Based on information collected from Member States in 2011; it will be updated periodically

IMPLEMENTATION STATUS OF NEWBORN AND CHILD HEALTH INTERVENTIONS IN South-East Asia Region

PROGRESS ON MDG 4 IN SEA REGION

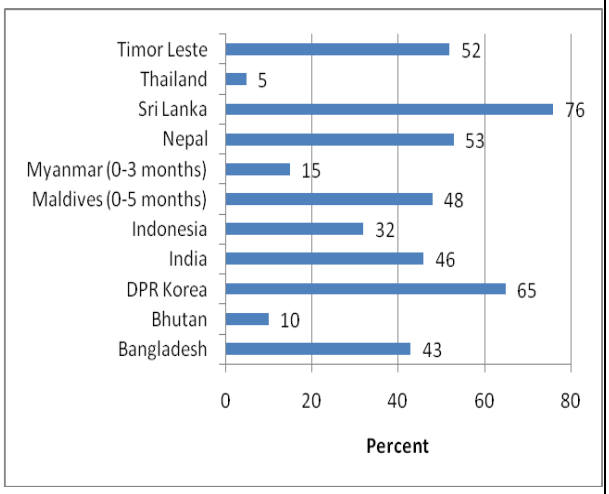
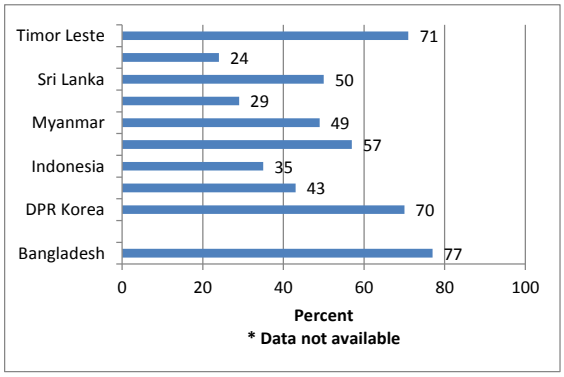
The 11 member countries of the South-East Asia (SEA) Region together contribute a population of 1.7 billion, amounting to about a quarter of the world's population of 6.6 billion. However, the Region contributes almost a third of all the maternal deaths in the world and about 28% of the total under-five child deaths globally.

Globally as well as Regionally, MDG 4 on reducing child mortality has made some impressive progress. However, at this rate of progress the Region as a whole is unlikely to achieve the target by 2015. The table below provides selective indicators based on recently released World Health Statistics Report, WHS-2012.

Country	Under 5 Mortality 2010 Per 1000 LB	Target U5MR MDG 4 Per 1000 LB	Infant Mortality 2010 Per 1000 LB	Measles immunization coverage (%) 2010
Bangladesh	46	46	37	94
Bhutan	54	46	42	95
DPR Korea	33	15	26	99
India	61	38	47	74
Indonesia	32	27	25	89
Maldives	11	35	9	97
Myanmar	62	36	48	88
Nepal	48	45	39	86
Sri Lanka	12	10	11	99
Thailand	12	12	11	98
Timor-Leste	54	60	46	66
Source	UN IGME Child Mortality Report 2012			World Health Statistics 2012

SEAR Member States have been implementing most of the globally recognized evidence-based interventions for newborn and child health. However, the recent DHS /

MICS reports suggest that the coverage of newborn and child health interventions has been uneven with significant disparities among countries in the Region as well as within the countries. The scale-up of intervention package and quality depend on effective planning and implementation of these interventions across the continuum of care.

Proportion of infants less than 6 months exclusively breastfed	**Children 0-59 months with diarrhoea past two weeks given ORS**
	

Source: Recent Country DHS /MICS survey reports

WHO-SEARO has collected information related to the newborn and child health interventions being implemented in the Member States of the Region. The main objective was to assess the current implementation status and identify gaps, if any. The findings would be useful for defining priority areas that need to be strengthened in the national plans as well as the WHO Biennium work plans.

