



सत्यमेव जयते

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राष्ट्रीय स्वास्थ्य मिशन

Training Manual on Newborn and Child Health Services for Community Health Officer at Ayushman Bharat – Health and Wellness Centres



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Child Health Services**
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2021



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List of Abbreviations

AB-HWC	Ayushman Bharat- Health and Wellness Centre
AB-HWC-SHC	Ayushman Bharat- Health and Wellness Centre- Sub-Health Centre
AB-HWC-PHC	Ayushman Bharat- Health and Wellness Centre- Primary Health Centre
ACT	Artemisinin-based Combination Therapy
AEFI	Adverse Events Following Immunization
AMB	Anemia Mukht Bharat
ANM	Auxillary Nurse Midwife
ARI	Acute Respiratory Infection
AWC	Anganwadi Centre
AWH	Anganwadi Helper
AWW	Anganwadi Worker
BCG	Bacillus Calmette Guerin
CAS	Common Application Software
CHC	Community Health Centre
CHO	Community Health Officer
CPHC	Comprehensive Primary Health Care
DEIC	District Early Intervention Centre
DH	District Hospital
DPT	Diphtheria, Pertussis and Tetanus
EBM	Expressed Breast Milk
ECD	Early Childhood Development
FBNC	Facility Based Newborn Care
fIPV	Fractional dose of Inactivated Polio Vaccine
F-IMNCI	Facility-Based Integrated Management of Neonatal and Childhood Illnesses
FRU	First Referral Unit
FSSAI	The Food Safety and Standards Authority of India
HAF	Home Available Fluids
HBNC	Home Based Newborn Care
HBYC	Home Based Care for Young Child
HMIS	Health Management Information System
HRA	High- risk area
ICDS	Integrated Child Development Services Scheme
IDCF	Intensified Diarrhoea Control Fortnight
IDD	Iodine Deficiency Disorder

IFA	Iron and Folic Acid
IMI	Intensified Mission Indradhanush
IMNCI	Integrated Management of Neonatal and Childhood Illnesses
IMR	Infant Mortality Rate
I-NIPI	Intensified National Iron Plus Initiative
IPV	Inactivated Polio Vaccine
IU	International Unit
IYCF	Infant and Young Child Feeding
JE	Japanese Encephalitis
JSSK	Janani Shishu Suraksha Karyakram
JSY	Janani Suraksha Yojana
KMC	Kangaroo Mother Care
LBW	Low-birth weight
LHV	Lady Health Visitor
LMC	Lactation Management Centre
MAA	Mother's Absolute Affection
MCP Card	Mother and Child Protection Card
MNCU	Mother Newborn Care Unit
MO	Medical Officer
MoHFW	Ministry of Health and Family Welfare
MPW	Multi-Purpose Worker
MR	Measles Rubella
MUD	Mop Up Day
MWCD	Ministry of Women and Child Development
NAMP	National Anti-Malaria Programme
NBCC	New Born Care Corner
NBSU	New Born Stabilization Unit
NCD	Non - Communicable Disease
NDD	National Deworming Day
NGO	Non-Governmental Organization
NHM	National Health Mission
NHP	National Health Policy
NICU	Neonatal Intensive Care Unit
NIDDCP	National Iodine Deficiency Disorders Control Programme
NIS	National Immunization Schedule

NMR	Neonatal Mortality Rate
NPP	National Population Policy
NRC	Nutrition Rehabilitation Centre
NRLM	National Rural Livelihood Mission
NSSK	Navjaat Shishu Suraksha Karyakram
OPV	Oral Polio Vaccine
ORS	Oral Rehydration Salt
PCV	Pneumococcal Conjugate Vaccine
POSHAN	The Prime Minister's Overarching Scheme for Holistic Nourishment
PRI	Panchayati Raj Institution
PSBI	Possible Serious Bacterial Infection
RBSK	Rashtriya Bal Swasthya Karyakram
RCH	Reproductive and Child Health
RDT	Rapid Diagnostic Test
RI	Routine Immunization
RMNCAH+N	Reproductive, Maternal, Newborn, Child, Adolescent Health Plus Nutrition
RVV	Rotavirus Vaccine
SAANS	Social Awareness & Action to Neutralize Pneumonia Successfully
SAM	Severe Acute Malnutrition
SD	Standard Deviation
SDG	Sustainable Development Goal
SDH	Sub-District Hospital
SNCU	Special Newborn Care Unit
SOIN	State of India's Newborn
SRS	Sample Registration System
Td	Tetanus & adult diphtheria
TB	Tuberculosis
THR	Take Home Ration
U5MR	Under 5 Mortality Rate
UIP	Universal Immunization Programme
VHSNC	Village Health, Sanitation and Nutrition Committee
VHSND	Village Health, Sanitation and Nutrition Day
WASH	Water, Sanitation and Hygiene
WHO	World Health Organization

Introduction to Newborn and Child Health Programmes

i. Key newborn and child intervention

The Child Health Programme under the Reproductive, Maternal, Newborn, Child, Adolescent Health Plus Nutrition (RMNCAH+N) Strategy of the National Health Mission (NHM) comprehensively integrates interventions that improve child health and nutrition status and addresses factors contributing to neonatal, infant, under-five mortality and malnutrition. The National Population Policy (NPP) 2000, the National Health Policy (NHP) 2002, Twelfth Five Year Plan (2007-12), National Health Mission (National Rural Health Mission: 2005–2017), Sustainable Development Goals (SDG) (2016-2030) and National Health Policy 2017, have laid down the goals for child health.

Under the National Health Mission, wide range of efforts are being taken for health systems strengthening to improve service delivery. The RMNCAH+N strategy is being implemented to ensure continuum of care from facility to community, across life stages.

Child Health Goals under NHP-2025 and SDG-2030			
Child Health Indicator	Current status (SRS* 2018)	NHP 2025	SDG 2030
Neonatal Mortality rate	23	16 by 2025	<10
Infant Mortality Rate	32	28 by 2019	-
Under 5 Mortality Rate	36	23 by 2025	≤25

*SRS-Sample Registration System

Progress on Child Health (As per SRS 2018)		
Indicators	Definition	Progress
Neonatal Mortality Rate (NMR)	Number of deaths of children during the period of 0-28 days per 1000 live births in a given year or other period.	Decline from 37 per 1000 live births in 2005 to 23 per 1000 live births (2018).
Infant Mortality Rate (IMR)	Number of deaths of children in the age 0-1 year per 1000 live births in a given time period and for a given region.	Decline from 58/1000 live births (2005) to 32 per 1000 live births (2018).
Under 5 Mortality Rate (U5MR)	Number of deaths of children in the age group of 0-5 years per 1,000 live births in a given time period and for a given region .	Decline from 68/1000 live births (2008) to 36 per 1000 live births (2018).

Highlights	Decline in rural IMR more than urban; Decline in rural U5MR more than urban; Decline in female U5MR more than male; Early Neonatal deaths a matter of concern (4.9 lakh newborns die within the first week of birth).
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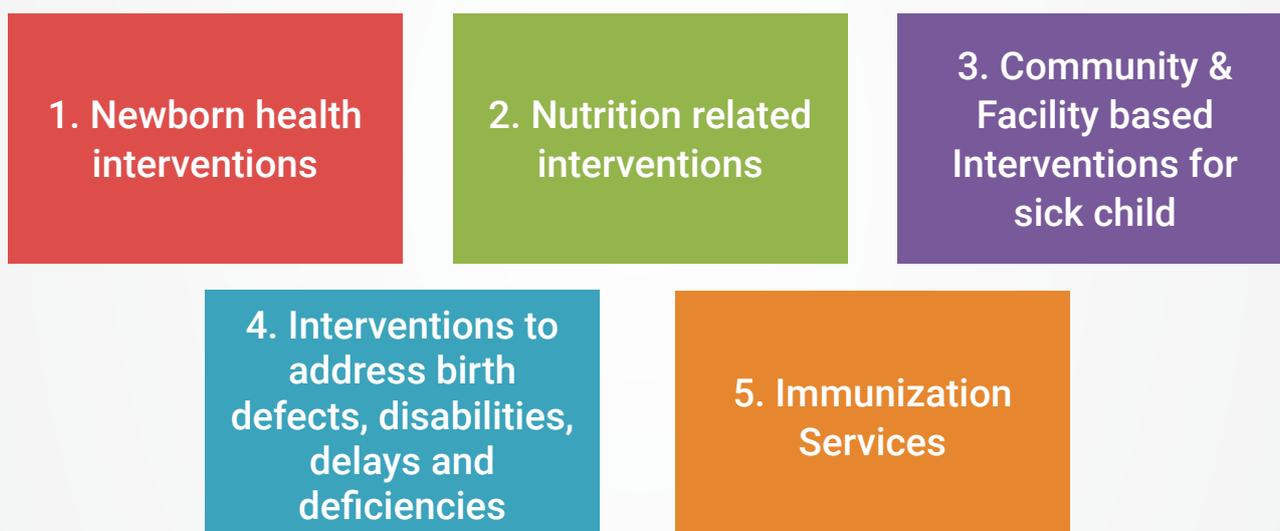
Causes of Child Mortality in India

The major causes of child mortality in India as per the SRS reports (2010-13) are:

prematurity & low birth weight (29.8%), pneumonia (17.1%), diarrhoeal diseases (8.6%), other non-communicable diseases (8.3%), birth asphyxia & birth trauma (8.2%), injuries (4.6%), congenital anomalies (4.4%), ill-defined or cause unknown (4.4%), acute bacterial sepsis and severe infections (3.6%), fever of unknown origin (2.5%) and all other remaining causes (8.4%). Besides these, malnutrition is an underlying factor in 45% of under-five child deaths.

Interventions under Child Health

Based on the identified causes of mortality, five major strategic areas have been identified to improve child health outcomes. These are:



Following initiatives are being implemented under National Health Mission to deliver key interventions to improve the newborn and child health in your area:

Key newborn and child intervention	Schemes/Programmes under NHM
Financial incentives/entitlements for free transport and treatment of newborns and infants (up to 1 year of age) in health facilities	Janani Suraksha Yojana (JSY) (https://nhm.gov.in/WriteReadData/1892s/97827133331523438951.pdf) and Janani Shishu Suraksha Karyakaram (JSSK) (https://nhm.gov.in/images/pdf/programmes/jssk/guidelines/guidelines_for_jssk.pdf)
Care at birth, including resuscitation, at delivery points	Newborn Care Corners, Navjaat Shishu Suraksha Karyakram (NSSK) (https://nhm.gov.in/images/pdf/programmes/child-health/guidelines/manual.zip)

Key newborn and child intervention	Schemes/Programmes under NHM
Facility based newborn care	Newborn Stabilization Unit (NBSU), Special Newborn Care Unit (SNCU) (https://nhm.gov.in/images/pdf/programmes/child-health/guidelines/fbnc_operational_guide.zip)
Home based care by community health workers	Home Based Newborn Care (HBNC) (https://nhm.gov.in/images/pdf/programmes/child-health/guidelines/Revised_Home_Based_New_Born_Care_Operational_Guidelines_2014.pdf) Home Based Care For Young Child (HBYC) (https://www.nhm.gov.in/images/pdf/programmes/RBSK/Operational_Guidelines/HBYC_Guidelines.pdf)
Ensuring immunization	Universal Immunization Programme (UIP), Intensified Mission Indradhanush (IMI)
Screening and management of 4 Ds – developmental delays, defects, disease and deficiency disorders	Rashtriya Bal Swasthya Karyakram (RBSK) (https://nhm.gov.in/images/pdf/programmes/child-health/guidelines/Rastriya-Bal-Swasthya-Karyakram(RBSK).pdf) and resource document (https://nhm.gov.in/index1.php?lang=1&level=5&sublink-id=1197&lid=371)
Facility based management of Severe Acute Malnutrition	Nutrition Rehabilitation Centres (NRCs) (https://www.nhm.gov.in/images/pdf/programmes/child-health/guidelines/operational_guidelines_on_fbmc_with_sam.pdf)
Mother's Absolute Affection (MAA) programme	Mother's Absolute Affection (MAA) programme for promotion of breastfeeding and Infant and Young Child Feeding (IYCF) practices resources (https://nhm.gov.in/index1.php?lang=1&level=4&sublink-id=1258&lid=330) Infant and Young Child Feeding (IYCF) (https://nhm.gov.in/images/pdf/programmes/child-health/guidelines/Enhancing-optimal-IY-CF-practices.pdf) and Lactation Management Centres (LMCs) (https://nhm.gov.in/images/pdf/programmes/IYCF/National_Guidelines_Lactation_Management_Centres.pdf)
Micronutrient supplementation (Iron, Folic acid)	Anemia Mukh Bharat (AMB) (https://anemiamukhbharat.info/resources/#operational-guideline)
Deworming	National Deworming Day (NDD) (https://nhm.gov.in/images/pdf/programmes/child-health/guidelines/deworming_guidelines.zip)

Key newborn and child intervention	Schemes/Programmes under NHM
In-patient and Out-patient management of common childhood illnesses including pneumonia, diarrhea, malnutrition etc.	Integrated management of newborn and childhood illnesses in community (IMNCI) & Facility (F-IMNCI) (https://nhm.gov.in/images/pdf/programmes/child-health/guidelines/operational_guidelines_for_fimnci.pdf), Social Awareness & Action to Neutralize Pneumonia Successfully (SAANS) (https://nhm.gov.in/New_Updates_2018/SAANS/Childhood_Pneumonia_Management_Guidelines.zip), Intensified Diarrhoea Control Fortnight (IDCF) (https://nhm.gov.in/New_Updates_2018/NHM_Components/RMNCHA/CH/Schemes/IDCF/IDCF_2019/IDCF_2019_Guideline.docx), Strengthening Pediatric Care at District Hospital (https://nhm.gov.in/images/pdf/programmes/child-health/guidelines/Strengthening_Facility_Based_Paediatric_Care-Operational_Guidelines.pdf)
Other National Programmes related to Nutrition	National Iodine Deficiency Disorders Control Programme (NID-DCP) https://nhm.gov.in/index1.php?lang=1&level=3&sublink-id=1054&lid=230
Reducing undernutrition, low birth weight and Anemia	POSHAN Abhiyaan (http://icds-wcd.nic.in/nnm/home.htm) (Implemented by Ministry of Women and Child Development)

This training manual will help you develop an overall understanding of important newborn and child health interventions being implemented as part of the various programmes to facilitate effective delivery of these initiatives. Various neonatal, infant and child health care services are delivered across different levels of care ranging from household and outreach sites in the community level (ASHAs and Multi-Purpose Workers), to primary care facilities (Sub-Health Centres and Primary Health Centres) and secondary level facilities [Community Health Centres (CHC), Sub-District Hospital (SDH) and District Hospital (DH)].

ii. Roles and responsibilities of Community Health Officer (CHO) in Newborn, Child Health and Nutrition Interventions

A. Clinical Functions for Ambulatory care and management

a. Newborn Care Services

- At Ayushman Bharat-Health and Wellness Centre-Sub Health Centre (AB-HWC-SHC) delivery point: provide essential newborn care which includes establishment of respiration, delayed cord clamping, vitamin-K injection, immunization, immediate drying and skin-to-skin contact, prevention of hypothermia, early initiation of breastfeeding (within an hour), exclusive breastfeeding, prevention of infection, identification and recording of birth defect/congenital anomalies and appropriate referral, identification of danger signs and early and appropriate referral.
- Assess the newborn referred by ASHAs under HBNC for any danger signs/symptoms as per IMNCI protocol and perform pre-referral stabilisation and facilitate referral to nearest NBSU/SNCU. Maintain high-risk newborn list for NBSU/SNCU discharged babies and low birth weight babies in AB-HWC-SHC catchment area and facilitate their regular facility and community follow-up care.
- Counselling support to mothers/caregivers in the postnatal period during each contact at the health facility or during visit to community on danger signs in newborn, keeping the newborn warm, responsive feeding, exclusive breastfeeding, play and communication and importance of immunization.

b. Infant and Childhood Health Services

- Outpatient management of sick young infants and children for all illnesses as per IMNCI protocol including assessment, classification, and management.
- Ensure referral linkages to nearest appropriate health facility for appropriate management of sick young infants and children maintaining time to care.
- Ensure provision of follow-up care of children discharged from higher health facilities.
- Ensure completion of age-appropriate immunization of children. Reporting of Adverse Events Following Immunization (AEFI) and providing follow-up care to children with AEFI.
- Ensure age-appropriate Vitamin-A supplementation, de-worming and iron and folic acid (IFA) supplementation of children.
- Ensure Oral Rehydration Salts (ORS) and Zinc for 14 days for the treatment of diarrhoea in under-five children.
- Screening, early management, timely referral and follow-up care for nutritional disorders including childhood nutritional deficiencies, overweight and obesity related problems in children.
- Ensure use of and validate records of children in the Mother and Child Protection (MCP) card with focus on Nutritional Status and Growth Monitoring.
- Counselling support to mothers/caregivers at the health facility or during visit to community on promotion of IYCF practices, key hygiene practices, importance of immunization, age-appropriate play and communication activities. Facilitate teleconsultation services with Medical Officer (MO) at Ayushman Bharat-Health and Wellness Centre-Primary Health Centre (AB-HWC-PHC) to seek advice/clarifications on treatment, pre-referral stabilisation, referral advice, appropriate care during follow-up, etc.
- Confirm sick Severe Acute Malnutrition (SAM) status of under-five children and coordinate with NRC for early referral. In case, NRC beds are occupied, sick SAM child may be referred to the nearest paediatric facility of CHC/SDH/DH for management of sickness.

B. Managerial Functions for efficient functioning of AB-HWCs

- Ensure ASHA/Multi-Purpose Worker (MPW) maintain line list of all newborns (delivered at home and institution both), infants, children especially those vulnerable newborns – NBSU/SNCU/NRC discharged, children identified under RBSK, children with malnutrition, etc.
- ASHA/MPW may have the list of SAM children identified by Anganwadi Worker (AWW) by Weight-for-height/length chart/Common Application Software (CAS) during Village Health Sanitation and Nutrition Day (VHSND). List of SAM children may be kept at AB-HWC level for confirmation the status of sick SAM and coordinate with nearest health facility for timely referral and treatment.
- Monitor regular follow-ups of NRC discharged children and connecting them with Anganwadi Centre (AWC) for update of supplementary nutrition and regular growth monitoring services.
- Provide mentoring and supportive supervision to the primary health care team for effectively conducting community and outreach and facility-level activities. Provide regular feedback to the team.
- Supervise that records of newborn, infants and children, are maintained in reporting formats, integrated Reproductive and Child Health (RCH) register/RCH Portal, Health Management Information System (HMIS), and updated regularly.

- Support ASHA, ASHA Facilitators and MPW for maintaining functional items as per guidelines and proper use of HBNC kit and HBYC kit (wherever available) during each home visit. Ensure child health related medicines, consumables, reagents, and logistics are in adequate stock at the AB-HWC-SHC.
- Ensure quality of home visits in HBNC and HBYC by proper filling of MCP card, use of HBNC and HBYC kit for early detection of danger sign, growth and development. Monitor community follow up of SNCU discharged babies and low-birth weight (LBW) babies.
- Support and supervise ASHA/ASHA Facilitators and MPWs in mentoring role by undertaking joint home visits every month to at least 2-3 identified vulnerable newborns/children or resistant families for motivating families to adopt healthy behaviour, utilise services at AB-HWCs, access referral, ensuring treatment compliance, etc.
- Support MPWs in undertaking routine immunization sessions and provide supportive supervision to ensure immunization coverage as per due list.
- Conducting monthly meetings with MPW and ASHAs at the AB-HWC-SHC for assessing progress on child health outcomes, identifying and addressing gaps, discussing common issues and planning for necessary actions and capacity building.
- Ensure that monthly HBNC and HBYC reports are collated and submitted for onward transmission.
- Submission of monthly performance report of AB-HWC-SHC to Medical Officer for disbursement of performance linked payments to AB-HWC-SHC team.
- Facilitate participation of all stakeholders during VHSND sessions and monitoring of atleast two sessions/month using the VHSND monitoring checklist to record/observe quality of services and availability of medicines and diagnostics.
- CHO may monitor that appropriate nutrition counselling is being provided during VHSND and other contact points.
- Participate in the community/village level meetings of Village Health, Sanitation and Nutrition Committee (VHSNC) and discuss about new health services available at AB-HWC-SHC and current health programmes with the community.

C. Public Health Functions for Health Promotion, Prevention and Disease Surveillance

- Surveillance for unusually high incidence of cases of childhood diarrhoea, dysentery, fever, jaundice, diphtheria, whooping cough, tetanus, polio, and other diseases with immediate notification to MO and other authorities.
- Facilitate multi-sectoral convergence for community level action on health promotion and prevention with support of ASHA, MPW, AWW, VHSNC, Panchayat/tribal groups and VHSND sessions. Organise health camps/special health education drives/health promotion campaigns/activities to improve community awareness about different health and nutrition related initiatives like The Prime Minister's Overarching Scheme for Holistic Nourishment (POSHAN) Maah, Information on 'SAM identification' and 'services available at NRC, National Deworming Day (NDD), National Newborn Week and SAANS campaign, Intensified Diarrhoea Control Fortnight (IDCF) etc., and improve uptake of services.

The CHOs are expected to work under the overall supervision of the Medical Officer at AB-HWC-PHC. The Medical Officer will monitor, support and supervise the delivery of comprehensive primary health care through the network of AB-HWC-SHC. The MO will provide support to the Primary Health Care team at AB-HWC-SHC undertaking through monthly visits and holding PHC review meetings for technical handholding capacity building, assessing progress on coverage of beneficiaries under various services, identifying and addressing gaps/problem solving.

iii. Referral linkages from Ayushman Bharat-Health and Wellness Centres (AB-HWC) to higher facility for newborn and child health programmes

Early and appropriate referral plays vital role in reducing newborn and child mortality. You should follow the referral protocols and ensure pre-referral treatment while referring newborn and child to higher centres. The list of referral centres needs to be identified in advance and information about it should be displayed at each AB-HWC-SHC. The list of referral conditions along with indicative referral facility is mentioned in the table below.

S. No.	Referral Conditions	Referral Health Facility
1.	<p>Danger signs/symptoms in newborn and young infant (0-2 months):</p> <ul style="list-style-type: none"> • Low Birth Weight (<1800 gm)* • Baby cold (Axillary temperature less than 35.5°C)/hot to touch (Axillary temperature 37.5°C or above) • Inability/difficulty in feeding • Difficulty in breathing/fast breathing (60 breaths per minute or more) • Severe chest indrawing* • Abnormal movements (Convulsions/Fits)* • Severe dehydration* (less movement, sunken eyes, skin pinch goes back very slowly) • Appearance of jaundice within 24 hours of age/yellow staining of palms or soles* • Malnutrition – Severe acute cases - with medical complication (Weight for length <-3SD/ Bilateral pitting odema, inability to breastfeed) • Persistent diarrhoea (>14 days) 	<p>Nearest health facility with NBSU/ SNCU services.</p> <p>NBSU are at Community Health Centres (CHC)/ First Referral Unit (FRU).</p> <p>(*Direct referral to SNCU at DH/SDH. In case, there is refusal to referral or SNCU travel time is more than one hour then pre-referral stabilisation of all cases with danger signs should be done at NBSU and managed accordingly).</p> <p>Nutritional Rehabilitation Centre/ Paediatric Facility – for management of severe acute and moderate malnutrition with complications.</p>

2.	<p>Danger signs/symptoms in children (2-59 months):</p> <ul style="list-style-type: none"> • Unable to drink or breastfeed • Vomits everything • Convulsions during the present illness • Unconscious or lethargic • Fast Breathing (2-11 months=50 breaths per minute or more; 12-59 months=40 breaths per minute or more) • Chest indrawing • Severe dehydration (less movement, sunken eyes, skin pinch goes back very slowly) • Persistent diarrhoea (>14 days) • Very severe febrile disease/Malaria • Malnutrition – Severe acute cases - with medical complication • Severe Anemia (Hb<7 gm/dl) for children 6-59 months of age and (Hb<8 gm/dl) for children 5-11 years of age • Childhood overweight and obesity 	<p>Nearest health facility - CHC/SDH/DH wherever paediatrician or paediatric care services are available.</p> <p>Nutritional Rehabilitation Centre/ Paediatric Facility – for management of severe acute and moderate malnutrition with complications.</p>
3.	Adverse Events Following Immunization (AEFI)	PHC where Medical Officer is posted/ Nearest AEFI management centre.
4.	For selected health conditions – Defects at birth, Disease, Deficiency and Development Delays as per RBSK guidelines	Link to RBSK mobile health team/District Early Intervention Centre (DEIC) at DH and/or the DEIC manager.

Remember: To ensure continuum of care, you as a CHO at AB-HWC-SHC will facilitate referral appointment based on the health condition of the child i.e., refer directly to a District Hospital to a specialist in case of danger signs or refer to Medical Officer at AB-HWC-PHC for management of acute simple illness like fever. You must undertake the mapping of referral facilities to ensure continuum of care and obtain details from your Medical Officer of the secondary care facilities where referral would need to be undertaken for emergency situations.

Newborn Care

The neonatal period (the first 28 days of life) carries the highest risk of death than any other period during the childhood. Therefore, this period is crucial for child survival. A healthy neonate will lay the foundation of healthy adults who can thrive and contribute to their communities and societies.

India reports maximum number of neonatal deaths in the world despite the fact that the neonatal mortality rate (NMR) has declined from 44 per 1000 live births in 2000 to 23 per 1000 live births in 2018 (SRS, 2018). Commitments under India Newborn Action Plan and SDG for attaining single digit NMR per 1000 live births by 2030 will require concerted efforts by all the stakeholders including families and communities.

Why is it important to prioritise care for the newborns?

It is estimated that around 40% of all neonatal deaths take place during labour and on the day of birth (approximately within 48 hours around birth). About three-fourth of the total neonatal deaths occurs in the first week of life. Around 80% of the newborn deaths are due to preventable causes¹. Low cost, effective interventions like exclusive breast feeding, maintaining temperature and prevention of sepsis can save most of the newborn. Access to care during sickness by early detection of danger signs and prompt referral to equipped facilities further helps in improving newborn survival.

