

CHAPTER 4.

AROGYAKERALAM & ASHA'S ROLE IN MOTHER-CHILD HEALTH

Keralites were proud of its achievements in health sector until a few years ago. With a low GDP expenditure on health, Kerala could achieve the best health standards in the country and to an extent these standards were akin to some of the developed countries in the West. Health planners called it the “Kerala Model” which was lauded all over. The Nobel laureate Amritya Sen however had a different say on this matter. He said that a low GDP expenditure on health cannot be called a model which can be emulated by others. He was of the opinion that at the most, one may call it the “Kerala phenomenon” (Varghese Thomas, 2011).

According to the Economic Review 2010, however, the very success of Kerala in providing literacy and health care has brought with it certain disturbing elements, what is referred to as “second generation” problems, especially in the area of health. It calls for urgent government intervention. Not only did the birth rate and infant mortality rate come down, there was also an increase in longevity. Consequently, the age composition of the population has been changing significantly in favour of the older age groups which places additional demands on the health sector. Moreover, the rapidly increasing prevalence of non-communicable and communicable diseases associated with lifestyle changes, aging and environment (owing to problems of community hygiene, pollution and inadequate waste management), is emerging as a major threat for which massive awareness creation is needed with adequate facilities for treatment.

Kerala holds a unique position in the tribal map of India. Most of the tribes of Kerala state belong to the famous family group of Dravidians; they have got similar traits and body stature. Tribals in Kerala commonly called as “Adivasis” are the indigenous population found in dense forest and mountains of Western Ghats mainly bordering the states of Karnataka and Tamil Nadu. The 2011 Census report records the overall tribal population in the state as 4, 84,839, against 3, 64,189 in 2001, putting the decadal growth rate at 0.36 per cent. The tribal communities of Kerala not only differ from the non-tribals but also from one another. But they have some uniform characteristics. Some of the main characteristics common to all Scheduled Tribes in the State: (a) Tribal

origin (b) primitive way of life (c) general backwardness in all respects. Every district in Kerala has some tribal population. Highest concentration of Scheduled Tribes is seen in Wayanad district (37.36 %) followed by Idukki (14 %) and Palakkad (10.8 %) (the District wise list of ST population is presented in Annexure 5). These districts are having 80% of the tribal population in Kerala. However, the main tribal communities are in the taluks of North Wayanad, South Wayanad, Mannerghat, Devikulam and Thodupuzha. In Kerala, adivasis constitute 1.1 percent to total population. The adivasis in Kerala are not only geographically concentrated, but are overwhelmingly rural. Children constitute about 14 % of total adivasi population (Nithya, 2014). Health is one of the serious problems among all tribal communities. Various measures are taken for timely medical attention to Scheduled Tribes. Since the tribal settlements are situated far away from hospitals and health centres; the STs are not able to make use of available medical facilities.

Table 4.1

The deprivation and rank of SC/ST in terms of 4 basic index; 1) Housing quality 2) Access to drinking water 3) Good Sanitation and 4) Electricity for lighting, in the districts of Kerala

Sl. No.	District	SC	Rank	ST	Rank	All	Rank
1	Kasargod	62.7	14	61.3	11	37.6	10
2	Kannur	43.8	5	57.7	9	29.7	7
3	Wayanad	51.5	11	66.0	14	46.3	14
4	Kozhikkode	48.8	9	50.9	6	28.3	4
5	Malappuram	46.2	7	56.8	8	28.6	5
6	Palakkad	52.9	12	65.3	12	40.4	12
7	Thrissur	42.0	3	37.5	2	24.7	2
8	Ernakulam	29.3	1	37.2	1	15.5	1
9	Iduki	40.8	2	65.3	13	42.7	13
10	Kottayam	42.1	4	43.1	4	25.1	3
11	Alappuzha	45.9	6	40.1	3	29.6	6

12	Pathanamthitta	50.3	10	54.6	7	31.1	9
13	Kollam	47.8	8	50.7	5	30.4	8
14	Thiruvananthapuram	54.4	13	60.1	10	39.5	11
Total		45.5		57.9		29.5	

(Source: Human Development Report, 2005 Kerala)

Anaemia is the late manifestation of deficiency of nutrient(s) needed for haemoglobin synthesis. Most of the anaemias are due to inadequate supply of nutrients like iron, folic acid and vitamin B12, proteins, amino acids, vitamins A, C, and other vitamins of B-complex group i.e., niacin and pantothenic acid are also involved in the maintenance of haemoglobin level. In India, anaemia affects an estimated 50 per cent of the population. In women, anaemia may become the underlying cause of maternal mortality and perinatal mortality. Anaemia also results in an increased risk of premature delivery and low birth weights. Iron deficiency in late pregnancy results in poor foetal iron stores. Latent iron deficiency is known to alter brain iron content and neurotransmitters irreversibly in foetal life and postnatal babies.