A questionnaire was developed for this purpose and sent out to CH Focal Points in the WHO Country Offices with the request to collect the desired information. They collected the information from the counterparts in the ministry of health; consulted recently published reports and consulted partner organizations like UNICEF. Due caution has been observed by sharing the information received once again with the respective

countries for further clarifications and updates as necessary. The plan is to keep on updating the status as new information becomes available from the Member States.

The descriptive report presented below provides a snapshot of the situation of newborn and child health interventions in member countries of SEA Region.

AVAILABILITY OF CHILD HEALTH POLICY, STRATEGY AND PLAN

Most countries in the Region have been implementing child health interventions for several decades under their public health programmes. These have progressed from earlier vertical approaches like UIP/EPI, CDD, ARI and ENC programmes to integrated approaches like IMCI / IMNCI. To strengthen the systematic approach to programming newborn and child health in SEAR member countries, and achieving regional and global goals, it is desirable to have a national Policy, Strategy and Plan in place for Child Health in the countries. Having a dedicated national Child Health programme is the first important step towards garnering political support, securing adequate resources, and ensuring its effective management.

However, as per the information received, the Child Health programme is a part of the overall national health policy/strategy and plans in most of the SEAR member countries. Bangladesh's newborn-child health policy is part of the HNPSP since 2003; there is a separate, neonatal health strategy and guideline (2009), but no separate child health strategy. An action plan for neonatal health was drafted in 2010 and a plan for child health is under development in Bangladesh. CH policy for Sri Lanka is under development at present. Myanmar has a National Five-Year Strategic Plan for Child Health Development. National CH strategy and plan Timor Leste are under finalization.

Among the SEAR countries, only Nepal has a separate policy, strategy and plan for newborn/child health.

IMCI: INTEGRATED MANAGEMENT OF CHILDHOOD ILLNESS

Nine out of eleven member countries in the SEA Region are implementing Integrated Management of Childhood Illness strategy (IMCI) developed jointly by WHO and

UNICEF as the main vehicle for child health programme. Thailand has not implemented IMCI at all, whereas, Sri Lanka has recently started implementation in the poor performing tea estates area in the country.

IMCI Implementation

In the South-East Asia Region, Indonesia and Nepal were the first countries (1997) to start implementation of the IMCI strategy. Myanmar started IMCI strategy in 1998, adapted the modules to local language and implemented as IMMCI (Integrated Management of Maternal and Childhood Illnesses (IMMCI). This IMMCI covered 320 out of total 323 townships during 1998-2000 period. The name then changed to Women and Child Health Development (WCHD). With WCHD it covered 200/330 townships to the present period. Generic IMCI was reintroduced in 2004. As of 2011, 18/330 townships are covered by IMCI. Other countries have started subsequently as shown below. Sri Lanka has started IMCI implementation in 2008 in the poor performing tea estates area where the health indicators including the CH indicators were much lower than the other parts of the country. As mentioned above Thailand chose not to implement IMCI since the progress in newborn child health was already considered satisfactory.

IMCI implementation started in the Region in 1997:

- 1997: INO and NEP
- 1998: MMR (IMMCI)
- 2002: BAN, MAV, TLS
- 2004: DPRK, IND, MMR
- 2009: BHU (Initiated in 2000 but proper implementation started in 2009)

Over the years, the geographic coverage of IMCI strategy implementation has been progressively increasing in many countries. However, the pace of the progress has been slower than expected and required. IMCI geographic coverage ranges from 25% to 100%. Only Nepal and Timor Leste have covered all the districts in the country. The status of coverage in rest of the implementing countries is as below.

Geographic coverage: Number of Districts that are implementing IMCI

Country	*BAN*	*BHU*	*DPRK*	*IND*	*INO*	*MAV*	*MMR**	*NEP*	*SRL*	*THA*	*TLS*
No. (out of total) of districts covered with IMCI	52 / 64	20 / 20	108 / 208	356 / 640	Not Avail-able	5/5 Regions 20 Atolls	**IMMCI:** 320/330 **WCHD:** 200/330 **IMCI:** 18/330	75/75	1/26	X	13/13
Proportion (%)	81	100	52	55		100	60	100		X	100
**** MMR: IMMCI (1998-2001); WCHD (2001- to date: UNICEF support); IMCI (2004 - to date: WHO support)***											

However, the information on the scale of implementation within each district is not available in many countries.