Continuum of newborn care

Facility-Based Newborn Care (FBNC) along with Home-Based Newborn Care (HBNC) establishes a continuum of care to ensure that every newborn receives essential services right from the time of birth and first 48 hours at the health facility and then at home during the first 42 days of life. Monitoring in first 48 hours after birth is important to detect any danger sign at the earliest. If a woman stays in the health facility for mandatory 48 hours after birth, monitor both mother and newborn daily. If the woman returns home within a few hours after delivery, before 48-hour period, ASHA must make a visit within 24 hours of the woman reaching home. She will continue to provide care to the neonate at home as per the scheduled visits up to the 42nd day of life. You will read about HBNC programme in Chapter 5.

1. Facility Based Newborn Care Programme

- Newborn Care Corners (NBCCs) are spaces within the labour rooms and operation theatres of all public health facilities consisting of an earmarked area equipped for providing essential newborn care including resuscitation.

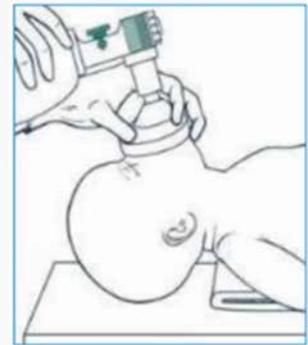
¹ Source: State of India's Newborn (SOIN) report 2014.

- Special Newborn Care Units (SNCUs) are established at District Hospitals while Newborn Stabilization Unit (NBSU) are at Community Health Centres (CHC)/First Referral Unit² (FRU). Both these units are established for provision of care to sick and small newborns. They provide care for newborns in first month of life. Now, Mother Newborn Care Unit (MNCU) along with SNCU are being developed where mother and baby can be cared together ensuring zero separation.
- There are referral linkages between these units, so that all newborns receive appropriate level of care after birth.

The details of these units are given below:

1.1. Newborn Care Corner (NBCC)

Newborn Care Corner (NBCC) is a designated space in the labour room and obstetric Operation Theatre which is situated in draught free area, with equipment like radiant warmers, suction machines, self-inflating bag/AMBU bag including masks of size 0 & 1, oxygen availability, etc. NBCC is established to provide support to newborns requiring essential newborn care and resuscitation services and/or assistance at the time of birth by NSSK trained staff.



1.2. Newborn Stabilization Unit (NBSU)

Newborn Stabilization Unit (NBSU) is a 4-6 bedded unit established at the sub district (CHC-FRU) level for managing sick and small newborns who are not seriously ill, and, therefore, can be managed at first level of newborn care facility. Pre-referral stabilizing of sick and small newborn at NBSUs before transfer to SNCU/ Neonatal Intensive Care Unit (NICU) essentially improves the outcome of these babies.

1.3. Special Newborn Care Unit (SNCU)

SNCU is a 12 bedded or larger unit located at District/Sub-district hospitals and Medical Colleges with dedicated and adequately trained doctors, staff nurses and support staff to provide 24*7 comprehensive secondary level of newborn care to small and sick neonates.

1.4. Mother Newborn Care Unit (MNCU)

This is a new concept where the aim is 'no separation' of mother and baby including small and sick babies who require newborn care. The mother and newborn dyad/pair are to be cared for together while mother is empowered to participate in developmentally supportive care to her own newborn.

2. Care to be provided at birth and counselling before discharge from AB-HWC-SHC

If AB-HWC-SHC is a designated delivery point, you must have a skilled birth attendant 24*7 to provide essential newborn care following birth which includes the following (Also, refer the Algorithm of Newborn Resuscitation in Annexure-1) :

² First Referral Unit (FRU) provides comprehensive obstetric care services including like caesarean section, newborn care, emergency care of sick children, full range of family planning services, safe abortion services treatment of Sexually Transmitted Infection / Reproductive Tract Infection, availability of blood storage unit and referral transport services.

- Establishment of respiration
- Delayed cord clamping
- Immediate drying and skin-to-skin contact
- Prevention of hypothermia (child's body temperature is below normal)
- Early initiation of breastfeeding, exclusive breastfeeding and lactation support
- Prevention of infection
- Detection of danger signs

You must maintain a functional newborn care corner with all the standard, clean and functional equipment in place. Mother/caregiver to be counselled before discharge for the following in the post-natal ward of the AB-HWC-SHC:

HIGH - RISK NEWBORN BABIES

1. Babies born before full term (preterm).
2. Birth weight less than 2.5 kg (low-birth weight babies).
3. Sick babies discharged from SNCU after treatment.
4. Newborns with congenital anomalies/birth defects.
5. Newborn whose mother is either sick/dead or cannot take care.

2.1. Maintenance of body temperature

Newborns if left wet and naked lose up to 2 to 4 degree Celsius within 10-20 minutes. Large surface area (head big in size compared to its body) and less subcutaneous fat adds to further decrease in temperature. There is an increased risk of death especially in LBW and pre-term babies if hypothermia continues. It decreases ability to suckle at the breast, leading to poor feeding and weakness and more prone to increased susceptibility to infections. So, baby should be kept dry and well covered at all times.

Do remember to ask/check for passage of meconium (early stool passed by a newborn soon after birth) within 24 hours or urine within 48 hours of any neonate who is born at the AB-HWC-SHC. In case there are any congenital anomalies/birth defects, report to District RBSK Mobile Health Team/ DEIC at District Hospital and/or DEIC Manager.

2.2. Initiation of Breast Feeding and sustaining it

Breastfeeding must be initiated as early as possible, definitely within 1 hour of birth. The time of initiation should be documented. Skilled birth attendant should assist the mother and help her in breastfeeding the baby. The mother should be provided with lactation support and counselling. The mother should be advised for demand feeding, both during day and night, at least 8-12 times a day. During each feed, one breast should be completely emptied before the baby is put to the other breast. There is no need for additional water or other fluids except under medical supervision.

2.3. Care of the umbilical stump

The cord must be left open without any dressing. Check for redness and discharge. Do not apply any medication on the cord. The cord usually falls after 4 to 10 days.

2.4. Skin care/ Bathing

It is preferable to bathe the baby when cord dries off. Healthy newborn can be given a bath after 48 hours but wait for seven days in case of LBW babies. Special precautions must be taken during bathing

to prevent draught and chilling. During the winter months, instead of bathing, the baby can be sponged daily to avoid unnecessary exposure and risk of hypothermia. To keep a small baby clean, advise mother to give a light oil massage followed by warm water sponging to clean the oil but making sure that the room is warm, and the baby is not left uncovered for more than 10 minutes. The mother/caregiver should not pour oil into any orifice, like the nose or ears at any time.

2.5. Weight Recording

All the infants should be weighed after stabilisation and birth weight recorded. The mother/caregiver should ensure regular recording of weight. A single-use paper towel or a sterile cloth towel should be placed on the weighing scale beneath the infant. The weighing scale must be periodically (at least weekly) calibrated.

2.6. Vitamin K

The CHO will ensure administration of Vitamin K injection. Vitamin K should be administered intramuscularly on the antero-lateral aspect of the thigh using a 26-gauge needle and 1 ml syringe. Dose to be used is 0.5 mg for babies weighing less than 1000 gm and 1.0 mg for those weighing more than 1000 gm at birth.

2.7. Care of the eyes

Routine application of antiseptic or ointment for prevention of ophthalmia neonatorum is not recommended. Some neonates may develop persistent epiphora (watering) due to blockage of nasolacrimal duct by epithelial debris. The mother/caregiver should be advised to massage the nasolacrimal duct area (by massaging the either side of the nose adjacent to the medial canthus) 5 to 8 times daily, each time before she feeds the baby. The use of kajal must be avoided as it may transmit infections, cause injury or even cause lead poisoning.

2.8. Immunization

It is recommended to give BCG, zero dose of oral polio vaccine and birth dose of Hepatitis B vaccine. Refer to Chapter - 9 on Immunization for Children for details.

2.9. Danger Signs

All danger signs in the baby should be explained to the mother/caregiver before discharge and she should be advised to bring the baby to the facility if any of the following danger sign is observed.

- Baby cold/hot to touch.
- Inability/difficulty in feeding.
- Difficulty in breathing/fast breathing.
- Abnormal movements.
- Less movement.
- Appearance of jaundice within 24 hours of age/yellow staining of palms or soles.

The caregivers/family members may also be counselled to seek care in case of persistent vomiting, excessive crying, drooling of saliva or choking during feeding, bleeding from any site, superficial infections such as conjunctivitis, pustules, umbilical sepsis (redness at base of the stump and discharge), oral thrush, etc.

Before discharge from the AB-HWC-SHC, you must ensure that -

- Infant has been immunized, no signs of illness including significant jaundice and is being breastfed adequately.
- Mother is free from any significant illness and confident to take care of her infant, advised regarding danger signs and when to seek care.
- Next follow-up visit is scheduled and informed to the mother/caregiver.

Key messages to remember for care of the newborn:

- Keep the mother and newborn together.
- Mother to continue nutritious diet.
- Breastfeed the baby exclusively.
- Practice hand washing to prevent infection.
- Mother must be aware of the danger signs and seek care promptly after discharge.
- If the baby is born before term or is low birth weight baby, she should provide Kangaroo Mother Care (KMC) or continue assisted breastfeeding if required.
- If the baby has been discharged from SNCU then continue the follow-up as advised.

In this chapter, you have gained an understanding regarding the Facility Based Newborn Care (FBNC), health services available at different levels of newborn care and care to be provided at birth and counselling before discharge from AB-HWC-SHC. You will learn about the various community-based programmes for children in Chapter-5.

Roles and responsibilities of CHO towards ensuring newborn care services

- As the in-charge of the AB-HWC, your foremost role is to keep your staff updated, motivated and supervised so that the centre can perform the duties effectively. In case the centre has a delivery point it is important to provide supervision to see the care around birth.
- In outpatient services, the important task is to counsel mothers who visit the AB-HWC during the postnatal period regarding her physical well-being, nutritional support during lactation, and use of modern methods of contraception. Counsel her to keep the newborn warm, continue exclusive breastfeeding, responsive feeding, play and communication (refer to section on responsive caregiving in Chapter - 10) and following the immunization schedule.
- Ensure and validate the records of newborn in the MCP card at the time of institutional delivery and arrange for the birth certificate to be issued.
- In case of the danger signs in newborn, perform pre-referral stabilisation and facilitate referral. If there are no danger signs, manage as per IMNCI protocols and follow up. You will read about it in subsequent chapter.
- Support and supervise the MPWs and ASHA Facilitators in undertaking joint home visits with ASHAs for at least half the newborns, i.e., they visit at least 3-4 newborns every month to support ASHAs in provision of Home Based Newborn Care. Ensure that ASHA is conducting home visits especially for those from marginalised and vulnerable pockets.
- An updated line list of all newborns in your catchment area should be available with ASHAs, MPWs and yourself. It is expected that per month, 8/9 newborns need to be followed (annually around 100) if your catchment area caters to a population of 5000. Amongst these, identify and line list high risk newborns as described above and keep them under constant tracking.
- Update the records of newborn health status in RCH portal and other IT applications that have been developed for tracking of HBNC.
- As a CHO, you need to be familiar with all the key tasks that are to be undertaken at the community level by ASHA and AWW to ensure care for the newborn and young child (0-2 months).

Assessment and care of sick young infant (0-2 months of age)

Outpatient management of children is an integrated approach that includes assessment, classification, and management of the major problems the young infant may have. It also includes assessment of nutritional and immunization status of all sick infants and children.

In this chapter you will learn the following:

- ✓ Assess young infants (0-59 days) for possible bacterial infection, jaundice and diarrhoea.
- ✓ Check if infant has difficulty in feeding and is very low weight (<1800 gm).
- ✓ Check the young infant's immunization status.
- ✓ Provide pre-referral treatment and refer when required.
- ✓ Address breastfeeding problems.
- ✓ Advise the mother on home care for the sick young infant.

ASSESS AND CLASSIFY THE SICK YOUNG INFANT

Sick young infants are somewhat different from older children. Sick young infants frequently have only general signs like lethargy, low body temperature or fever. They can become sick very quickly and may die within a few hours or days. These are some of the reasons why young infants have to be managed differently.

Tips for Effective Communication

- Greet the mother and listen carefully to what the mother tells you.
- Ask the questions in a way which the mother understands.
- Give the mother time to answer the questions; ask additional questions when the mother is not sure about her answer.
- Ask her additional questions to help her give clearer answers. Nod, hmmm.... when mother is saying something.
- Do not appear to be in a hurry.

History taking in a newborn is complex as the presenting complaints are the observations of the parents/caregivers, and therefore, need to be reviewed critically.

The details of antenatal period and events at/around the time of delivery (place of delivery, type of delivery and did the newborn require any assistance) and the postnatal period are very relevant.

Check MCP Card for entry in Date/Time of Birth/Status of the mother and newborn at discharge, Breastfeeding and Immunization status.

1. ASSESS EVERY YOUNG INFANT FOR POSSIBLE SERIOUS BACTERIAL INFECTION (PSBI)/ JAUNDICE

If one or more than one sign is present, do pre-referral stabilisation and arrange for 108 ambulance for referral to the appropriate facility NBSU/SNCU.

<p>ASK: Is the infant having difficulty in feeding?</p>	<p>LOOK, LISTEN & FEEL: Count the breaths in one minute. Repeat the count if elevated. Look for severe chest indrawing. Look at the umbilicus. Is it red or draining pus?</p>	<p>} Young infant must be calm</p>
<p>Has the infant had convulsions?</p>	<p>Look for skin pustules. Measure axillary temperature (if not possible feel for fever or low body temperature). Look at the young infant's movements.</p> <p>If infant is sleeping, ask the mother to wake him/her. - Does the infant move on his/her own?</p> <p>If the infant is not moving, gently stimulate him/her. - Does the infant not move at all?</p> <p>Look for jaundice. - Are the palms and soles yellow?</p>	

ASK: Is the infant having difficulty in feeding?

Any difficulty mentioned by the mother is important. A young infant who was feeding well earlier but is not feeding well now may have a serious infection and **should be referred urgently to hospital**. The mother may also mention difficulties related to breast feeding which will be discussed during breastfeeding assessment. Has the infant had convulsions? Use the local term for convulsions.

LOOK for: Severe chest indrawing

Ask the mother to lift young infant's shirt to look at the lower chest wall (lower ribs) when the young infant breathes. The young infant has chest indrawing if the lower chest wall goes IN when the infant breathes IN. In normal breathing, the whole chest wall (upper and lower) and the abdomen move OUT when the young infant breathes IN. If you only see chest indrawing when the young infant is crying or feeding, the young infant does not have chest indrawing. Mild chest indrawing is normal in a young infant because the chest wall is soft. Severe chest indrawing is serious, easily seen and is a sign of pneumonia in a young infant.

EXAMINE: Skin for pustules are red spots or blisters, which contain pus.

LOOK: At the young infant's movements. Does the young infant move only when stimulated? Are there no movements even after the young infant is stimulated?

An awake young infant will normally move his arms or legs or turn his head several times in a minute if you watch him closely. Observe the infant's movements while you do the assessment. If the infant moves only when stimulated and then stops moving, or does not move even when stimulated, it is a sign of severe disease.

LISTEN & FEEL:

Counting of Respiratory rate: Tell the mother you are going to count her infant’s breathing for one minute and during this time try to keep her infant calm. Use a watch with a second hand or a digital watch; glance at the second hand as you count the breathing movement anywhere on the infant’s chest or abdomen (Ask the mother to lift the infant’s shirt if breathing movements is not visible). Repeat the count if the count is elevated (60 breaths per minute or more) OR you are not sure about the number of breaths you counted. The second count is accepted as the final count. If the young infant has fast breath, the young infant may have pneumonia. This is considered serious in a young infant.

FEEL: Measure axillary temperature (if not possible feel for fever or low body temperature). Fever (axillary temperature more than 37.5°C) is uncommon in the first two months of life. If a young infant has fever, this may mean the infant has a serious bacterial infection. When the temperature is 37.5°C-39°C, undressing and exposing the neonate to room temperature is usually all that is necessary.

Young infants can also respond to infection by dropping their body temperature to below 35.5°C.

Keep the thermometer in the axilla (armpit) and then hold the young infant’s arm against his/her body for 5 minutes before reading the temperature. If you do not have a thermometer, feel the infant abdomen or armpit and determine if the infant feels hot or cold to touch.

CLASSIFY THE YOUNG INFANT FOR POSSIBLE SERIOUS BACTERIAL INFECTION

The classification table for Possible Serious Bacterial Infection (PSBI):

Signs	Classify as	Action to be taken by CHO
Not able to feed OR Convulsions OR Fast breathing (60 breaths per minute or more) OR Severe chest indrawing OR Axillary temperature 37.5°C or above (or feels hot to touch) or Axillary temperature less than 35.5°C (or feels cold to touch) OR Movement only when stimulated or no movement at all	POSSIBLE SERIOUS BACTERIAL INFECTION	<ul style="list-style-type: none"> • Give first dose of oral amoxicillin and intramuscular gentamicin. • Treat to prevent low blood sugar. Warm the young infant by Skin-to-Skin contact if temperature is less than 36.5°C (or feels cold to touch) while arranging referral. • Advise mother on how to keep the young infant warm on the way to the hospital. • Refer URGENTLY to NBSU at CHC or SNCU at District Hospital.
Umbilicus red or draining pus or Skin pustules	LOCAL BACTERIAL INFECTION	<ul style="list-style-type: none"> • Give oral amoxicillin for 5 days. Teach mother to treat local infections at home. • Follow up in 2 days.

IDENTIFY TREATMENT AND TREAT THE CHILD IF REFERRAL IS REQUIRED FOR PSBI

Explain to the mother the need for referral and get her agreement to take the young infant. If she appears reluctant then try to find out the reasons for this and find solutions.

Prepare a referral slip and give pre-referral treatment and provide any instructions that the mother should follow while on her way to the hospital. Advise the mother to continue to breastfeed the baby while transporting the baby. If the young infant has severe dehydration and the infant can feed, then the mother must continue to give sips of ORS once every minute or two minutes throughout the time when she is travelling to the referral facility.

If antibiotic is to be given, then make sure to give the first dose of antibiotic in your presence. Give an extra dose of this medicine if it is going to take a long time before the infant reaches the hospital. Administer Injection Gentamicin along with oral Amoxicillin to young infants suspected with sepsis under the following situations:

- **Pre-referral dose** - Give the first dose of each antibiotic before referral to a health facility.
- **Completion of antibiotic treatment** - If the infant has not completed a course of either of the antibiotic following discharge from a health facility, complete the course of the treatment as prescribed by the Medical Officer.
- **Referral not possible or refused** - Under this special situation where referral is not possible or is refused, continue to give treatment for 7 days.

The doses are given in the table below.

Doses of antibiotics for young infant

Weight	Gentamycin Intramuscular*	Amoxicillin Oral	
	80 mg in 2ml vial	125 mg in 5 ml syrup	Tablet (250mg)
1.5 to 2.0 kg	0.2 ml	2 ml	¼
2.0 to 3.0 kg	0.3 ml	2.5 ml	½
3.0 to 4.0 kg	0.4 ml	3.0 ml	½
4.0 to 5.0 kg	0.5 ml	4.0 ml	½

*Avoid using undiluted 40 mg/ml gentamicin.

➤ GIVE ORAL AMOXYCILLIN FOR LOCAL BACTERIAL INFECTION (BY CHO)

Give the full course of amoxicillin (for 5 days) to infants with LOCAL BACTERIAL INFECTION at home. Give amoxicillin by mouth every morning and every night for five days.

➤ GIVE ORAL AMOXYCILLIN AND INTRAMUSCULAR GENTAMICIN FOR PSBI (BY CHO)

Give one dose (pre-referral) for Possible Serious Bacterial Infection in doses given above and **REFER**.

Giving injectable Gentamicin

Dosage: 5 mg/kg body weight once a day.

- Route of administration: Intramuscular.
- Site of Injection: Antero-Lateral aspect of the thigh.
- Preparation: Injection Gentamicin is available in two preparations – 20 mg/2 ml and 80 mg/2 ml. Use only 80 mg/2 ml preparation in young infants. This provides 40 mg Gentamicin per 1 ml. This preparation ensures that the volume of injection Gentamicin fluid for young infants does not exceed the safe limit of 1 ml.
- There is no need for refrigerator/cold chain maintenance for the storage of the drug.
- Syringe and needle: 1 ml disposable syringe with 23 Gauge needle should be used.
- Alternatively, Insulin syringe could be used. Auto disposable syringes provided for immunization should not be used because of varying dosage marking.
- Duration of treatment: Total duration of treatment is 7 days. In cases of follow-up treatment, follow the advice as per the discharge ticket/doctor's prescription.

Steps in teaching the mother/caregiver to give oral medicines at home

Determine the medicines and dosage and explain the mother/caregiver the need of medicines.

Demonstrate the correct dose and ask the mother/caregiver to measure the first dose and give it in front of you. Label it and ask the mother/caregiver to follow the schedule as described even if the baby gets well. Do confirm whether she has understood.

To Treat Skin Pustules or Umbilical Infections

The mother should: Wash hands. Gently wash off pus and crusts with soap and water. Dry the area. Paint with gentian violet 0.5%. Wash hands.

Tell the mother/caregiver to do the treatment twice daily.

2. CLASSIFY THE YOUNG INFANT FOR JAUNDICE

LOOK FOR JAUNDICE - press the infant's skin over the forehead with your fingers to blanch; remove your fingers and look for yellow discoloration under natural light. If there is yellow discoloration, the infant has jaundice. To assess for severity, repeat the process over the palms and soles too.

Almost all neonates may have 'physiological jaundice' during the first week of life due to several physiological changes taking place after birth. Physiological jaundice does not extend to palms and soles and does not need any treatment. However, if jaundice appears on first day, persists for 14 days or more and extends to palms and soles, it is severe jaundice and requires urgent attention. The classification table for jaundice is given below.

The classification table for Jaundice :

Signs	Classify as	Action to be taken by CHO
Any jaundice in the infant less than 24 hours of age OR Yellow palms and soles at any age Jaundice for 14 days or more	SEVERE JAUNDICE	<ul style="list-style-type: none"> • Treat to prevent low blood sugar. • Warm the young infant by skin-to-skin contact if temperature less than 36.5°C (or feels cold to touch) while arranging referral. • Advise mother/caregiver how to keep the young infant warm on the way to the hospital. • Refer URGENTLY to NBSU at CHC or SNCU at District Hospital.
Jaundice appearing after 24 hours of age OR Palms and soles not yellow	JAUNDICE	<ul style="list-style-type: none"> • Advise mother/caregiver to give home care. • Ask the mother/caregiver to return immediately if the palms and soles turn yellow. • Follow up in 1 day. • If the infant is older than three weeks, refer to NBSU at CHC or SNCU at district hospital for assessment.

3. ASSESS YOUNG INFANT FOR DIARRHOEA

Ask: Does the young infant have diarrhoea?

If the stools have changed from the usual pattern and are many and watery, the young infant has diarrhoea. Breastfed babies normally have frequent loose stools.



Look at the Young Infant's General Condition: Infant's movements – moves on his/her own/moves only when stimulated but then stops? OR does not move at all? Is the infant 'restless and irritable'? Is the young infant restless and irritable all the time or every time he/she is touched and handled, infant is calm only when breastfeeding but is again restless and irritable when he/she stops breastfeeding.

Diarrhoea can be a serious problem – and even lead to death – if the child becomes dehydrated. Dehydration is when the child loses too much water and salt from the body. This causes a disturbance of electrolytes, which can affect vital organs. A child who is dehydrated must be treated to help restore the balance of water and salt. Many cases of diarrhoea can be treated with Oral Rehydration Salts (ORS).

Signs of dehydration:

- **Sunken eyes:** If you think that the eyes are sunken, ask the mother if she thinks her infant's eyes look unusual. Her opinion helps you confirm that the young infant's eyes are sunken.
- **Pinch the skin of the abdomen:** Ask the mother to hold the young infant in her lap so that the infant is lying flat on his/her back. Locate an area halfway between the infant's navel and the side of the tummy. Now pinch the skin with the thumb and the first finger by lifting it for one second and then releasing it. Do not pinch with the tip of the finger or the thumb since this will cause pain to the infant. After leaving the skin, check to see how soon the skin returns to normal. A very short tenting of the skin lasting less than 2 seconds is considered as slow skin pinch. If the skin returns to normal immediately after being pinched, the skin pinch is normal.

CLASSIFY and TREAT Young Infant for dehydration during DIARRHOEA

Signs	Classify as	Action to be taken by CHO
Two of the following signs: <ul style="list-style-type: none"> • Movement only when stimulated or no Movement at all • Sunken eyes • Skin pinch goes back very slowly 	SEVERE DEHYDRATION	<ul style="list-style-type: none"> • Give first dose of oral amoxicillin and intramuscular gentamicin. • Refer URGENTLY to NBSU at CHC or SNCU at District Hospital with mother giving frequent sips of ORS on the way.
Two of the following signs: <ul style="list-style-type: none"> • Restless or irritable • Sunken eyes • Skin pinch goes back slowly 	SOME DEHYDRATION	<ul style="list-style-type: none"> • Advise mother to continue breastfeeding. • Advise mother/caregiver how to keep the young infant warm on the way to the hospital.
Not enough signs to classify as dehydration.	NO DEHYDRATION	<ul style="list-style-type: none"> • Give fluids (breast milk) to treat diarrhoea at home along with ORS (Plan A of IDCF toolkit) and Zinc for 14 days. • Follow-up in 2 days if not improving.

TREATMENT OF DIARRHOEA

Plan A: Treat Diarrhoea at Home

The best way to give a young infant extra fluid and continue feeding is to breastfeed more often and for longer at each breastfeed. If an infant is exclusively breastfed, it is important not to introduce a food-based fluid.

Additional fluids that may be given to a young infant is ORS solution. If a young infant is to be given ORS solution at home, tell the mother to give 5 teaspoons of ORS to the infant after each watery stool. She should first offer a breastfeed, then give the ORS solution. Remind the mother to stop giving ORS solution after the diarrhoea has stopped. Refer Annexure-3 for Preparation of ORS using an ORS packet.