A total of 84 per cent pregnant and 92.2 per cent lactating women were anaemic with severe anaemia in 9.2 and 7.3 per cent respectively; 39.2 and 27.3 per cent in Madhya Pradesh, 14.4 and 8.6 per cent in Assam and 8.5 and 13.4 per cent in Haryana had severe anaemia in pregnancy and lactation, respectively. Prevalence as well as severity (moderate to severe) of anaemia was more as compared to the NFHS 2 study data. In Himachal Pradesh severe anaemia was not observed in the present study as compared to 0.7 and 1 per cent in pregnant and lactating women in NFHS study. Around 51 per cent women in pregnancy and lactation had moderate degree of anaemia (Hb 7.0-9.9 g/dl).

In Kerala 57.8 per cent pregnant women were anaemic with 2.9 per cent having severe anaemia (K.N. Agarwal et.al, 2006). Worldwide, 15.5 per cent of all births, more than 20 million, are born as low birth weight (LBW) babies. More than 95 per cent of these LBW babies are born in developing countries. India alone accounts for 40 per cent of the incidence of LBW babies in the developing world. LBW is the key determinant of neonatal mortality, morbidity, subsequent growth and developmental

retardation and also early onset of adulthood diseases. However, it represents two groups, preterm LBW and term LBW. Nutritional reserve especially micronutrient stores are considered to be low in LBW babies at birth. The extent of this deficiency in preterm and term LBW babies is likely to be different. Objective data in this regard from developing countries like India are scanty. Current recommendations for nutritional and micronutrient supplementation and complementary feeding for LBW babies need to be modified based on the differences between these two groups(K.E. Elizabeth, Viji Krishnan & T. Vijayakumar, 2008).

When carbohydrate foods are eaten, these sweet or starchy foods are broken down by the body into glucose and released into the blood. When the glucose levels in the blood increase the body releases an increased amount of insulin. This insulin helps move the glucose out of the blood and into the body's cells where it can be used for energy. With the hormone changes during pregnancy, sometimes insulin does not act as it should to keep blood glucose levels in a normal range and they increase. If not treated, these high blood glucose levels in pregnancy can cause problems such as a large baby, early delivery, distress for the baby during birth and/or low blood glucose levels in the baby at birth. Gestational diabetes is usually managed by following a healthy well-balanced eating plan taking into consideration the carbohydrate intake and physical activity. If women are unable to manage their gestational diabetes with diet and activity alone, sometimes medication or insulin is needed. Ongoing, regular contact with diabetes educators, dietitians, specialists and attendance at antenatal clinics during pregnancy is important (Diabetes in Pregnancy Innovation Project and the Nutrition Education Materials Online Project, Queensland, October 2008.).

Poor health has repercussions not only for women but also their families. Women with poor health and nutrition are more likely to give birth to low weight infants. They are also less likely to be able to provide food and adequate care for their children. Finally, a women's health affects the household economic wellbeing, and as a women with poor health will be less productive in the labour force. While malnutrition is prevalent among all segments of the population, poor nutrition among women begins infancy and continues throughout their lifetime. (Chatterjee 1990; Desai 1994). Because of

prevailing culture and traditional practices in India, the health and nutritional status of women becoming worse effected (K. Mallikharjuna Rao et.al., 2010). During normal pregnancy there are considerable changes in blood pressure. Within the first weeks the woman's blood pressure falls, largely due to a general relaxation of muscles within the blood vessels (de Swiet 2002). Cardiac output also increases. From around the middle of pregnancy blood pressure slowly rises again until, at term, blood pressure is close to the level it was before pregnancy. Blood pressure during pregnancy can be influenced by many other factors including, time of day, physical activity, position and anxiety. Modest rises in blood pressure alone may have little effect on the outcome of pregnancy, but high blood pressure is often associated with other complications. Of these, the most common is pre-eclampsia. This is a multisystem disorder of pregnancy which commonly presents with raised blood pressure and proteinuria (Roberts 2009), and occurs in between two to eight per cent of pregnancies (WHO 1988). Although the outcome for most of these pregnancies is good, women with pre-eclampsia have an increased risk of developing serious problems, such as kidney failure, liver failure, abnormalities of the clotting system, stroke, premature delivery (birth before 37 completed weeks), still birth or death of the baby in the first few weeks of life (Tuffnell 2006). In view of the many factors that can influence blood pressure, it is not surprising that there is often uncertainty about whether a specific abnormal measurement is potentially harmful for that woman. Once blood pressure rises above a certain level, however, there is a risk of direct damage to the blood vessel wall, regardless of what caused the rise. This risk is not specific to pregnancy, as it is similar for non-pregnant people with very high blood pressure. The level at which this risk merits mandatory antihypertensive therapy is usually considered to be 170 mm Hg systolic blood pressure or 110 mmHg diastolic (Tuffnell 2006). If the woman has signs and symptoms associated with severe pre-eclampsia (such as hyperreflexia, severe headache, sudden onset of epigastric pain, or lowered platelets) a lower threshold for treatment may be recommended (Duley L, Meher S & Jones L, 2013).

