORT for diarrhoea	X	X	X	X	X
Zinc for diarrhoea	X	X	X	X	X
Antibiotics for dysentery	X	X	X	X	-
Sleeping under an Insecticide treated bed net (malaria endemic areas)	X	X	X	X	X
Anti-malaria treatment for children	X	X	X	X	X
Management of severe acute malnutrition	X	X	X	X	X
Prevention of Mother to Child Transmission of HIV	X	X	X	X	-
Management of HIV exposed and HIV infected children	X	X	X	X	-
Antibiotic treatment of pneumonia	X	X	X	X	X
Hand washing and proper disposal of faeces	X	X	X	X	X

<sup>40</sup> Anne CC Lee, Simon Cousens, et al. Neonatal resuscitation and immediate newborn assessment and stimulation for the prevention of neonatal deaths: a systematic review, meta-analysis and Delphi estimation of mortality effect. BMC Public Health 2011, 11(Suppl 3):S12 doi:10.1186/1471-2458-11-S3-S1

## **Delivery mechanisms for interventions/intervention packages.**

Based on the organization of the health system the Newborn and Child Health Strategic Plan continues to organize the services as follows:

**(a) Family-orientated community-based services:** These services can be provided on an ongoing basis by trained CHW provided with supportive supervision and supplies for home based newborn care, prevention and treatment of common illness, WASH and promotion of key family practices.

**(b) Population-orientated scheduled services:** Skilled MWs (Midwife)/BHS deliver scheduled services, mostly preventative interventions e.g., antenatal and postnatal care, immunization, etc., through health centres and outreach activities, with a focus on reaching the underserved areas on a regular basis.

**(c) First-level individually orientated clinical services:** These services are provided through Primary Health Care-level facilities such as RHC and SRHC by BHS such as HA (Health Assistants) and MWs.

**(d) Referral-level clinical services:** These are provided at station- and township-level hospitals that have a minimum level of infrastructure, medical technologies and skilled staff to provide obstetric and newborn care for the complications of pregnancy and childbirth, plus neonatal care for LBW/premature babies and general paediatric care.

**(e) Strengthen referral systems and referral linkages:** It is crucial to establish a functional referral linkage between community-based services, first level and referral level clinical services.

## **Strategies and Key Activities**

Several strategies will be employed for the effective implementation of this strategic plan. Close coordination within health department units as well as cross-sectoral support is required. The strategies have been broadly identified in line with an AAAQ framework and within a HSS framework. The strategies are as follows;

**Strengthening health systems for provision of newborn and child health services.** The sub-strategies include an enabling environment, availability of skilled providers and supplies, and increased availability and utilization of management information.

**Improving access to quality newborn and child health services.** Sub-strategies include prioritizing underserved/HTR areas, task-shifting, increasing financial access, improving performance, and strengthening referral.

**Improving demand and utilization by engaging families and communities.** Sub-strategies include implementation of overarching child survival BCC plan, community mobilization, and support for community volunteers.

**Ensuring an effective response for newborn and child health in humanitarian situations.** This includes provision of life saving supplies with essential healthcare for children, and disseminating key health messages on life threatening conditions.

Suggested generic activities under these strategies are detailed below. More specific activities required for the main thrust areas of this plan are outlined subsequently for each core element.

## 7. Strengthening Health Systems

### 7.1 Strategy 1: Strengthening for the Provision of Newborn and Child Health Interventions

#### 7.1.1 Strengthen Enabling Environment

- Develop advocacy materials and conduct meetings at the National/Region/State/ District/ Township levels for promoting child health. (Parliamentarians, non-state actors.)
- Review operational policies for Newborn and Child Health to further strengthen the enabling regulatory framework through Technical Strategic Group suggested in SPR.
- Strengthen coordination with Regional/State governments and other institutions and NGOs for implementing the Newborn and Child Health Strategy.
- Develop an integrated service delivery plan at township level for all Newborn and Child Health components (EPI, nutrition, malaria, RH etc.).
- Continue inter-sectoral collaboration with UN/other development partners through the Myanmar Health Sector Coordination Committee and the Newborn and Child Survival Forum.

#### 7.1.2 Improving Availability of Human Resources

- Implement the national plan for the health workforce and its strategies.
- Designate a focal person at the region/state levels for Newborn and Child Health.
- Build managerial capacity at State/Regional and Township level through Newborn and Child Health programme management training, using WHO standard modules.
- Consider priority deployment and performance incentives for workers in HTR areas.
- Consider task shifting to less specialized health care workers for home-based NBC and community treatment of illnesses.
- Review the functional availability of CHWs, their roles and system support for their activities. Provide incentives to compensate for reduced opportunities for other activities

#### 7.1.3 Improve Infrastructure and Logistics

- Conduct facility assessment for infrastructure/equipment requirements (sick young child).
- Preventative maintenance and annual maintenance contract for standard equipment.
- For uninterrupted commodities availability, the proper warehousing of newborn and child survival medicines is essential, change kit-based supply to indenting (based on actual needs), consider local-level procurement to cover shortfalls.

- Establish a logistics management unit for MNCH and expand RH logistics HMIS to include Newborn and Child Health.

#### **7.1.4 Increased Availability and Utilization of Health Management Information**

- Coordinate with other programmes for Newborn and Child Health related information (indicators listed elsewhere).
- HMIS for facility and population based information EPI for vaccination data and underserved areas.
- NNC for child nutrition indicators.
- VBDC for data on ITN and case management of malaria for under-fives.
- National AIDs Programme for PMCT related indicators.
- Review and update the list of indicators for MNCH in HMIS e.g., for early newborn care.
- Facilitate analysis and dissemination of Newborn and Child Health data from HMIS to stakeholders biannually through newborn and child survival forum.
- Conduct DQA for HMIS as piloted under HSS initiative in selected areas.
- Compile data from monitoring and supervision reports for core components e.g., NBC and CCM.
- Collaborate with teaching and research institutions for operations research and to generate evidence for decision making where required.

### **7.2 Strategy 2: Increase access and utilization of Newborn and Child Health services at all levels.**

#### **7.2.1 Prioritize HTR to Expand Coverage**

- Conduct mapping of the HTR areas by each RHC and include in the township annual plan.
- Conduct mapping of Newborn and Child deaths and available health care.
- Design locally feasible innovative strategies for HTR areas e.g., local planning and additional funds for mobility, and provide untied funds.
- Appoint or redeploy staff based on mapping. Provide non-financial or financial incentives as a motivation strategy.
- Conduct outreach/mobile sessions for feasible interventions.
- Expand the role of CHW (phased manner) as per national guidelines for Newborn and Child Health/MNCH.
- Integrate and strengthen sick neonate care in all designated hospitals.

### 7.2.2 Increase Financial Access

- Scale up integrated Maternal Child Health (MCH) voucher scheme and health equity funds, which were successfully piloted.
- Collaborate with other departments/ministries for financial mechanisms in order to increase access. Pilot innovative demand side financing with partners.

### 7.2.3 Implement the Newborn and Child Health Package with Quality

- Implement community based NBC in a phased manner, prioritizing underserved/unreached areas.
- Monitor the use of technical standards/protocols (e.g., chart books) for Newborn and Child Health quality assurance, case management of diarrhoea, pneumonia and malaria.
- Promote client/provider interaction for improving service quality.
- Improve quality of care through institutionalizing service quality assessments.

### 7.2.4 Improve Performance of Workforce for Newborn and Child Health

- Strengthen facility and community NBC as well as facility and community IMNCI in pre-service curriculum.
- Conduct competency based training using State/Regional training teams and undertake post training follow up.
- Use township review meetings to assess and improve knowledge and practices of peripheral staff.
- Conduct supportive supervision using annual supervision plans and a streamlined technical supervision checklist (focus on newborn care and case management).
- Conduct child death audit/reviews using WHO guidelines and respond to the identified causes.
- Employ e-Health and m-Health in specific areas.

### 7.2.5 Strengthen Referral Systems

- Study the success in referrals in community NBC and community case management to develop written guidelines and emergency planning (including transport inventory).
- Form a referral subgroup to discuss innovative ideas to address barriers, e.g., use of mobile phones.
- Provide feedback to referring worker/unit.

- Continue to promote recognition of danger signs and early referral as part of IEC.

## **7.3 Strategy 3: Improve Demand and Utilization by Engaging Families and Communities.**

### **7.3.1 Implement the Overarching Newborn and Child Survival BCC Plan**

- Update and finalize the existing training materials on communications.
- Develop and implement a training plan on Inter-Personal Communication (IPC) and social mobilization skills for BHS and volunteers.
- Collaborate with, and provide supporting materials to; local authorities, private sector and media networks, in order to include key messages on child survival.
- Plan and run a multi-channel campaign on selected key practices in partnership with radio stations, TV stations (for TV spots), newspapers (for news articles) and the setting up of community corners in marketplaces.
- Scale up social dialogue with community volunteers, faith leaders and joint initiative with MMCWA "Seven things this year" which includes six prioritized practices and one based on local needs.

### **7.3.2 Mobilize Community for Supporting and Increasing Demand for Newborn And Child Health**

- Advocate with key opinion leaders and policy makers for social mobilization for newborn and child survival.
- Build consensus, pre-test and produce a branded communication package, which includes posters, pamphlet, radio spots, TV spots etc.
- Using festivals, health facilities and video parlours to communicate key practices using appropriate BCC materials.
- Inter-personal communication by BHS/CHW and community leaders for household level visits to promote the selected practices.