Plan B: Referral for Sick Young Infant

Referral (to NBSU at CHC or SNCU at DH) is the best option for a young infant classified with SEVERE DEHYDRATION AND SOME DEHYDRATION WITH LOW WEIGHT.

Give one dose (pre-referral) of Oral Amoxicillin and Intramuscular Gentamicin in the same doses as given above (in the section on PSBI) and refer.

IF REFERRAL IS NOT POSSIBLE, give oral amoxicillin every 12 hours and intramuscular gentamicin once daily for 7 days.

FOLLOW UP: A young infant with diarrhoea should be seen after 2 days.

Assessment Findings	Action to be taken by CHO
If a young infant has some or severe dehydration or blood in stool or any sign of possible serious bacterial infection or if the duration of diarrhoea is 14 days or more.	Refer urgently to NBSU at CHC or SNCU at District Hospital.
If the duration of diarrhoea is less than 14 days, there is no blood in the stool and the young infant has no dehydration.	Continue breastfeeding and give ORS prepared with clean water.

4. CHECK FOR VERY LOW WEIGHT & FEEDING PROBLEM

- All young infants are weighed. Young infants whose weight is <1800 gm should be referred to a hospital. The young infant should be breastfed as often and for as long as the infant wants, day and night. This should be 8 or more times in 24 hours. A young infant should be exclusively breastfed. Pain while breastfeeding may indicate sore nipples, breast engorgement or breast abscess. Examine the breasts for any lumps or tenderness, check the condition of the nipples and observe breastfeeding. If the woman has any complaints regarding the condition of her breasts, refer her to the MOs at AB-HWC-PHC/FRU.
- The four signs of good attachment to the breast are: chin touching breast (or very close), mouth wide open, lower lip turned outward, more areola visible above than below the mouth. **If all these four signs are present, the infant has good attachment.** The infant is suckling effectively if he/she suckles with slow deep sucks and sometimes pauses. A satisfied infant appears relaxed, sleepy, and loses interest in the breast.

Assessment of feeding in young infants has two parts:

ASKING THE MOTHER: Is the young infant breastfed? If yes, how many times in 24 hours? You also ask questions to determine if she is having difficulty feeding the infant, what the young infant is fed and how often. Does the infant usually receive any other food or drinks? If yes, how often? Find out if the young infant is receiving any other food or drinks, such as other milk, juice, tea, thin porridge, dilute cereal, or even water. Ask how often he/she receives it and the amount. What do you use to feed the infant? (to know whether the infant takes other food or drinks, find out if the mother uses a feeding bottle, cup or any other device). Does the mother have pain while breastfeeding?

Observe a whole breastfeed at least for 4 minutes to assess breastfeeding only if the infant does not require urgent referral to a hospital.

LOOK: Is the infant able to attach? Suckling effectively? (slow deep sucks, sometimes pausing, may see or hear the infant swallowing.) Look for signs that the infant is satisfied.

An infant who is not suckling at all is not able to suck breastmilk into his/her mouth and swallow. If a blocked nose seems to interfere with breastfeeding, clear the infant's nose and check for effective suckle by infant.

LOOK: Inside the mouth, at the tongue and inside of the cheek, for ulcers or white patches in the mouth (thrush-milk curds on the inside of the cheek, or a thick white coating of the tongue), for sore/cracked nipples. Engorged breasts or breast abscess?

Engorged breasts are swollen, hard and tender. Presence of a breast abscess is indicated additionally by localised redness and warmth.

CLASSIFY FOR FEEDING PROBLEM: Reassure the mother that all mothers produce enough milk for their baby and if you have twins then it will suffice for both. Encourage the mother to continue breastfeeding more frequently when she complains of not enough milk.

Signs	Classify as	Action to be taken by CHO
Weight < 1800 gm	Refer URGENTLY to NBSU at CHC or SNCU at District Hospital as VERY LOW WEIGHT BABY	<ul style="list-style-type: none"> • Treat to prevent low blood sugar. • Warm the young infant by skin-to-skin contact if feels cold to touch/temperature less than 36.5°C while facilitating referral. • Advise mother how to keep the young infant warm on the way to the hospital.
Weight 1800-2500 gm OR Not well attached to breast/ not suckling effectively OR Less than 8 breastfeeds in 24 hours OR Receives other foods or drinks OR Thrush (ulcers or white patches in mouth) OR Breast or nipple problems	LOW WEIGHT OR FEEDING PROBLEM	<ul style="list-style-type: none"> • Advise mother to give home care (breastfeed infant exclusively, keep infant warm, apply nothing to cord, ask mother to wash hands and explain danger signs in the infant). • Follow-up in 2 days. • Follow-up in low weight babies in 14 days. • Excessive weight loss (normal 8-10% of birth weight by 3-4 days of age) would indicate inadequate breastfeeding. • Advise to increase frequency of feeding. • Teach correct positioning and attachment for breastfeeding. Support mother in correct position and attachment. • Counsel mother about breastfeeding more, reducing other foods or drinks, and using a cup and spoon. • If not breastfeeding at all, advise mother to feed with a cup and spoon and teach the mother regarding expressed breast milk feeding. • Teach the mother to apply 0.25% gentian violet paint twice daily.
Weight is equal to or more than 2500 gm and no other signs of inadequate feeding	NO FEEDING PROBLEM	<ul style="list-style-type: none"> • Advise mother to give home care for the young infant. Praise the mother for feeding the infant well.

Teach correct positioning and attachment for breastfeeding (see Annexure-2 for details).

Teach the mother to treat breast and nipple problems

If nipple is sore, apply breast milk for soothing effect and ensure correct positioning and attachment of the baby if the mother continues to have discomfort, feed expressed breast milk with cup and spoon.

If breasts are engorged, let the baby continue to suck if possible. If the baby cannot suckle effectively, help the mother to express milk and then put the young infant to the breast. Putting a warm compress on the breast may help. If there is breast abscess, advise mother to feed from the other breast and refer to a surgeon.

Teach the mother to express breast milk and feed with a cup and spoon

First, the mother is asked to sit comfortably and then to hold the cup near her breast with one hand. With the other hand, she is asked to place her thumb above and her first finger below the nipple and areola. Then she is asked to push her thumb and finger slightly inwards towards the chest wall and then press the areola between the thumb and finger. She must repeatedly press and release. This repeated action would allow the milk to drip out. She must repeat this action from the sides of the areola too to make sure that milk is expressed from all quadrants. Expression must be continued for 3-5 minutes until the milk flow slows down. The mother must perform the expression from both the breasts and it may take her about 15-20 minutes to express both breasts completely.

For feeding the baby, small amounts of the expressed breast milk are taken into the spoon or paladai and directly poured from the angle of the mouth. One must wait for the baby to swallow the milk before more milk is poured into the mouth.

Common breastfeeding problems and possible solutions

Breastfeeding problems	Counsel the mother
Mother feels her milk is not enough for the baby	<ul style="list-style-type: none"> • Increase your food and fluid intake. • Breastfeed in a relaxed environment, free from any mental stress. • Take some rest during the day. • Breastfeed frequently, including at night, at least 8 times during 24 hours. • Breastfeed until the breast is completely empty. Then feed from the other breast.
Young infant is being fed with a bottle, cotton, or dropper	<ul style="list-style-type: none"> • Continue exclusive breastfeeding for 6 months. In case of expressed breastfeeding, clean the cup and spoon to be used.
Mother works outside home	<ul style="list-style-type: none"> • Breastfeed frequently before going to work and after returning home, including at night. • Express breast milk before leaving for work and ask the caretaker to feed the young infant with a cup and spoon.

Refer to Annexure-2 on how to counsel the mother of a young infant for breastfeeding.

To Treat Thrush (ulcers or white patches in mouth)

The mother should: Wash hands. Wash the young infant's mouth with a clean, soft cloth wrapped around the finger and wet with salt water. Paint the mouth with gentian violet 0.25%. Wash hands.

FOLLOW UP:

When young infant returns for follow-up after 2 days, reassess feeding.

Have her attempts been successful?	If successful, reassure the mother and ask her to continue.
If the mother has not been able to follow the advice.	Find out the reasons and try to correct them. Ask her to come back after 2 days.

Review with the mother the changes that the mother has been able to bring about in the child's feeding.

If you do not think that feeding will improve, refer the child to NBSU at CHC or SNCU at DH.

5. CHECK IMMUNIZATION STATUS

The immunization status of all children, who are seen by CHO, should be checked. If any immunization is due, advise the mother to get the immunization done at the earliest.

THEN CHECK THE YOUNG INFANT'S IMMUNIZATION STATUS				
IMMUNIZATION SCHEDULE:	AGE	VACCINE		
	Birth	OPV-0	BCG	Hepatitis B-0
	6 weeks	OPV-1	Penta-1 IPV-1	Rota-1 PCV-1

6. ADVISE MOTHER TO GIVE HOME CARE

Advise the mother on giving home care to the sick young infant.

i. EXCLUSIVELY BREASTFEED THE YOUNG INFANT (for breastfeeding mothers)

- Give only breast milk to the young infant.
- Breastfeed frequently, as often and for as long as the infant wants, day and night, when sick and healthy.

ii. MAKE SURE THAT THE YOUNG INFANT IS KEPT WARM AT ALL TIMES

- In cold weather, cover the infant's head and feet, and add extra clothing.

iii. KNOW WHEN TO RETURN AT AB-HWC

Follow-up visits	
If the infant has:	Return for first follow-up in:
• JAUNDICE	1 day
• DIARRHOEA • FEEDING PROBLEM • THRUSH • LOCAL BACTERIAL INFECTION	2 days
• PNEUMONIA • SEVERE PNEUMONIA when referral is refused or not feasible	3 days
LOW WEIGHT FOR AGE in an infant not receiving breastmilk	7 days
LOW WEIGHT FOR AGE in breastfed infant	14 days

WHEN TO RETURN IMMEDIATELY:
Advise the mother/caretaker to return immediately if the young infant has any of these signs:
➤ Breastfeeding poorly
➤ Reduced activity
➤ Becomes sicker
➤ Develops a fever
➤ Feels unusually cold
➤ Develops fast breathing
➤ Develops difficult breathing
➤ Palms or soles appear yellow

Home care advice includes the following:

- To breastfeed the infant frequently, as often and as long as the infant wants, day and night, during sickness and health.
- To ensure that the infant is kept warm at all times.
- Advise mother to wash hands with soap and water, after defecation and after cleaning the bottom of the baby.
- Advise the mother not to apply anything on the cord and keep the cord and umbilicus dry.
- Also teach the mother when to return immediately. The signs mentioned in the table above are particularly important signs to watch for. Teach the mother these signs. Use local terms that the mother can understand.
- Ask her checking questions to be sure she knows when to return immediately.

HOW TO KEEP THE YOUNG INFANT WITH LOW WEIGHT WARM AT HOME

Do not bathe low birth weight baby and if required use lukewarm water to clean. Provide skin-to-skin contact to the baby as Kangaroo Mother Care all through the day and if that is not possible then:

- Keep the room warm with a home heating device.
- Clothe the baby in 3-4 layers; cover the head, hands and feet with cap, gloves, and socks. Let the baby and mother lie together on a soft, thick bedding. Cover the baby and the mother with additional quilt, blanket or shawl, especially in cold weather. The best way to maintain temperature in a baby with low temperature is by placing the baby in skin-to-skin contact with the mother (or any adult). Skin-to-skin contact can also be used to keep a baby warm during transport and at home.

Warm the young infant using Skin-to-Skin Contact (Kangaroo Mother Care):

- Provide skin-to-skin contact (Kangaroo Mother Care) as much as possible, day and night.
- Provide privacy to the mother.
- Request the mother to sit or recline comfortably.
- Undress the baby gently, except for cap, nappy, and socks.
- Place the baby prone on mother’s chest in an upright and extended posture, between her breasts, in skin-to-skin contact; turn baby’s head to one side to keep airways clear.
- Cover the baby with mother’s blouse, ‘pallu’ or gown; wrap the baby-mother duo with an added blanket or shawl.
- Breastfeed the baby frequently.
- If possible, warm the room with a heating device.
- If the mother is not available, skin-to-skin contact may be provided by the father or any other adult.



When Skin-to-Skin Contact is not possible:

- Keep the room warm with a home heating device.
- Clothe the baby in 1-2 layers (summer).
- Clothe the baby in 3-4 layers (winter) and cover the head, hands and feet with cap, gloves and socks respectively.

- Let the baby and the mother lie together on a soft, thick bedding. Cover the baby and the mother with additional quilt, blanket or shawl in cold weather; the linen and clothes of the baby should be pre-warmed before dressing.
- Cover the baby adequately using cap, socks and mittens. Keep the room warm with the help of a heater. During summer, depending upon the environmental temperature, the baby should be dressed in loose cotton clothes and kept indoors as far as possible. Exposure of the baby to direct sunlight during the hot summer months can lead to serious hyperthermia.

Role of CHO in assessment and care of sick young infant (0-2 months)

- Undertake assessment of common illnesses in sick young infants by recognising the danger signs.
- Provide appropriate treatment for the management of the common illnesses in sick young infant as per protocol.
- Timely and urgent referral of sick young infants to appropriate referral centres on the basis of assessment with proper counselling to the mothers/caregivers and provide pre-referral treatment as per protocols explained above.
- Teach the mother/caregivers regarding the danger signs in the young infant with immediate reporting, administration of oral medicines, treatment of local infection at home and preventive strategies of these diseases.
- Assess for any feeding problem – breastfeeding counselling.
- Check Immunization status.
- Home care advice.
- Assess for growth and development.
- Screen for any birth defect.



Assessment and care of sick child (2-59 months of age)

This chapter describes how to assess and classify sick child (2-59 months) so that signs of disease are not overlooked. The assessment procedure for this age group includes several important steps that must be taken by the health care provider, including:

- (1) asking the mother/caregiver about the child's problem
- (2) checking for general danger signs
- (3) checking four main symptoms
- (4) checking nutritional status
- (5) assessing the child's feeding
- (6) checking immunization status, Vitamin-A, de-worming status, and
- (7) assessing other problems

ASKING THE MOTHER/CAREGIVER ABOUT THE CHILD'S PROBLEM

It is critical to communicate effectively with the child's mother or caregiver. Using good communication helps to reassure the mother or caregiver that the child will receive appropriate care.

CHECKING FOR GENERAL DANGER SIGNS: You should ensure that the general danger signs are not overlooked as they indicate severity of illness. The danger signs are:

- The child is unable to drink or breastfeed
- The child vomits everything
- The child has had convulsions during the present illness
- The child is unconscious or lethargic

Presence of any danger sign mandates quick assessment, pre-referral treatment and urgent referral to the CHC/DH wherever paediatrician or paediatric care services are available.

If a child has one or more of these signs, he/she must be considered seriously ill and will almost always need referral. The child should be quickly assessed for the most important causes of serious illness – acute respiratory infection (ARI), diarrhoea, and fever (especially associated with malaria and measles). A rapid assessment of nutritional status is also essential, as malnutrition and anemia could also affect health outcomes of the child.

CHECKING MAIN SYMPTOMS: After checking for general danger signs, you must check for main symptoms:

- Cough or difficult breathing
- Diarrhoea
- Fever

ASSESS AND CLASSIFY each of these symptoms to decide the treatment and follow up.

A. CASE MANAGEMENT OF A CHILD WITH COUGH OR DIFFICULT BREATHING

CLINICAL ASSESSMENT: Three key clinical signs are used to assess a sick child with cough or difficult breathing:

- Respiratory rate: which distinguishes children who have pneumonia from those who do not.
- Chest indrawing: which indicates severe pneumonia.
- Wheeze: a whistling sound that occurs during breathing, usually during expiration (breathing air out of the lungs) through narrowed airways and indicates asthma or hypersensitivity.

If the Child's age is	The child has fast breathing if you count:
Between 2 months and 12 months	50 breaths per minute or more
Between 12 months and 5 years	40 breaths per minute or more

If pulse oximeter is available, it is an important tool to identify children with hypoxemia (oxygen saturation <90%).

CLASSIFY AND TREAT CHILD WITH COUGH OR DIFFICULT BREATHING

Based on the assessment of danger signs, respiratory rate, chest indrawing (and pulse oximetry, if available) and presence of wheeze, you will classify children into categories as given below:

Signs	Classify As	Action to be taken by CHO
<ul style="list-style-type: none"> • General danger signs (inability to breastfeed or drink, lethargy or reduced level of consciousness, convulsions) Or <ul style="list-style-type: none"> • Chest indrawing 	Severe Pneumonia Or Very severe disease	<ul style="list-style-type: none"> • Refer URGENTLY for hospitalisation at CHC or DH after pre-referral dosage of Oral Amoxicillin and IM Gentamicin. • Give oxygen if saturation < 90%, while arranging referral.
<ul style="list-style-type: none"> • Fast breathing: <ul style="list-style-type: none"> ✓ 02-11 months ≥ 50/min ✓ 12-59 months ≥ 40/ min 	Pneumonia	<ul style="list-style-type: none"> • Give Oral Amoxicillin for 5 days in consultation with MO at AB-HWC-PHC. • Treat wheeze if present. • Advise home care for cough & cold. • Advise mother when to return immediately. • Follow up after 2 days.
<ul style="list-style-type: none"> • No signs of Severe Pneumonia or Pneumonia 	No Pneumonia: Cough or cold	<ul style="list-style-type: none"> • Advise home care for cough & cold. • If coughing for more than 14 days, refer for assessment. • Follow up after 5 days if not improving.

If oxygen saturation is < 90%, refer a severe pneumonia or severe disease.

IDENTIFY TREATMENT AND TREAT THE CHILD

If the child has any general danger sign, REFER THE CHILD to CHC or DH, wherever paediatrician or paediatric care services are available after giving appropriate pre-referral treatments.

Pre-referral dosage of antibiotics for very severe disease/severe pneumonia (BY CHO)

Age or Weight	Amount of Gentamicin to be given intramuscularly as Injection (vial*contains 80 mg in 2 ml)	Amount of Amoxicillin to be given per-orally as Syrup (contains 125 mg/ 5 ml)	Amount of Amoxicillin to be given per-orally as dispersible tablet (contains 250 mg)
2 months up to 4 months (4 - < 6 kg)	0.5 - 1.0 ml	5 ml	½
4 months up to 12 months (6 - < 10 kg)	1.1 - 1.8 ml	10 ml	1
12 months up to 3 years (10 - < 14 kg)	1.9 - 2.7 ml	15 ml	1½
3 years up to 5 years (14 - < 20 kg)	2.8 - 3.5 ml	-	2

TREAT PNEUMONIA WITH AMOXICILLIN (BY CHO)

Dosage of Amoxicillin for Pneumonia		
Age or Weight	Amount of Amoxicillin to be given orally as Syrup (125 mg per 5 ml) twice a day x 5 days	Amount of Amoxicillin to be given as a dispersible tablet (250 mg) twice a day x 5 days
2 months up to 4 months (4 kg to < 6 kg)	5 ml	½
4 months up to 12 months (6 kg to < 10 kg)	10 ml	1
12 months up to 3 years (10 kg to < 14 kg)	15 ml	1½
3 years up to 5 years (14 kg to < 20 kg)	-	2

IF THE CHILD HAS WHEEZING, give 3 doses of nebulized salbutamol repeated every 20 minutes or 2-4 puffs of Salbutamol MDI with spacer (at a gap of 2-3 minutes between each puff) every 20 minutes and if there is improvement, continue the use of bronchodilators under monitoring.

IF REFERRAL IS NOT FEASIBLE OR REFUSED, manage with oral amoxicillin twice a day and Injection Gentamicin once a day for 7 days in consultation with Medical Officer and undertake daily assessment. Use the same doses as mentioned in the tables above.

FOLLOW-UP CARE

After 2 days of treatment review with the mother if she has given the treatment as advised. Then assess the child by checking for general danger signs, chest indrawing and count the breathing rate for one minute.

Assessment findings	Action to be taken by CHO
If chest indrawing or general danger signs	Refer URGENTLY to CHC or DH wherever paediatrician or paediatric care services are available.
If fast breathing persists and the child has been given the medicines as advised	Refer to a doctor at CHC or DH wherever paediatrician or paediatric care services are available.
If breathing is slower and the child is feeding better	Continue the antibiotic for 3 days.

B. ASSESS AND CLASSIFY DIARRHOEA

If the mother says the child has diarrhoea:

<p>ASK: For how long the child has diarrhoea? Is there blood in stools?</p>	<p>LOOK at the child's general condition. Is the child lethargic or unconscious? Restless and irritable? LOOK for sunken eyes. Offer the child fluid to drink. Is the child: unable to drink or drinking poorly? Drinking eagerly, thirsty? FEEL: PINCH the skin of the abdomen. Does it go back: Very slowly (longer than 2 seconds)? Slowly?</p>
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Given below is the classification table for dehydration during diarrhoea

Signs	Classify as	Action to be taken by CHO
Two of the following signs: <ul style="list-style-type: none"> Lethargic or unconscious Sunken eyes Not able to drink or drinking poorly Skin pinch goes back very slowly 	SEVERE DEHYDRATION	<ul style="list-style-type: none"> Refer URGENTLY to CHC or DH wherever paediatrician or paediatric care services are available with mother giving frequent sips of ORS on the way.
Two of the following signs: <ul style="list-style-type: none"> Restless, irritable Sunken eyes Drinks eagerly, thirsty Skin pinch goes back slowly 	SOME DEHYDRATION	<ul style="list-style-type: none"> Treat Some Dehydration with ORS (Plan B of IDCF toolkit). Reassess after 4 hours and classify for dehydration again and decide as per plan. Follow-up in 2 days in case of improvement after reassessment.
<ul style="list-style-type: none"> Not enough signs to classify as some or severe dehydration 	NO DEHYDRATION	<ul style="list-style-type: none"> Give fluids (HAF/breast milk) and food to treat diarrhoea at home along with ORS (Plan A of IDCF toolkit) and Zinc for 14 days. Follow-up in 2 days.
<ul style="list-style-type: none"> Blood in stool 	DYSENTERY	<ul style="list-style-type: none"> Refer URGENTLY to CHC or DH wherever paediatrician or paediatric care services are available with mother giving frequent sips of ORS on the way.

Remember:

- Classify all cases of diarrhoea for dehydration. In addition, also classify dysentery if there is blood in stool.
- If diarrhoea's duration is of 14 days or more, the child has **severe persistent diarrhoea**. This child should be referred to CHC or DH wherever paediatrician or paediatric care services are available.
- Children with signs of severe dehydration should be referred to hospital.
- Children with dysentery should be referred to CHC or DH wherever paediatrician or paediatric care services are available.
- Children with some dehydration should be rehydrated with ORS.
- Children who are not dehydrated and have no blood in stools should be managed at home.



IDENTIFY TREATMENT AND TREAT THE CHILD

Home care for treatment of **diarrhoea and no dehydration** includes the following:

1. **The child should be given extra fluids to drink.** Advise the mother to give home available fluids (HAF).

Some examples of useful and harmful home available fluids are given in the table below:

Useful	Harmful
1. Breast Milk 2. Yoghurt drink 3. Lemon drink 4. Rice Water 5. 'Dal'(lentil) 6. Vegetable soup 7. Fresh Fruit Juice (unsweetened) 8. Plain clean water	1. Soft drinks 2. Fruit juices (sweetened) 3. Coffee

HOW MUCH EXTRA FLUID TO GIVE AFTER EACH LOOSE STOOL:

Age		
Up to 2 months	2 months up to 2 years	2 years and more
5 teaspoons	1/4 - 1/2 cup	1/2 - 1 cup
Give more if the child wants		

2. **Give zinc supplement for 14 days.** For children aged 6 months up to 5 years:

- One (1) whole tablet of zinc
- One time daily
- For 14 days

3. Continue feeding. The child should continue to be fed as much as the child would take. If the child is reluctant to eat, then feed more often than before, smaller amounts of food. As soon as the child recovers, the child's appetite would return and the mother should feed extra foods to make up for the excessive losses during the disease.

4. Advise the mother when to return. The signs that she must look for are:

- Child becomes sicker
- Not able to drink or breastfeed or drinking poorly
- Blood in stool
- Develops a fever

Treat diarrhoea with dehydration with Oral Rehydration Salt (ORS) Solution (Plan B)

The child with diarrhoea for less than 14 days duration who has signs of some dehydration should be treated under your (CHO) supervision with ORS for 4 hours. For this, keep the mother and child under observation, either at the health centre or at the home of the child.

Use the table to determine the amount of ORS that should be given to the child in 4 hours.

ORS	AGE			
	Up to 4 months	4 months up to 12 months	12 months up to 2 years	2 years up to 5 years
	2	3	5	7
Cups				

After about 4 hours of giving ORS, reassess the child for dehydration. If the child is no longer dehydrated, tell the mother to give home available fluids the same way as she gave ORS. Begin feeding the child even if dehydration persists, continue ORS. If the child is still dehydrated, refer to the nearest health facility, and on the way the mother should continue to give ORS to the child.

Follow the same advice regarding zinc supplement, feeding and danger signs as given above. The correct method for preparing ORS (Annexure -3) and administration of Zinc tablet is given in Annexure-4.

FOLLOW-UP CARE

A child with diarrhoea having some or no dehydration should be seen after 2 days. Assess the child’s diarrhoea and review the feeding.

Assessment Findings	Action to be taken by CHO
If very slow skin pinch or drinks poorly or general danger sign.	Refer URGENTLY to CHC or DH wherever paediatrician or paediatric care services are available.
If child has some dehydration (slow skin pinch and drinks eagerly).	Treat with ORS. Reassess after 4 hours.
If child has no dehydration (skin pinch normal and drinks normally).	Continue home available fluids. Review feeding and solve problems.

C. ASSESS AND CLASSIFY FEVER

Fever is a common problem among young children. A child with fever may have malaria or another disease such as simple cough or cold or other viral infection.