The ASHA workers are undergoing a series of training episodes to acquire the necessary knowledge, skills and the confidence for performing their spelled out roles. They can educate and support new mothers on the early establishment of

breastfeeding, the feeding of colostrum and the recognition of breast feeding problems. ASHA work includes health and nutrition education on various aspects of the health of a mother and her child (Sushama S. Thakre et.al, 2012). India has been instrumental in devising new policies and programmes regularly as a response to unfavorable health outcomes, particularly in areas of maternal and child health care. However, despite the ambitious work-plan of several national level programmatic efforts such as the National Population Policy (2000), the National Health Policy (2002), and the National Rural Health Mission (2005), the progress in reducing maternal and child mortality is not satisfactory. Although a few regions or states of the country have shown considerable improvements and are on track to achieve the fourth and fifth MDG targets, the progress has been uneven and inequitable at several social, economic, and regional fronts (Prashant Kumar Singh, Rajesh Kumar Rai and Chandan Kumar, 2013).

Mother- Child Health (MCH) under RCH-II and the role of ASHA

Promotion of maternal and child health has been one of the most important objectives of the Family Welfare programmes in India. The Reproductive and Child Health programme (RCH) Phase-I was launched in October 1997. The RCH programme incorporates the components covered under the Child Survival and Safe Motherhood (CSSM) Programme and includes an additional component relating to reproductive tract infection and Sexually Transmitted infections.

Haemorrhages, Puerperal complications, Obstructed Labour, Abortions, Toxaemia of Pregnancy & Anaemia are the major reasons for the maternal mortality (NRHM document 2005). The Maternal Health Programme which was implemented as a component of RCH programme was based on provision of essential and emergency obstetric care for preventing deaths due to the above cause of deaths.

The RCH-II was started on 1st April 2005. The focus of the programme was to reduce the Maternal Mortality & Morbidity with emphasis on rural healthcare. Under RCH-II, it was envisaged that 50% of the PHCs and all the CHCs would be made operational as 24 hours delivery centres, in a phased manner, by 2010. These centres would be responsible for providing Basic Emergency Obstetric Care and Essential

Newborn Care & Basic Newborn Resuscitation Services round the clock. Besides this all the FRUs will also be made operational for providing Emergency Obstetric Care by the end of RCH-II. The major strategies under the second phase of RCH were:

- Essential Obstetric Care
 - i. Institutional Delivery
 - ii. Skilled attendance at delivery
 - Emergency Obstetric Care
 - i. Operationalising First Referral Units
 - ii. Operationalising PHCs & CHCs for round the clock delivery services
 - Strengthening referral system
- Mother-Child Health (MCH) Indicators:

I. Maternal Health

- Antenatal care
- Intra-natal care
- Postnatal care
- Janani Suraksha Yojana (JSY)
- Nutrition counselling and referral

II. Child health

- Essential newborn care
- Immunization
- Vitamin A
- Nutrition Counselling and referral.

(Reading material for ASHA, Book No.5, 6 & 7, NFHS-II, State wise progress under NRHM-status as on 30.09.2013)

Antenatal (ANC) Care

Diagnosis of pregnancy should be done as early as possible after the first missed period. When pregnancy is diagnosed, the ASHA has to help the pregnant women in

calculating the probable date when she is likely to deliver. Four antenatal visits must be ensured, including registration within the first three month period.

The essential components of antenatal care are;-

- Early registration
- Regular weigh check
- Blood test for anaemia
- Urine test for protein & sugar
- Measure blood pressure
- One tablet of IFA every day for three months to prevent anaemia
- Treatment for anaemia
- Two doses of Tetanus Toxoid (TT) Vaccine
- Nutrition counselling
- Preparing for birth

ANC provided by a doctor, an ANM or other health professional comprises of physical checks, checking the position and the growth of foetus and giving TT injection at periodic intervals during the time of pregnancy. At least three check-ups are expected to complete the course of ANC to safeguard women from pregnancy related complications(DLHS-3,Kerala 2007-08).Tetanus is an important cause of death among neonates in India. Neonatal tetanus is caused by infection of the newborn (usually at the umbilical stump) with tetanus organisms. Neonatal tetanus is most common when the delivery takes place in an unhygienic environment and non-sterilized instruments are used for cutting the umbilical cord. Neonatal tetanus is preventable with the two doses of tetanus toxoid vaccines given to the pregnant woman. The first dose at 16-20 weeks and the second dose at 20-24 weeks of pregnancy should be given. For a woman who has been immunized earlier, one booster dose will be sufficient. This will provide necessary cover during the next 5 years.

In India, anaemia among women is very common. The chances of a mother having a delivery before term, or even dying are higher among mothers with severe anaemia. Anaemia can be detected by a simple blood test during ANC. In order to make

sure that all women have good iron stores, all pregnant women should be given iron tablets, even if they are not anaemic. The provision of iron and folic acid tablets as a prophylactic against nutritional anaemia among pregnant women. It is recommended that a pregnant woman have to take 100 tablets of Iron and Folic Acid during her pregnancy. (Mohanachandran Nair, Anil Chandran, Sabu, 2000).