IMCI strategy has three key components:

1. Developing Skills of Health workers in managing common childhood illness (Capacity building/Training)
2. Strengthening Health Systems to support implementation (e.g. supportive supervision and un-interrupted supplies)
3. Improving the healthcare practices of families and community

The progress in implementation of the three components in the SEAR countries has been variable.

IMCI TRAINING

Country adaptation and inclusion of newborn in IMCI

All ten implementing countries have adapted the IMCI training package as recommended in the global strategy. Subsequently all countries, except Sri Lanka, have updated the package based on new guidelines like low-osmolarity ORS and Zinc.

Except DPRK and TLS, 8 out of 10 implementing countries have added newborn component to IMCI.

Country	National adaptation of IMCI Training Package	Updated after initial adaptation (e.g. Low Osm ORS, Zinc for diarrhoea, pneumonia, Malaria treatment)	Newborn included in IMCI
Bangladesh	√	√	√
Bhutan	√	√	√
DPRK	√	√	X
India	√	√	√
Indonesia	√	√	√
Maldives	√	√	√
Myanmar	√	√	√
Nepal	√	√	√
Sri Lanka	√	X	√
Thailand	Not applicable	Not applicable	Not applicable
Timor Leste	√	√	X

IMCI In-Service Training

The IMCI implementing countries have provided training to Medical Officers (Physicians) and health workers ever since the implementation of IMCI was started. However, the frequency and pace of training has been slower than expected, and that

has resulted in its inadequate coverage. Scaling up of IMCI in-service training programme is limited by various factors such as availability of trainers, training sites for clinical practice sessions and financial resource etc. Therefore, the geographic expansion of IMCI has remained low even today in many of the countries. Even in the implementation districts saturation of MOs and HWs remains low.

The data reported by the countries is presented in the following table.

Country	Total no. of doctors trained	Total no. of first level HWs trained	Total no. of districts covered with IMCI	No. of district (out of IMCI districts) with 60% or more health providers trained
Bangladesh	2,784	7,718	52 / 64	Not available
Bhutan	20	All in 9 Districts	20 / 20	20
DPRK	4551	1332 nurses	108/208	108
India	4,737	174,755	356/640	105
Indonesia	Not available	Not available	Not available	Not available
Maldives	20	52	5 Regions	5 Regions
Myanmar	563	13,918	320 / 330	337
Nepal	69*	3,085	75 / 75	75
Sri Lanka	120*	Not applicable	1	0
Thailand	Not applicable	Not applicable	Not applicable	Not applicable
Timor Leste	4	37	13 / 13	12

From the table above, it is evident that many countries have significant numbers of doctors and health workers trained in IMCI. The proportion of health workers trained in IMCI in each implementation district/state is not available in many member countries.

Duration of In-service Training

The global IMCI training was conducted over 11 working days. During adaptation the countries have modified the duration of the training. In the implementing countries, the training duration of Medical Officers and Health Workers varies from 3 to 11 days:

Duration of training	3 Days	4 days	6 days	7 days	8 days	11days	NA
Medical* Officers	INO NEP SRL	MMR	DPRK	MAV	BAN BHU IND	IND (F-IMNCI)* TLS (4 MOs trained overseas)	
Health Workers	MAV		DPRK INO	NEP	BHU IND	BAN MMR TLS	SRL
	*F-IMNCI in India includes training on indoor care						

The duration of the training was apparently decided based on the local operational considerations in the countries and a systematic assessment of the effectiveness of the short-duration training has not been carried out.

Pre-service IMCI training:

Introduction of IMCI training package in the existing curricula of medical and nursing (and paramedical) education is considered a good strategy for pre-service training. This ensures that all the graduates have already been trained in IMCI when they complete their basic qualification.

Seven out of ten implementing countries have IMCI pre-service education in place, except Maldives and Sri Lanka; whereas Bhutan has no medical college. BAN, DPRK, IND, INO, MMR, NEP have introduced IMCI in the Medical Schools while BHU, DPRK, IND, INO, MMR have also introduced IMCI in Nursing Schools. However, the information on the exact number of such medical and nursing schools and the number

of under-graduate students who have received or are receiving such training is not available.