DOES THE CHILD HAVE FEVER? (By history or feels hot or temperature 37.5 ⁰ C or above)	
IF YES: Then Ask: <ul style="list-style-type: none"> Fever for how long? If more than 7 days, has fever been present every day? 	LOOK AND FEEL: <ul style="list-style-type: none"> Look or feel for stiff neck
Test POSITIVE/ NEGATIVE/ NA (P.falciparum/P.vivax)	

Before classifying fever, check for other obvious causes of fever (e.g., cough, diarrhoea, skin infection etc.). The National Anti-Malaria Programme (NAMP) in some areas has provided health workers with rapid diagnostic kits and anti-malarials including Artemisinin - based Combination Therapy (ACT) for early diagnosis and treatment of P. falciparum cases. Therefore, before treating a child with fever, you will determine whether the child has malaria by doing a Rapid Diagnostic Test (RDT).

- If the fever has been present every day for more than 7 days, refer this child for further assessment.
- A child with fever and stiff neck may have meningitis. A child with meningitis needs urgent treatment with injectable antibiotics and referral to CHC or DH wherever paediatrician or paediatric care services are available.

CLASSIFY FEVER

Given below is the classification table for Fever:

Signs	Classify as	Action to be taken by CHO
<ul style="list-style-type: none"> Any general danger sign or Stiff neck 	VERY SEVERE FEBRILE DISEASE	<ul style="list-style-type: none"> Give first dose of oral amoxicillin and IM gentamicin. Treat the child to prevent low blood sugar. Give one dose of paracetamol for high fever. Refer URGENTLY to CHC or DH wherever paediatrician or paediatric care services are available.
<ul style="list-style-type: none"> Positive RDT 	MALARIA	<ul style="list-style-type: none"> Give antimalarials as per NAMP guidelines. Give one dose of paracetamol for high fever. Advise home care for fever. Follow-up in 2 days. If fever is present every day for more than 7 days, refer for assessment at CHC or DH wherever paediatrician or paediatric care services are available.
<ul style="list-style-type: none"> Negative RDT/N.A. Other cause of fever present* 	MALARIA UNLIKELY	<ul style="list-style-type: none"> Give one dose of paracetamol for high fever (temp. 38.5°C or above). Advise mother when to return immediately. Follow-up in 2 days. If fever is present every day for more than 7 days, refer for assessment at CHC or DH wherever paediatrician or paediatric care services are available.

* Other causes of fever include cough or cold, pneumonia, diarrhoea, dysentery, and skin infections.

<ul style="list-style-type: none"> Do not assess for fever if the child does not have fever. If fever has been present every day for 7 days or more refer to CHC or DH wherever paediatrician or paediatric care services are available. Remember to classify a child with fever who has a general danger sign as VERY SEVERE FEBRILE DISEASE.

HOME CARE FOR CHILD WITH FEVER

For the child with fever who does not have severe disease, treat with home care advice.

1. Advise the mother to continue feeding the child during the illness. Continue breastfeeding.
2. Advise the mother to continue giving home available fluids as much as the child would take. The sick child who has fever needs more fluids.
3. Teach the mother to look for signs of illness when to return to you immediately -
 - Child becomes sicker,
 - Not able to drink or breastfeed.



TREAT HIGH FEVER WITH PARACETAMOL

Fever, whatever the cause, should be treated with paracetamol. If the axillary temperature is 38.5°C or above, give paracetamol. The dose of paracetamol is given in the table. Paracetamol may be repeated after 6 hours if fever is high. If fever persists for seven days or more, refer the child to the CHC or DH wherever paediatrician or paediatric care services are available.

Age of the Child	Paracetamol (500 mg tablet)
2 months up to 3 years	¼
3 years up to 5 years	½

GIVE ANTIMALARIALS AS PER NAMP GUIDELINES

Refer to the Training Manual on Management of Communicable Diseases for Community Health Officer at AB-HWC for dosage schedule for treatment of malaria in children. Once a suspected case is diagnosed positive by RDT or microscopy, treatment is started. The first dose is always taken in the presence of the health volunteer/worker. The blister pack with remaining tablets is given to the patient/caretaker to take home with clear instructions.

Caution: If the patient is a child under 5 years, ask the patient to wait for 15 minutes after taking the first dose. If it is vomited within this period, let the patient rest for 15 minutes, and then give the first dose again i.e., open a new blister-pack and discard what remains of the old. If the patient vomits the first dose again, it is considered a case of severe malaria, refer the patient immediately to the nearest Block PHC/CHC/SDH/District Hospital.

Explain to the mother/caregiver:

- That if the treatment is not completed as prescribed, the disease may manifest again with more serious features and could be more difficult to treat.
- To come back immediately, if there is no improvement after 24 hours, and if the situation gets worse or the fever comes back.
- That regular use of a mosquito net (preferably insecticide treated net) is the best way to prevent malaria.

FOLLOW-UP CARE

After 2 days of treatment, review fever:

Assessment Findings	Action to be taken by CHO
Child with a general danger sign or stiff neck	Refer URGENTLY to CHC or DH wherever paediatrician or paediatric care services are available.
If the child has any obvious cause of fever other than malaria	Provide treatment or Refer to CHC or DH wherever paediatrician or paediatric care services.
If malaria is the only apparent cause of fever	Continue antimalarial/start antimalarial if not given and see again in 2 days till fever settles.
If fever has been present for 7 days	Refer for assessment.

D. CHECK FOR SEVERE ACUTE MALNUTRITION (SAM)

Details are given in Chapter-8.

E. CHECK FOR Anemia

Check ALL children aged 6-59 months for signs suggesting anemia.

CHECK FOR Anemia
LOOK AND FEEL: <ul style="list-style-type: none"> • Look for palmar pallor. Is it severe palmar pallor? • Some palmar pallor

Pallor is unusual paleness of the skin. It is a sign of anemia.

To see if the child has palmar pallor, look at the skin of the child's palm. Hold the child's palm open by grasping it gently from the side. Do not stretch the fingers backwards. This may cause pallor by blocking the blood supply.

Compare the colour of the child's palm with your own palm and with the palms of other children. If the skin of the child's palm is pale, the child has some palmar pallor. If the skin of the palm is very pale or so pale that it looks white, the child has severe palmar pallor.

For management of mild, moderate, and severe anemia and for prophylactic Iron Folic Acid (IFA) Supplementation, please refer to details in Chapter-7.

F. PROMOTE THE HEALTH OF THE CHILD

1. Update immunizations
2. Give Vitamin A as per age
3. Give prophylactic IFA
4. Counsel for Child's Feeding and Development Support Care

The assessment of the child's feeding and development support care is necessary if the child is very low weight for age or has anemia or if the child is less than 2 years of age.

CHECK THE CHILD’S IMMUNIZATION STATUS

Details are given in Chapter-9.

CHECK THE CHILD’S PROPHYLACTIC VITAMIN A SUPPLEMENTATION STATUS

In the National Programme, Vitamin A is given at the age of 9 months when the child is brought for measles immunization and subsequently with DPT Booster at 16-24 months. After this, the child is given Vitamin A every 6 months, till the age of 5.

PROPHYLACTIC VITAMIN A

Give a single dose of Vitamin A:

100,000 International Unit (IU)/1ml at 9 months with measles immunization.

200,000 IU/2ml at 16-18 months with DPT Booster.

200,000 IU/2ml at 24 months, 30 months, 36 months, 42 months, 48 months, 54 months, and 60 months.

Ask: has the child (>one year) received vitamin A? If not given in last 6 months, give Vitamin A supplementation.

DEWORMING STATUS

Details are given in Chapter-7.

ASSESS OTHER PROBLEMS

Since this chapter does not address all of sick child’s problems, you will now assess other problems the mother tells you about. Identify and treat any other problems according to your training and experience. Refer the child for any other problem that you cannot manage.

Role of CHO in assessment and care of sick child (2-59 months)

- Undertake assessment of common illnesses in sick child by recognising the danger signs.
- Provide appropriate treatment for the management of the common illnesses in sick child as per protocol.
- Timely and urgent referral of sick child to appropriate referral centres on the basis of assessment, with proper counselling to the mother/caregiver and provide pre-referral treatment as per protocols.
- Teach the mother/caregiver regarding the danger signs in the sick child with immediate reporting, administration of oral medicines, treatment of local infection at home and preventive strategies of these diseases.
- Assess for any:
 - Feeding problem
 - Growth faltering
 - Developmental delay
 - Congenital defect
- Check Immunization Status.
- Home Care advice.

Community Based Programmes for Children

Multiple interventions at community and facility level are needed to enable optimal growth and development of children. As a CHO, you should be aware of the key initiatives that are targeted for children.

5.1 Key Initiatives (Programme link shared in Chapter-1)

- 1. Mother's Absolute Affection (MAA) programme for appropriate Infant and Young Child Feeding (IYCF)** (Refer Chapter-6).
 - Early initiation of breastfeeding (colostrum feeding) within one hour
 - Exclusive breastfeeding for six months
 - Appropriate complementary feeding on completion of 6 months of age
 - Counselling for continued breastfeeding up to 2 years and beyond
 - Active feeding for children during and after illness
- 2. Micronutrient Supplementation and Deworming (Refer Chapter-7)**
 - Iron and Folic Acid (IFA) supplementation (from 6 months to 59 months and 5-9 years), Anemia Mukht Bharat programme
 - Vitamin A prophylaxis programme (9 months to 59 months)
 - Deworming in children and adolescents
- 3. Home-Based Care Programme (Refer Chapter-5)**
 - Home Based Care for Newborn (HBNC)-To decrease neonatal mortality and morbidity, 6-7 scheduled home visits are conducted by ASHA to newborn within first 42 days. During the visit, ASHA examines newborn for illness-LBW, counsels mother/family on child care/skill, exclusive breast feeding and postpartum care, family planning, referral and follow up.
 - Home-Based Care for Young Child (HBYC)-To promote health and nutrition of young children, for reducing child morbidity and mortality and for promotion of Early Childhood Development, ASHA conducts 5 scheduled visits to 3-15 months children. During the visit, ASHA counsels for exclusive breast feeding till 6 months, complementary feeding, immunization, and screens young children for growth and development milestone as per MCP Card.
- 4. SAANS (Social Awareness and Actions to Neutralize Pneumonia Successfully)** Initiative (Refer Chapter-5).
- 5. Intensified Diarrhoea Control Fortnight (IDCF)** (Refer Chapter-5).

- 6. Support for Development Care (to ensure Early Childhood Development)** (Refer Chapter-10)
 - Identify the interaction between a child and a parent
 - Counsel mothers/families on play and communication activities
 - Discuss age-appropriate activities for the child
- 7. RBSK - Rashtriya Bal Swasthya Karyakram - Coordinating for screening and management of 4Ds-** Developmental delays, Defects, Disease and Deficiency Disorders under RBSK, covering children at birth to 18 years of age (Refer Chapter-11).
- 8. Other National Programmes related to Nutrition** (Refer Chapter-5)
 - Integrated Child Development Services Scheme (ICDS)
 - POSHAN Abhiyaan
 - National Iodine Deficiency Disorders Control Programme (NIDDCP)



**For home deliveries, conduct an extra visit on day of birth*

5.2 Programme Details:

5.2.1 Community Based Programmes - HBNC, HBYC

Home Based Newborn Care (HBNC) Programme

Under this programme, all newborns are visited as per the schedule at home by ASHAs in her area during the first 6 weeks. The structured schedule of home visits undertaken by ASHAs for providing essential newborn care are given below.

Newborn - Institutional delivery (born in health facility)	6 Home Visits – 3 rd day, 7 th day, 14 th day, 21 st day, 28 th day and 42 nd day.
Newborn - Home Delivery	7 Home Visits – ASHA should be there at birth or at least visit within the first hour on day of birth (1 st day), 3 rd day, 7 th day, 14 th day, 21 st day, 28 th day and 42 nd day.
High-risk babies - Pre-term babies, low-birth weight babies, small babies, sick babies, mal-nourished babies, babies discharged from SNCU/ NBSU/NRC	Additional visits are needed for high-risk babies – a daily visit, if possible, for the first week and once every three days until the baby is 28 days old. For babies discharged from Special Newborn Care Unit (SNCU)/Newborn Stabilisation Unit (NBSU)/Nutrition Rehabilitation Centre (NRC) – ASHAs would make the first home visit within 24 hours of discharge (the day of discharge is counted as day 1 of home visit schedule) and the six remaining home visits will be completed as per HBNC visit schedule i.e., 3 rd day, 7 th day, 14 th day, 21 st day, 28 th day and 42 nd day from the day of discharge. In case the newborn gets admitted after few days of birth, ASHA will complete the remaining visits after discharge.

The aim is to provide essential care for newborn, prevention of neonatal complication, early identification of illness, provision of appropriate referral, support mother in exclusive breastfeeding, monitor growth of the baby and adoption of good child rearing practices.

ASHA is provided with a kit with essential medicines and equipment required to conduct these visits. She identifies newborn who are sick and refers



them to the AB-HWC-SHC for further management. During the home-visits, the ASHA fills the Mother-Newborn Home Visit Card (HBNC card/form) which captures information regarding post-natal care of mother and newborn care and helps identify danger signs in both mother and child. The filled HBNC card/form is verified/checked by MPW-F/ASHA Facilitator for ensuring quality of home visits and for any further management.

As the CHO, you must ensure that the ASHA identifies high risk newborns and helps you keep track of their health and wellbeing in the neonatal period and the first year of life.

HIGH RISK NEWBORN BABIES

1. Babies born before full term (preterm)
2. Birth weight less than 2.5 kg (low birth weight babies)
3. Sick babies discharged from SNCU after treatment
4. Newborns with congenital anomalies/birth defects
5. Newborn whose mother is either sick/dead or cannot take care

Home-Based Care for Young Child (HBYC)

Under NHM, the Ministry of Health and Family Welfare (MoHFW) has launched Home Based Care for Young Child (HBYC) programme under POSHAN Abhiyaan as convergent action with the Ministry of Women and Child Development (MWCD) to strengthen health and nutrition status of young children.

The objective of Home-Based Care for Young Child is to:

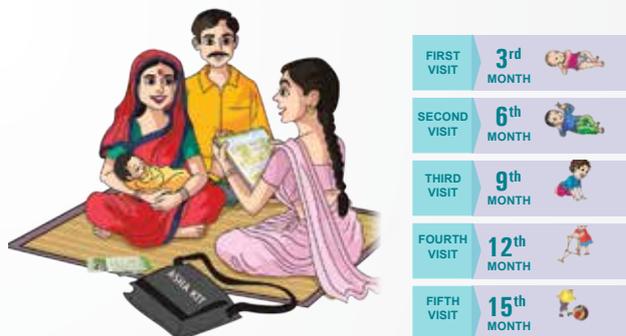
- Reduce child deaths and illnesses,
- Improve nutritional status of young children; and
- Ensure proper growth and early childhood development of young children.

As part of the HBYC initiative, ASHA undertakes five additional home visits after the 42nd day, in addition to the 6/7 visits for HBNC. ASHA will visit the child on completion of **3 months, 6 months, 9 months, 12 months and 15 months**.

In addition, the quarterly follow-up home visits schedule starting from the 3rd month onwards till one year of life for low birth weight babies, SNCU and NRC discharged children that ASHAs are already making will be integrated into this HBYC schedule.

The key domains of HBYC programme are Health, Nutrition, Early Childhood Development and Water, Sanitation and Hygiene (WASH). The objectives are as follows:

- Promotion of exclusive breastfeeding for the first 6 months of life.
- Emphasize timely, adequate and appropriate complementary feeding for children on completion of six months and continued breastfeeding up to two years of age.
- Iron and folic acid (IFA) supplementation.
- Promotion of use of fortified food.
- Ensuring age-appropriate immunization.
- Promotion of appropriate use of Oral Rehydration Solution (ORS) during diarrhoea.



- Counsel parents/caregivers regarding age-appropriate play and communication for children (development support care).
- Screening for any developmental delay/defect with help of MCP card and HBYC-ECD kit.
- Build the capacity of mothers/caregivers through counselling and support to identify and manage problems related to nutrition and health in their child and promote good child rearing practices.
- Enabling prevention and management of common childhood illnesses.
- Ensuring prompt referral of sick children to health facilities for management of complications.
- Follow-up for compliance to medication and care of sick children discharged from health facilities.
- Promotion of appropriate hand washing practices.

Roles and responsibilities of CHO towards ensuring newborn and child care services under HBNC and HBYC

- As in-charge of the AB-HWC-SHC, your foremost role is to keep your staff updated, motivated and supervised so that the staff can perform their duties effectively.
- Ensure and validate the records of newborn in the MCP card at the time of institutional delivery and arrange for the birth certificate to be issued.
- In case of the danger signs in a young infant or child, perform pre-referral stabilisation and facilitate referral. If there are no danger signs, manage as per IMNCI protocols and follow up.
- Support and supervise the MPW or ASHA Facilitators in undertaking joint home visits with ASHAs in resolving challenges faced by ASHAs in providing care under HBNC and HBYC programme, with special focus on marginalized and vulnerable population and resistant families. You will also accompany the ASHA and MPWs to beneficiary households where additional support is required for motivating families to adopt healthy child practices.
- An updated line list of all newborns and children till 15 months of age in your catchment area should be available with ASHAs, MPWs and yourself. Amongst these, identify and pay extra attention to newborns, young infants or children who are high-risk as described above, refer to appropriate health facility for further management and follow-up/constantly track them to ensure adherence to treatment plan and ensuring recovery.
- During your interaction with mothers/caregivers, counsel them regarding her physical well-being, nutritional support during lactation, use of modern method of contraception, keeping the new born warm, eye/cord care, promotion of exclusive breastfeeding for the first six months of a child's life, age-appropriate complementary feeding practices for all children aged 6–24 months, responsive feeding, continuation of feeding during illness, importance of hand-washing, using clean drinking water and its storage, safe sanitation and hygiene practices, age-specific immunization, appropriate play and communication with the child, etc. for proper growth and development.
- Mobilise the lactating mothers and their children for registration at the nearby AWC to receive 'Take Home Ration' (THR) for themselves and their children beyond 6 months of age and additional THR to malnourished children.
- Update the records of newborn and children in RCH Portal and other IT applications/registers that have been developed for tracking of HBNC and HBYC.

- As a CHO, you also need to be familiar with all the key tasks that are to be undertaken at the community level by ASHA, MPW and AWW to ensure care for the newborn and child.

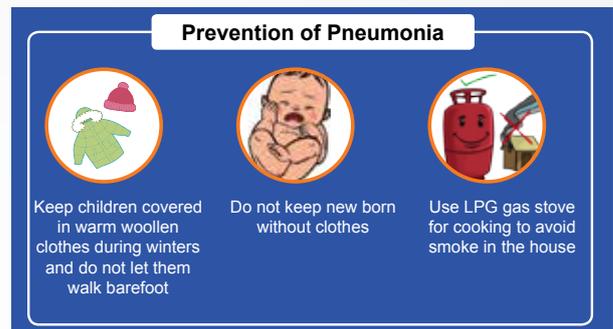
5.2.2 Intensified Diarrhoea Control Fortnight (IDCF)

In order to increase awareness about the use of ORS and zinc during diarrhoea, an Intensified Diarrhoea Control Fortnight (IDCF) is being observed in the monsoon season every year, with the ultimate aim of 'zero child deaths due to childhood diarrhoea'. During the fortnight, health workers visit the households of under-five children, conduct community level awareness-generation activities, and distribute ORS packets to the families with children under five years of age.

5.2.3 SAANS (Social Awareness and Actions to Neutralize Pneumonia Successfully) Initiative

This was launched on November 16, 2019, to accelerate action to reduce deaths due to childhood pneumonia. The SAANS initiative encompasses a three-tiered strategy:

- i) National Childhood Pneumonia Management Guideline on treatment and management of Childhood Pneumonia
- ii) Skill building and training of service providers for identification and standardised management of Pneumonia, and
- iii) 360-degree communication SAANS Campaign to ensure greater awareness on childhood pneumonia among families and parents, in order to trigger behaviour change and improve care seeking.



One of the key outcomes of all the community-based programs is early detection of sick children. Counselling on key rearing practices also include making the family aware of the danger signs and importance of early care seeking. Free referral of infant up to one year of age is entitled under JSSK.

GOI released a guideline on Strengthening of paediatric care at District hospital for facility-based care of sick children. RMNCAH+N matrix for essential commodities ensured nebulizers and essential paediatric drugs even at Primary Health Centre level.

The training packages Integrated Management of Childhood Illnesses (IMNCI & F-IMNCI) trains the health providers in both outpatient and inpatient treatment of a sick child.

Pre-referral stabilisation of a sick child, prior information to the referring unit and ensuring complete details on referral slip adds a lot in improving the outcome of sick child.

Remember timely access to the facility-based care by a sick child reduces both mortality and morbidities.

5.2.4 Anganwadi Services/ Integrated Child Development Services Scheme (ICDS)

ICDS Scheme launched on October 2, 1975, is one of the world's largest and unique programmes for early childhood care and development. Anganwadi Services (under Umbrella ICDS Scheme) provide a package of six services, namely, supplementary nutrition, pre-school non-formal education, nutrition and health education, immunization, health check-up and referral services. The beneficiaries of the scheme are children below 6 years of age, pregnant women and lactating mothers. The services for immunization, health check-up and referral are provided by the Ministry/Department of Health and

Family Welfare.

Under the supplementary nutrition programme of Anganwadi services, children (6-36 months), severely malnourished children (3-6 years), pregnant women and nursing mothers are provided with Take Home Ration, whereas children (3-6 years) are provided with morning snack and hot cooked meal as per the prescribed 'nutrition norms'.

5.2.5 POSHAN Abhiyaan

In 2018, Government of India launched POSHAN (Prime Minister Overarching Scheme for Holistic Nourishment) Abhiyaan, to address malnutrition challenges in India. It is a multi-ministerial convergence mission with the vision to ensure attainment of malnutrition free India. The Ministry of Women and Child Development (MWCD) is implementing POSHAN Abhiyaan in collaboration with various key ministries and departments. This Abhiyaan strives to reduce the prevalence of anemia among women and adolescent girls in the age group of 15-49 years and in young children (6-59 months) by 3% per annum and to reduce stunting, underweight and low birth weight by 2% per annum.

Under POSHAN Abhiyaan, the MoHFW is implementing the Anemia Mukht Bharat strategy which aims to reduce anemia prevalence (nutritional and non-nutritional) in children, adolescents, and women in life cycle approach. The other important interventions of the MoHFW for the improvement in nutritional status of children under RMNCAH+N strategy are: Home Based Care of Young Children (HBYC), Intensified Diarrhoea Control Fortnight (IDCF) – for promoting ORS and Zinc use, etc.

5.2.6 National Iodine Deficiency Disorders Control Programme (NIDDCP)

Goitre and cretinism (severe hypothyroidism in an infant or child) are the two outstanding clinical manifestations of endemic iodine deficiency. Iodine deficiency is one of the main causes of impaired cognitive development in children. The characteristic features of cretinism include deaf, mutism, squint, mental retardation, and spastic neuro-motor disorders. Early detection of goitre in children by RBSK mobile health team with corrective measures should be taken.

Strategies for preventing Iodine Deficiency Disorders (IDD) are:

- 1. Fortification:** Availability of iodised salt for nation-wide consumption to combat this nutritional disorder. It is the most economical, convenient, and effective means of mass prophylaxis.

Salt is usually fortified with potassium iodate. Daily consumption of 10 gm of iodised salt (25 ppm) of potassium iodate provides about 150 microgram of iodine at the consumer level. There is also double fortified salt (iodised salt with iron) now available as per The Food Safety and Standards Authority of India (FSSAI). However, there is no national public health programme for double fortification of salt (with both iodine and iron) for eradication of IDD as yet.

- 2. Communication campaign:** A mass communication campaign is needed to create awareness in the community about the consequences of IDD and the benefits of iodised salt. Education of the community regarding intake of iodised salt for kitchen and table use and simple measures such as keeping common salt in closed bottles having a tight lid so as to minimise iodine loss during storage, by not putting salt in boiling vegetables but sprinkling after cooking to preserve iodine, etc, organising special health education campaign in the schools, AB-HWC-SHC, AWCs, VHSND session, regarding the disease and the ways to control IDD are effective measures.

The primary healthcare team at AB-HWC-SHC should educate and create awareness generation

amongst mothers/caregivers, especially among the vulnerable section of the population attending the AB-HWC-SHC, VHSND session, VHSNC meeting, Anganwadi centres, home visits and campaigns about iodine deficiency disorders in children, its ill effects, and its prevention by promoting consumption of iodised salt/double fortified salt (wherever available) and encourage shopkeepers on selling iodised salt.

5.3 Community Platform - Village Health, Sanitation and Nutrition Day (VHSND)

VHSND is a joint initiative of the Ministry of Health and Family Welfare and the Ministry of Women and Child Development for addressing the nutrition concerns in children, adolescent girls, pregnant women, and lactating mothers. It is a common platform for allowing the beneficiaries (pregnant women, lactating women, children 0-6 years old, children for immunization, undernourished children including SAM children (0-59 months) and adolescent girls (10-19 years) to access the services of the MPWs, CHO, ASHA, Anganwadi Worker (AWW) and Anganwadi Helper (AWH). It is to be organised in every village once a month at the Anganwadi Centre (it can also be held more than once depending on the local context e.g., high population villages) or in any other government building that is conveniently located, easily accessible and has adequate space for the different activities. It serves as a platform to provide health, nutrition, early childhood development, and sanitation services to all the beneficiaries especially to marginalized and vulnerable communities.

- The health component includes basic health services and counselling for reproductive, maternal, newborn, child and adolescent health, communicable diseases, and non-communicable diseases (NCDs).
- The nutrition component includes services as well as counselling related to growth monitoring, promotion of infant and young child nutrition including breast feeding and complementary feeding, maternal nutrition, micronutrients, and dietary diversity.
- Early childhood development emphasises age-appropriate play and communication for children.
- The focus of sanitation is on promoting hygiene, hand washing, safe drinking water and use of toilets.