The ASHA can encourage the expectant mother to take iron-rich foods such as green leafy vegetables, whole pulses, ragi, jiggery, meat and liver. This advice should be discussed with family and finalized based on the family situation. ASHA has to encourage the women, where possible, to take plenty of fruits and vegetables containing Vitamin C (such as mango, guava, orange and sweet lime) as these enhance the absorption of iron. ASHA has to counsel the women on the necessity of taking IFA, the dangers associated with anaemia.

Ideally, the expectant mother should visit the antenatal clinic as soon as possible. A woman should have at least three antenatal checkups during the pregnancy. In case of any problem, more checks may be required. The first check-up should be prior to the third month of pregnancy. As far as possible, the second check-up should be during the seventh month of pregnancy. The third check-up should essentially be during the ninth month.

The nearest place for ANC services for a woman is at the AWC during the monthly Village Health Nutrition Day. The pregnant woman could also go to the Sub-Centre where the ANM will provide ANC services. ANC services are also provided at the PHC or Community Health Centre or district hospital.

Birth preparedness for a safe delivery with the help of ASHA: ASHA should help the pregnant mother and her family for a safe and comfortable delivery. Steps of Birth preparedness;-

1. If there is any danger signs or complications; identify the nearest institution (CHC/District Hospital) which has the staff and equipment to provide Comprehensive Emergency Obstetric and Newborn Care (CEmONC) and counsel the mother and family to go there.

2. If there are no complications; ASHA has to counsel the mother to go to the PHC which is open 24 X 7, where there is a team of doctors and nurses or ANMs to conduct the delivery and provide care for the mother and newborn. These institutions can manage some complications requiring surgery or blood transfusion develop.
3. If there are no complications and mother and her family are reluctant or unable to go to the 24 X 7 PHC or if it is too far away, ASHA has to advise the mother could go to the Sub-Centre, provided it is accredited as a delivery centre, which means the ANM has been trained as a Skilled Birth Attendant (SBA) and is available and there are minimum facilities for delivery.
4. If there are no complications or not a high risk case for developing complications and the mother and family insist on delivering at home, despite counseling; ASHA could work with the ANM to enable a delivery by SBA. This should be agreed to only if ASHA is sure that the family can organize transport and funds at very short notice. The SBA should be able to arrive within 30 minutes of the onset of labour at home/ Sub-Centre and should be able to stay through the process of labour and for a few hours afterwards. A team of two or three women with experience in attending at labour would be helpful.

A major component of antenatal or prenatal care is prenatal advice especially on diet, personal hygiene, immunization, dangerous symptoms etc. Healthy well-nourished expectant mothers put on 10 to 12 kg of weight during pregnancy. Scientists recommended that a pregnant woman needs to have daily 300 kcals of energy and 15 g of protein over and above the normal requirement for the proper growth of the foetus (K.Park, 2004). The mother should be given clear-cut instructions on the dangerous symptoms. They are; - (a) Bleeding during pregnancy, excessive bleeding during delivery or after delivery (b) Severe Anaemia with or without breathlessness (c) High fever during pregnancy or within one month of delivery (d) Convulsions or fits, blurring of vision, headaches, vomiting, sudden swelling of feet (e) Labour pain for more than 12 hours (f) Bursting of water bag without labour pains (*Mathru-Sisu Samrakshana Card, Arogyakeralam*)

Intra-natal or Delivery Care.

Intra-natal or natal care is care of the mother at the time of delivery. It begins with the onset of labour and ends with the 3rd stage of labour. The aims of intra-natal care to ensure that

- a. The mother receives the best available care during labour; and
- b. To prevent maternal and child mortality and morbidity.(K.Park,2004)

ASHA has to advice expectant mothers to undergo institutional delivery. She will advise the expectant mothers to inform her immediately when pain, bleeding or leaking starts. She has to accompany with the expectant mother to the hospital and to stay with the mother until delivery occurs. She has to record the time of birth in Hours, Minutes and Seconds, using a wrist watch and also the pregnancy outcomes as live birth, abortion, still birth or newborn death. ASHA should be alert if injections are being given to hasten the delivery process. Such injections can cause a baby who is still born, birth of a baby who is unable to breathe, or even cause the death of the newborn. When the mother and baby stay in a hospital and if ASHA is staying with them as a birth companion, she should ensure that the mother and baby are seen by the Medical Officer and nurse at least twice a day and whenever required if there are problems. After the delivery takes place in an institutional set-up, ASHA has to help mothers in getting Janani Suraksha Yojana incentives at the time of discharge. ASHA has to advice mothers to start breast feeding immediately after the baby is born and also to take nutritious diet.

Post-natal or Post-partum Care

Post-partum care is the period after delivery of the placenta up to six weeks after birth. ASHA has to conduct home visits and take care from the time of birth to six weeks after the delivery. The recommendation for postnatal care is to visit on the 3rd day after delivery, on the 7th day and at the end of six weeks, i.e. on the 42nd day. For the newborn, the recommendation is to visit on the 3rd day, 7th day, 14th day, 21st day and 28th day. After this period, visits are still needed once in two weeks till the child is two

years old for nutrition advice, immunization advice, and support for breastfeeding and complementary feeding, for illness prevention and just to remain in touch.