### **7.3.3 Support CHW for Newborn and Child Health**

- Provide skills, IEC materials and system support to CHW for newborn and child health.

## 7.4 Strategy 4: Newborn and Child Health Response in Humanitarian Settings

### 7.4.1 Rapid provision

Rapid provision of measles vaccination, vitamin A, long-lasting ITNs in malaria endemic area, and de-worming for all affected young children.

### 7.4.2 Support Essential Care Services For Children

Support essential care services for children, including vaccination, provision of essential drugs, diagnostics and supplies (emergency health kits). Prioritizing essential health services and including treatment of common illnesses will have a high impact on neonatal and child survival (e.g. pneumonia, diarrhoea and malaria in endemic areas).

### 7.4.3 Disseminate Key Health Messages and BCC

Disseminate key health messages and BCC to affected populations, with a focus on available health services, home management, danger signs for common life-threatening conditions (depending on context), and universal health promotion and precautions (e.g. breastfeeding, health-seeking behaviour, hand washing, hygiene and sanitation).

## 7.5 Strategy and Activities by Main Thrust Areas of Newborn and Child Health Plan

### 7.5.1 Thrust Area 1: Newborn Care

- A two-pronged strategy to reach all newborns was developed and piloted in the last five years and will be up-scaled and strengthened under this strategic plan. There will be community-based newborn screening through health volunteers at home visits and facility based newborn care by existing health manpower.
- Strengthening health systems for provision of newborn health services.

**Enabling environment. Many bench marks are met, however, the following actions are still required;**

- Develop national policy/national guidelines on NBC, providing operational details for community and facility based care by levels of health system.
- Integrate NBC into other health policies/strategies.



- Include injectable antibiotics at the primary health care level for MWs for treatment of newborn infections.
- Consider AMWs performing neonatal resuscitation after adequate training.
- Mobilize financial resources to support Early Essential Newborn Care (EENC).
- Improve coordination and management of EENC implementation by the following:
- Incorporate NBC in clinical protocols, guidelines for existing pre-service and in-service curricula and update the MCH card accordingly.
- Develop EENC information and training toolkit, including teaching materials, presentations and training aids.

### **Availability of skilled providers and supplies**

- Ensure that MWs are recruited on all sanctioned posts and have the skills to conduct newborn resuscitation, prevent and manage uncomplicated prematurity/LBW and manage sepsis.
- Improve retention and equitable distribution of Skilled Birth Attendants (SBAs), doctors and midwives. Strengthen implementation of Emergency Obstetric and Newborn Care (EmONC) and F IMNCI in health facilities using protocols and monitoring.
- Strengthen facility based newborn care. Periodically conduct health facility assessments to track quality of care for EENC, EmONC and IMNCI.

### **Availability of equipment and supplies**

- Include all NBC related essential medicines, supplies and equipment in the essential drug list e.g., chlorhexidine 7.1 per cent for cord care. Identify norms for each level of health facility in operational guideline.
- Monitor availability of essential medicines and supplies for EENC and take action to address gaps.

### **Increase availability and utilization of management information**

Some suggested indicators for newborn care, in line with global recommendations, are;

#### **Impact level**

- Early neonatal mortality rate (0-6 days).
- Perinatal mortality.
- Case fatality ratios, newborn sepsis, asphyxia, LBW.

## **Coverage level**

- Proportion of newborns who received all four elements of essential newborn care.
- Percentage of newborn babies born at home received cord care with chlorhexidine < 24 hour of birth.
- Proportion of babies born before 37 weeks whose mothers received antenatal corticosteroids.
- Proportion of preterm babies weighing less than 2000g who receive (KMC) and other supportive care.
- Proportion of babies not breathing after birth receiving bag and mask resuscitation.
- Newborns with possible serious bacterial infection who receive appropriate antibiotic therapy.

## **HMIS**

- Finalize and incorporate key NBC indicators in the National HMIS.
- Advocate and provide technical support to ensure civil registration includes all births, still births, neonatal deaths and causes thereof. Develop monitoring and evaluation approach for EENC. Conduct regular monitoring, use data to solve problems.

## **Surveys**

- Include key NBC indicators in national surveys, disaggregated by social strata to monitor equity.
- Strengthen perinatal death audits in selected health facilities.

## **Improving access to quality newborn services (task shifting and referral)**

- Empower skilled providers to provide antenatal corticosteroids and treatment of NN (Neonatal) sepsis as per global guidelines.
- Scale up NBC at home visits package nationwide in a phased manner in partnership with other implementing partner.
- Strengthen referral pathway and community engagement by Health Committees support for referral. Hospital equity fund.

## **Improving demand and utilization by engaging families and communities**

- Implement a community behaviour change and communication strategy to improve NBC practices including home care and care seeking.
- Review and strengthen the national overarching communication strategy to include NBC, especially EENBC.
- Engage and mobilize religious leaders and faith based organizations to increase demand and utilization of NBC services.

## 7.5.2 Thrust area 2: Control of Common Illnesses

Of the three main causes of post neonatal mortality of under-five children, prevention and control of malaria is undertaken by VBDC as per their five-year strategic plan. Therefore, this strategic plan has a focus on preventative and treatment interventions for pneumonia and diarrhoea, common causes of under-five deaths in Myanmar.

### Preventative Interventions for Pneumonia and Diarrhoea

Many units within and outside of the Department of Public Health undertake preventative interventions. These include appropriate infant and young child feeding as well as vitamin A supplementation by NNC unit, measles immunization and safe water and hand washing, which are implemented by EPI unit and WASH respectively. Reduced household air pollution requires inter-sectoral collaboration. Newer vaccinations e.g., pneumococcal vaccine for pneumonia and Rotavirus against diarrhoea, will be considered by EPI programme.

### Treatment Interventions

The long-term goal is the treatment of these illnesses at facility level through IMNCI. However, to improve equity and as a medium term strategy, especially in HTR areas, community case management has been successfully piloted in Myanmar. The integrated Community Case management (iCCM) backed up by a facility based IMNCI is the main approach in this plan.

### Community Case Management (CCM)

The vision of the Global Action Plan for Pneumonia and Diarrhoea (GAPPD) is to eliminate pneumonia and diarrhoea deaths by 2025, by universal access to prevention and treatment. Investment to implement large-scale CHW programmes is an important short- to medium-term response to the workforce challenge in many low and middle-income countries.

A set of benchmark activities<sup>41</sup> has been developed for CCM by an interagency team. These benchmarks are organized according to health system components, each containing key activities and milestones.

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<sup>41</sup> WHO & UNICEF (2012) Joint Statement on Integrated Community Case Management.

The following are the specific activities in relation to CCM under the three main strategies of this plan:

### **Strategy 1. Strengthening health systems for provision of CCM, IMNCI and F IMNCI**

Enabling environment;

- Prioritize townships for expanding the community-based treatment services by geographical mapping of communities suitable for CCM at sub-national level. Prepare advocacy kit for increased funding for CCM by MoH and partners.
- Strengthen the policy/implementation of national guidelines on CCM by establishing a CCM task force and a regulatory framework for partners to implement treatment at the community level, backed up with facility based IMNCI.
- Establish coordination mechanisms at sub-national level with at least an annual State/Region level coordination meeting for pneumonia and diarrhoea treatment.
- Availability of skilled providers and supplies.
- Build capacity of existing AMWs and CHWs by training and refresher training on CCM.
- Ensure availability of national guidelines for clinical assessment, diagnosis, management and referral.
- Revisit CCM clinical assessment guidelines in CHW manual of MoH to avoid fragmentation.
- In malaria endemic areas, integrate pneumonia and diarrhoea with malaria. Consider integrating treatment of SAM in selected high-risk areas.
- Provide incentives (standardized) for retention and motivation of CHW.
- Strengthen inventory control, resupply and logistics management through the Township Medical Officer (TMO) and BHS for essential medicines (included in essential drug list) for CCM.
- Develop an essential supplies list for Myanmar and include CCM-specific items like respiratory timer, thermometer etc. Maintain buffer stock with BHS.
- Increase availability and utilization of management information.
- Use standard national tools to conduct supportive supervision effectively and compile supervision data at township level.
- Provide adequate resources (e.g., mobility, per diem form and skills etc.) to conduct regular supportive supervision.
- Develop and test integrated recording and reporting of common childhood illnesses treatment at community level.
- Track timely reports and returns from each township implementing CCM and F-IMNCI. Consider inclusion of some of the information in HMIS/health information system.

## **Strategy 2. Improving access to quality CCM services**

- Prioritize underserved areas/HTR villages in selected townships for CCM.
- Undertake mapping of potential CCM activities and possible partners for rapid scale up of case management using common national standards and guidelines.
- Implement facilitated referral and address geographic or financial barriers to access.

## **Strategy 3. Improving demand and utilization by engaging families and communities**

- Make standard IEC materials available for expansion to new townships.
- Consider social mobilization for CCM by community meetings, collaboration with CSO, social dialogue and sensitization of traditional healers and local practitioners.
- Analyze communications-related feedback from community included in supervision report for suitable action.

### **7.5.3 Thrust Area 3: Communication for Development (C4D)**

**Background:** The Overarching Communication Strategy and Action Plan on Newborn and Child Survival is developed based on the current strategic plan recommendations and prioritizes six key family practices as follows:

#### **Growth Promotion and Development:**

- (1) Exclusive breastfeeding of infants from birth to six months; start appropriate complementary feeding at six months; continue breastfeeding until 24 months.