ASHA, MPW-F/ANM and AWW, in addition to providing routine services and interpersonal counselling to beneficiaries, will jointly conduct group counselling sessions with all beneficiaries, including pregnant women, adolescents and caregivers of children for awareness generation and behaviour change as per month-wise theme. Group counselling on topics related to immunization, Vitamin A supplementation, food fortification, importance of micronutrients, deworming, early initiation of breastfeeding, early childhood care and education, diarrhoea prevention and management, anemia prevention in children, optimal breastfeeding practices and IYCF, nutrition activities (POSHAN Maah) including promotion of kitchen garden, hygiene, sanitation and safe drinking water, growth monitoring and child development, acute respiratory infections (ARIs) and pneumonia, appropriate complementary feeding, responsive feeding, etc. can be undertaken.

Role of CHO for a successful VHSND

- Provide supportive supervision and monitor the VHSND session (you are required to monitor at least two VHSNDs in a month) by filling VHSND Site Monitoring Checklist. The checklist includes

observations and record review. Submit the filled monitoring checklist to the Block level nodal officer (Health) along with feedback for improvement.

- Ensure that the ASHA/AWW mobilises the targeted beneficiaries for attending the VHSND session. Representatives of panchayat and the VHSNC will help Anganwadi workers and ASHAs to publicise VHSND and display them at appropriate public places. They may also help AWWs and ASHAs in community mobilisation especially for the hard to reach and resistant families as well as in logistics arrangements for VHSND session.
- Ensure presence of ASHA, MPW, Anganwadi worker and Anganwadi helper during the entire session.
- Ensure that community level workers (ASHA, MPW, AWW, AWH and Panchayati Raj Institution (PRI) representative) organise and manage the VHSND session – adequate space/corners for carrying the activities, availability of adequate supplies including MCP card, contraceptives, medicines, vaccines and functional equipment at the site and undertake their roles and responsibilities for providing the routine services and jointly provide nutrition and health education and conduct group counselling sessions as per monthly theme.

For more details on VHSND please visit –

https://nhm.gov.in/New_Updates_2018/NHM_Components/RMNCHA/CH/Guidelines/National_Guidelines_on_VHSND_English_Low_Res.pdf



Infant and Young Child Feeding (IYCF)

In this chapter, the knowledge and skills on Infant and Young Child Feeding (IYCF) will be refreshed for better coordination with ASHAs, MPWs and AWWs to ensure adequate nutrition for newborn and children below 2 years of age.

We all know that nutrition plays an important role in maintaining our health. Adequate amount of various nutrients in appropriate proportions are required for a healthy body. When diet is not balanced³ and is inadequate in terms of calories, proteins, fat, micronutrients, and minerals, it results in nutritional deficiency diseases, especially in children.

Early childhood is the most rapid period of development in human life and ensuring care of the mother and the child in the first 1000 days of life (begins from the day a woman conceives and continues till the child turns two. It is known as sum of 270 days of pregnancy, 365 days of the first year of infant's life and 365 days of the second year of child's life) lays the basis for healthy mental, emotional and physical growth of children. This in turn ensures optimum health and wellbeing in adult life.

Malnutrition (a state of deficiency or excess of nutrients) in the form of undernutrition and overnutrition in children, has been found to have an overarching effect on all components of RMNCAH+N care and severely affects the overall development of children. Malnutrition results from several causes e.g., poverty, large sized families, improper feeding habits, unhealthy dietary choices, taboos, and unhealthy beliefs related to feeding, poor breastfeeding, delayed or inadequate complementary feeding, frequent childhood infections (acute respiratory tract infection, diarrhoea, etc.). Children who are undernourished have an increased risk to infections, frequent episodes of illnesses such as diarrhoea, pneumonia, etc. and take longer to recover.

Undernutrition in early childhood is associated with irreversible damage to children's mental and physical growth and increases their susceptibility to childhood infections. These factors in early childhood result in poor academic performance, poor learning capacity and poor health and nutrition status through childhood, adolescence and adulthood. Overnutrition, in the form of overweight (excess body weight for a particular height) and obesity (excess body fat) commonly seen in childhood due to lack of physical exercise, excess intake of calories in the diet and other physiological factors is also harmful and may result in potential health problems such as heart diseases, diabetes and hypertension later in life. Age-appropriate IYCF practices including early initiation of breastfeeding (within one hour), exclusive breastfeeding for 6 months, timely introduction of complementary food, continuation of breastfeeding up to two years of age and beyond are critical in prevention of undernutrition.

³ *Balanced Diet- Wholesome diet which provides essential nutrients like carbohydrates, fats, proteins, vitamins, minerals, and water from all food groups in the proper amounts to maintain good health. In addition, it also provides dietary fibre.*

Age-appropriate responsive parenting advice and IYCF practices should be promoted by you during each contact with the mother/caregivers whether at the health facility, outreach activities or home-based care visits.

Age-appropriate optimal Infant and Young Child Feeding practices to be promoted -

Around delivery and during first six months-

1. Initiation of early breastfeeding (Colostrum feeding) immediately after birth, or definitely within 1 hour of birth.
2. Exclusive breastfeeding during the first six months of life (180 days).
3. Ensuring good nutrition and rest during lactation period for the mother and motivate her to be cheerful for a successful motherhood.
4. Provide lactation support to mothers to ensure breastfeeding.
5. No pre-lacteals (no other foods or fluids, not even water) for the child.

At six months and beyond -

1. Timely introduction of solid, semi-solid or soft complementary food on completion of six months.
2. Age-appropriate and safe complementary feeding for children of 6-24 months age: Bringing dietary diversity in complementary food (eating a variety of food from each food groups in proper quantities). Gradually increasing food consistency and variety as the infant grows older, adapting to the infant's requirements and abilities.
3. Continue breastfeeding along with the complementary feeding for two years or beyond.

At all times -

1. Practice active and responsive feeding at all times – during illness and healthy period.
2. Practice good hygiene and proper food handling.
3. Continue feeding the child during illness – increase fluid intake during illness, more frequent breastfeeding, and soft foods. After illness, encourage the child to eat more.

In addition, regular growth monitoring for identification of early growth faltering, iron and folic acid supplementation, immunization, appropriate use of ORS during diarrhoea, age-appropriate play and communication with children and appropriate hand washing practices, safe hygiene and sanitation practices, etc. are the other most effective interventions for overall child survival – good nutritional status, growth, development, health, and ultimately the survival of infants and young children. Counselling the family members regarding safe WASH practices is listed in Annexure-5.



6.1 Important messages for Breastfeeding (Also Refer to Training Manual on Care during Pregnancy and Childbirth for Community Health Officer on breastfeeding messages and counselling)

You should reinforce the following key messages to promote breastfeeding amongst the mother and caregivers:

- Counselling on the importance of early initiation of breastfeeding with colostrum feeding.
- A newborn baby can be breast fed on demand i.e., whenever the baby cries for feeds. The usual time interval between each feed is about 2 to 3 hours. Mothers should be advised that they should

feed their babies at least 8-12 times in 24 hours, both day and night and importantly they should not miss feeding in the night. Frequent feeding helps mothers to produce more breastmilk.

- Mother should continue breastfeeding at frequent intervals even during diarrhoea or any other illnesses to help the child to get optimal nutrition and recover from the illness faster.
- Discourage the mother/family from giving top feeds/ pre-lacteal feeds (other than breast milk like animal milk, powdered milk, etc.), additional food or fluid, herbal water, honey, glucose water, ghutti water, plain water, animal or powdered milk, etc., using bottles and teats (a plastic nipple used on top of the bottle) for feeding the child as they are harmful and are likely to carry infections as well as problems in breastfeeding.
- Advise the mother/caregiver on breastfeeding sick young infants and children as learnt in the earlier Chapters.



6.2 Counsel and support for Exclusive Breastfeeding

- In our country, only about half of the children under 6 months of age are being exclusively breastfed. Exclusive breastfeeding means feeding the child **ONLY** breast milk for the first 6 months (180 days). Breast milk provides all nutrients and contains sufficient water to meet the requirements of the child up to six months of age; the infants who are exclusively breastfed do not require anything else.
- During the post-natal visits of mothers and newborn, you and the ASHA and MPW will undertake the following actions for ensuring support for exclusive breastfeeding, such as counselling of the mother/caregiver in dealing with breastfeeding problems by providing support in management of common breastfeeding problems such as delay in initiation, no milk secretion, incorrect position and attachment, short duration of breastfeeding, feeding of low birth infants and insufficient milk production.



Refer Annexure-2 for information related to counselling regarding feeding problem, important messages for breastfeeding, correct positioning, and attachment for breastfeeding.

6.3 Complementary Feeding

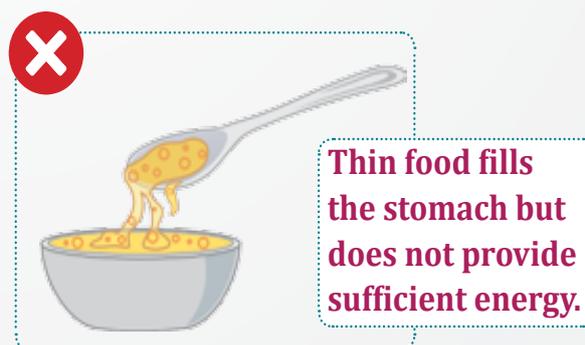
Complementary feeding means complementing solid/semi-solid or soft food with breast milk after child attains age of six months i.e., 180 days.

Need for starting complementary feeding on completion of six months of age:

- Breast milk alone is not sufficient to meet the nutritional requirements of the growing infant.
- 6 months to 24 months is a period of rapid growth and development in the young child and demands extra nutrition.
- Breastfeeding should be continued for a minimum of 2 years or beyond because it is an important source of nutrition, provides energy, other essential nutrients and protects infants from infection, who are particularly vulnerable during the transition period when complementary feeding begins.

Requirements of Complementary Foods

<p>Timely</p>	<p>Introduced at completion of six months when requirement for energy and nutrients exceeds what is provided by breastmilk alone.</p>
<p>Active Feeding method/Properly Fed</p> 	<p>Encourage the child to eat more without forced feeding from a separate cup/katori/plate at recommended time intervals.</p> <p>Children have small stomach, therefore, they should be fed more frequently.</p>
<p>Safe</p> 	<p>Food should be hygienically prepared and stored. Mothers/caregivers should wash their hands with soap and water before preparing food and feeding the child. Also wash the child's hands.</p>
<p>Dietary Diversification</p> 	<p>Should provide sufficient nutrients to meet the growing needs of the child – energy, protein, vitamins and minerals from different food groups like:</p> <ol style="list-style-type: none"> Cereals such as wheat, wheat flour (atta/maida), rice, rice flakes (chirwa), maize/corn, barley, semolina (suji), vermicelli (sevian), puffed rice (murmura), etc. Millets like bajra, ragi, jowar, kodo, sama, samva, etc. Pulses (daals like channa/moong/urad/arhar/besan/chana, sprouted pulses) and legumes (rajma, lobia, soyabean), etc. Vegetables (including green leafy vegetables, other colourful vegetables, starchy roots and tubers like potatoes, sweet potato (shakarkandi), colocasia (arbi), yam (jimikand) and other root vegetables and Fruits. Milk and Milk Products like milk, curd, cottage cheese (paneer), etc. <p>Animal products/non-vegetarian foods (meat, liver, fish, poultry, eggs (well-cooked), etc.</p> <p>Fats/oils, sugar, and nuts like ghee/butter/vegetable cooking oils (groundnut oil, mustard oil, soyabean oil, coconut oil) and sugar/jaggery (gur)/honey and nuts like groundnuts, almonds, cashewnuts, etc. Nuts may be added only if child is not allergic (especially groundnuts). Nuts can be roasted, crushed, and powdered and then given to the child (when the child can chew properly). Whole nuts may cause choking in the child.</p> <p>Encourage the mother/caregiver on use of fortified foods, wherever available.</p>



Different consistencies of Complementary Food

Five Important Things To Remember About Complementary Feeding

Consistency	Quantity	Frequency	Density	Variety
<ul style="list-style-type: none"> • Depends on age of the child and readiness to chew and swallow. • Initially include soft and mashed foods. • Move gradually to foods with appropriate thicker consistency. • Give Daal (and not Daal ka Paani) • Feed prepared should not be too thin and too thick. Test: stays on spoon when the spoon is tilted (see figure given above). 	<ul style="list-style-type: none"> • Increase with the age of the child. • Encourage for better intake but do not force the child to eat more. • At one year of age, the child should receive half the Mother's Nutrition. 	<ul style="list-style-type: none"> • Increase with the age of the child. • Number of feeds will increase gradually with increase in age of the child. 	<ul style="list-style-type: none"> • Add a spoon of some edible oil or fat/ ghee/butter; sugar/ jaggery (gur) to each feed to make the feed rich in energy. 	<ul style="list-style-type: none"> • Add fruits and vegetables – the rule is that the greener it is, or the more red and yellow is the feed, the more is the protective quality. • Meat, egg (well-cooked), poultry, fish, etc. are liked by children and are also very nutritive and protective.

6.4 Assessing information on Complementary Feeding from the mother/caregiver

A. Start by asking if the mother/caregiver is breastfeeding the child?

- How many times in a day – both day and night?
- Is the child breastfed at night? If yes, how many times is the child fed at night?

B. Does the child take any other food or fluids?

- What foods or fluids?
- How many times per day?
- Are the foods thick or thin?
- What do you use to feed the child?
- How large are the servings (cup/katori, teaspoon, tablespoon)?
- Does the child receive separate serving from the family members?
- Who feeds the child and how?
- What feeding difficulties does the mother/caregiver experience, if any?

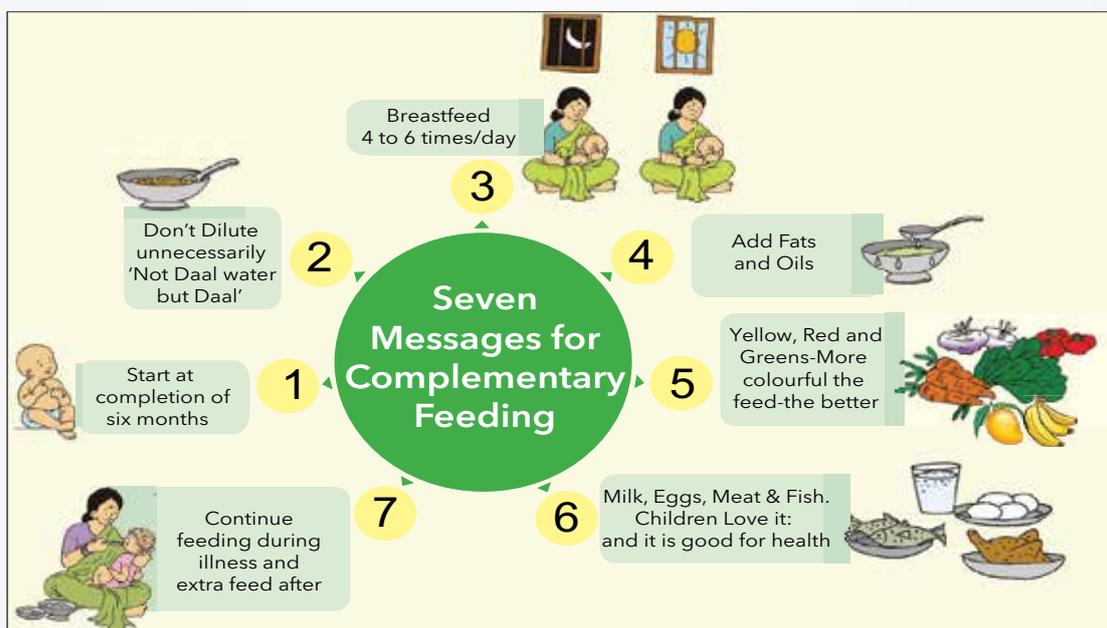
C. Ask if the child's feeding has changed during the illness?

- If yes, how?
- The mother's/caregiver's answers to these questions will give you an idea whether the child is receiving adequate amount of nutrition from breastfeeding and complementary feeding.

As the supervisor of the primary healthcare team, you should ensure that the mother/caregivers are counselled during home visits, visit to the health facility, health campaigns, VHSND session or any other contact by the primary health care team members regarding:



- Exclusive breastfeeding till the child is 6 months of age. Children who are breastfeeding, need to be breastfed more often and for longer time even during illness.
- Timely initiation of complementary feeding along with responsive feeding for all healthy and sick children.
- Support them in teaching right quantities for complementary feeds by using dietary diversification and use of fortified foods, wherever available.
- Maintaining age-appropriate feeding pattern by informing on what should be avoided.
- Feeding during illness by providing small frequent meals and more fluids including breastmilk. After an illness, children should be given more food and more often than usual for at least 2 weeks to help recover from the weight lost during illness.

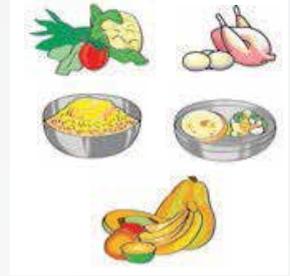


6.5 Important messages for mothers and caregivers on Complementary Feeding

- Introduce only one food at a time and keep adding new foods one by one and increase the variety. If the child dislikes a particular food, remove it from the diet for some time and give again at a later stage.
- Breastfeed as often as the child wants and continue breastfeeding if the child is sick.
- Combination of pulses (daals) and legumes with cereals and millets should be given. Example – daal with rice or cracked wheat porridge (dalia) with daal, chappati/roti soaked in daal, bajra khichri with daal, etc. Feed should be prepared from locally available pulses and cereals/millets.
- Oil/ghee/butter, sugar/jaggery (gur), roasted, crushed and powdered/mashed groundnut (if the child is not allergic) etc. can be added to the feed to make it rich, tasty and easy to swallow. Do not add spices to the child's food.



- Wash and cook locally available fresh and seasonal vegetables and fruits for the child. Mashed fruits and vegetables can be added to the feed.
- Cook all the food items thoroughly, use safe water, discard all leftovers on children's plates and do not save them for later.
- Cereals/millet and pulses that are soaked, sprouted, dry roasted and powdered for cooking can be given to the child as they are easily digested.
- Animal products/non-vegetarian food (meat, liver, fish, poultry, eggs (well-cooked), etc.), wherever culturally acceptable, can be started as early and given as often as possible to the child.
- Plan for one to two healthy snacks which are like small meals to be given in between the main meals but must **NOT** be a replacement of meals. Mashed fruits like banana, papaya, mango, cheeku, and other soft fruits; boiled and mashed potatoes, mashed vegetables, well-cooked eggs, curd, panjeeri, laddoo, halwa, upma, idli, poha with crushed/mashed groundnuts (do not add groundnuts if child is allergic), etc. are some of the examples of food items to be given as snack to the child.
- Feed the child in a separate cup/katori/plate as it will help mother/caregivers to understand the quantity of food eaten by the child.
- Show interest, smile, or play games to encourage the children to eat enough food.
- Continue complementary feeding during illness and increase the amount during the recovery period.
- Complementary foods should be prepared hygienically and use clean utensils to prepare food and feed the child. Mothers/caregivers must wash their hands before preparing and before feeding the child. The child's hands should be washed too.
- Thoroughly rinse raw fruits and vegetables under running water before cooking.
- Girls and boys have the same nutrition requirement to grow and develop and both should be given the same amount and kind of food.
- Use only iodised salt for cooking as iodine improves intelligence in the child. Double fortified salt (fortified with both iron and iodine), wherever available should be consumed.



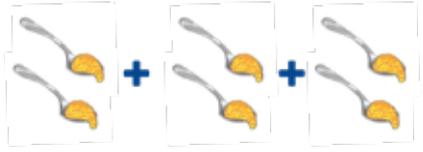
6.6. Informing mothers and caregivers on what should be avoided in Complementary Feeding

It is also important to explain mothers/caregivers to avoid:

- Ready-made or processed food available in the market such as toffees, sweets, chips, chocolates, biscuits, namkeens; drinks such as tea, coffee, cola drinks, cold drinks, sweetened fruit juices, sharbats, etc.
- Showing personal dislikes for any food item otherwise child will not learn to eat all types of foods.
- Food which can pose as choking hazard, such as whole nuts, grapes, raw carrot pieces, etc. These should be given only at a later stage when the child's chewing and swallowing ability has been fully developed.



6.7 Complementary Feeding – Quantity and Frequency for the Child

<p>At 6 months</p> 	<p>On completion of 6 months, start feeding 2-3 tablespoons at each meal – soft, well-mashed foods, 2-3 times each day (1 Tablespoon = 15 ml). Continue breastfeeding, introduce one food at a time, such as a small amount of vegetables, followed by fruits, daal and cereals; increase the amount of the feed slowly.</p>
<p>From 6 months up to 9 months</p> 	<p>2-3 tablespoons to be gradually increased to half (1/2) cup/katori of mashed food at each meal, 2-3 times each day and 1-2 snacks. 1 full cup/katori = 250 ml (the volume may vary). Continue breastfeeding, introduce one new food at a time, such as khichri, dalia; include foods from food groups such as – 1) cereals, 2) green vegetables and fruits, 3) oil, ghee, 4) mashed daal/fish/egg (only hard boiled) and also give iron drops/syrup to maintain the body's iron stores.</p>
<p>From 9 months up to 12 months</p> 	<p>At least, half (1/2) cup/katori at each meal of finely chopped or mashed food that the baby can pick up with her/his fingers, 3-4 times each day and 1-2 snacks. Continue breastfeeding, give foods that require chewing, give Vitamin A syrup for improving eyesight, give iron drops/syrup to maintain the body's iron stores.</p>
<p>From 12 months up to 2 years</p> 	<p>Introduce family foods, chopped or mashed, give three-fourth (3/4) to one (1) full cup/katori at each meal, 3-4 times each day and 1-2 snacks.</p>
<p>2 years and older children</p>	<p>Diverse and an adequate diet – give a variety of family foods to the child, at least 1 full cup/katori (250ml) at each meal, 3-4 meals each day with 1-2 nutritious snacks between meals.</p>

6.8 Feeding the child responsively

Mothers/caregivers should recognise the signs of hunger and respond as soon as possible. Responsive feeding means gently encouraging, not forcing, the child to eat.

Counsel the mothers/caregivers to:

1. Be patient in feeding the child and encourage them to eat. Do not force the child to eat.
2. Try different food combinations, tastes, and methods to encourage feeding if the children refuse many foods.
3. Play games to help the child to eat enough food and encourage the child to try new foods.
4. Minimise any disturbances during meals if the child loses interest easily.



5. Smile and talk to children during feeding, with eye-to-eye contact as feeding times are periods of learning and affection.
6. Do not express anger at children who refuse to eat. These actions usually result in children eating less.

Role of a CHO in promoting breastfeeding and complementary feeding in infants and young children

- Along with the primary health care team, during home visits, VHSND sessions, routine/special campaigns, immunization sessions, visit to AB-HWC-SHC or any other contact, counsel mother/caregivers as follows:
 - Importance of early and exclusive breastfeeding from birth to 6 months with feeding of colostrum.
 - Timely introduction of age-appropriate complementary feeding to the child while continuing breastfeeding on completion of six months of age, to both girl and boy child alike. Inclusion of foods from all the four food groups.
 - Continued breastfeeding for 2 years or beyond.
 - Active feeding for children (breastfeeding and complementary feeding) during and after illness.
 - Importance of regular hand washing before and after preparing food, before feeding the child and after using the toilet.
 - Ensure support from the family members, husband, mother and father in-law, etc. to the mother in order to provide her sufficient rest, adequate nutrition to breastfeed child and to feed the child responsively.
 - Ensure families having sick and malnourished children are counselled and are following your advice.
- Ensure that ASHAs under HBNC and HBYC programme are undertaking age-specific activities related to nutrition. Review the nutritional status of infants and young children in your service area with support from MPWs, ASHAs and AWW to ascertain whether all children are being provided with age appropriate and adequate complementary feeding. Especially monitor families having sick and malnourished children.
- Undertake joint visits with ASHA/MPW to households where the primary health care team is unable to convince the family for exclusive breastfeeding/complementary feeding or feeding during illness.
- Pay special attention and provide appropriate care to mothers with problems in breastfeeding and those children who are unable to take breastfeed or complementary feed. Provide referral if required to health facility and follow up with them closely to ensure child is provided appropriate care and is growing well.
- Coordinate with AWW to ensure that:
 - Early registration of lactating mothers and their children at the nearby AWC to avail the services.
 - Take Home Ration (THR) from AWC to be provided to lactating mothers till six months after childbirth and children from 6 months of age, with extra THR to malnourished children.
 - Nutrition-specific counselling provided regarding breastfeeding and age-appropriate complementary feeding to all mothers/caregivers whose children have completed six months.
 - During VHNSD, health promotion and counselling activities related to nutrition are undertaken.
- Organise special campaigns such as breastfeeding promotion week, group counselling sessions, growth monitoring sessions, mothers support groups meetings, celebration of POSHAN Maah, POSHAN Pakhwada, etc. in coordination with ASHA/MPW/AWW/VHSNC members/other support groups to enable health promotion related to IYCF in your catchment area. Such campaigns can also help you in overcoming the harmful traditional practices and beliefs related to young child feeding and nutrition prevalent amongst mothers-in-law, fathers-in-law, husband and other family members.

Rapid growth occurring in foetal life and during infancy is followed by a long period of gradual growth during childhood. Thus, good nutrition during childhood period is important as it lays the base for healthy life.

Prevention of Overweight and Obesity in children

Family members and schools must be a role model for healthy diet and physical activity for the children. The following points will help you advise mothers/caregivers for prevention of excessive weight gain in children.