Pre-service training in IMCI	
Pre-Service IMCI in Medical education	BAN, DPRK, IND, INO, MMR, NEP
Pre-Service IMCI in Nursing education	BHU, DPRK, IND, INO, MMR, TLS

Alternate training methodology

Open and Distance Learning:

IMCI training could be adapted and accessed through distance learning methodology. This has been tried in the Region in a very limited way. One university in India has included IMCI in their postgraduate diploma course on Maternal and Child Health. Indonesia has also gained some experience in the distance learning of IMCI. The exact number of beneficiaries is not available and formal evaluation has not been done.

Computer aided learning:

WHO developed IMCI Computerized Adaptation and Training Tool (ICATT) for facilitating IMCI training. Only Indonesia has applied ICATT in selected areas.

IMCI-Health System Strengthening:

IMCI Follow-up after training and Supervision

Global IMCI strategy recommends that the health care providers must receive supportive supervision after they complete IMCI training. There is a Follow-up after training package available to train supervisors. The trained supervisors are required to visit the trained workers at their work sites 6-12 weeks after completion of the IMCI training to assess their skills of assessment, classification and treatment of young

infants and children as well as check if the required supplies (drugs and equipment are available)

All implementing countries in the Region have reported that they have introduced follow-up after training, but, only BAN, DPRK and NEP seem to have conducted F-Up after training to a significant level. Bhutan is systematically conducting supportive supervision in all 20 districts.

The table below provides data on the total number of districts covered by Follow-up after training and total number of supervisors trained. However, the data is not available in the countries. Data on whether follow-up after training is regularly followed is also not available.

Country	*Number of districts covered with F-up IMCI training out of implementing districts*	*Total no. of supervisors trained*
Bangladesh	40/52	156
Bhutan	20 /20	55
DPRK	108/108	132
India	Data not available	Data not available
Indonesia	Data not available	Data not available
Maldives	5/5	Data not available
Myanmar	18 / 18 Townships	52
Nepal	75/75	Data not available
Sri Lanka	Not applicable	Not applicable
Thailand	Not applicable	Not applicable
Timor Leste	13/13	Data not available

IMCI Supervision:

Nine out of ten implementing countries (exception Sri Lanka) report that IMCI supervisory checklists have been introduced in the system. However, the data on the coverage of IMCI supervision in almost all countries are not available. Only Myanmar reports that 85% facilities have received one supervisory visit in the last 6 months. It is not sure if supervision includes an element of observation of client-provider interaction

that provided data on quality of implementation. Adequate number of supervisors has not been trained.

Country	*IMCI supervisory checklists introduced*	*Proportion of first level health facilities that had at least one supervisory visit over a period of 6 months during previous year*
Bangladesh	√	Data not available
Bhutan	√	50%
DPRK	√	486 (number)
India	√	Data not available
Indonesia	√	Data not available
Maldives	√	X
Myanmar	√	85%
Nepal	√	Data not available
Sri Lanka	X	Not applicable
Thailand	Not applicable	Not applicable
Timor Leste	√	X

IMCI Health Facility Survey (HFS):

Global tool for IMCI health facility survey is available to assess availability, access and quality of services at the health facilities that are implementing IMCI. Bangladesh has reported that HFS has been carried out at National level and DPRK, INO and MMR report that HFS was carried out at Sub-national level.

IMCI HOUSEHOLD SURVEY:

IMCI household survey tool is used to assess availability of services and knowledge and practices of caretakers in prevention and treatment of childhood illness. BAN (as a part

of multi country evaluation) and DPRK have reported application of IMCI household survey at sub-national level.