ASHA has to advise mothers on signs of complications and ensure appropriate referral. She has to encourage the mother to rest for at least six weeks after child birth and the families should be counselled to allow this. ASHA has to encourage the mother to eat more food than usual and it should be high protein foods such as pulses and legumes, foods of animal source and she should also drink plenty of fluids and also to encourage the mother for exclusive breast feeding.

Complications during the Post-Partum period: some women can develop complications after the child birth.

Table 4.2.

Major Complications during Post-Partum Period and the Role of ASHAs.

Sl. No.	Major Complications	ASHA's Role
1.	Excessive bleeding	ASHA should immediately refer her to an institution which manage complications.
2.	Puerperal Sepsis (Infection)	If the discharge is foul smelling, it suspect infection. Fever, chills and pain in abdomen along with the foul smell make infections even more likely. ASHA should refer her to the institution.
3.	Convulsions with or without swelling of face and hands, severe headache, and blurred vision	Such patients need immediate referral.
4.	Anaemia	ASHA should check if the

		mother is pale and enable the mother to get her blood Hb status checked.
5.	Breast engorgement and infection	The causes can be the delayed initiation of breast feeding, poor attachment, incomplete emptying of breasts, restricting the length of the feeds. ASHA can explain the mother that how to deal with the complication.
6.	Perennial swelling and infection	If the mother has a small tear at the opening of her vagina (or has had stitches during the delivery), she should keep the area clean. If there is fever, she should be referral to the PHC or CHC
7.	post-partum mood changes	Some women may suffer from mood changes after delivery. They need counselling and family support. The changes usually disappear after a week or so. If the changes become severe then referral is required.

Source: Navjaat Shishu Suraksha Karyakram-NRHM, MoH&FW

Essential New Born Care

ASHA has to observe and assist during the immediate newborn period in case she is present at the time of delivery. She has to observe the baby during the first hour, during the first two days and during the first month to take care of the newborn, support and help the mother to breastfeed, and to keep the baby warm. The four basic needs of all babies at the time of birth (and for the first few weeks of life) are: i. Warmth ii. Normal breathing iii. Mother's milk iv. Protection from infection. In case of home delivery, when mild labour pain start, ASHA can manage asphyxiated babies by removing mucus and can initiate respiration with the help of the instruments which ASHA have.

As these basic needs indicate, a baby's survival is totally dependent upon her mother and other caregivers. Therefore it is important to provide proper care to all the neonates immediately after birth and it will help in quick delivery of placenta and minimizes bleeding. Starting to breast feed immediately after birth makes the baby stronger. Chances of the baby's death and getting sick are higher among the babies born pre-term and in LBW babies. Exclusive breastfeeding should be continued till 6 months of age. Advantages of breastfeeding: Exclusive breast fed babies are at decreased risk of i) Diarrhea ii) Pneumonia iii) Ear infection and iv) Death in first year of life (Navjaat Shishu Suraksha Karyakram-NRHM, MoH&FW)

ASHA should conduct home visits for the care of newborn. The newborn requires a visit immediately after birth (or within the first 24 hours) and on day 2, if the baby is born at home. If the baby is born at a facility, ASHA has to persuade and support the mother to stay for at least 48 hours, and therefore, the first two visits are taken care of in the institution. If the baby is born in a health facility (hospital), ASHA should visit the baby on days 3, 7, 14, 21, 28 and 42. If the baby is born at home, ASHA should visit the baby on days 1, 3, 7, 14, 21, 28 and 42 and additional visits are needed for newborn babies which are LBW, pre-term and are sick (*'Skills That Save Lives'*,(2008) NRHM, ASHA Module 6.)

If the baby is born at home, ASHA has to examine the newborn at birth. The steps for ASHA to take 'just after' the baby is born;-

- 1) Ask the mother about/ observe the fluid after the water's break.
- 2) If the fluid is yellow/green, as soon as the head is seen (even before delivery of complete child), clean the mouth of the baby with gauze piece.
- 3) As soon as the baby is born, ASHA has to note the time of birth and start counting time.
- 4) Observation of baby at birth or within the first 30 seconds and at 5 minutes after birth for movement of limbs, breathing and crying.
- 5) If there is no cry or a weak cry, if there is no breathing or weak breathing or gasping, this condition is called asphyxia. If the baby is asphyxiated, and there is no doctor or nurse, ASHA should try to help.
- 6) Provide normal care at birth
 - Dry the baby immediately after birth;- immediately after delivery, the newborn should be cleaned with a soft moist cloth and then the body and the head wiped dry with a soft dry cloth. The soft white substance with which the newborn is covered is actually protective and should not be rubbed off.
 - The baby should be kept close to mother's chest and abdomen
 - The baby should be wrapped in several layers of clothing/woolen clothing depends upon the season.
 - The room should be warm enough for an adult to feel uncomfortable. The room should be free from strong wind.
- 7) ASHA should weigh the newborn and decide whether the baby is normal or LBW.
- 8) ASHA has to determine whether the baby is pre-term or term.
- 9) ASHA has to measure newborn temperature.