#### **Disease Prevention**

- (2) Take infants for complete and full course of immunizations as per schedule.
- (3) Ensure under-five children sleep under ITN.
- (4) Wash hands with soap, especially after using the toilet and before handling food and eating.

#### **Home Care of Sick Child**

- (5) NBC; continue feeding children and increase fluid intake when they are sick.

#### **Care Seeking**

- (6) Recognize when a sick child needs care outside home; seek treatment from appropriate providers.

The key family practices identified earlier continue to be the priority for this strategic plan. Significant research and information collection has led to evidence based communication strategy development by MoH, through broad participation of partners. The findings from the Media Scene Study of 2012 are used for undertaking social dialogue. It identifies the village authority, midwife/doctor, teacher and youth as the most credible persons to influence the community's health behaviour. Also, the three most popular places in a community, viz. monastery/pagoda, market place and the teashops, are the main sites identified for the social dialogue.

Social marketing approaches have been incorporated in the national plan e.g., audience segmentation, formative research in message design, application of marketing mix techniques and a progress tracking system. The pilot for implementing this strategy component was initiated in 2012 using nationwide presence of and partnership with MMCWA.

The following are the specific activities in relation to communication under the three main strategies of this plan;

### **Strategy 1. Health System Strengthening for C4D**

Enabling Environment;

- Develop decentralized guidelines and IEC materials with ethnic language translations appropriate to the local situation and in line with national communication strategy for newborn and child survival.
- Develop a sub-national level coordination mechanism for BCC/C4D as a part of newborn and child health coordination.
- Conduct a current and potential partner (e.g., private sector) mapping at state/regional level for expanding partnership.
- Include cost of IPC in township-level coordinated annual plan.
- Improve availability of standard communication packages.
- Scale up IEC corners in RHCs and Sub-RHC level as present coverage is low.
- Make a set of branded communication packages available, which includes posters, pamphlet, radio spots, TV spots and so on.
- Improve availability and utilization of information for C4D.
- Receive, compile and prepare progress reports on communication efforts at sub-national level, based on supervision and monitoring of communication activities. Several output level indicators are suggested in the national communication plan.
- Consider finalizing and incorporating BCC-related indicators in HMIS.

- Impact Indicators of C4D can be the coverage indicators of those interventions which are prioritized in the communication plan for scaling up e.g. care seeking for ARI, exclusive breast feeding and hand washing etc.

### **Strategy 2. Increased Access and Utilization of C4D for Newborn and Child survival**

- Conduct national advocacy round table on newborn and child health with parliamentarians.
- Scale up the social dialogue with community volunteers, faith leaders and joint initiative with MMCWA "Seven things this year" which includes six prioritized practices and one based on local needs.
- Develop and implement training plans for BHS and volunteers on IPC and social mobilization skills (after developing/updating existing training materials).
- Collaborate with and provide supporting materials to local authority private sector and media networks to incorporate key messages on child survival.
- Provide media tool kit to workers.
- Network with professional organizations including faith-based organizations, private sector and media networks for successful implementation. MMCWA, with eight million volunteers, reaches out in almost every township. Several NGOs have community-based activities.

### **Strategy 3. Enhanced Community Engagement for C4D**

- Inform about key practices using festivals, health facilities and video parlours for inter-personal communication by BHS/CHW and community leaders.
- Advocate with key opinion leaders and policy makers for social mobilization for newborn and child health.
- Plan and run a multi-channel campaign on selected key practices in partnership with radio stations, TV stations (or TV spots) and newspapers (for news articles), and setting up community corners in market places.
- Provide transportation costs, materials and standardized incentives to CHWs.

## 8. Key Indicators/Strategic Information for Newborn and Child Health

### 8.1 Four Sources of Strategic Information

The four major approaches for child health monitoring, with a uniform minimum system across all organizations and geographic areas, are:

- (a) Use of data from large-scale population surveys and related estimates,
- (b) Commissioning implementation/operational research or evaluation studies,
- (c) Use of HMIS data, and
- (d) Rapid appraisals including DQA and reviews.

The first will be through the usage of the periodic large scale Population Health Surveys and estimates. These include a Demographic and Health Survey (DHS), which would replace MICS from 2015 onwards; Civil Society Organizations (CSOs) and IGME estimates, under-five reported death statistics etc.

The second approach will be through the commissioning of special studies. These can be a concurrent evaluation study or an end of the project impact evaluation study. The studies can be commissioned after national level review of the robustness of study design and quality of the study team.

The third approach is the use of data from the HMIS that would be the most useful source of information for monitoring by township level. The capacity for analysis and use of information would need to be strengthened based on capacity gaps assessment. Notification of newborn and child death was initiated in 2011 in all townships in Myanmar using a simplified version of WHO proposed questionnaire.

The fourth approach would be through various appraisals. Rapid appraisals by public health experts from varying organizations can add significant value to implementation at sub-national and national level, despite its limitations, as these can fill the data gaps and improve implementation. More details on DQA and HMIS quality are included later.

### 8.2 Suggested Indicators for Newborn and Child Health and Logical Framework

The indicators suggested are at impact, outcomes and output level. Indicators selected for outcome are those that provide valid measures for an effective intervention, directly related to a programmatic aim and which is closer to impact. Myanmar has conducted a Commission on Infor-



mation and Accountability (COIA) for Women's and Children's Health workshop in 2013, identifying 11 indicators on reproductive, maternal, neonatal and child health, disaggregated for gender and equity to monitor the progress towards the goal of global strategy.

**Impact Indicators.** These are according to the age at the time of death. The COIA for UN Strategy for Women's and Children's Health recommends under-five mortality as an impact indicator.

**Outcome Indicators.** The COIA for UN Strategy for Women's and Children's Health recommends eleven indicators for the monitoring of maternal and child health. Countdown 2015 identifies five component areas of Child Health, (CH) each having few coverage indicators. These are nutrition, vaccination, other preventative interventions (ITN and vitamin A), case management and newborn health. The indicators recommended are those that provide valid measures for an effective intervention, directly related to a programmatic aim and that are closer to impact.

The following indicative list of indicators related to reproductive health, nutrition, vaccination and malaria etc., is available with respective units in the MoH and is not reproduced in the table below;

### **Met need for contraception**

- Percentage of women aged 15–49 with a live birth who received ANC by a skilled health provider at least once, and four times during pregnancy.
- Percentage of live births attended by skilled health personnel.
- Proportion of institutional deliveries.
- Percentage of infants aged 12–23 months who received three doses of DPT vaccine, measles vaccine.
- Proportion of children with fever who received appropriate anti-malarial drug.
- Proportion of children who slept under an ITN the previous night.
- Proportion of children living in households (HH) that use adequately iodised salt.
- Proportion of children who received a dose of vitamin A in the preceding 6 months.
- Proportion of infants 6-7 months who receive appropriate breastfeeding and complementary feeding.

### **Output Indicators**

The indicators measure availability, access, utilization and quality of newborn care and case management for common illnesses in young children. These are expected to be disaggregated at sub-national level so that comparisons can be made in different population segments and geographical

areas. It may be noted that, unlike many other South-East Asian countries, Myanmar's gender disaggregated data on key Newborn and Child health indicators does not reveal systematic and significant gender differentials.

### **Logical Framework**

A logical framework is tabulated below using the key indicator listing. It is based on the assumptions that the health policies will continue to be supportive of child health; that reasonable resources (human, financial, information, and infrastructure) are available for implementation of the plan; and that there is no serious negative impact on the child health programme due to unexpected natural events.

In a rapidly evolving programming context a mid-term review and course correction is recommended.

Table 11. List of Indicators for Newborn and Child Health (with current status and targets).

Indicator	Current Status	Data Source & Year	Target	Year	Data Source
<b>Impact Indicators</b>					
Under-five Mortality Rate*	52 per 1000 live births	UN Inter-agency estimates	39 per 100 live births (Vision 2030 by 2021)	2018	UN Inter-agency estimates
Infant Mortality Rate	41 per 1000 live births	2012 UN Inter-agency estimates	30 per 100 live births (Vision 2030 by 2021)	2018	UN Inter-agency estimates
Neonatal Mortality Rate	30 per 1000 live births	2012 UN Inter-agency estimates 2011	16 per 1000 live births	2018	UN Inter-agency estimates
Early Neonatal Mortality Rate (0-6 days) and Perinatal Mortality	Estimate awaited		8 per 1000 live births	2018	Neo-natal database; CDSR; UN estimates
<b>Outcome Indicators</b>					
Per cent of newborns who received all four elements of early essential newborn care at birth	NA		85 per cent	2018	Community Survey e.g. DHS
Per cent of newborn babies born at home who received cord care with chlorhexidine within 24 hours of birth	0 per cent	Not yet introduced	100 per cent	2018	Community Survey e.g. DHS; Public health statistics report
Per cent of mothers and babies who received postnatal care within two days of childbirth*	69.3	Public Health Statistic 2012	90 per cent	2018	HMIS, Community Survey e.g. DHS; Public health statistics report
Per cent of babies not breathing after birth receiving bag and mask resuscitation	NA		50 per cent	2018	Community Survey e.g. DHS
Newborns with possible serious bacterial infection who received appropriate antibiotic therapy	NA		50 per cent	2018	Community Survey e.g. DHS; Public health statistics report
Proportion of preterm babies weighing less than 2000g who receive kangaroo mother care and other supportive care	NA	NA	40 per cent	2018	HMIS and/or community survey
Per cent of infants 0-5 months who are exclusively breastfed*	23.16	MICS 2009-2010	>60 per cent	2018	Community Survey e.g. DHS
Proportion of under-five children who had diarrhoea receiving ORT	66.3 per cent	MICS 2009-2010	>80 per cent	2018	Community Survey e.g. DHS
Proportion of children with suspected pneumonia taken to appropriate provider	69.3 per cent	MICS 2009-2010	>90 per cent	2018	Community Survey e.g. DHS
Proportion of children aged 0-59 months with suspected pneumonia who received appropriate antibiotics*	34.2	MICS 2009-2010	70 per cent	2018	Community Survey e.g. DHS
Proportion of caregivers of young children who are aware of at least two danger signs	6.5 per cent	MICS 2009-2010	30 per cent		Community Survey e.g. DHS
Proportion of care givers and children who practice improved hand washing with soap	69 per cent after defecating	KAP WASH 2011 by MOH and UNICEF	75 per cent after defecation		Community Survey e.g. MICS