- Creating an enabling environment at home for promoting consumption of a healthy diet and promoting regular physical activity. Children who are overweight/obese need to lose weight and maintain a healthy weight.
- Encourage exclusive breastfeeding till 6 months after birth and inclusion of healthy foods from food groups in appropriate amounts during complementary feeding. All meals to be taken at regular intervals.
- Eating balanced/wholesome diet from all food groups in proper amounts as required by children to maintain good health.
- Inclusion of a variety of fresh, colourful, seasonal and locally available whole fruits and vegetables (including green leafy vegetables). Increase consumption of whole cereals and pulses (with outer covering) as they are high in fibre or roughage rather than eating refined cereals and pulses.
- Restrict eating processed foods or packaged foods – these have high amount of fat/oil (fried foods), salt and sugar (chocolates, sweets, mithai, mathris, pastries, kachori, samosa, pakoras, papads, pickles, namkeens/savouries, biscuits, chips, chowmein, noodles, tikki, momos, chutneys, sauces, etc.).
- Healthy methods of cooking (boiling, steaming, roasting, cooking with minimal oil) should be used rather than deep frying or using excess amount of oil. Use vegetable oils like mustard oil, groundnut oil, soyabean oil, etc. for cooking.
- Consumption of lean meats like chicken, fish rather than red meat like mutton, liver, brain, etc.
- Encourage good hydration – plenty of fluids like plain water, buttermilk (chaach), lemon water (nimbupaani), coconut water, soups (dal, vegetable, or chicken), lassi, milk, etc. Avoid consumption of carbonated and sweetened beverages like cold drinks, sodas, sweetened fruit juices, etc.
- Avoid eating out, the whole family to eat the same food as child and not use food as reward/punishment.
- Encourage daily physical activity, both outdoors and at home. Children must also be encouraged to do household chores. Reduce TV viewing, playing video games/using computer/mobile phone to less than one hour a day; less is better. Avoid this use in less than 2 years of age.
- Schools must provide a supportive environment for promoting physical activity and healthy food practices among the children. Encourage the children to participate in sports that they enjoy, such as badminton, football, tennis, football, kho-kho, walking, dancing, swimming, etc.
- Family members and school teachers must help bring positive changes in the child's behaviour – build the child's self-confidence and esteem and help him deal with the peer pressure.

Iron and Folic Acid Supplementation & Anemia Mukht Bharat (AMB) Programme

You must be aware that IFA Supplementation prevents anemia due to nutritional deficiency in children.

Anemia is a condition when there is low haemoglobin level in the body resulting in less ability to carry oxygen to all parts of the body. Anemia in children causes poor learning ability, low concentration, tiredness, poor school performance and poor coordination of language in children. The child is unable to reach his/her full potential both physically and mentally.

Haemoglobin levels in children to diagnose anemia (g/dl)

Age group	No anemia	Mild	Moderate	Severe
Children 6–59 months of age	≥ 11	10-10.9	7-9.9	< 7
Children 5–11 years of age	≥ 11.5	11-11.4	8-10.9	< 8

Source: WHO - Nutritional anemia: Tools for Effective Prevention and Control, 2017.

This chapter will refresh your knowledge on causes of anemia in children, IFA supplementation and provide an update on activities related to National Anemia Mukht Bharat (AMB) strategy.

Remember

- Breastmilk is sufficient to meet the iron requirement of a breastfed child only until 6 months of age.
- Iron from breast milk is more easily available to the young child. The onset of anemia in young children is generally after 6 months of age and increases from 6-8 months till the child is 1 year old.

7.1 Causes of Nutritional Anemia in Children

The common causes of nutritional anemia are:

- Low iron stores at birth due to anemia in mother.
- Non-exclusive breastfeeding up to 6 months of age.
- Too early introduction of complementary food, i.e., before completion of 6 months of age (resulting in diminished breast milk intake, insufficient iron intake, and heightened risk of intestinal infections).
- Late introduction of appropriate (iron-rich and nutritious) complementary foods, i.e., later than completion of 6 months of age.
- Insufficient quantity of iron and iron enhancers in diet (foods rich in Vitamin C) and low availability of dietary iron (especially from vegetarian diet).



- Iron loss due to parasite load (e.g., malaria, intestinal worms).
- Poor environmental sanitation, unsafe drinking water and inadequate personal hygiene leading to frequent illnesses.

To overcome this problem, government has launched Anemia Mukht Bharat (AMB) strategy in 2018 to promote prophylactic and therapeutic Iron and Folic Acid (IFA) supplementation in all children and adolescents, starting from 6 months to 19 years of age, along with addressing the non-nutritional causes of anemia, namely malaria, hemoglobinopathies and fluorosis.

Dose and regime for prophylactic Iron and Folic Acid Supplementation for prevention of anemia in pre-school (6-59 months) and school-age children (5-9 years).

Age group	Dose and regime
Children 6-59 months of age*	Biweekly, 1 ml Iron and Folic Acid syrup; Each ml of Iron and Folic Acid syrup containing 20 mg elemental Iron + 100 mcg of Folic Acid. Bottle (50ml) to have an 'auto-dispenser' and information leaflet as per the MoHFW guidelines in the mono- carton.
Children 5–9 years of age	Weekly, one (1) Iron and Folic Acid tablet; Each tablet containing 45 mg elemental Iron + 400 mcg Folic Acid, sugar-coated, pink colour.

Source : Operational Guidelines for Programme Managers. Anemia Mukht Bharat-Intensified National Iron Plus Initiative (I-NIPI), Ministry of Health and Family Welfare, Government of India, 2018.

*IFA syrup should **not** be given to children suffering from acute illness (fever, diarrhoea, pneumonia, etc.). Mother/caregivers should be advised to continue subsequent doses of IFA supplementation as soon as the child recovers from these illnesses. It is also not to be given to children suffering from thalassemia major and those with history of repeated blood transfusion. The IFA supplementation in severely acute malnourished (SAM) children, should be continued as per standard treatment protocol for SAM management.

7.2 Given below is the Service Delivery Strategy under Anemia Mukht Bharat

	Target Group: Children 6-59 months
Prophylactic administration of iron and folic acid supplementation	<ul style="list-style-type: none"> • Children 6-59 months should be given biweekly IFA syrup by ASHA through home visits and mothers/caregivers will be equipped with the skills to provide biweekly IFA dose at the household level. • IFA syrup bottles will be distributed to mothers/caregivers to provide bi-weekly IFA dose at household level. • ASHA will receive required number of IFA syrup bottles (fitted with auto-dispenser) from respective Sub-Health Centre / Primary Health Centre. • ASHA will provide IFA supplementation (1 ml) twice a week for one week during home visits. • IFA syrup should be given to the child at least one hour after consumption of food (semi-solid food/solid food).

	<ul style="list-style-type: none"> ASHA will teach the mother/caregiver to provide bi-weekly IFA dose to their child. ASHA will record the compliance in the MCP card and also teach the mother/caregiver to mark the IFA compliance in MCP card. From second week to end of first month, ASHA will make weekly visits and from second month onwards, she will undertake fortnightly home visits to supervise IFA supplementation provided by mother/caregiver. CHOs and MPWs will monitor line list of target group, ensure adequate supplies of IFA and provide support to ASHAs to enable uptake of IFA supplementation and ensure compliance and monitor entry in the MCP card.
Who will screen and place of screening and periodicity	<ul style="list-style-type: none"> RSBK team: AWC/school; children under five years of age and out-of-school children (5-9 years) will be screened for clinical signs of anemia biannually. Identified anemic children will be referred to AB-HWC/health facility for treatment and further management. CHO/Medical Officer: AB-HWC/Health Facility – Opportunistic Screening.

Anemia Management - Therapeutic Management of Anemia in children aged 6-59 months If Haemoglobin is 7-10.9 g/dl (mild and moderate anemia)

First level of treatment (at all levels of care)	<p>3 mg of iron/kg/day for 2 months</p> <ul style="list-style-type: none"> For children 6-12 months (6-10 kg): 1 ml of IFA syrup, once a day For children 1-3 years (10-14 kg): 1.5 ml of IFA syrup, once a day For children 3-5 years (14-19 kg): 2 ml of IFA syrup, once a day Line listing of all anemic children to be maintained by the MPW/ASHA/AWW and reviewed by CHO.
Follow-up	<ul style="list-style-type: none"> Hb estimation after completing 2 months of therapeutic treatment to document increase in Hb and follow-up every month by MPW/CHO at VHSND/AB-HWC-SHC/immunization session site. Monitoring by ASHA for compliance of IFA syrup every 14 days during home visits, for a period of 2 months. If haemoglobin levels have improved to normal level, discontinue the treatment, but continue with the prophylactic IFA dose.
If no improvement, after first level of treatment	<ul style="list-style-type: none"> In case the child has not responded to the treatment of anemia with daily dose of iron folic acid syrup for 2 months, refer the child to the FRU/DH - Medical Officer/Paediatrician/Physician for further investigation.
If haemoglobin cut off is <7g/dl (severe anemia)	<ul style="list-style-type: none"> Refer urgently to District Hospital/First Referral Unit. Management of severe anemia in children of 6-59 months is to be done by the Medical Officer at the FRU/DH based on investigation and subsequent diagnosis.

Anemia management protocol for children - Therapeutic Management of Anemia in children aged 5-9 years	
Who will screen and place of screening	<ul style="list-style-type: none"> RSBK teams will screen in-school and out-of-school children for anemia. All children with clinical signs and symptoms of anemia will be referred to AB-HWC-SHC/PHC for Hb estimation and further management.
Periodicity	<ul style="list-style-type: none"> Once a year. Opportunistic screening, e.g., routine Hb assessment of sick children presented to health facility.
First level of treatment (at all levels of care)	<ul style="list-style-type: none"> 3 mg of iron/kg/day for 2 months. Line listing of all anemic cases to be maintained in the school. Register for Iron Folic Acid supplementation and line list given to the MPW/CHO / Lady Health Visitor (LHV) for designated area.
Follow-up	<ul style="list-style-type: none"> Class teacher/Nodal teacher at school to orient parents during Parent Teacher Meeting for compliance of treatment. Parents to ensure follow-up of child after 30 days and 60 days at nearest AB-HWC-SHC/health facility. Follow-up by LHV/MPW/CHO of designated area, as feasible. Hb estimation after completing 2 months of treatment to document Hb\geq11.5 g/dl. If haemoglobin levels have improved to normal level, discontinue the treatment, but continue with the prophylactic IFA dose.
If no improvement after first level of treatment	<ul style="list-style-type: none"> In case the child has not responded to the treatment of anemia with daily dose of iron for 2 months, refer the child to the FRU/DH- Medical Officer/ paediatrician/physician for further investigation.
Treatment	<ul style="list-style-type: none"> Refer urgently to District Hospital/First Referral Unit. Management of severe anemia in children of 5-9 years is to be done by the Medical Officer at the FRU/DH based on investigation.

7.3 Deworming

National Deworming Day (NDD): To combat parasitic worm infestation among pre-school and school-age children, the MoHFW, Government of India, has adopted a single fixed day strategy called National Deworming Day since 2015. During NDD, albendazole chewable tablet is administered to all children from 1 to 19 years of age through the platform of schools and Anganwadi Centres in the months of February and August every year. NDD is followed by MUD (Mop Up Day), after 7 days of NDD for the children who missed the dose.

Dose and regime for deworming

Age group	Dose and regime	Administration
Children 12-59 months of age	Biannual dose of 400 mg albendazole (½ tablet to children 12-24 months and 1 tablet to children 24-59 months)	Appropriate administration of tablets to children between the ages of 1 and 3 years is important. The tablet should be broken and then crush the half tablet between two spoons, then add safe water to help administer the medicine.
Children 5-9 years of age	Biannual dose of 400 mg albendazole (1 tablet)	The tablet can be chewed properly. Albendazole tablets that are not chewable may have significantly lower effectiveness. Ensure drinking water is available. Use a spoon to administer one full tablet to the child yourself and do not give it to parents to be taken home.



Source: Adapted from Operational Guidelines for Programme Managers. Anemia Mukht Bharat- Intensified National Iron Plus Initiative (I-NIPI), Ministry of Health and Family Welfare, Government of India, 2018.

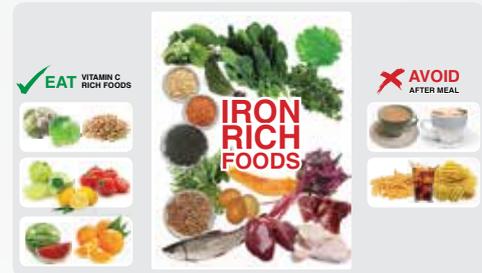
Refer Annexure- 6 for teaching mother/caregiver regarding administration of IFA supplementation to children.

Role of CHO in Implementation of IFA Supplementation and Biannual Deworming for Children

- Ensure that ASHA and MPW enumerates all children and prepares a line-listing of children in the service area.
- Encourage ASHA and MPW to ensure entry of date of administration of IFA supplement and biannual deworming in the MCP card (Compliance Card). During home visits, the ASHAs should inform the mothers/caregivers to carry the MCP card during their visit to AB-HWC/Health facility.
- Monitor that mother/caregivers have received IFA syrup bottle by the ASHA and are able to administer the IFA syrup to their child with record of compliance in the MCP card (check for tick (✓) marked in the card).
- Sensitise the ASHA and MPW on counselling mother/caregivers regarding the following:
 - Benefits of IFA supplements for their children, improving iron and folate content of the diets and the importance of sanitation and hygienic practices in order to prevent anemia and worm infestation in the child.
 - Importance of providing the IFA supplementation and biannual deworming in children, its positive impact on physical and mental development of the child, e.g. improvement in wellbeing, attentiveness in studies and intelligence, etc.
 - Minor side effects associated with IFA administration such as black discolouration of stools.
 - Immediately contacting the primary health care team members in case of any problem/ adverse event after consumption of iron folic acid supplement by the child.



- Increased intake of iron, folic acid and vitamin C-rich foods through dietary diversification/ quantity/frequency and food fortification in children to meet the nutritional requirements of the child and reduce the risk of anemia.
- Following food items belonging to different food groups to be included in the diet of the child, namely dark green leafy vegetables like mustard leaves (sarson saag), drumstick leaves, turnip leaves, fenugreek (methi), bathua, mint (pudina), amaranth (chaulai), spinach (palak), spring onion, colocasia (arbi) leaves, etc.; ragi, whole wheat flour, whole grains, pumpkin, raw banana (plantain banana), pulses (daals), legumes (rajmah, lobia, soyabean, black chickpeas (kala chana), jaggery (gur), fresh peas, fresh beans, nuts, dry dates, raisins, sesame (til) seeds, animal foods/non-vegetarian sources like meat, liver, poultry, egg, fish, etc.
- Advice to include foods containing Vitamin C, like tomato, watermelon, guava, orange, lemon, gooseberry (amla), sweet lime (mosambi) etc. and animal foods - meat, poultry, fish, liver, egg, etc., fermented and sprouted foods (grains and pulses), etc. as these increase the absorption of iron. Iron and folic acid fortified foods such as wheat flour, rice, iodised salt (double fortified), oil and milk etc. can also be included in the diet wherever available.



- Assist the ASHA and MPW in regularly motivating families who refuse to provide IFA supplements and albendazole tablets to their children. Undertake joint visits with ASHA and MPW to difficult households where they are unable to convince the family for IFA supplementation and biannual deworming for children.



- Undertake various health-promotion activities for behaviour change in the community regarding importance of IFA supplementation, deworming and intake of iron, folic acid and Vitamin C rich foods and fortified foods (wherever available). ASHA, MPW, AWW and VHSNC members may assist in carrying out these activities.



08
CHAPTER

Early Detection and Management of children with growth failure

The concept of early detection and management of children with growth failure is very important. You should be well versed with the contents of MCP card for using it during counselling, recording, and monitoring of various health and nutrition events and be aware of children with growth failure in your service area.

When a small baby gains weight, grows in height, begins to roll over, sits up and walks, we say that the child is growing. In children, growth is most rapid at younger age, particularly in the first six months. In this age, they are more vulnerable to diseases and inadequate nutrition, which affects their normal growth pattern. It is, therefore, essential to monitor growth of children in this age more frequently.

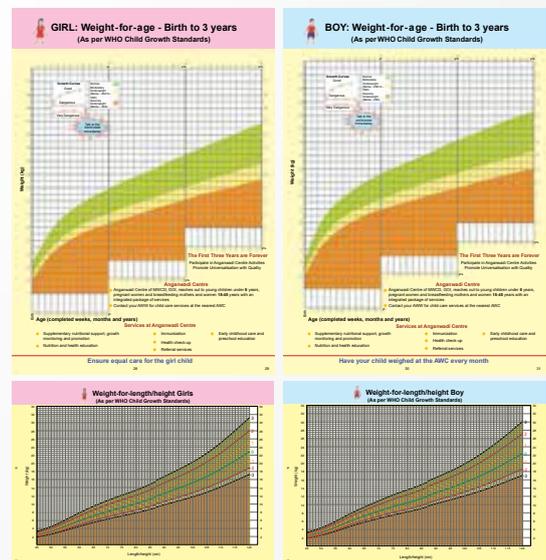
Growth is measured in terms of changes in weight with respect to age, length or height of children. Length is recorded for children less than 2 years of age and height for children above 2 years of age.

Regular growth monitoring or measuring growth is important as it helps in visualising change in weight over a period with respect to age, length/height of the child, and helps to identify if the child is growing properly or not. These changes are useful in giving advice to the mother/caregiver about the growing pattern of the child. This process is called **'GROWTH MONITORING'**.

Recording of child's weight should be done once every month up to age of 3 years and at least once in 3 months thereafter. Length is to be recorded once in three months from birth to 2 years of age and height once in 6 months (2 to 5 years of age). This data should be entered in CAS application and plotted on MCP card simultaneously by AWW.

Optimal growth and development of the child can be ensured only with adequate food, preventing illness, and a caring and nurturing social environment. Maximum growth happens in the first two years of life. A healthy child is approximately double the birth weight in fifth month and is three times the birth weight by the first birthday. By the end of second year, the weight is four times the birth weight. We must understand that weight gain is not the only way to assess a child's growth. Increase in length or height of the child is also included in the growth pattern of the child. However, changes in child's length are slower than the weight. At the time of birth, the baby's length is around 50 cm. Expected gain in length in the first year after birth is 25 cm and in the second year is 12 cm, contributing to a total increase of 37 cm in the first two years of life.

The AWW uses the growth chart for monitoring growth for every child, separately available for girls and boys. Every child in your AB-HWC-SHC area, should be weighed and her/his weight plotted on the growth chart according to the age of the child. In addition, the length/height of the child will also be recorded in the growth chart given for weight-for-length/height in the MCP card. The AWW is responsible for recording weight and length/height of the child at AWCs. ASHA, as part of HBYC visits,



Growth Charts

needs to ensure that the weight and length/height of the child is recorded by the AWW and details are made available to the mother/caregiver in MCP card by the AWW in addition to nutritional counselling and other mechanisms as specified by your district or state.

If the weight and/or length/height of the child is not recorded, ASHA will mobilise and accompany the mother/caregiver to the nearest AWC for recording the weight and length/height of the child for ensuring growth monitoring.

You will provide support to the ASHA, MPW, AWW and RBSK Mobile Health Team, and ensure all the activities related to growth monitoring are carried out effectively.

8.1 What is Growth Faltering?

Growth faltering is the slowing or stopping of growth. It is a sign that something is wrong with the child and immediate action must be taken to restore growth. One can join the weight dots on the growth chart, to plot growth curve. The direction of the growth curve indicates the progress of the child and is helpful in providing appropriate counselling and initiating necessary actions such as referral for malnourished children. Based on changes in growth pattern, one can provide suitable advice to the mother/caregiver on the nutritional requirement of the child.

8.2 Plotting of Growth Charts

The AWW uses a growth monitoring chart for every child. There are separate growth charts (as per World Health Organization [WHO] child growth standards) for girls and boys up to the age of five years, as they have different weights and lengths/heights at birth and grow to different sizes according to age. These are also available in the MCP card. The AWW also has growth charts available with her for up to the age of five years. Every child in your service area should be weighed and have their length/height recorded. Their weight and length/height should be plotted on the growth chart. There are also growth charts available for plotting height for age of the child. This is available with the AWW.

There are three indicators commonly used to measure growth failure in the child. These indicators are commonly used for detection of malnutrition and reporting purposes.

Measuring a child's weight and height tells us if the child is underweight, stunted or wasted. These measurements are age and gender specific.

- Measuring a child's weight and mapping it against the age (as on the growth chart) tells us if the child is underweight (or low weight for age). This, in general, tells us about the nutritional progress and growth of a child. It is important to note that a child may be underweight either because of short length/height (stunting) or thinness or both.
- Measuring a child's height and mapping it against the age (as on the growth chart) tells us if the child is stunted (or low height for age). This tells us that the child has chronic malnutrition, which is likely a result of long-term suboptimal health and/or nutritional conditions and/or that the child has suffered from repeated infections.
- Measuring a child's weight and mapping it against the height (as on the growth chart) tells us if the child is wasted (or low weight for height). This tells us that the child has acute malnutrition due to a recent severe event, such as drastically reduced food intake resulting in lack of adequate food and nutrients and/or illness.

How to plot weight for age to identify the child is underweight:

- The left-hand vertical line is the measure of the child's weight.
- The bottom line of the chart shows the child's age in months.
- Find the point on the chart where the line for the child's weight meets the line for the child's age.

Similar process will be used while plotting height for age and weight according to height in the growth chart.

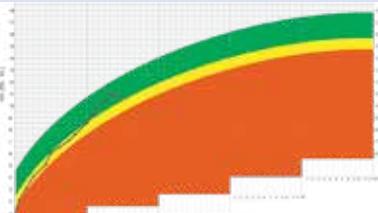
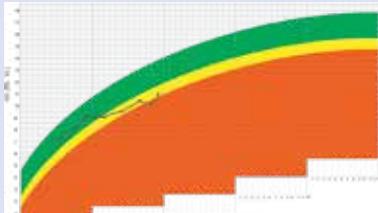
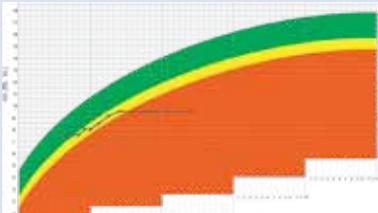
8.3 Decide where the point is in relation to the curves:

- If the point is below the bottom most (-3 Standard Deviation/SD) curve, the child is severely malnourished (red/orange zone).
- If the point is between second and third SD curve or exactly on the third curve, the child is moderately malnourished (yellow zone).
- If the point is on or above the curve marked zero or between the curve zero and -2SD (second curve) or exactly on the second curve, then the child is normal (green zone).

In addition to AWW monitoring the growth in children at AWC, the mobile health team under RBSK, undertakes standard measurements of weight and length/height for preschool children in rural areas and urban slums (6 weeks to 6 years) at least twice a year and for school children enrolled in government and government-aided schools (6 years to 18 years) at least once a year. Age-appropriate weighing machine and infantometer for measuring length in young infants (lying down) and stadiometer for measuring height in children (standing) is used. Charts/tools such as age and sex specific growth charts (weight-for-age, weight-for-height and height-for-age WHO growth charts from birth to 5 years of age and Body Mass Index-for-age WHO charts for undernutrition and overnutrition for 6 to 18 years) are used to know whether measurements of a child are normal or are of concern or require urgent referral (Normal, <-2SD, <-3SD or >+2SD, >+3SD).

8.4 Discussing the child's growth and follow-up action needed:

Interpretation of growth curve

Good - Upward curve	Dangerous - Flat curve	Very Dangerous - Downward curve
<p>The curve is moving upwards. Indicates:</p> <ul style="list-style-type: none"> • Adequate weight gain for the age of the child. • Adequate height for the age of the child and • Adequate weight gain for the length/height of the child. <p>The child is growing well and is healthy.</p> 	<p>The curve is flat but has not gone down to another colour band. Indicates that the child is not gaining weight or the child's height is less for his age (growth is slow) and is not growing adequately. This is called stagnation. The child needs attention of the mother/caregiver. Also, the cause needs to be investigated. Talk to AWW/MPW/ASHA immediately. Such children should be referred to NRC or a hospital with paediatric facility for any medical complication. Follow-up of such children for development delays in DEIC is suggested.</p> 	<p>The curve is moving downwards, into another colour band. Indicates loss of weight or their child's height is less for his/her age (growth is slow). Talk to AWW/ MPW/ASHA immediately. The child may be severely malnourished, and she/he needs urgent specialised medical care and immediate referral to NRC or a hospital with paediatric facility for any medical complication. Follow-up of such children for development delays in DEIC is suggested.</p> 

Praise and assess feeding to reinforce the good practices of the mother/caregiver and ask them to continue feeding the child well and ensure sanitation and hygiene.	Review feeding, praise what mother/ caregiver is doing well and identify feeding problems for bringing about change. Follow-up of discharged children to ensure compliance.	Follow-up of discharged children to ensure compliance.
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Tell the mother/caregiver to pay more attention to the following:

- Exclusive breastfeeding till six months of age.
- Adequate and age-appropriate complementary feeding on completion of six months of age.
- Feed the child with diverse foods available at home (food from all four food groups).
- Give small frequent meals. Regularly feed the child by using separate bowl for feeding so that the mother/caregiver could keep track of what and how much the child has been fed.
- For malnourished children above six months of age, mother/caregiver must feed the child as much as she or he can eat, increase the frequency of feeding to 5-6 times in a day, provide variety of food and give nutrient-rich foods and advise adding oil or ghee to the food.
- Following good sanitation and hygiene practices – washing hands with soap and water before preparing the food, before feeding the child, after defecation and disposal of waste. Use clean water for drinking and keep food covered and protected from flies.
- Counsel the mother/caregiver to regularly keep a track of the growth of their child.
- Regular follow-up of the malnourished children who are being cared at home or discharged from health facility.

8.5 Identifying Visible Severe Wasting:

A child with visible severe wasting is very thin, has no fat, and looks like skin and bones. Some children are thin but do not have visible severe wasting. This assessment step helps you in identifying the children with visible severe wasting who need urgent treatment and referral to the NRC/DH. Follow-up of such children for development delays in DEIC is suggested.



- To look for visible severe wasting, remove the child’s clothes. Look for severe wasting of the muscles of the shoulders, arms, buttocks, and legs. Look at the child from the side to see if the fat of the buttocks is missing. When wasting is extreme, there are many folds of skin on the buttocks and thigh.
- The face of a child with visible severe wasting may still look normal. The child’s abdomen may be large or distended.



- Look and feel to determine if the child has nutritional oedema (swelling of foot due to fluid retention). Grasp the foot so that it rests in your hand with your thumb on top of the foot. Press your thumb gently for a few seconds on the upper surface of each foot. The child has oedema if a pit (dent) remains in the foot when you lift your thumb. This is one of the ways to detect children with severe malnutrition in the community. Such children will require prompt hospitalisation in a centre which manages such children. This is often the NRC/District Hospital.