ASHA should conduct the first examination within first 24 hours of delivery and to look for the following;

- Whether the baby has any abnormality such as curved limbs, jaundice, bump on head, cleft lip etc.

- ASHA has to observe that how the baby is suckling at the breast
- Whether the baby has loose limbs
- Listen to cry of the baby
- Provide care of eyes. If there is pus/ purulent discharge from eyes and no doctor or nurse available, ASHA has to apply tetracycline ointment.
- Keep umbilical cord dry and clean.

ASHA has to explain some general precautions that family should take;

- Bathing the baby: for a normal baby, if the family insists, the baby could be bathed after the second day. But in the case of LBW, ASHA must insist on their waiting for at least seven days. ASHA should explain that bathing the baby and leaving it wet may cause it to get cold and fall sick. Thus, it is better to wipe the baby with a warm wet cloth and dry the baby immediately
- Keep the baby away from people who are sick.
- The newborn baby should also not be taken to places where there are large gathering of people.

Immunization

A child is considered fully immunized, when he/she has received one dose of BCG, three doses of DPT and OPV each and one dose of measles by the age of 12 months. Immunisation increases the body's ability to fight diseases. Immunization prevents the child from developing seven fatal diseases. These diseases can cause death and disability in the children. Vaccines that are administered to prevent these diseases are;

BCG : Tuberculosis

Hepatitis B : Hepatitis B

OPV: Polio

DPT : Diphtheria, Pertussis (whooping cough) and Tetanus

Measles : Measles

Vitamin A;- Vitamin A supplements are given to protect the child against blindness due to Vitamin A deficiency. Vitamin A also reduces illness and deaths in children. Child should be given total five doses of Vitamin A drops starting from 9 months through 3 years of age, every six months.

Nutrition Counselling & referral (For Children)

Malnutrition increases chance to get sick and even death of children. Sick children need special attention. Families of all children especially children below two should be counselled on feeding the child so as to prevent malnutrition(‘*Skills That Save Lives*’,(2008) NRHM, ASHA Module 6.)

ASHA has to counsel families of children on important messages to prevent child malnutrition.

1. Exclusive Breastfeeding: till the age of six months, give only breastmilk; not even water should be added.
2. Complementary feeding: At the age of six months mother can give the child other foods also.

There are five things to remember about complementary feeding;

- i) Consistency;- the child has to be fed initially with semi-solid or mashed food and breast milk. But later the child can eat anything that the adults eat.
- ii) Quantity;- gradually increase the amount of such foods
- iii) Frequency;- the amount of complementary foods given should be equal to about half what the adult needs in terms of nutrients. But since the child’s stomach is small, this amount has to be distributed into four to five, even six feeds per day.
- iv) Density;- the food also has to be energy dense, low in volume, high in energy, therefore, add some oil or fats to the food. Family could add a spoon of it to every roti/every meal.
- v) Variety;- add protective foods- green leafy vegetables. Similarly meat, eggs, fish are liked by children and are very nutritive and protection.

3. Feeding during illness: give as much as the child will take; do not reduce the quantity of food.
4. Prevent illness: recurrent illness is a major cause of malnutrition. There are six important things to remember which could prevent illness;-a) hand washing before feeding child b) drinking water to be boiled c) full immunization of the child d) Vitamin A- to be given along with measles vaccine in the ninth month and then repeated once every six months till five years of age. This too reduces infections and night blindness. e) avoid persons with infections. F)preventing Malaria by allowing baby to sleep under an insecticide treated bed net
5. Access to health services makes for prompt treatment of illness.
6. Access to Anganwadi services; - the Anganwadi provides a food supplement for the child up to the age five. (*'Skills That Save Lives'*,(2008) NRHM, ASHA Module 6.)

Janani Suraksha Yojana (JSY) is a safe motherhood intervention under NRHM being implemented with the objective of reducing maternal and neo-natal mortality by promoting institutional delivery among pregnant women. All the pregnant women below poverty line, SC/ST household of Kerala, all 19 years and above up to 2 live births are the beneficiaries of ASHA. It is a conditional cash transfer scheme resulted in dramatic increases in institutional delivery. The JSY encourages women to make use of public health facilities for safe delivery by providing Rs. 1,400 to cover travel costs and other expenses in rural areas of low performing states. It also provides cash incentives to female community health workers for promoting safe care in pregnancy and facilitating access to institutional care. Quality of antenatal and postnatal care is also being strengthened, with the ASHA providing support for increasing utilization.