	40 per cent before eating		75 per cent before eating		
Output Indicators					
Per cent of township health facilities with 13 essential commodities for MNCH					Township Reports; Record review, supervisory visit
Per cent of MW receiving NBC training					Training Reports
Per cent of MW receiving Child Health training					Training Reports
Number of facilities offering sick newborn care					Township Reports
Per cent of HTR Villages with CCM available (by each State/Region)					Township Reports
Per cent of HTR Villages where community NBC is available					Township Reports
Per cent outreach sessions including child health planned vs actually held					Record review, routine reports; supervisory visit
Number of community based organizations, women's groups with strengthened C4D capacities					Township Reports
Case fatality ratios of sick newborns (sepsis, asphyxia, LBW) admitted to hospitals					Township Reports; hospital annual statistics

### 8.3 Additional Monitoring Towards Universal MNCH Care

Monitoring and evaluation must include progress with respect to three dimensions of achieving the goal of universal MNCH care. These aspects of universal health care are measured as progress on three axes:

**The Cost Dimension** is measured as out of pocket (OOP) expenditure on health care as a proportion of total health care expenditure. A key goal of Universal Health Coverage (UHC) is to reduce OOP expenditure to less than 20 per cent of total health expenditure over a period of time and this needs to be constantly tracked. Annual tracking of MNCH spending is critical.

**The Coverage/Access Dimension** is measured as the percentage of population in need of specific services that are actually able to access these services. A key goal of UHC is that it should reach 100 per cent. This includes preventative care. Collection of disaggregated data is important to identify the socially and geographically disadvantaged population.

**The Service Package Dimension** includes the list of free and assured services that are available and the time and difficulty to access these services, e.g., emergency care.

## 8.4 Data Quality Under HMIS

The HMIS data quality can be systematically studied by comparing data from routine reporting systems with household surveys and analyzing the possible causes for observed differences.

Independent assessment of data quality in Myanmar has been successfully piloted as Data Quality Assessment (DQA) by the Department of Health under the HSS initiative. This quick and effective method can be expanded to more townships for identifying data quality and related issues. A local level feedback, based on the results of DQA, can stimulate corrective action. An important step to improve data quality and utility is to actually use the data on a regular basis for planning and monitoring and implementation at all levels.

**Newborn and Child Death Audit.** As vital registration systems do not have sufficient coverage, a nationwide newborn and child death notification form has been in use for the last three years, based on a WHO-proposed standard verbal autopsy questionnaire<sup>42</sup> adapted into a highly concise form. In last few years this has brought visibility to young child death and made some basic information available. However, the quality and completeness and compilation of information (especially related to neo-natal and perinatal period) needs further attention.

**Neonatal Death Audits.** These review the process from onset of illness to death and can provide useful information for improved implementation of interventions. Issues that may contribute to mortality are (a) lack of early recognition of illness, (b) delayed appropriate care seeking and/or use of traditional providers/treatments, problems with access to facilities, and (c) poor quality of care at facilities. Neonatal death audits at referral hospitals and in community-based newborn care, can be considered.

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<sup>42</sup> WHO (1999) A Standard Verbal Autopsy Method for Investigating Causes of Death in Infants and Children.

## 9. Implementation Mechanisms for Newborn and Child Health Development

### 9.1 Effective and Sustained Coordination

The Myanmar Health Sector Coordinating Committee (MHSCC), detailed earlier, is the established coordination mechanism, with multi-sectoral participation and representation of various government ministries, UN agencies, international and local NGOs, donors and the private sector.

The MHSCC is the ultimate decision-making body for the health sector in Myanmar. It evolved from the well-established Country Coordinating Mechanism for the Global Fund and functions as a representative multi-stakeholder forum, dealing with high-level issues in the health sector, and aims to meet the international principles for aid accountability. The Minister of Health chairs the MHSCC and a Technical Strategic Group (TSG) has also been created for MNCH. MNCH TSG is supported by a Lead Child Health Working Group, Lead Reproductive Health Working Group and the Family Planning Working Group. Each group has core members who meet on a regular basis and, dependent on the agenda, the group is expanded to accommodate relevant partners.

The Newborn and Child Survival Forum under the MoH is the technical (not thematic) platform focusing on newborn and child health issues, with a broad participation of partners. The terms of reference of this forum are annexed here (Annex 3). In the last few years this forum has been meeting periodically to discuss various issues related to the key components e.g., community based NBC and the evaluation of community case management by health volunteers. The forum is expected to continue providing consistent and sustained leadership for newborn and child health. This includes mobilization of additional resources and greater coordination amongst the various units within the MoH that contribute to the continuum of care.

### 9.2 Define Common Standards for Uniform Application by Partners

The broad-based partnerships for newborn and child health are expanding and because of contributions by various partners towards the core components of this strategic plan, there is a risk of overlaps, fragmentation and varying standards for implementing the interventions, especially in progressively decentralized planning and implementation. It is therefore important to develop and implement uniform standards for all key interventions detailed in this strategic plan.

A significant number of guidelines, training materials and checklists have been developed at national level and field-tested. These relate to community based NBC, CCM, F-IMNCI, forms for the notification of child death including newborns, supportive supervision, overarching communication

strategy for child survival etc. Recently, Standard Treatment Protocols (STP) for sick newborns have been completed, in collaboration with academic institutions and the UN<sup>43</sup>. A list of these important documents is annexed (Annex 4).

In decentralized planning and implementation the application of these national standards would ensure uniformity across newborn and child health programmes by various partners. It would help the consistency of training materials and programmes, uniformity of commodities and supplies, uniform application of indicators within a common monitoring and supportive supervision framework, and the use of standard messages for prioritized family practices and BCC.

The application of standards and SOPs would be the pre-requisite for partnerships at all levels and would avoid duplication and confusion at the operational level. Financial standards including incentive/project activities are critical to address the financial sustainability of the projects led by implementing partners.

There is a need to identify the gaps and development of standards in a phased manner at national level by the Child Health Unit of the MoH with broad participation of partners.

### **9.3 Implementation Plans; Address Inequity**

SPR identified insufficient consideration of regional and cultural contexts in programming and underlined the need for linkages between national and sub-national levels. It is expected that the State/Regions, in collaboration with the Child Health Unit, would be able to identify and prioritize underserved townships and areas while preparing the implementation plans. Therefore the following is suggested:

- At the central level, the Child Health unit would develop an annual implementation plan aimed at providing implementation guidance to States/Regions and townships, the provision of sub-national technical support in planning and implementation, and enhancing the enabling environment including capacity-building and effective coordination and monitoring, with a focus on thrust areas.
- At township levels, the coordinated implementation plans for maternal and child health are developed in nearly one-third of the townships under the Health Systems Strengthening (HSS) initiative. Most of these townships are HTR and have identified low coverage areas/

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<sup>43</sup> MoH, WHO and UNICEF (2013) Standard Operating Procedures (SOPs) for sick young children.

vulnerable population. It is expected that the thrust areas (all or some) of this plan will be incorporated by township teams in their annual plans for implementation, covering entire States/Regions in the next few years in a phased manner, depending on the resources and capacity available. It is critical to prioritize low coverage areas and townships with a focus on improving equity.

Focusing on equity, as discussed earlier, requires at least two fundamental programmatic actions. One is to identify the most deprived children and communities in order to give priority to strengthening service delivery and the second is to identify main reasons for low coverage in a specific area. Some details in a Myanmar-specific context on these twin action points are given below.

### **Step 1. Identifying High Priority Areas/Townships for Improving Equity**

Many methods have been attempted to identify underserved areas/townships and to focus on the underserved population for additional support for disparity reduction in Myanmar. Disaggregating data not only at State/Region level but also within townships, to identify the villages/areas, has been attempted in the EPI programme and HSS initiative in Myanmar. The inception phase of the 3MDG fund in Myanmar employed two options for the selection of a limited number of townships, based on HMIS and community survey data<sup>44</sup>.

It may be noted that there is a significant overlap of the townships, identified by various methods, signifying some consistency of results irrespective of different criteria. Some of the methods used in Myanmar (which may not be exhaustive) are summarized below as guidance for States/Regions to identify and prioritize the townships for implementation of this strategic plan.