Country	IMCI Health facility survey	IMCI Household survey
Bangladesh	√ National level (2005)	√ Sub-national level (2005)
Bhutan	X	X
DPRK	√ (2006, 2009)	√ (2006, 2009)
India	X	√ (DHS 2005-06)
Indonesia	√ (2000, 2006 2009)	Data not available
Maldives	X	X
Myanmar	√ (2006-2007)	X
Nepal	X	X
Sri Lanka	X	X
Thailand	Not applicable	Not applicable
Timor Leste	X	X

CONTINUUM OF CARE: IN-PATIENT CARE OF NEWBORNS AND CHILDREN

WHO Pocket Book of Hospital Care for Children provides guidelines for the management of common illness in resource-limited settings. As the countries implement IMCI, the referral of sick newborns and children is likely increase since the trained health workers would be able to identify and refer 10-15% newborns and children with severe classification to higher facilities. Their survival would depend on standard care of good quality provided to them in the hospitals.

WHO Pocket Book:

WHO pocket book has been introduced in BAN, DPRK, INO, MAV, MMR, NEP and TLS, but enough copies have not been distributed widely to reach all hospitals in the countries. BAN, DPRK, INO, NEP and TLS have done country adaptation of the WHO Pocket Book.

Country	*Pocket Book introduced*	*Adaptation done*	*Copies distributed*
Bangladesh	√	√	X
Bhutan	X	X	X
DPRK	√	√	√
India*	X	Not applicable	
Indonesia	√	√	√
Maldives	√	X	√
Myanmar	√	X	√
Nepal	√	√	Not available
Sri Lanka	X	Not applicable	Not applicable
Thailand	X	Not applicable	Not applicable
Timor Leste	√	√	√

* India has developed a training package based on the WHO Pocket Book

Training on In-Patient / Referral Care:

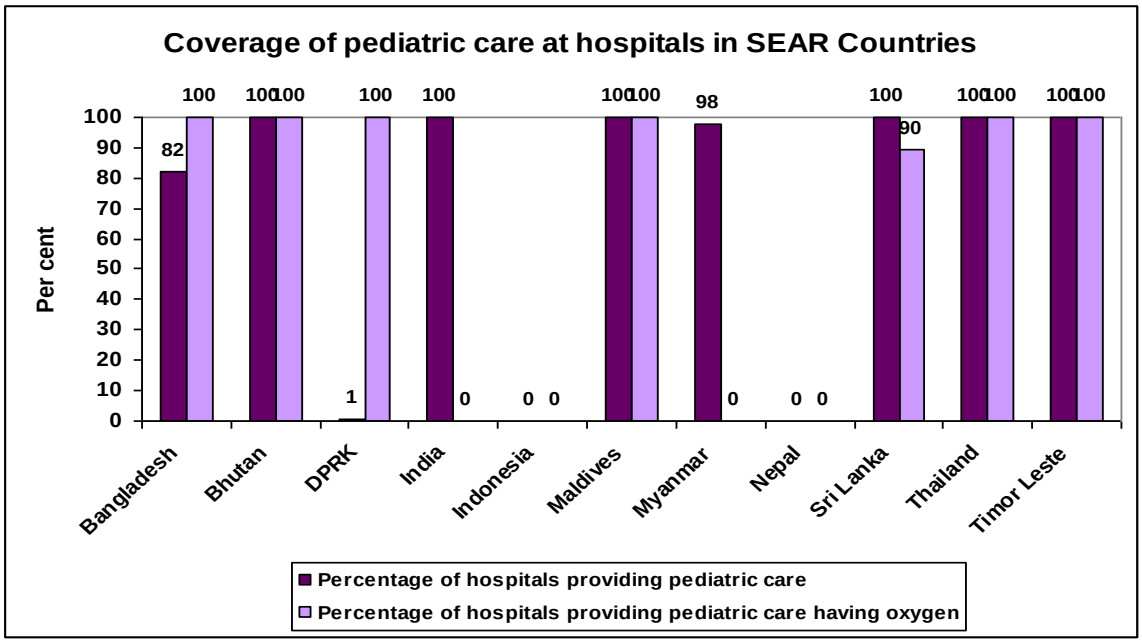
Several countries offer training to doctors in management of sick children and newborns in the hospitals. These include BAN, BHU, DPRK, IND, INO (Self learning only), MAV, and MMR. SRL (ENCC) and THA report that they provide training on Newborn Care only.