Important factors affecting access include:

- High out of pocket expenses on –
 - i)User charges for OPD, admissions, diagnostic tests, blood etc.
 - ii)Purchase of medicines and other consumables from the market
- Non availability of diet in most institutions
- Transport for travel to the health facility and back and between facilities in case of referrals

Table 4.3.**Cash Assistance for beneficiaries**

Sl. No.	Particulars	Incentives	TA	Total	Remarks
1	BPL/SC/ST mothers from Rural area who are declining Govt/Accredited PVt.Hospitals	Rs.700/-	Rs.300/-	Rs.1000/-	Incentive should be met from the head of JSY and TA should be from transportation. TA amount shall be paid in full to mother irrespective of the mode of traveling. Vouchers of vehicles are not needed for release of the money.
2	BPL/SC/ST mothers from Municipal/Corporation area delivering in Govt. Hospitals	Rs.600/-	Rs.300/-	Rs.900/-	-do-
3	Home delivery	Rs.500/-	Nil	Rs.500/-	

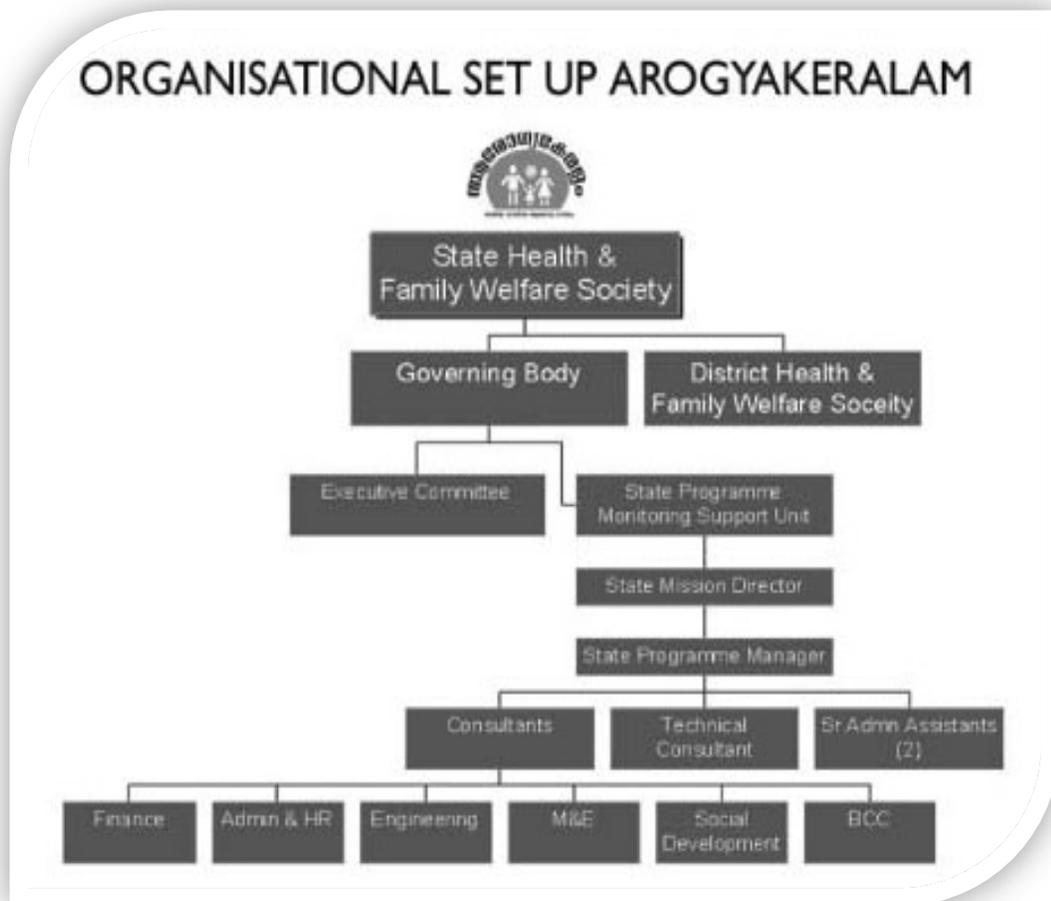
(Source: Circular- NRHM/SD/5058/2007/SPMSU, Dated: Thiruvananthapuram 03/06/2010)

Government of India have launched Janani–Shishu Suraksha Karyakram (JSSK), a new national initiative, to make available better health facilities for all women

and child. About 67,000 women in India die every year due to pregnancy related complications and about 9 lakhs newborn babies die within four weeks of birth of which about 7 lakhs i.e. 75 per cent die within the first week. The first 28 days of infancy period are therefore very important and critical in order to save newborn lives. Both maternal and infant deaths can be reduced by ensuring timely access to quality services, both essential & emergency, in public health facilities while assuring that they do not have to shoulder the burden of expenses.

The National Rural Health Mission (NRHM) is functioning in Kerala with the programmes flexible with the particular or unique health scenario of the state, known as 'Arogyakeralam'.

Chart 4.1.



(Source: www.nrhm.gov.in)

Table 4.4.**Number of ASHA**

Number of ASHA Required as per Rural population (As per 2011- census)	Number of ASHA engaged (At least trained in 1 st Module)	Shortfall	Target for 2013-14
32854	31829	1025	1025

Source: Kerala PIP 2013-14, NRHM.