#### **Method 1. Using HMIS data (2012) on Child Health including Neonatal Health**

The reported coverage rate/status for six indicators, reported as per the HMIS 2012 data compilation for Newborn and Child Health, are used to construct a summary measure of the inequity reflected as differences in the coverage of Newborn and Child Health Services. The six indicators are; ORT utilization rate (per cent); antibiotics treatment coverage in ARI cases (per cent); measles immunization coverage (per cent); LBW (per cent); early neonatal death rate (per 1000 LBS); under-five mortality rate (per 1000 LBS)<sup>45</sup>. Based on this analysis (with HMIS related data limitations) nearly one-third of townships are prioritized as follows:

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<sup>44</sup> 3MDG Fund (2012) Inception Phase of the 3MDG Fund/MNCH Selection Criteria for Townships.

<sup>45</sup> HMIS unit, DHP (2014) Indicators related to MCH by Region/State and Township (2012 HMIS data) power point presentation.



Table 12. Priority Townships for Child Health using HMIS 2012 Data

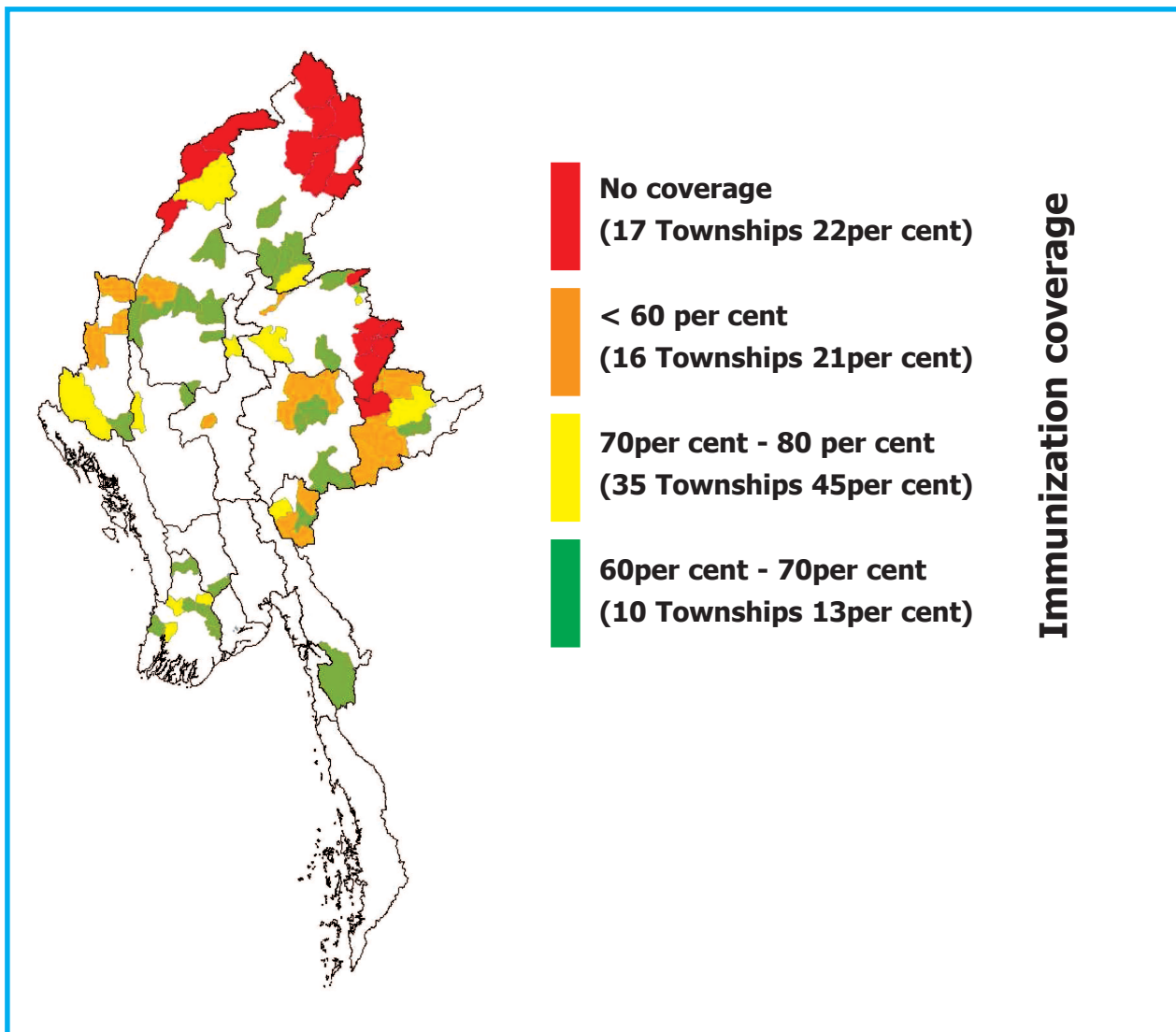
Sr No	State/ Region	# of Priority Townships
1	Ayeyarwady	6
2	Bago	9
3	Chin	4
4	Kachin	9
5	Kayah	5
6	Kayin	1
7	Magway	0
8	Mandalay	4
9	Mon	0
10	Rakhine	4
11	Sagaing	11
12	Shan (E)	9
13	Shan (N)	6
14	Shan (S)	16
15	Tanintari	1
16	Yangon	20
<b>Total</b>		<b>105</b>

### Method 2. Using DPT3/ Pentavalent Vaccination Coverage

78 townships out of 330 (24 per cent) were observed to have a reported coverage of 80 per cent or less in 2011. These are mapped on Figure 3 below and were prioritized for intensification of immunization efforts in 2012<sup>46</sup>. It is interesting to note the reasons for low coverage, as they are instructive for programme planning. Lack of community involvement was not the identified cause in even a single instance.

<sup>46</sup> MoH, Central EPI Unit (2012) Intensification of RI in Myanmar 2012.

Figure 3. Low Coverage Townships Using DPT 3/Pentavalent 2012



### Reasons for low coverage

More than 40 per cent of the population was hard to reach geographically or socially. Lack of security and/or lack of health workers were the cause in 25 per cent instances. Lack of vaccine (supplies availability) contributed to 15 per cent and higher/faulty target setting to 16 per cent of the causes for low coverage.

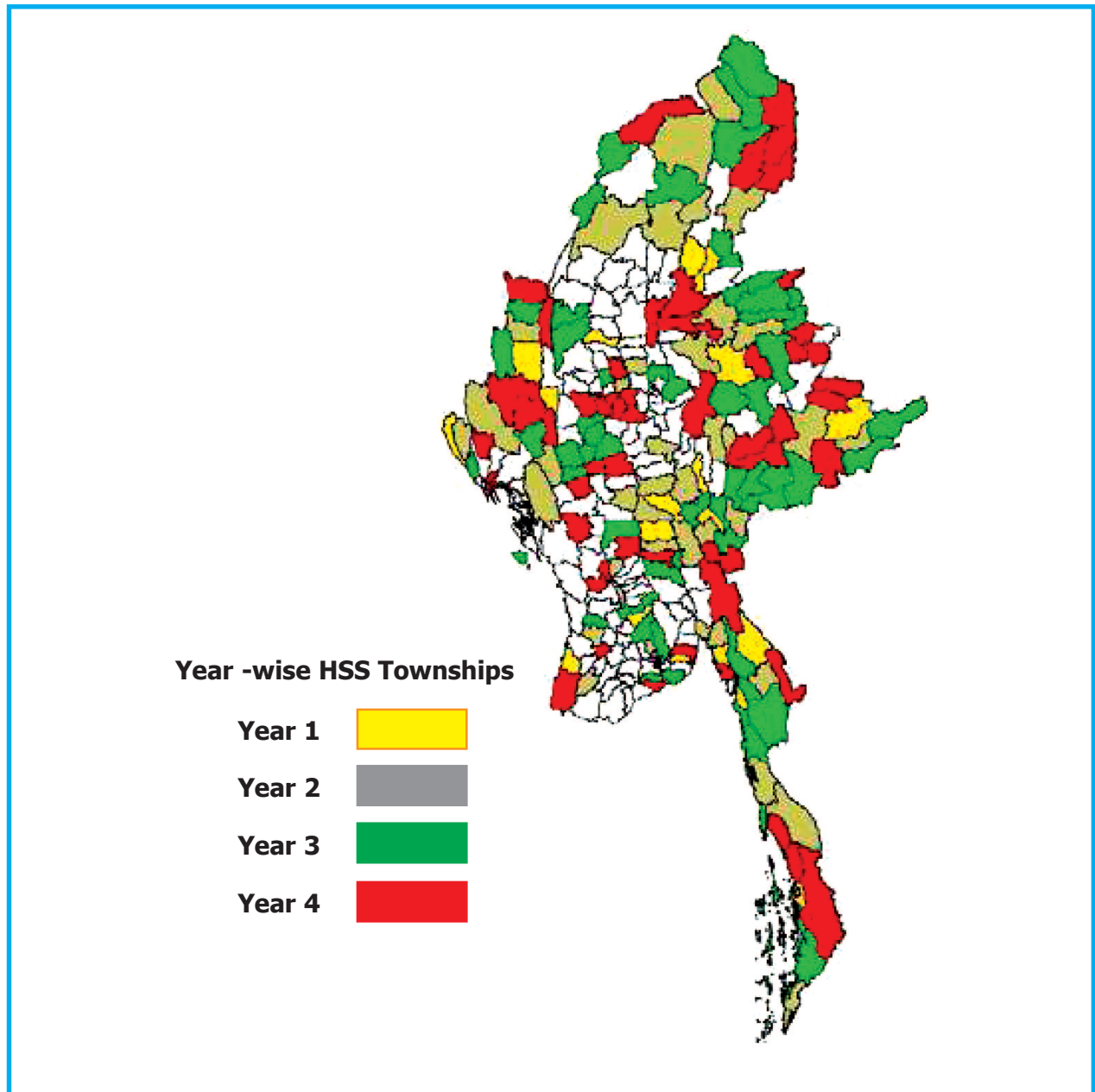
### Method 3. HTR Townships Identified under HSS Initiative

The HSS initiative supported by GAVI includes around 130 townships, which have, over many years, low immunization coverage primarily due to geographically HTR townships requiring additional mobile teams for outreach sessions<sup>47</sup>. These townships under the HSS initiative have been strengthened with managerial capacities and development of coordinated township plans, integrating RMNCH

<sup>47</sup> MoH (2008) GAVI Alliance Health System Strengthening (HSS) Application of Myanmar.

and nutrition. The health system capacities have therefore been improved in these known areas of persistent inequity. Expanding the core components of NBC and CCM in these townships is likely to create significant positive synergy.