Training package does not appear to be based on the WHO Pocket Book except in India. The duration of the training in these countries is as below:

Duration of training on hospital care	
2 days	**Thailand**
3 days	**DPRK**
4 days	**Myanmar**
5 days	**Bangladesh, DPRK, India (for stand alone Inpatient care), Maldives, Sri Lanka**
7 days	**Nepal**
11 days	**India (F-IMNCI includes 6-Days outpatient and 5-Dyas inpatient care)**
N/A	**Timor Leste**

Availability of Pediatric care in hospitals:

In most countries pediatric care is available in most hospitals. Pediatric oxygen delivery is also available in significant proportion of these hospitals as per the information received from the countries.



Based on information collected from Member States in 2011; it will be updated periodically

Note: 0 = Data not available

Hospital Assessment:

WHO also has developed tools for hospital assessment for measuring and sustaining quality of care of sick newborns and children. Only Bangladesh, Indonesia and Nepal have carried out Hospital Assessment based on WHO tools.

CONTINUUM OF CARE: COMMUNITY BASED CARE

The first level of health system in the continuum of care is at home / community level. WHO recommends home based newborn care and community case management of common diseases like pneumonia and diarrhea.

Empowerment of Community Health Workers (CHW):

For management of pneumonia and diarrhea at home / community level the end-line health workers / volunteers need legal authorization to use antibiotic for pneumonia and ORS & Zinc for treatment of diarrhea in children. The status of legal authorization of community health workers in SEAR countries is as below:

Legal authorization of Health Workers / Volunteers					
Country	**Category of Health Worker / Volunteer**	**Authorized to provide newborn care**	**Authorized to use antibiotic for ARI**	**Authorized to use ORS for diarrhea**	**Authorized to use Zinc for diarrhea**
Bangladesh	Medical Asst	Yes	Yes	Yes	Yes
	Nurse	Yes	Yes	Yes	Yes
	NGO worker	Yes	Yes	Yes	Yes
Bhutan	ACO, HA, BHW, GNM	Yes	Yes	Yes	Yes
	VHW	No	No	Yes	No
DPR Korea	Nurse	Yes	Yes	Yes	Yes
	Volunteer	Yes	No	Yes	Yes
India	AWW, ANM, MPW-M	Yes	Yes	Yes	Yes
	ASHA	Yes	Yes	Yes	Yes
Indonesia	Midwife	Yes	No	No	No
	Nurse	No	No	Yes	No
Maldives	Community Health Officer	Yes	Yes	Yes	Not applicable
	Family Health Officer	No	No	Yes	Yes
Myanmar	BHS (Basic Health Staff)	Yes	Yes	Yes	Yes
Nepal	FCHV, MCH Workers, Village HW	Yes	Yes	Yes	Yes
Sri Lanka	Public Health Midwife	Yes	No	Yes	No
Thailand	Nurse practitioner, Community Nurse, Community Health staff	Yes	Yes	Yes	Not applicable
	VHV	Yes	No	No	No
Timor Leste	Midwife	Yes	Yes	Yes	Yes
	Nurse	No	Yes	Yes	Yes
	Community Volunteer	No	No	Yes	Yes

If most peripheral community health workers/volunteers are considered, only Bangladesh, India and Nepal have authorized them for newborn care, pneumonia and diarrhea management. (Box below)

Legal authorization of most peripheral CHW in SEAR:

- **Management of Diarrhea, Pneumonia and Newborns:** BAN, IND, NEP
- **Newborn care**: BAN, DPRK, IND, NEP, THA, SRL (Public Health Midwife), *INO (Midwife is authorized but Nurse is not)*
- **Diarrhea** management:
  - ORS and Zinc: BAN, DPRK, IND, MAV, SRL, TLS
  - ORS **not** Zinc: BHU and INO
- **Pneumonia** management (antibiotics use): BAN, IND, NEP

Guidelines for management of newborns and children at home / community by trained Community Health workers:

To support community based care of newborns and children countries need to develop guidelines for basic health workers (community based health workers) to manage newborns at home and manage diarrhea and pneumonia in children in the community as well as appropriate training packages.

MAV, SRL and TLS do not have national guidelines for management of pneumonia in children at home by trained CHW.