Nutrition Rehabilitation Centres (NRC) are facility-based units providing medical and nutritional therapy to children with Severe Acute Malnourished (SAM) under 5 years of age with medical complications. In addition, there is special focus on improving the skills of mothers on child care and feeding practices so that the child continues to receive adequate care at home.

8.6 Severe Acute Malnutrition (SAM):

Children with very low weight-for-height/length (below -3SD of the median WHO child growth standards) or presence of nutritional oedema are said to have Severe Acute Malnutrition (SAM).

Children with SAM are nine times more likely to die than well-nourished children. It can be an indirect cause of child death by increasing the mortality in children suffering from common illnesses such as diarrhoea and pneumonia.

Children with SAM with no complications can also be possibly managed in the community but would require a very close supervision. Feeding management for children up to 6 year of age under ICDS programme is given in Chapter-5.

Role of CHO in Growth Monitoring, Early Detection of growth failure and Management of Children with growth failure at community level

- Ensuring early registration of all children at the nearest AWC for availing child care services like supplementary nutritional support, growth monitoring and promotion, immunization, early child care, health check-up and referral services.
- Ensure provision of THR for children from 6 months of age to 3 years and freshly cooked hot food and a morning snack to pre-school children aged 3-6 years attending the AWC. Ensure that extra nutrition is provided to malnourished children as per norms.
- Ensuring line listing and tracking health and nutritional status of all children in your service area with the help of ASHAs/AWWs/MPWs. Prioritise listing and undertaking joint home visits with ASHA and MPW to malnourished children in your area for taking corrective and timely action.
- Ensure regular growth monitoring of children under five at AWC, VHSND sessions and coordinate with AWW for updating the growth status in MCP card. Regular growth monitoring at the AWC is an opportunity for active case finding.
- Ensure mother/caregiver are mobilised for growth monitoring by RBSK Mobile Health Team for children between 6 weeks to 18 years.
- Review and discuss with ASHAs/AWWs/MPWs regarding the growth charts of children during the monthly AB-HWC-SHC meeting to identify children showing signs of growth faltering and find possible ways of ensuring nutritional adequacy and reasons for growth faltering.
- Explore the option of using untied funds of VHSNC to meet the special care needs of malnourished children if required.
- Organise and supervise special campaigns such as breastfeeding promotion week, group counselling sessions, mothers support groups meetings, community meetings, POSHAN Maah,

POSHAN Pakhwada, etc. in coordination with ASHA/MPW/AWW/VHSNC members to enable health promotion related to IYCF, growth and development of children at your service area or AWCs.

- Sensitisation of ASHA, MPW and AWW for detection and timely referral of SAM children. Referring all children who are SAM with Medical Complication to Nutrition Rehabilitation Centres (NRCs)/ paediatric facility, coordinating to obtain instructions for follow-up care to be undertaken by ASHAs and ensuring follow-up visits as per recommended schedule by ASHAs with support from ASHA Facilitators/MPWs. These children should especially be monitored for relapse after discharge from NRC. Other siblings of the child must also be kept under observation and all of them be considered as 'high risk' and followed up accordingly.
- Assist the ASHA/MPW/AWW in counselling the mother/caregiver for the following:
 - Importance of weighing and measuring length/height of the child regularly.
 - Discussing the trend of growth of the child during home visits, VHSND session, visit to AB-HWC-SHC and counselling depending on the direction of the growth curve in the MCP card.
 - Promoting optimal infant and young child feeding and care practices – early and exclusive breastfeeding for the first six months of a child's life, age-appropriate complementary feeding practices for all children on completion of 6 months (e.g., dietary diversity) together with continued breastfeeding till 2 years or beyond, adequate care and feeding of sick children to prevent malnutrition, age-specific immunization, appropriate play and communication with the child, management of common childhood illnesses, integration of key hygiene and sanitation practices (safe drinking water, hand-washing with soap, safe disposal of excreta, food hygiene), ensure adequate intake of essential micronutrients through supplementation, fortification and food consumption as per National Programmes, etc., for proper growth and development.
 - Follow up with mother/caregiver to ensure adherence to treatment plan suggested by health facilities for malnourished children.



Immunization for Children

Infectious diseases during childhood compound the effect of malnutrition by increasing the nutrient needs of the body, and therefore, may even prove fatal. It is, hence, important to protect the child against these diseases through immunization. The immunization is given at different ages during the first year of life and helps to develop lifelong immunity in the child against diseases. Immunization is important not only for children receiving less than optimum nutrition but for every child as a preventive measure against infection.

A key task of the AB-HWC-SHC is providing age-appropriate immunization to all children in the catchment area. This includes all migrant populations, marginalised and vulnerable population staying in the catchment area even if they are not in the list or records. All members of AB-HWC team, i.e., ASHAs, MPWs and CHOs have specified role in ensuring 100% immunization coverage. Targeted approach of Intensified Mission Indradhanush can be adapted along with routine immunization services to achieve 100% coverage. As a CHO, you need to be aware of the National Immunization Schedule under Universal Immunization Programme (UIP). You will support the MPWs and ASHAs in conducting immunization sessions and ensure improvement in immunization coverage.



You or the MPW will fill the details – date of vaccination and also write the next vaccination date in the MCP card and return the card to the mother/caregiver. You may refer to the MCP card, to check the immunization status of the child during the household visits or their visits to AB-HWC-SHC from birth to 16 years of age.

Routine Immunization Counterfoil, in the MCP card, enlists the date of vaccination from birth to 16 years of age, which is to be kept at the AB-HWC-SHC to maintain the child's record.

To address the gaps in improving population coverage it is important to understand the possible reasons for low immunization coverage. From your experience you will know one of these possible reasons:

Reason for low immunization coverage

- **Low awareness** - Families/caregivers are unaware regarding the benefits of immunization.
- **Lack of information**- Families/caregivers not aware about importance of immunization, due vaccination, place and time of immunization session, etc.
- **Drop-outs**- Children who receive one or more vaccination, but do not return for subsequent doses; children of migrant families miss out on due vaccination.
- **Missed opportunities**- Failure to provide vaccines which are to be co-administered as per National Immunization Schedule.
- **Unreached population/geographical barrier**- Vulnerable or marginalised populations with limited access to health services or face socio-economic barriers to utilise health services.
- **Vaccine hesitant population and financial barriers**- Who do not have confidence in vaccination due to misconceptions and myths, fear of Adverse Effects Following Immunization (AEFI), wage loss, etc.

- **Operational issues-** Session not organised on scheduled place and time due to various reasons, unavailability of vaccine at session site, etc.
- **Cultural or religious reasons-** There is refusal of vaccination due to myths, rumours and misconceptions prevalent in few sections of the society.
- **Gender barrier-** Sometimes women are not allowed to attend sessions by their family members. Also, if it is a girl child, family members may not give importance to her vaccination.

The National Immunization Schedule (NIS) and detailed NIS for Infants, Children and Pregnant Women (Vaccine-wise) are given below.

National Immunization Schedule (NIS)

Age	Vaccines given
Birth	Bacillus Calmette Guerin (BCG), Oral Polio Vaccine (OPV)-0 dose, Hepatitis B birth dose
6 Weeks	OPV-1, Pentavalent-1, Rotavirus Vaccine (RVV)-1, Fractional dose of Inactivated Polio Vaccine (fIPV)-1, Pneumococcal Conjugate Vaccine (PCV) -1*
10 weeks	OPV-2, Pentavalent-2, RVV-2
14 weeks	OPV-3, Pentavalent-3, fIPV-2, RVV-3, PCV-2*
9-12 months	Measles & Rubella (MR)-1, JE-1**, PCV-Booster*
16-24 months	MR-2, JE-2**, Diphtheria, Pertussis & Tetanus (DPT)-Booster-1, OPV –Booster
5-6 years	DPT-Booster-2
10 years	Tetanus & adult Diphtheria (Td)
16 years	Td
Pregnant Mother	Td-1, Td-2 or Td-Booster***

* PCV in selected states/districts: Bihar, Himachal Pradesh, Madhya Pradesh, Uttar Pradesh (selected districts) and Rajasthan; in Haryana as state initiative

** Japanese encephalitis (JE) in endemic districts only

*** One dose if previously vaccinated within 3 years

National Immunization Schedule (NIS) for Infants, Children and Pregnant Women (Vaccine-wise)

Vaccine	When to give	Dose	Route	Site
For Pregnant Women				
Tetanus & adult Diphtheria (Td)-1	Early in pregnancy	0.5 ml	Intra-muscular	Upper Arm
Td-2	4 weeks after Td-1	0.5 ml	Intra-muscular	Upper Arm
Td- Booster	If received 2 TT/ Td doses in a pregnancy within the last 3 years*	0.5 ml	Intra-muscular	Upper Arm

Vaccine	When to give	Dose	Route	Site
For Infants				
Bacillus Calmette Guerin (BCG)	At birth or as early as possible till one year of age	0.1ml (0.05ml until 1 month age)	Intra-dermal	Left Upper Arm
Hepatitis B - Birth dose	At birth or as early as possible within 24 hours	0.5 ml	Intra-muscular	Antero-lateral side of mid-thigh
Oral Polio Vaccine (OPV)-0	At birth or as early as possible within the first 15 days	2 drops	Oral	Oral
OPV 1, 2 & 3	At 6 weeks, 10 weeks & 14 weeks (OPV can be given till 5 years of age)	2 drops	Oral	Oral
Pentavalent 1, 2 & 3	At 6 weeks, 10 weeks & 14 weeks (can be given till one year of age)	0.5 ml	Intra-muscular	Antero-lateral side of mid-thigh
Pneumococcal Conjugate Vaccine (PCV)	Two primary doses at 6 and 14 weeks followed by Booster dose at 9-12 months	0.5 ml	Intra-muscular	Antero-lateral side of mid-thigh
Rotavirus (RVV)	At 6 weeks, 10 weeks & 14 weeks (can be given till one year of age)	5 drops (liquid vaccine) 2.5 ml (lyophilized vaccine)	Oral	Oral
Inactivated Polio Vaccine (IPV)	Two fractional doses at 6 and 14 weeks of age	0.1 ml	Intra dermal two fractional dose	Intra-dermal: Right upper arm
Measles Rubella (MR) 1 st dose	9 completed months-12 months (Measles can be given till 5 years of age)	0.5 ml	Sub-cutaneous	Right upper Arm
Japanese Encephalitis (JE) - 1	9 completed months-12 months	0.5 ml	Sub-cutaneous (Live attenuated vaccine) Intramuscular (Killed vaccine)	Left upper Arm (Live attenuated vaccine) Anterolateral aspect of mid thigh (Killed vaccine)
Vitamin A (1 st dose)	At 9 completed months with Measles-Rubella	1 ml (1Lakh International Unit /IU)	Oral	Oral

Vaccine	When to give	Dose	Route	Site
For Children				
Diphtheria, Pertussis & Tetanus (DPT) booster-1	16-24 months	0.5 ml	Intra-muscular	Antero-lateral side of mid-thigh
MR 2 nd dose	16-24 months	0.5 ml	Sub-cutaneous	Right upper Arm
OPV Booster	16-24 months	2 drops	Oral	Oral
JE-2	16-24 months	0.5 ml	Sub-cutaneous (Live attenuated vaccine) Intramuscular (Killed vaccine)	Left upper Arm (Live attenuated vaccine) Anterolateral aspect of mid thigh (Killed vaccine)
Vitamin A (2 nd to 9 th dose)	16-18 months. Then one dose every 6 months up to the age of 5 years	2 ml (2 lakh IU)	Oral	Oral
DPT Booster-2	5-6 years	0.5 ml	Intra-muscular	Upper Arm
Td	10 years & 16 years	0.5 ml	Intra-muscular	Upper Arm

* One dose if previously vaccinated within 3 years.

Note:

- JE Vaccine is introduced in select endemic districts after the campaign.
- The 2nd to 9th doses of Vitamin A can be administered to children 1-5 years old during biannual rounds, in collaboration with ICDS.
- PCV in selected states/districts: Bihar, Himachal Pradesh, Madhya Pradesh, Rajasthan & Uttar Pradesh (selected districts) and in Haryana as state initiative.

Adverse events following immunization (AEFI)- AEFI is defined as any untoward medical occurrence which follows immunization and which does not necessarily have a causal relationship with the usage of the vaccine. The adverse event may be any unfavourable or unintended sign, abnormal laboratory finding, symptom or disease. Majority of the adverse events are coincidental, i.e., unrelated to vaccine or vaccination process but have to be reported as the symptoms or signs have occurred after vaccination.

Role of CHO in undertaking following activities to improve immunization coverage

Service provision:

- Ensure early registration of child at the nearest AWC to avail the immunization services.
- Give administrative and technical support to the AB-HWC-SHC primary health care team under the overall ambit of work defined in the Ayushman Bharat Comprehensive Primary Health Care (CPHC) through Health and Wellness Centers Operational Guidelines.
- Ensure immunization services at Routine Immunization (RI) sessions, VHSNDs, health campaigns, health promotion events, etc.

- Ensure quality head count survey for immunization services by supportive supervision of activities of MPW and ASHA.
- Ensure meticulous micro planning for routine immunization services, high- risk area (HRA) tagging, mapping of areas under sub-health centre with areas demarcation for each ANM/MPW-F if more than 2 ANMs/MPW-F.
- Supportive supervision of activities of MPW and ASHAs in preparation of line listing, regular updating of list of eligible children, review of due list prepared and tracking dropouts and left out children. Ensure reasons for dropouts are entered in the routine immunization counterfoil in the MCP card by you or the MPW.
- Ensure availability of vaccines and logistics at cold chain points and session sites (including anaphylaxis) in your AB-HWC-SHC area.
- Ensure cold chain and equipment management.
- Supportive supervision of immunization session site and ensure availability of updated due list, proper vaccination technique, vaccine management is undertaken.
- Ensure observance of standard precautions to prevent infection and appropriate waste segregation and disposal.
- Ensure MPW is providing four key messages after child vaccination to their mother/caregivers – what vaccine was given and what disease it prevents, when and where to come for the next visit, what minor adverse events could occur and how to deal with them and to keep the immunization card safe and bring it along for the next visit.
- Submit monthly reports and ensure availability and quality of records – MCP, RCH/Immunization register, RCH Portal, etc.
- Ensuring early identification, classification, recording, reporting and referral for AEFI, if any. Management of minor AEFIs (like fever, pain etc.) symptomatically and establishing linkages with nearby health facility for management of serious AEFIs like to the Medical Officer. Accompany the mother/caregiver of the child if needed to the referral health facility.
- Report all AEFIs to the Medical Officer at AB-HWC-PHC immediately. The process of finding out the reasons for the AEFI will help the MO and you to understand why the event happened.
- Ensure all AEFIs details are entered in the AEFI block register maintained at the Block PHC.
- Facilitation of any campaign/intensification activity including inter-sectoral coordination. Organise inter-sectoral coordination meetings with ICDS/local village administration/NGOs, etc.

High risk areas/populations (HRAs) form an important component of the master list of the areas for preparing RI-Micro-plan.

HRAs are special sites/areas, which may be one or more of the following types of areas:

- Hard-to-reach areas.
- Unserved or underserved areas/areas with shortage of health workers.
- Migratory populations including temporary harvesters, brick kiln workers and construction labourers in large construction sites.
- Security compromised areas.

- Monitor surveillance activities undertaken by MPW and ASHAs to ensure all cases are reported from health facility and community; regular review of sub-health centre surveillance reports for completeness and accuracy (activities include surveillance for diphtheria, pertussis, neonatal tetanus, measles, rubella and polio).

Demand generation:

- Organise meetings to discuss and orient ASHA/MPWs in their area for increasing demand for immunization services, building vaccine confidence among care givers and mobilising beneficiaries for timely vaccination.
- Praise and encourage the family for ensuring their child's immunization if all necessary vaccines have been given.
- Counsel beneficiaries, handhold ASHAs and MPWs and partner with community to overcome social, economic, geographic barriers in improving immunization coverage.
- Active mobilisation of all beneficiaries by ASHAs and MPWs with focus on reaching the marginalised and migrant population. Check the immunization status of the child from the MCP card whether child has received age-appropriate vaccines.
- Inform when and where the family can take the child for the next vaccination, for a missed vaccine, or if a vaccine is due soon.
- Allay fear of Adverse Event Following Immunization (AEFI).
- Coordination with community/religious/local leaders, teachers and volunteers on regular basis; encourage them to discuss immunization in their meetings.
- Ensure effective mobilisation of children by ASHA, MPW and VHSNC members for immunization sessions during VHSND session or at the health facilities. This can be achieved by:
 - ASHA escorting the mother/caregiver and child to the session/AB-HWC-SHC for immunization, if required. This may be required for families living in remote areas or those having sick children, malnourished children, girl child, etc.
 - VHSNC members playing an important role to motivate resistant families for immunization.
 - Religious group members and other support group members may also provide support in removing myths and encouraging families for regular immunization of children.



Early Childhood Development

Development of a child begins with the start of a woman's pregnancy. The first 1000 days of life, spanning between conception and the second birthday, provide a unique window of opportunity to act. This foundation may also have intergenerational effect.

By the age of 2 years, 80% of a person's brain is developed. Children learn gradually in these early years of life to talk, walk, run, think, and solve problems, thus becoming more capable and independent. These gradual changes indicate the child's development and are indicated as developmental milestones.

Both girl and boy child deserve same attention and care from the families to grow and develop adequately. The environment, in which a child is growing up, plays a role in the cognitive and psychosocial development. Activities that involve playing, singing or reading, which stimulate the brain through all the senses can help improve a child's ability to engage, think and communicate. Parents/caregivers can engage with their young children by:

- Responding appropriately to what the child communicates, for example, hunger, pain and discomfort, interest in something or affection
- Communicating – talking and smiling
- Playing
- Story telling



CHILDREN LEARN WHAT THEY EXPERIENCE

10.1 Tracking Developmental Milestones

Developmental milestones are physical skills and behaviours that most infants and children perform as they grow and develop. These milestones are age dependent and follow a pattern of an expected range.

One should refer to the MCP Card to understand the age-specific activities that children of a particular age generally do, follow the parenting tips appropriate to the age of the child which parent and the family members do to help the child achieve these milestones.

As a CHO, you must remember:

- That each child is unique.
- Not all children develop at the same rate.
- Timings of developmental milestone could vary from child to child.



As CHO, please inform caregivers:

- A child may reach each milestone at his or her own speed and generally follows a range of chronological age. Some children achieve a stage earlier or later than others. That is why some children learn how to walk or talk much earlier than other children of the same age.
- Explain parents and care givers, the developmental pages of the MCP card and how to use the instructions especially the warning signs.
- Low weight babies, malnourished children, sick children discharged from NICU/SNCU/NBSU/NRC etc. need additional stimulation like play and communication activities, to grow and develop and catch up. Encourage families of such children constantly and motivate them to avail the regular follow ups at District Early Intervention Centres and follow advice to play more and communicate with their children.
- If the child seems 'slow' or 'unable to respond', families should promptly avail services from District Early Intervention Centres.



10.2 What are Developmental Delays?

Development is continuous and progressive. Over a period of time, simple skills to begin with are replaced by finer and complex skills, through learning and practice. These changes are progressive, orderly, long lasting, and coherent. Development in each child is unique and different from others due to his/her genes but importantly by environmental experiences. The rate of development differs from one child to another. There are individual differences in rate of development due to heredity and environmental influences, e.g., one child may walk at the age of 9 months and the other may do so at the age of 13 months. Both are normal.

Hence, we have a normal range. Once it is outside the normal range, then we say there is developmental delay and requires further evaluation. Development delays affect at least 10% children and these delays, if not managed timely, may lead to permanent disabilities.

KNOWING THE PATTERN OF CHILD DEVELOPMENT AND ITS CHARACTERISTICS HELPS US TO UNDERSTAND THE PROCESS AND IDENTIFY DEVELOPMENTAL DELAYS EARLY IN CHILDREN FOR EARLY INTERVENTION.

Role of a CHO enabling community level MILESTONE ASSESSMENT by ASHAs/MPWs to track Early Childhood Development

You will play an important role in encouraging and explaining the care givers/parents of children under two years of age attending your AB-HWC-SHC the importance of Early Childhood Development.

Use the MCP card for undertaking age-specific milestone assessment and providing age-appropriate parenting tips to caregivers.

- Encourage ASHA/MPW/ANM to reinforce the same at the community level.
 - a. Inform MPWs and ASHAs to record observations in the MCP Card.
 - b. Verify the milestone assessment records entered by MPWs and ASHAs.
 - c. Explain MPW and ASHA to look for 'warning' signs as in the MCP card for each age group of the child and refer the suspected child to AB-HWC-SHC or health care provider immediately in case even a single 'warning' sign is noticed.

- Support and supervise your MPWs and ASHAs so that MCP card is used to identify any developmental warning signs in each child under two years of age in your AB-HWC-SHC service area.
- Help the mother/caregivers to understand:
 - a. What most babies do at a specific age – MCP card section on ‘What most babies do’ to track progress on development milestones of the child.
 - b. Explain the caregivers to undertake milestone assessment using local toys and items.
 - c. Provide parenting tips to support early childhood development in children as per the MCP Card.
 - d. Discuss ways to help child see, hear, feel, and move, appropriate for child’s age and ask caregiver to play or communicate with the child, appropriate for age as per the parenting tips provided in MCP card.
 - e. Sensitise the parents/caregivers about the ‘warning’ signs provided in MCP card and bring the child for further assessment if any danger sign is identified.
- Use mothers/caregivers group, VHSND meeting, other platforms to demonstrate activities for responsive parenting for promoting Early Childhood Development (ECD).



Assess and Support Child Development		
<p>➤ Assess for development support care</p> <p>ASK:</p> <ul style="list-style-type: none"> ✓ How do you play with your baby? ✓ How do you talk to your baby? ✓ How do you get your baby to smile? 		<p>Counsel the mother/caregiver to support child’s development</p> <p>If the mother/caregiver reports she does not play with the baby:</p> <ul style="list-style-type: none"> ✓ Discuss ways to help baby see, hear, feel and move, appropriate for baby’s age. ✓ Ask mother/caregiver to play or do a communication activity appropriate for age – <u>use the MCP card.</u>
<p>In addition, for children above 6 months:</p> <p>➤ How do you think is your child’s learning?</p> <p>OBSERVE:</p> <ul style="list-style-type: none"> ✓ How does the caregiver show he or she is aware of child’s movement? ✓ How does the caregiver comfort the child and show love? ✓ How does the caregiver correct the child? 		<p>If the mother/caregiver does not talk to child or talks harshly to child and the baby is less than 6 months of age:</p> <ul style="list-style-type: none"> ✓ Ask mother/caregiver to look into the baby’s eyes while talking. ✓ For older children, give mother/caregiver and child an activity to do together. ✓ Help mother/caregiver interpret what the child is doing and thinking and see if the child responds or smiles. <p>If the mother/caregiver tries to force smile or is not responsive to baby:</p> <ul style="list-style-type: none"> ✓ Ask mother/caregiver to make gestures and cooing sounds, copy baby’s sounds and gestures and see for baby’s responses.

	 	<p>If the mother/caregiver scolds the child:</p> <ul style="list-style-type: none">✓ Help mother/caregiver distract the child from unwanted actions by offering an alternative toy or activity. <p>If the mother/caregiver is not able to comfort the child and the child does not look at the mother/caregiver for comfort:</p> <ul style="list-style-type: none">✓ Help mother/caregiver look into the child's eyes and hold the child close to the mother/caregiver (within focus distance of a growing child of less than 12 inch) and talk gently to the child. <p>If the mother/caregiver says that the child is slow to learn:</p> <ul style="list-style-type: none">✓ Check for hearing and vision.✓ If normal, encourage more engaging activities with the child.✓ If identified with difficulties - Refer the child.
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Child Health Screening and Early Intervention Services (RBSK - Rashtriya Bal Swasthya Karyakram. Coordinating for screening and management of 4Ds)

You have learnt in the previous module regarding care of healthy newborn, young child, and infant, feeding practices, growth monitoring, immunization and childhood illnesses and early childhood development. You are already familiar with your role in care of healthy and sick newborns, infants and children under five years of age. This module will help you to understand your role with respect to providing services for children and adolescents.

11.1 About Rashtriya Bal Swasthya Karyakram (RBSK):

Rashtriya Bal Swasthya Karyakram (RBSK) focuses on early identification and early management of selected chronic health conditions under 4'D's namely Defects at birth, Developmental delays, Deficiencies and Diseases in children up to 18 years of age. The programme is to improve the quality of life of children and to reduce out-of-pocket-expenditure of poor families in identification and management of common chronic health conditions in children from birth to 18 years.

11.2 Health conditions screened under RBSK:

Selected health conditions covered under RBSK for screening, early detection and free management are as below:

Selected Health Conditions for RBSK Screening & Early Intervention Services	
Defects at Birth 1. Neural tube defect 2. Down's Syndrome 3. Cleft Lip & Palate/Cleft palate alone 4. Talipes (club foot) 5. Developmental dysplasia of the hip 6. Congenital cataract 7. Congenital deafness 8. Congenital heart diseases 9. Retinopathy of Prematurity	Deficiencies 10. Anemia, especially Severe Anemia 11. Vitamin A deficiency (Bitot spot) 12. Vitamin D Deficiency (Rickets) 13. Severe Acute Malnutrition 14. Goiter
Diseases of Childhood 15. Skin conditions (Scabies, fungal infection, and Eczema) 16. Otitis Media 17. Rheumatic heart disease 18. Reactive airway disease 19. Dental conditions	Developmental delays 21. Vision Impairment 22. Hearing Impairment 23. Neuro-motor Impairment 24. Motor delay 25. Cognitive delay 26. Language delay
30. Congenital Hypothyroidism, Sickle cell anemia, Beta thalassemia (Optional)	

Under the National Health Mission, Government of India is committed to eliminate tuberculosis (TB) under National Strategic Plan for 2017-25 and achieve Leprosy Free India. Early detection and complete treatment of new cases, especially in children are critical steps towards this objective. Screening of

children for TB and leprosy through RBSK Mobile Health teams is now introduced for early detection. Once identified, RBSK Mobile Health Teams would be referring the children suspected with these conditions to the respective District/Block officials for the TB and leprosy programmes for adequate confirmation of preliminary findings from RBSK Mobile Health Teams and management of the same for identified children and families as per respective National Disease Control Programme Guidelines.