Figure 4. 180 Townships selected for Health Systems Strengthening (HSS)



There is a need for phasing in the core components of the Newborn and Child Health Strategic Plan, i.e. newborn care, community case management and community engagement for child survival, by selecting an appropriate number of townships every year.

To highlight the availability and accessibility of health care services, a systematic mapping of health services availability is being undertaken, with emphasis on spatial distribution of health facilities

and service providers according to the population density. This data could be effectively utilized in detailed planning in respective state, regional and township level in terms of equity issue.

## Step 2. Reasons for Low Coverage

Use of AAAQ framework recommended under this strategic plan (or determinants of coverage) at local level would lead to identification of bottlenecks in terms of availability, access, utilization or quality which lead to low coverage. Some of the common barriers identified in Myanmar during the SPR<sup>48</sup> are;

- Limited availability of skilled human resources and/or commodities; many vacant posts in HTR areas.
- Sub-optimal quality of training and skill building.
- Lack of focus on improving quality of services, includes inadequate supportive supervision.
- Insufficient information, education and communication on key family practices.

Actions to remove these barriers can then be prioritized, costed, implemented and monitored.

## 9.4 Financial and Human Resources for Newborn and Child Health

Reducing OOP expenditures for the poorest is central to an effective equity-focused approach. In a fast changing policy environment, MoH focus is moving towards reduction of OOP expenditures. Social Health Insurance (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 OOP expenditure. 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.

The Health Workforce Strategic Plan 2012-2017 for Myanmar has been launched and has initiated pre-requisite activities, aiming to ensure availability and deployment of an adequate number and mix of suitably qualified health workers at all levels of the system. One of the targets is to develop bridging courses to up-skill AMWs to fully qualified midwives by 2017<sup>49</sup>.

There are 14 State/Regional Training teams who were strengthened in last few years with training methodologies, training MIS and capacity to train workers on community health education under a

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<sup>48</sup> MoH (2014) Draft Report on Short Programme Review for Child Health in Myanmar.

<sup>49</sup> MoH (2014) Strategic Directions for Universal Health Coverage.

JICA supported initiative<sup>50</sup>. All townships have a training team with a TMO, Health Assistant (HA) and township health nurse as members. These training teams can be enabled to undertake training on NBC, BCC and other core components of the Child Health Plan in the selected townships in their respective areas for capacity building.

There is a need to excel in management skills and to be able to plan and monitor the implementation of newborn and child health programmes effectively at state and township levels. A five-day package on Managing Programmes to Improve Child Health has been developed by WHO, to improve essential knowledge and skills of programme management<sup>51</sup>. This has been introduced in Myanmar but very few managers at sub-national level have been trained. Strong programme management capacity at the peripheral level is crucial to prevent any dilution of service delivery during decentralization and it is expected that the management training will be rapidly scaled up in collaboration with UN agencies.

The SPR noted that with budgetary increases essential drugs are procured adequately but that storage and distribution needs improvement.

## **9.5 Technical Shifts for Treatment of Priority Diseases and Newborn Care**

Three neonatal conditions and three common illnesses are the prominent causes of under-five mortality, with severe malnutrition as an underlying/associated condition. This section suggests a few critical technical/policy shifts required for effective coverage with priority interventions, with a focus on underserved areas (this discussion does not include interventions implemented under continuum of care by other sections/strategic plans).

It may be noted that in many technical areas e.g., exclusive breastfeeding, treatment of diarrhoea and malaria, no shifts are required. The major components requiring strengthening of enabling environment are pneumonia and newborn care. In both instances, task shifting is required for a rapid scale up.

Pilot implementation of community case management of pneumonia and diarrhoea (with malaria in endemic areas) has been successfully completed and evaluated. There is a need for national guidance on rapid expansion of pneumonia management at community level in HTR areas with poor accessibility to health facilities.

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<sup>50</sup> MoH(2012)JICA project on strengthening of training teams.

<sup>51</sup> WHO (2009) Managing programmes to improve Child Health; Modules for training.

The policy decision on treatment of neonatal sepsis with injectable antibiotics at SRHC and RHC level is difficult, especially in view of the absence of local evidence. It is therefore recommended that a well-planned pilot be considered to assess the technical and financial feasibility.

Use of injectable corticosteroids in preterm deliveries has been identified for inclusion during SPR. Some of the policy/guidelines related to important actions required for newborn care are also detailed under specific actions in section 8 and these need to be addressed.

## 9.6 Multi-sectoral Collaboration for Child Health

Factors outside the health sector, such as social and economic policies, food security, education for all, water, sanitation and hygiene, and transport, have a direct or indirect impact on MNCH.

**Outcomes making MNCH a “whole government” matter.** Some examples are cash transfers or benefits for families below the poverty line or increasing government expenditure on health gradually to WHO recommended levels. The following table illustrates some cross-sector action for Newborn and Child Health identified in Myanmar.

Table 13. Cross Sector Actions to Improve Child Health

Ministry/department	Suggested Cross-sector Action
City Development Council	Urban Health
Ministry of Agriculture	Improved Food Security through subsidy/cash transfer/ food for work etc.
Ministry of Education	ECD and Universal Primary Education for girls
Ministry of Transport	Public transport for referral- subsidized
Ministry of Finance	Health budget allocation
Ministry of Border Affairs	Child health in border areas and WASH in health facilities
Ministry of Social Welfare, Relief and Resettlement	Humanitarian response, urban health and actions for families below poverty line
Ministry of Information	Dissemination of health messages
Ministry of Religious Affair	Monastery education and communication
Ministry of Communication and Information Technology	Innovative m-Health

The NHC is an established forum for cross-sectoral collaboration for the possible actions suggested in the table. Child health in humanitarian response is detailed in section 4. Urban health and ECD are briefly discussed below.

### 9.6.1 Urban Health

The urban population in Myanmar is growing at a fast pace and is likely to reach 40 per cent by 2015. This means an increasing number of urban poor (estimated at 40 per cent of Yangon population by UN Habitat). They live in high population density areas, with poor WASH facilities and limited access to basic health care. Due to lack of demand side financing, low awareness, insufficient out-reach sessions, identification and targeting of the urban poor, and not enough public health infrastructure, the access and utilization of public health services is low. Availability of affordable services at close proximity, at a convenient time for working urban poor, is the unmet need.

To support urban health services for the poor, four result areas were identified in a recent assessment<sup>52</sup>. These are strengthening of the health system, increased availability of health care for urban poor, increasing access to services and developing PPP (Public Private Partnership) models.

For the strengthening of urban health services management, increased collaboration between MoH and other key Urban Health care providers is required; with, for example, the Ministry of Labour (Employment and Social Security Board), Local Municipality Authorities (Yangon City Development Council), NGOs and private providers. The Urban Health Task Force is aiming to develop an Urban Health Country Strategy and Framework. This would include the packages, standards and monitoring system.

**Linkages with Newborn and Child Health (CH) Plan:** There is a need that (i) Newborn and CH is adequately represented in National Urban Health Task Force, ensuring inclusion of key components of the national strategic plan and (ii) the Child Health division of MoH needs to provide technical and material support in the planning and delivery of newborn and child health services for the urban poor.

### 9.6.2 Early Childhood Development (ECD)

Child growth and brain development depend on good nutrition and stimulation and the caretaker's emotional responsiveness. The brain is most responsive in the first three years of life. This is when it grows and develops fastest and there is strong evidence that combined/ cross-sectoral programmes improve growth and developmental outcomes both in the short and the long term.<sup>53</sup>

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<sup>52</sup> MoH and 3 MDG fund 2014 Health care for the urban poor in Myanmar.

<sup>53</sup> WHO and UNICEF Joint Statement 2012 Integrating Early Childhood Development (ECD) activities into Nutrition Programmes in Emergencies.

The promotion of ECD is a vital intervention and can be achieved by enhancing the skills of parents to provide age-appropriate and responsive stimulation to their children, through play and communication activities starting from birth. Referral services for developmental delays and caregiver group learning experiences at the community level for disadvantaged children should also be supported.