MAV and THA do not have national guidelines on use of low osmolarity ORS and Zinc for management of diarrhea by trained CHW. BHU has guidelines on use of zinc but is yet to introduce guidelines on low osmolarity ORS. SRL has recently made a policy for use of zinc in treatment of diarrhoea.

BHU and MAV do not have national guidelines on home visits to newborns in the first week of life by trained provider.

Availability of National Guidelines for CHW			
Countries	***Antibiotic for pneumonia***	***Use of low osmolarity ORS for diarrhea***	***Use of zinc for diarrhea***
Bangladesh	√	√	√
Bhutan	√	X	√
DPRK	√	√	√
India	√	√	√
Indonesia	√	√	√
Maldives	X	X	X
Myanmar	√	√	√
Nepal	√	√	√
Sri Lanka	X	X	X
Thailand	√	X	X
Timor Leste	X	√	√

Training of Community Health workers:

WHO has developed global training packages for community health workers for home based newborn care and community case management of sick children. However, most countries at present provide training to community health workers (various types) based on IMCI package and duration is quite variable, as shown in the following table.

	Duration of Training of CHW
BAN	• 6 days
BHU	• 8 days
DPR	• 5 days
IND	• 8 days (IMNCI) • 3 days (NSSK-Newborn care with resuscitation at birth) • 14 days (proposed ASHA modules 6 & 7)
INO	• 6 days
MAV	• 3 days: IMCI • 3-5 days: ENC
MMR	• 5 days: community case management of pneumonia and diarrhoea • 4 days: Community based newborn care • 11 days: IMCI for Basic Health Staff
NEP	• 7 days: IMCI) • 7 days: CB-NCP
SRL	• 1 day: PNC • 40 hrs: Breastfeeding counseling, IYCF
THA	• 43 hrs Pre-service training, and • 35 hrs Retraining every 6-12 months
TLS	• 11 days

SUMMARY:

1. Progress towards achievement of MDGs in SEAR countries has been impressive. However, at this rate of progress the Region, as a whole, is unlikely to achieve the target by 2015.
2. Coverage of the well-known evidence based interventions for newborn and child health in the member countries is quite variable and generally inadequate.
3. Only a few member countries have newborn-child health policy, strategy or plans. In most countries, newborn-child health is a part of overall national health policy / plan. Only, Nepal has reported that dedicated national child health policy, strategy and plans, all three, exist.
4. Implementation of IMCI in the Region started in 1997. At present, Thailand is not implementing IMCI at all and Sri Lanka has planned to implement in a limited geographic area.
5. The geographic scale of IMCI implementation needs to be expanded in most countries. Only Bhutan, Nepal and Timor Leste are implementing IMCI all over the country (covering all districts), Bangladesh is implementing in 81% districts, DPRK in 52% districts, Myanmar in 60% districts and India in 55% districts. The rest of the countries are covering less than 50% of geographic area.
6. Data on the extent of in-service training is not available; we do not know the proportion of eligible medical officers and health workers who have been trained in IMCI or the proportion of districts with more than 60% workers trained.
7. IMCI supervision and follow-up after training has remained weak in all countries.
8. IMCI Health Facility Survey has been carried out in Bangladesh at National level and DPRK, INO and MMR report that HFS was carried out at Sub-national level. IMCI Household Survey has been carried out in BAN (as a part of multi country evaluation) and DPRK at sub-national level.
9. Inpatient care of newborns and children: Seven member countries have introduced WHO Pocket Book of Hospital Care for Children but only India has developed a training package based on it. Other countries are providing training

with indigenous materials. Only Indonesia and Bangladesh have carried out Hospital Assessment for determining quality of care.

10. Community based care of newborns and children: There is a range of community health workers (CHWs) in the member countries form qualified (with basic training) employed workers to volunteers who may be trained on the job. Many countries have authorized them to provide newborn care and management of pneumonia and diarrhea. If most peripheral health workers are considered, only Bangladesh, India and Nepal have authorized them to provide newborn care, pneumonia and diarrhea management. National guidelines for home based newborn care and management of pneumonia and diarrhea are available in Bhutan, Maldives, Sri Lanka and Timor Leste (except newborn care). The type of training and duration available for the community heath workers is not standard and varies widely in member countries from 3 days to 11 days.