11.3 Target Group and screening process:

The services aim to cover children from 0-18 years of age.

The broad category of age group and screening approach is as below:

- Screening for Defect at birth in babies born in public health facilities and at home – **Birth to 6 weeks**
 - **Facility-based Screening:** Facility-based newborn screening at public health facilities like PHCs/CHCs/DH, through comprehensive newborn screening guidelines under RBSK, mainly for visible and functional birth defects, by existing health staff like Medical Officers, Staff Nurses and ANMs and refer birth defects to the District Early Intervention Centres in District Hospitals.
 - **Community-Based Screening:** ASHAs during home visits for newborn care will use the opportunity to screen, especially the babies born at home and the institutions till 6 weeks of age. ASHAs are supported with simple tools for detecting gross birth defects and to use specific guidelines regarding this.
- The child health screening services at the community level for children aged 6 weeks to 18 years are provided through dedicated RBSK mobile health teams placed in every block. The block level RBSK mobile medical health teams comprise four health personnel, namely two AYUSH doctors (one male, one female), ANM/ Staff Nurse, and a pharmacist. At least two dedicated mobile health teams in each block are engaged to conduct screening of children.

The RBSK Mobile Health Teams carry out screening of:

- A. All the children aged 6 weeks to 6 years in rural areas and urban slum, at least twice a year, at nearest Anganwadi centres; screened by mobile block health teams for defect at birth, deficiencies, diseases and developmental delays.
- B. Children from 6 years to 18 years of age enrolled in government and government-aided schools for defect at birth, deficiencies, diseases, developmental delays including disability, and adolescent health, at least once a year.

The children suspected with defect at birth, deficiencies, diseases, developmental delays including disability, are referred to District Early Intervention Centre (DEIC) for further management.

District Early Intervention Centre:

DEICs are being made operational to provide management of cases referred from the RBSK mobile health teams and will link identified children with tertiary level health services in case surgical management is required.

A team consisting of paediatrician, medical officer, dental officer, staff nurses, and paramedics from multiple disciplines are engaged to provide a holistic service to children in these centres and provide comprehensive trans-disciplinary early intervention services, especially to the children below 6 years suffering from developmental delays.

Role of CHO under child health screening and early intervention services:

- Ensure that each ASHA in the AB-HWC-SHC area maintains a line list of all the children aged 0-6 years and specifically of SNCU/NBSU/NRC discharged infants.
- Ensure that RBSK mobile health team visit schedule is communicated to ASHA well in advance so that ASHA can mobilise caregivers to access the RBSK mobile health team visit to local Anganwadis and govt and govt-aided schools as per the schedule.
- Ensure that ASHAs particularly mobilise the children with low birth weight, underweight and children from households known to have any chronic illness (e.g., tuberculosis, leprosy etc.).
- Maintain biannual screening attendance of 0-3 years children and specifically SNCU/NBSU/NRC discharged infants and 4-6 years children separately.
- Maintain line list of children below 2 years of age identified with any developmental warning signs as per MCP card for appropriate follow up at District Early Intervention Centre and/or paediatric department at DH where DEIC is yet to be established.
- Maintain line list of children and adolescents who have been referred for specific health conditions under RBSK by RBSK Mobile Health Team for secondary, tertiary care, and ensure service access free of cost.
- Visit the AWC or school where screening is planned and monitor attendance and mobilisation. Coordinate with the nodal teachers, Anganwadi workers and ASHAs for ensuring the mobilisation of target children and adolescents on Mobile Health Team camp date.

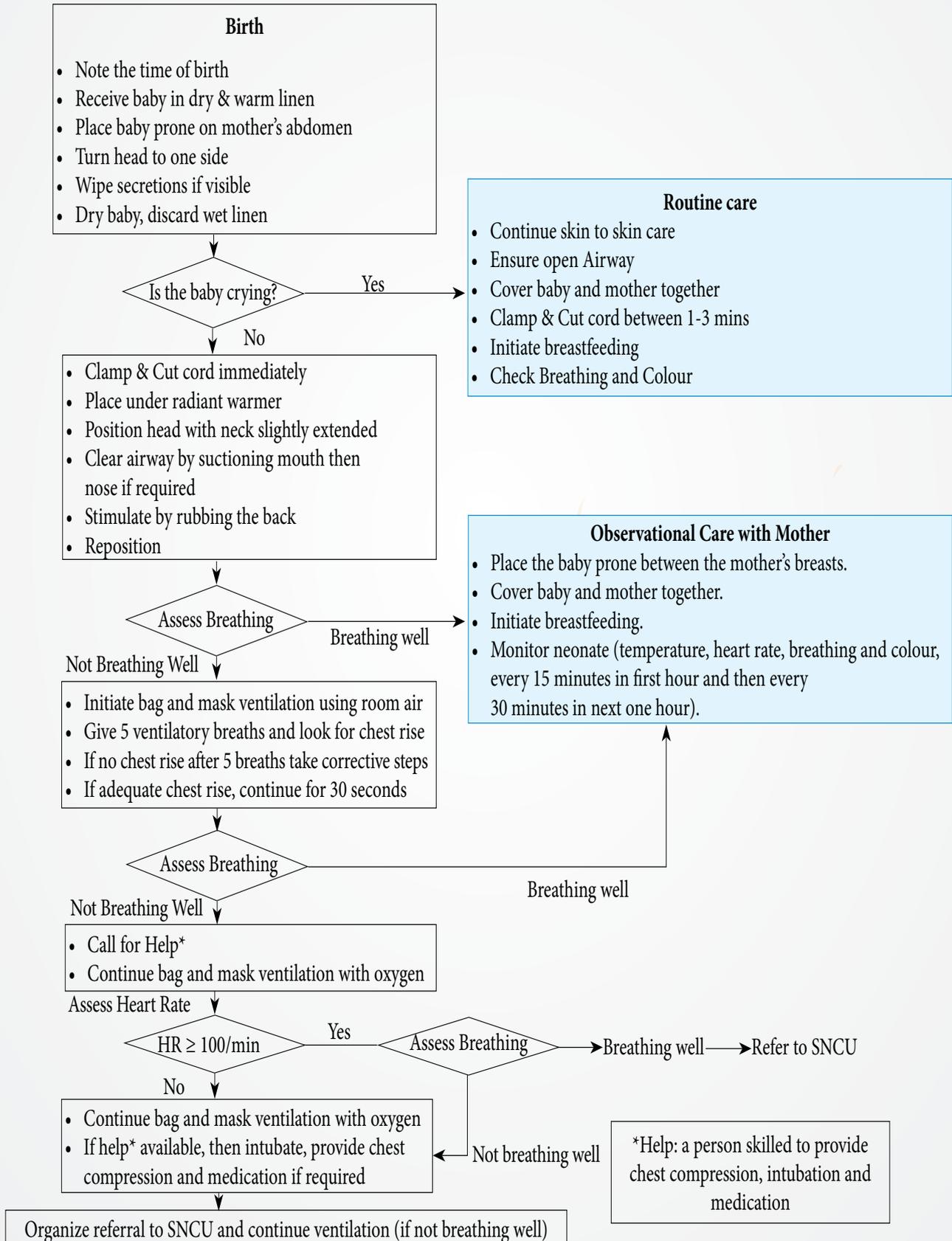


ANNEXURES

Annexure 1- Algorithm for Neonatal Resuscitation

GOLDEN MINUTE

BEYOND GOLDEN MINUTE



Annexure 2- Counselling regarding feeding problem, important messages for breastfeeding, correct positioning and attachment for breastfeeding

1. Counsel the mother of a young infant with the classification 'feeding problem'

1.1. Principles of communication while counselling

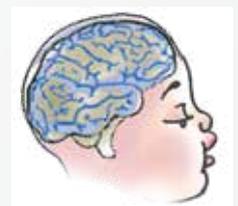
- ASK and LISTEN to what the mother has to say.
- PRAISE the mother ONLY for something helpful she has done. Be sure that the praise is genuine, and only praise actions that are indeed helpful to the child.
- ADVISE, but limit your advice to what is relevant to the mother at this time. If possible, use pictures or real objects to help explain. Advise against any harmful practices that the mother may have reported, for example giving honey or sugar water. Do not make the mother feel guilty but explain why the practice is harmful.
- CHECK UNDERSTANDING, ask questions to find out what the mother understands and what needs further explanation. Avoid asking questions that can be answered with a simple yes or no. If you get an unclear response, ask another checking question. Praise the mother for correct understanding or clarify your advice as necessary.



1.2. Counsel using the following important messages for breastfeeding

Refer to MCP card, available with the family for counselling the mother and caregivers on breastfeeding. You should reinforce the following key messages to promote breastfeeding amongst the mothers/ caregivers:

- Early initiation of breastfeeding immediately after birth or definitely within 1 hour of birth provides 'colostrum' (mother's first milk) to the newborn that helps in fighting diseases. *Colostrum – the first thick yellowish milk is essential for the newborn's nutrition and protection against infections and diseases.* This also encourages flow of breastmilk, prevents engorgement of breasts and keeps the newborn warm and promotes bonding between the mother and the newborn.
- Breastmilk helps to promote the overall growth and development of the child (i.e., physical, psychological, social, motor, and mental development), protects against dangerous illnesses, protects against obesity, hypertension (blood pressure), diabetes mellitus, etc. during adulthood.
- Mother should breastfeed as often as the child wants in day and night. Frequent feeding helps mothers to produce more breastmilk. Continue even during diarrhoea or any other illnesses to help the child get optimal nutrition and recover quickly from the illness.
- Breastfeeding mother should eat extra and drink plenty of fluids to provide adequate milk for the child during this time.
- Mother should pay attention to/observe early signs of hunger in the child,



like restlessness, opening mouth and turning head from side to side, putting tongue in and out and sucking on fingers or fists. Crying is a late sign of hunger.

- Mother should smile, talk, and look into the child's eyes while breastfeeding, encouraging the child to communicate (but not rock the child while breastfeeding).
- Counsel and reassure the mother in busting the myth that she does not have enough milk for the growing child. Almost all the mothers produce enough breast milk for one or even two children up to 6 months of age.
- Usually, even when a mother thinks that she does not have enough breast milk, her child is in fact getting all that she/he needs.
- Build her confidence and support her to breastfeed by increasing the number of times she feeds the child. She should also be advised to take adequate rest. Support the mother in recovering from childbirth and advocate to the family members the importance of adequate rest and nutrition for the mother.
- Also, encourage the family to support the mother by sharing her workload so that she can successfully breastfeed her child. Mothers also resume work during this time. You can counsel them to feed the child before going to work and after coming back. Also suggest these mothers to express milk for the day which can be given to the child by other caregivers. Reassure the family members and seek their support for the mother in providing additional care to low birth weight baby.
- Advise the mother regarding storage of Expressed Breast Milk (EBM):
 - Can be kept in a covered container at room temperature (< 25° C) for up to 6 hours. Need not require heating when stored at room temperature.
 - Milk not fed/if not used within 6 hours of expressing, should be discarded.
 - Can be stored in the main compartment of a regular refrigerator (2°C to 8°C) for 24 hours.
 - Refrigerated breastmilk can be used after thawing so that it is at room temperature.



1.3. Teach Correct Positioning and Attachment for Breastfeeding

Demonstrate various positions for breastfeeding a baby to the mother

To obtain maximum benefit of breastfeeding, the baby should be held in the correct position and put correctly to the breast. Provide counselling on different positions for breastfeeding and help to adopt a suitable position. Tell her to alternate the breast the baby begins with. But make sure that the baby empties the first breast completely before switching to another breast. This ensures that baby gets the hind milk which is rich in fat and keeps the baby satisfied. Let the baby finish the first breast (about 10 to 15 minutes) before offering the second.

Demonstrate the four key points in position

- Baby's head and body should be straight
- Baby's face should face mother's breast
- Baby's body should be close to her body
- Mother should support the baby's whole body

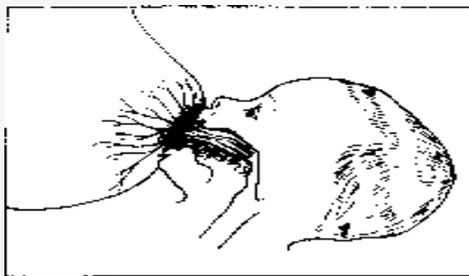
Show the mother how to support her breast with the other hand

Explain the mother that she should:

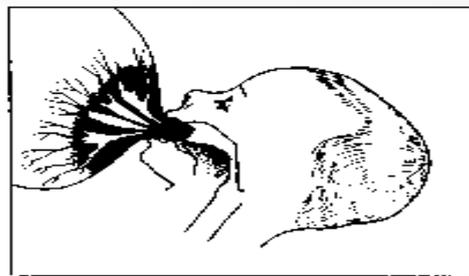
- Put her fingers below her breast
- Use her first finger to support the breast
- Put her thumb above the areola helping to shape the breast
- Not keep her fingers near the nipple

Assess if the infant is sucking and swallowing effectively

Effective sucking	Ineffective sucking
Infant takes several slow deep sucks followed by swallowing, and then pauses.	Infant suckles for a short time but tires out and is unable to continue for long enough.



Good attachment



Poor attachment

Showing the mother how to help the baby to attach

Ask the mother to:

- Express a little on to her nipple
- Touch the baby's lips with her nipple
- Wait until the baby's mouth is wide open, and the tongue is down and forward
- Move the child quickly onto her breast, aiming the nipple towards the baby's palate and his/her lower lip well below the nipple

Look for signs of good attachment

The four key signs of good attachment are:

- More areola is visible above the baby's mouth than below it
- Baby's mouth is wide open
- Baby lower lip is turned outwards
- Baby's chin is touching the breast
- No pain while breastfeeding

If the attachment or suckling is not good, try again. If still not suckling effectively, ask the mother to express breast milk and feed with a cup and spoon in the clinic. If able to take with a cup and spoon advise mother to keep breastfeeding the young infant and at the end of each feed express breast milk in a cup and feed with a paladai/ spoon. If not able to feed with a paladai/ spoon, refer to hospital.



Annexure 3- Preparation of ORS using an ORS packet

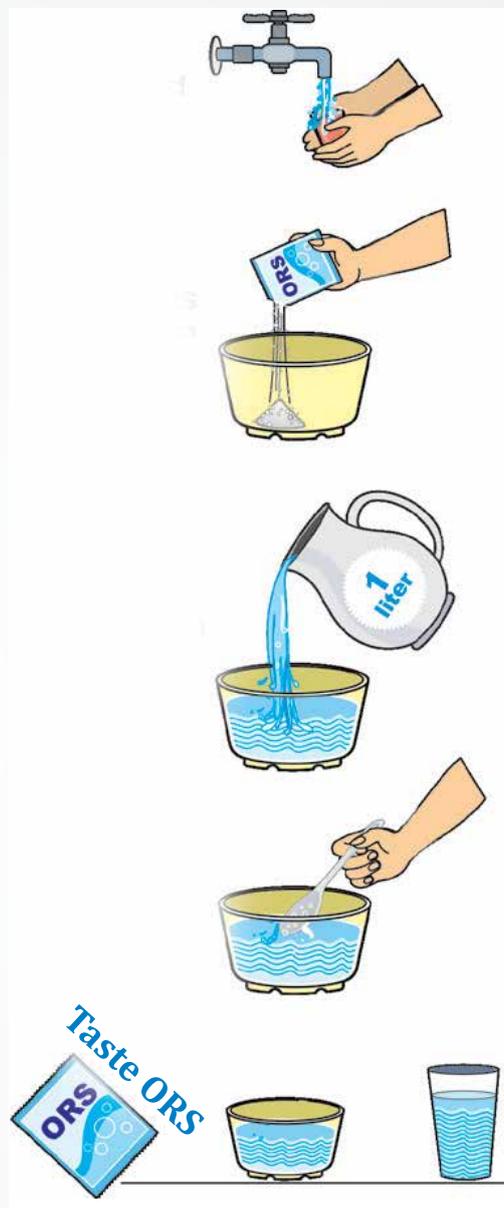
(Refer: IDCF toolkit for details)

Steps involved in teaching the mother/caregiver on preparation of ORS

1. Wash your hands thoroughly with soap and water.
2. Pour the entire content of one packet of ORS powder into a clean container (a mixing bowl or jar) for mixing the ORS. The container should be large enough to hold at least 1 litre.
3. Measure 1 litre of clean drinking water. Use the cleanest drinking water. Use the common containers available at home to measure 1 litre of water.
4. Pour the water into the container in which you poured ORS. (If you have ORS packets for 1/2 (half) litre of water then take 1/2 litre water.)
5. Mix well until all the powder in the container has been mixed with water and none remains at the bottom of the container.
6. Taste ORS solution before giving it to the child. It should taste like tears, neither too sweet nor too salty. If it tastes too sweet or too salty then throw away the solution and prepare ORS solution again.
7. The container of ORS solution should be kept covered. Any ORS solution which is left over after 24 hours should be thrown away.

Remember

- Ask the mother/caregiver to give one teaspoon of the solution to the child. This should be repeated every 1-2 minutes (an older child who can drink it in sips should be given one sip every 1-2 minutes).
- In case of a diarrhoeal or a vomit episode during ORS administration, the child, the mother/caregiver and the area should be thoroughly cleaned. Wait for 10 minutes.
- After washing hands again with soap and water, the mother/caregiver should administer ORS slower than before. Breastfed babies should be continued to be given breast milk in between ORS.



Annexure 4 - Zinc Supplementation for 14 days for a child having diarrhoea (Refer: IDCF toolkit for details)

Zinc is an important part of the treatment of diarrhoea. It helps in overall growth and development and supports in proper functioning of the immune system. Zinc helps to lessen the amount of fluid lost during diarrhoea so that the diarrhoea is less severe. Zinc for 14 days shortens the number of days of diarrhoea. It increases the child's appetite and makes the child stronger. Zinc also helps prevent diarrhoea in the future.

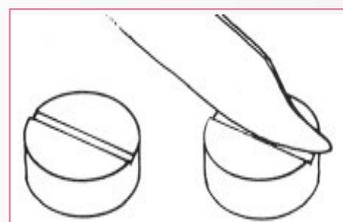
For these reasons, we give zinc to children with diarrhoea. Zinc is only given to children between 2 months to 5 years, for 14 days. The mother/caregiver will need to be taught (explained below) the right way to administer zinc tablets at home for a child suffering from diarrhoea (with no dehydration).

Provide the mother/caregiver with 14 tablets for the 14 days. One zinc tablet in the blister pack contains 20 mg of zinc. Before you give a child, the zinc supplement, check the expiration date on the package. Do not use a zinc supplement that has expired.

Help the mother/caregiver give the first dose of zinc to the child by demonstrating the steps on giving the zinc tablet to the child.

1. If zinc is to be administered to children 2-6 months age

- Half tablet (i.e., 10 mg) is to be given. Help the caregiver cut it into two parts. Discard the remaining half tablet.
- Take a clean teaspoon.
- Request the mother to express milk from her breast into the spoon and then add the half tablet.



2. If zinc is to be administered to children from 6 months to 5 years of age, the dose is full tablet (20 mg).

- Take a clean teaspoon, place one tablet in the spoon.
- Pour potable clean drinking water or expressed breast milk carefully on the tablet taking care that the milk/water does not reach the brim of the spoon.
- The tablet will dissolve in milk or water. Shake the spoon slowly till the tablet dissolves completely. Do not use fingertip or any material to dissolve the tablet.
- The mother/caregiver does not need to crush the tablet before giving it to the child.
- Now, help the mother/caregiver give child the first dose of zinc. Tell the mother/caregiver to hold the child comfortably and ask her to feed the solution to the child.
- The child might spit out the zinc solution. If so, then use the spoon to gather the zinc solution and gently feed it to the child again. If this is not possible and the child has not swallowed the solution, give the child another dose.



- g) If there is any powder remaining in the spoon, let the child lick or add little more breast milk or water to dissolve it and then ask the mother/caregiver to give it again.
- h) Counsel the mother/caregiver to administer zinc once a day for 14 days to children of all ages (2 months to 5 years of age).
- i) Give the caregiver enough zinc for 14 days. Explain how much zinc to give, once a day. Emphasise that it is important to give the zinc for the full 14 days, even if the diarrhoea stops. This will help her child have less diarrhoea in the months to come. The child will have a better appetite and will become stronger.
- j) Advise the mother/caregiver to keep all medicines out of reach of children. She should also store the medicines in a clean, dry place, free of mice and insects.



Annexure 5- Counselling regarding safe WASH practices

Ensure that the family is counselled regarding safe WASH practices as listed in the table below.

Drinking water	Sanitation	Hygiene	Hand-washing
<div data-bbox="204 338 438 465" data-label="Image"> </div> <ul style="list-style-type: none"> • Store drinking water and food items in clean utensils on raised platform, in a covered container. <div data-bbox="199 757 438 884" data-label="Image"> </div> • Ensure drinking water is clean. Drinking water can be made safe by boiling (especially in case of repeated infections), adding chlorine tablets, using water filter (if possible) and keeping it covered. <div data-bbox="359 1288 470 1451" data-label="Image"> </div> • Drinking water to be drawn by ladle/ utensil with a handle designated just for drawing out water. Families can also use water pots which have attached taps, wherever available. <div data-bbox="252 1854 406 2063" data-label="Image"> </div> 	<div data-bbox="523 338 758 465" data-label="Image"> </div> <ul style="list-style-type: none"> • Encourage households to build their own toilet. • Promote use of toilets in the house by all household members, including children. • Promote use of community toilets where household toilets are not present. • Encourage families not to practice open defaecation. • Practice safe disposal of faeces. Keep human and animal faeces away from water sources. • Household waste should be regularly thrown or dumped only in the dustbins or places designated for garbage collection. • Inform family members that ward members of municipal corporation (parshad)/gram panchayat members should be contacted on issues related to garbage collection in their areas. 	<div data-bbox="842 338 1077 465" data-label="Image"> </div> <ul style="list-style-type: none"> • Ensure that the child's surroundings are hygienic. • Encourage personal hygiene of all family members including children- daily bathing, daily changing of clothes and daily brushing of teeth. • Washing food items before cooking and washing fruits and vegetables before cutting. 	<div data-bbox="1161 338 1396 465" data-label="Image"> </div> <p>Promote hand-washing frequently with soap and clean water for all family members, including children. Wash both hands of children, frequently. Tell family members to wash their hands whenever they do the following:</p> <p>Most Critical-</p> <ul style="list-style-type: none"> • Before eating food or feeding children <div data-bbox="1189 1124 1364 1317" data-label="Image"> </div> • After using the toilet <div data-bbox="1181 1393 1369 1608" data-label="Image"> </div> • After cleaning children- child has passed urine or stool <div data-bbox="1184 1796 1369 1989" data-label="Image"> </div>

 Drinking water	 Sanitation	 Hygiene	 Hand-washing
			<ul style="list-style-type: none"> • After quick and safe disposal of child’s faeces <p>Essential-</p> <ul style="list-style-type: none"> • When hands are dirty • Before preparing and serving food  <ul style="list-style-type: none"> • Before picking up a child • Before attending to a child or sick person • After preparing and eating food • After coughing or sneezing, or being in contact with someone who is ill • After wiping or blowing nose • After being in contact with animals, animal feed and animal waste • After outdoor activities • After touching garbage waste 

Annexure 6- Method of administration of Iron and Folic Acid (IFA) syrup

ASHA will demonstrate to the mothers/caregivers to provide IFA syrup through the auto- dispenser bottle.

Steps involved in teaching the mother/caregiver in giving IFA syrup:

1. The cap/auto-dispenser/dropper provided with the IFA syrup bottle should be filled up to the mark of 1 ml and the content is to be given to the child twice a week. The IFA syrup bottles have an auto-dispenser so that only 1 ml of syrup will be dispensed at a time (the required dosage for children).
2. Fix two days for giving the IFA dose so that mother/caregiver can remember the days. For e.g., Wednesday and Saturday of each week (as mentioned in the MCP card).
3. A child should be given 1 ml of IFA syrup at least one hour after consumption of food (breastmilk/semisolid food/solid food). Do **NOT** give IFA with milk since milk hinders the absorption of iron in the body.
4. Child **should not** be given IFA on an empty stomach.
5. Child must be held in the mother's/caregiver's lap. Encourage the child to open the mouth. If the child does not open the mouth, press the cheeks gently together to open the mouth.
6. Shake the IFA syrup bottle well before use. Ensure that the mother/caregiver measures the dose correctly.
7. Explain the mother/caregiver that the entire dose of IFA syrup should be administered into the child's mouth and watch the child swallow the entire dose.
8. Teach the mother/caregiver to mark a tick (✓) in the compliance card as given in the MCP card after giving the dose for the month-wise bi-weekly IFA syrup supplementation.
9. Inform the mother/caregiver that the child may have black stools after IFA and this is normal.
10. Teach regarding preservation of IFA bottle – in a cool and dark place, away from reach of children, keeping the lid of the bottle tightly closed each time after administration, etc.
11. Inform them to immediately contact you/MPW/ASHA in case of any problem after consumption of IFA syrup by the child.
12. Inform them to contact either ASHA/MPW for a new IFA syrup bottle when the earlier syrup bottle finishes.
13. If child has high fever, inform the mother/caregiver to omit/skip the dose on that day and continue with subsequent doses.



IFA SUPPLEMENT

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Namaste!

You are a valuable member of the Ayushman Bharat – Health and Wellness Centre (AB-HWC) team committed to delivering quality comprehensive primary healthcare services to the people of the country.

To reach out to community members about the services at AB-HWCs, do connect to the following social media handles:

-  <https://instagram.com/ayushmanhwcs>
-  <https://twitter.com/AyushmanHWCs>
-  <https://www.facebook.com/AyushmanHWCs>
-  https://www.youtube.com/c/NHSRC_MoHFW



National Health Systems Resource Centre