Lack of recognition of the importance of Early Childhood Care and Development (ECCD) and a lack of a policy framework for ECCD coupled with a lack of resources, were key barriers for expanding ECCD services when the earlier CH strategic plan was developed in 2010. Since then, the National ECCD Steering Committee and Task Force have made significant progress. A multi-sectoral Myanmar Policy for ECCD was officially adopted and launched in 2014, and the ECCD Strategic Plan, an implementation framework, was also developed, along with a costed action plan, which will be adopted soon. Many initiatives under the ECCD Policy are already moving forward. Community and school-based preschools and alternative models (such as home visits and parenting) are promoted to increase the access of children aged 0-8 to ECCD services. In targeted preschools, supplies and technical support have been provided to establish school-based ECCD facilities, through giving training to School Management Committees and ECCD teachers. The ECCD Policy also includes robust sections for early childhood health, nutrition and sanitation services as well as for child rights and protection. The ECCD Policy calls for preconception education and care, the expansion and improvement of antenatal and postnatal education and care, comprehensive parent education, Early Childhood Intervention (ECI) services, and many other programmes that are included in this strategic plan.

**CH division and MoH contribution to ECCD.** Play is the main component of early childhood stimulation and central to good mother-child interaction. Therefore, mothers and caregivers would be encouraged to incorporate play and stimulation as a part of feeding practices and care during illness. Effective coordination with RH, nutrition, EPI etc., is required and can be strengthened by empowering families to not only improve food intake but also encourage child stimulation through family interaction.

### 9.6.3 Early Childhood Intervention (ECI)

Policy Strategy 3 of the Myanmar Policy for ECCD called for the development of a national system for early ECI. It states, "Develop, improve and expand early childhood intervention and rehabilitation services to help each child achieve his and her full potential, and to prevent the discrimination and stigmatisation of children with special needs."



ECI services target children with developmental delays, malnutrition, chronic illnesses, disabilities and atypical behaviours. Because 35.1 per cent of Myanmar's children are chronically malnourished and a high level of children have disabilities or other high-risk situations, low cost and quality services that are individualised and intensive are urgently required to ensure children achieve their full potential. Through the provision of ECI services, costs for later health care and special education services will be lowered, and children will become more productive citizens.

At present, the Multi-sectoral ECI Steering Committee and ECI Task Force are preparing the National Strategic Plan for Early Childhood Intervention along with ECI Programme Guidelines and Procedures, service and personnel standards, and many other elements. Pilot ECI sites will be planned in 2016 and will be implemented, monitored and evaluated in three States and Regions during 2017. The Ministry of Social Welfare, Relief and Resettlement is leading the development of the ECI Strategic Plan in close coordination with the Ministry of Health, Ministry of Education, Ministry of Home Affairs, Ministry of Planning and Economic Development, Ministry of Finance, Ministry of Border Affairs and other ministries. The draft National ECI Strategic Plan calls for close coordination between health and nutrition services of the MoH and ECI transdisciplinary teams at regional, district and township levels. ECI services will be well coordinated with and will support all services presented in this Strategic Plan for National Newborn and Child Health and Development.

## 10. Towards Costing of Newborn and Child Health Strategic Plan

The MoH has developed the national health plan that requires accurate costing information to ensure adequate resource mobilization and financial allocations. Sub-programmes under the national health plan, such as MNCH and RH also need to be costed as a part of the national health plan.

### 10.1 One Health Costing Tool and Methodology

One Health Tool (OHT)<sup>54</sup> is a software tool developed by WHO with all UN agencies, aiming to assess public health investment needs in low- and middle-income countries at national level. Most existing tools take a disease-specific approach, while OHT links the existing tools in a uniform format. Thus, it considers the demands on the health system both from a health system perspective as well as programme specific perspective, simultaneously making a case for integrated Reproductive, Maternal Newborn Child and Adolescent Health (RMNCAH) costing.

#### Rationale for Integrated RMNCAH costing using OHT

Individual strategic plans have limited consideration for health system components. For example, scaling up any specific programme involves health workers' time, demands on supply chain and logistics, facility infrastructure and so on, but this feasibility can be checked only against the total capacity versus the total load. Thus, an integrated planning for RMNCAH would aggregate time required for scale up for all programmes against available workers time. Additional supplies and logistics for each programme would provide overall load by converting into extra weight and volume increases, thereby predicting warehousing and logistics requirements.

It can thereby calculate the HSS costs of each programme for resource pooling/cost sharing. Moreover, OHT would at the same time give the costs and impact by each MDG or programme, detailing the HSS inputs required for the expected service outputs.

**Sub-national level costing:** Use of AAAQ framework or determinants of coverage at local level would lead to identification of bottlenecks in terms of availability, access, utilization or quality, and, based on the proposed solution, the marginal cost to overcome those barriers at sub-national level is a critical component of local costing of the Implementation plan.

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<sup>54</sup> WHO 2012 The United Nations One Health Costing Tool; Rationale and Development

## 10.2 Basic Costing Assumptions

To undertake a comprehensive newborn and child health costing exercise, within a HSS approach, the following major categories of information would be required:

- (a) The epidemiology and major causes of newborn and child mortality. This information is available from various sources and has been discussed in section 3. Some of the demographic information that would be required is given under section 1.
- (b) Proven high impact interventions and coverage levels. These are included in various current child health related plans and are tabulated earlier. Current coverage with some of the critical interventions is included under section 4.
- (c) Health System parameters include the population norms for various facilities, staffing and equipment, at each of the levels, as well as community based volunteers and services. Estimates of staff time required per activity area and the gap between existing and desired number of personnel are required. Some of these are outlined in section 1.

Financial parameters are numerous and include macro-economic variables and health related financial variables. The latter category would include generic items like salaries, travel allowances and so on, as well as specific inputs for child health e.g., drugs and supplies. Some preliminary information is included in this section.

The costing of the earlier Child Health Strategic Plan 2010-2014 was included in the implementation plan. The costing exercise estimated only the additional costs for specific interventions and were broadly classified into (i) supplies and medicines; (ii) training and capacity development (iii) supportive supervision and monitoring and (iv) preparatory activities for CH.

It did not include the contributions that are expected to be made for Newborn and Child Health and Development from other plans, such as RH, EPI, nutrition, malaria, TB, HIV/AIDS, WASH, ECD etc. Neither did the costing include the human resources required by the public health system or implementing partners. A similar indicative costing is summarily presented at the end of this section.

## 10.3 Indicative Costing of Main Activities under Newborn and Child Health Plan

This can be done using estimated incremental costs by either major strategies/activities or by core component areas of the Newborn and Child Health plan. The following are two available estimates;

1. DoH task force on work plan for accelerating activities to reduce under-five mortality in 2013 has

estimated the annual cost by major strategic areas in local currency Myanmar Kyat (MMK) as follows;<sup>55</sup>

- Scaling up newborn and child survival activities; 300 million MMK
- Increasing/strengthening political and social support; 1.2 million MMK
- Ensuring availability of drugs and equipment for MNCH; 69 million MMK
- Improved monitoring and HMIS; 0.55 million MMK
- Enhancing community engagements and community mobilization; 10 million MMK

2. Township-based actual additional costing by core component area, based on actual expenditure by partners in a project mode. These are incremental and only indicative as the actual costs vary by major inputs and by partner. The following estimates are developed by UNICEF for scaling up in new areas, in the first year, for the three thrust areas. Integrated implementation would decrease the cost;

- Community Case Management of diarrhoea and pneumonia; US\$ 550 per volunteer to train, equip and provide supportive supervision.
- Home-based newborn care by community volunteers; US\$ 250 per volunteer for training, supplies, equipment, job aids and supportive supervision.
- Intensive C4D/communication implementation as per the national strategy in a township; US\$ 190 per volunteer in the first year.

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<sup>55</sup> DoH (2013) cost estimates provided in the work plan for accelerating activities to reduce under-five mortality.

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## Generic Actions by HSS Blocks (suggested in WHO framework)

### Leadership and governance

- Strong and visible Leadership
- Coordination mechanism for supporting CH programmes
- Appropriate policy and regulatory frameworks
- Health care providers; quality and accountability
- Protecting the right to health of the poor population
- In the ongoing decentralization scenario in Myanmar strong programme management capacity at sub-national level is a pre-requisite to avoid adverse effects

### Financing

- Linking resources to incremental cost of scaling up
- Reducing OOP expenditure
- External funding
- Budget decentralization, but with adequate capacity for management and also accountability

### Health Workforce

- Prioritize underserved areas with incentives to retain workers
- Task shifting based on evidence
- Use of CHWs to improve access to essential CH interventions (management of sick children)
- Use of MW for initial triage and management of sick children
- Focal points for CH programme management; clear mechanism and tools for supportive supervision
- Effective training; skill based; problem solving; updated pre-service curriculum

### Infrastructure and Supply/Logistics

- Strengthen infrastructure in HTR/ disadvantaged areas
- Affordable access to essential drugs; generic prescribing; procurement; logistics; quality private sector
- Regional collaborations in production; legislation on Intellectual prop rights

## Health information Systems

- Include key indicators data; improve data collection/ analysis for equity
- Local analysis and use of data; build capacity; child deaths - mapping and reviews
- Large scale surveys; harmonize timing and contents for impact, equity and quality dimensions



## Child Health Interventions by Packages and Main Health Outcome

1.1 Family preventative/WASH services
Insecticide Treated Mosquito Nets (ITNs), Indoor Residual Spraying (IRS)- malaria
Household water treatment - diarrhoea; access to improved water source - diarrhoea, underweight
Use of improved sanitation facility - diarrhoea, underweight; safe disposal child feces- same as above
Hand washing with soap - diarrhoea, underweight
Hygiene promotion (food hygiene, disposal of excreta, etc.) - diarrhoea, underweight
1.2 Family neonatal care
Safe/clean home delivery - infection, tetanus (also for mother)
Initiation of breastfeeding within 1st hr. and temperature management- neonatal infection, diarrhoea, under nutrition
Universal extra community-based care of LBW infants - prematurity, infection, underweight
1.3 Infant and child feeding
Exclusive breastfeeding for children 0-5 months - diarrhoea, pneumonia, underweight
Prolonged breastfeeding for children 6-11 months - diarrhoea, pneumonia, underweight
Complementary feeding (minimum adequate diet) - diarrhoea, pneumonia, underweight
Therapeutic feeding/ SAM Treatment - diarrhoea, pneumonia, underweight; measles, malaria
1.4 Community illness management
ORT - diarrhoea, underweight
Zinc for diarrhoea management - diarrhoea, underweight
Vitamin A - treatment for measles - measles, underweight
Chloroquine for malaria (P.vivax)- malaria, underweight
Artemisinin-based combination therapy for children - malaria, underweight
Artemisinin-based combination therapy for pregnant women/adults - malaria, underweight
Antibiotics for U5 pneumonia - pneumonia, underweight
Community based management of neonatal sepsis - neonatal infection,
2.1 Preventative care for adolescents & adults
Family planning - MMR; HPV vaccination - Nil; Pre-conceptual folate - congenital, underweight
2.2 Preventative pregnancy care
Antenatal Care

Calcium supplementation in pregnancy – prematurity, eclampsia, underweight
Tetanus toxoid – tetanus
Deworming in pregnancy – anaemia
Detection and treatment of asymptomatic bacteriuria- prematurity, infection in mother, underweight
Treatment of syphilis in pregnancy - neonatal infection
Prevention and treatment of iron deficiency anaemia in pregnancy - anaemia mother
Intermittent preventative treatment (IPTp) for malaria in pregnancy - neonatal infection, underweight, stunting
Balanced protein energy supplements for malnourished pregnant women - prematurity, underweight, stunting
Supplementation in pregnancy with multi-micronutrients - prematurity, maternal anemia, underweight, stunting
<b>2.3 HIV/AIDS prevention and care</b>
Preventing mother to child transmission (PMTCT) - HIV in under-five
Provider Initiated Testing and Counselling (PITC) - nil
CTZ prophylaxis for children of HIV+ mothers – HIV
<b>2.4 Preventative infant &amp; child care</b>
Measles immunization - Measles; BCG immunization - Nil; OPV immunization - Nil
DPT immunization/Pentavalent (DPT-HiB-Hepatitis b) immunization - pneumonia, underweight
Neonatal vitamin A supplementation - U5-diarrhoea, pneumonia, malaria, underweight
Vitamin A supplementation - U5-diarrhoea, pneumonia, malaria, underweight
<b>3.1 Maternal and neonatal care at primary clinical level</b>
Normal delivery by skilled attendant -Newborn- prematurity, tetanus, infection, asphyxia; Mother - bleeding, infection, tetanus
Active management of the third stage of labour- Mother - bleeding, infection, tetanus
Basic emergency obstetric care (B-EOC) - infection, eclampsia, obstructed labour
Resuscitation of asphyxic newborns at birth- asphyxia
Antenatal steroids for preterm labour - prematurity, underweight
Antibiotics for Preterm/Pre-labour Rupture of Membrane (P/PROM) - infection, underweight
Detection and management of (pre) eclampsia (Mg Sulphate)- prematurity; eclampsia; underweight
Management of neonatal infections Primary Clinical level - neonatal infection, underweight
<b>3.2 Management of illnesses at primary clinical level</b>
Antibiotics for dysentery and enteric fevers - diarrhoea, underweight
Zinc for diarrhoea management - diarrhoea, underweight
Chloroquine for malaria (P.vivax)- malaria, anemia, underweight; Management of complicated malaria-malaria only

Artemisinin-based Combination Therapy for children/PW/adult - malaria, underweight
Detection and management of STI - HIV; Antibiotics for opportunistic infections - HIV
First line ART for children with HIV/AIDS/Mothers – HIV
TB case detection and treatment with category 1 and 3 drugs/re treatment with category 2 drugs - TB
<b>3.3 Clinical first referral care</b>
Basic emergency obstetric care (B-EOC) - delivery by skilled attendant, active management of third stage, resuscitation asphyxia
Comprehensive emergency obstetric care (C-EOC)
Prevention and management of complications of unwanted pregnancies 1st referral
Management of serious neonatal infections at referral level
Clinical management of neonatal jaundice
Universal emergency neonatal care (asphyxia aftercare, management of serious infections, management of the VLBW infant)
Children second-line ART/Adult
<b>3.4 Clinical second referral care</b>
Comprehensive emergency obstetric care (C-EOC)
Clinical management of neonatal jaundice
Universal emergency neonatal care (asphyxia aftercare, management of serious infections, management of the VLBW infant)
Management 2nd line ART failure
Management of multidrug resistant TB (MDR)
Other emergency acute care

## **Delivery Modes**

1. Family orientated community based services
2. Population orientated schedulable services
3. Individual orientated clinical services

# ANNEX 3

## Terms of Reference

### 3.a MNCH TSG

#### Overall aim;

- To coordinate the implementation of the national strategies related to maternal newborn and child health in Myanmar

#### Purpose;

- To provide policy and strategic guidance for improved coordination and address technical issues related to maternal, newborn and child health

#### Special tasks;

- Ensure effective coordination of and collaboration between all MNCH partners
- Develop and implement overarching strategic framework for MNCH, encompassing RH strategic plan and child health strategic plan including
- Clear hierarchy of indicators from outputs to outcome to impact level
- Overall costings for outputs
- Criteria for prioritization and resource allocation for scaling up effective interventions
- Prioritize and promote equity
- Ensure effective collaboration with related programmes
- Programmatic guidance to facilitate integration of service delivery across human resources for MNCH
- Effective commodity logistics and supply systems for MNCH
- Information systems and data quality assurance
- Quality of service delivery
- Annual review and report of the overarching strategic framework through collection, compilation and synthesis of output and outcome indicators on MNCH across all partners
- Identification of gaps with focus upon vulnerable and HTR population
- Mapping of resources for MNCH with purpose of identifying gaps and priorities for scale-up
- Develop an agenda for research and data collection
- Develop an annual work plan for MNCH TSG with clear deliverables and milestones

### 3.b Lead Child Health Working Group

#### Purpose;

- To facilitate the work of TSG by undertaking specific tasks especially advisory, administrative and managerial issues

#### Special tasks;

- Preparation including detailed discussion on topic-wise, and arrangement for TSG meeting
- Follow up of discussion, decision and feedback from TSG meeting
- Linkage with other related TSGs in term of the synthesis of their related outputs
- Documentation and submission to TSG
- Meeting will be held prior to TSG meeting and whenever necessary
- Report to and be accountable to MNCH TSG
- Meeting minutes will be prepared for all meetings and shared to TSG in the subsequent meeting
- Nature of work shall be advisory
- All issues will be submitted to MOH at the subsequent meeting for review and approval
- If any urgent actions are required to be taken, the meeting minutes should be forwarded to all TSG members without waiting for next TSG meeting for their approval or modification within a specified time

### 3.c Newborn and Child Survival Forum

- Serve as a forum for information sharing on child survival interventions, coverage, updates
- Involve all stakeholders and encourage collaboration through coordination by DoH.
- Identify and prioritize high impact interventions and develop the standard for the scale up
- Support community mobilization for CS
- Identify gaps and commission studies in support of Countdown Indicators for Child Survival
- Establish a database (disaggregation) for all child survival, research studies, and reports
- Develop/consolidate and disseminate standards (e.g., harmonized training materials, supplies etc.) for implementation of high impact child survival interventions by UN, INGOs, Local NGOs and partners
- Provide Monitoring and Evaluation guidelines/ reporting for the child survival program
- Work as a link between Myanmar Child Survival efforts and the international community
- Identify and support a secretariat for the child survival initiative
- Resource mobilization

# ANNEX 4

## National Standards/Documents for Child Health (guidelines, training materials, IEC, checklists, reporting forms etc.)

### List of National Standards / published documents (guidelines/ manuals etc.) on New-born, Child Health

Sr No	Manual/ Guideline/ publication	Date/ year	Language	Prepared by
1	Training package for community based NBC with facilitators guide (5-day course)	2012	Myanmar	MoH and UNICEF
2	Training package for community case management of pneumonia and diarrhoea with facilitator guide (5-day course)	2013	Myanmar	MoH and UNICEF
3	Toolkit for Community Case Management: Implementation Guide and Technical Supplement	2013	English	MoH and UNICEF
4	Monitoring and supportive supervision format for community based newborn care and CCM	2012	Myanmar, English	MoH and UNICEF
5	Adapted IMNCI Training manual and Algorithms Handbill for Basic Health Staff (7-day course)	2012	Myanmar	MoH and UNICEF
7	F-IMNCI Training Package with facilitator guide and Chart Booklet for in-patient care (5-day course)	under process	English	MoH, WHO and UNICEF
8	Standard Treatment Protocol (STP) for Managing Common Newborn Emergency Conditions (Hospital Level)	2013	English	MoH, WHO and UNICEF
9	Training manual for health care providers on Interpersonal Communication (focus on Young Child Survival) (3-day course)	-	Myanmar	MoH and UNICEF
10	Standardized Messages for IEC materials including MNCH	2014	Myanmar	MoH and UNICEF
11	Overarching Communication strategy for Young Child Survival and Development in Myanmar	2012	Myanmar, English	MoH, UNICEF and Partners