The Programme Implementation Plan 2013-14 of Kerala states that there is only 31829 ASHAs engaged in at least 1st module training. There is a shortfall of 1025 ASHAs in the state.

Table 4.5.**Status of ASHA Training**

Sl. No	Cumulative Achievement (Since inception -till date)	Proposed numbers to be trained in 13-14
Module 1	31829	1025
Module 2	31104	1750
Module 3	30654	2200
Module 4	29079	3775
Module 5	27804	5050
Module 6 & 7 Round One	NA	31829
Module 6 & 7 Round Two	NA	NA
Module 6 & 7 Round Three	NA	NA
Module 6 & 7 Round Four	NA	NA

Source: Kerala PIP 2013-14, NRHM

All the ASHAs working in the state have completed the round one training of module 6 & 7. No ASHA is functioning in the field without undergone for training.

Table 4.6.

ASHA Drug Kits

Number of ASHA Engaged (Trained in Module-I)	31829
Number of ASHA with Drug Kits	23350
Number of ASHA with HBNC Kits	5056
No. of New Drug Kits Required	18499
No. of Drug kits to be Replenished	13330
No. of New HBNC Kits required	5056
No. of HBNC Kits to be Replenished	0

Source: Kerala PIP 2013-14, NRHM

The table shows that still there are ASHAs who have not received the Drug Kits and HBNC Kits.

Table 4.7.**Name of Drugs in Drug kit**

Sl. No.	Name of Drug	Strength	Unit	No of Units per kit
1	Tab Paracetamol I.P	500mg	10X10	10
2	Paracetamol Syrup I.P	125 mg/5ml	60ml	25
3	Tab Albendazole	400 mg	3X1	167
4	Tab Iron Folic (Adult)	Ferrous sulphate 100 mg+ folic acid 0.5mg	10X10	10
5	ORS Packet	Single dose sachet	Packet	500
6	Povidone Iodine Ointment	5%w/w	25gm tube	20
7	Povidone Iodine Lotion IP 5%	500ml	Bottle	1
8	Medicated (Antiseptic) Adhesive Bandage (Wash proof)	Strip size 19mmx 70mm	1 No	100
9	Absorbent cotton wool I.P	500gm Net	Packet	8
10	Digital Thermometer		1	1

Source: Kerala PIP 2013-14, NRHM

There are number of drugs in the Drug Kit and the ASHAs are given training to handle the medicines properly. ASHAs are supposed to distribute these medicines to their beneficiaries during house visit.

Table 4.8.**Incentives for ASHAs**

Sl. No	Incentive	Amount proposed per ASHA	Target Population	Total Amount Proposed
1	Incentive under JSY	Rs.600/- in Tribal and Rs. 200/- in rural and urban	1200000 in rural, urban and 9000 in tribal	Reflected in RCH flexi pool
2	Incentive under Maternal Health	200	31829	6365800/-
3	Incentive under Child Health			
	Incentive for HBNC activity	5056	250	1264000
	Incentive for Child Tracking	31829	500	15914500
4	Incentive under immunization programme	20 per cases for social mobilisation for immunisation programme. Incentive for full immunisation @ 100		Reflected in Immunization
5	Incentive under Family Planning			Included in the compensation package under Family Planning RCH Flexi pool

	Promotion of Copper T insertion	16000	120	320000
	Retention of Copper T for one year	48000	100	4800000
	Incentive for Vasectomy	200/- per case for 2500 cases		Included in the compensation package under Family Planning RCH Flexi pool
	Incentive for Tubectomy	` 150/- per case	50000	Included in the compensation package under Family Planning RCH Flexi pool
6	Incentive under DOTS Programme	` 250/- per case	5000	Reflected in RNTCP
7	Incentive under leprosy Programme	` 500/- for MB and ` 300/- for PB	MB 150 PB 100	Reflected in NLEP
8	Incentive for ASHA as part of CD out break response activities.	` 210/- for 10532 numbers of ASHAs for four campaign		8847000/-
9	Incentive	` 175/- per case	25000	Reflected in

	under Cataract Surgery			NPCB
	Anticipated incentive under Disease Control	`250000/- per district		Reflected under respective DCP
10	Ward Health Nutrition Day	` 100/- Ward Health Nutrition Day		Reflected under RCH @ Rs.100/-
11	Incentive for Family Planning			
12	Monthly Review Meeting	2400	31829	76389600
13	Palliative Care	2400	4132	9916800
14	NCD	1800	31829	57292200
15	Incentive to ASHA as part of CD outbreak response activity	840	10532	8846880
16	Special incentive for ASHAs working in Tribal Area	3600	1727	6217200

Source: Kerala PIP 2013-14, NRHM

ASHAs are getting incentives based on their performance. The determined amount will be dispersed to ASHAs based on each activity.

Table 4.9.

Other Support Provisions for ASHA

Sl No	Incentive	Quantity/Target	Unit Cost (Rs)	Total Amount Proposed
1	Uniform	31829	1000	31829000
2	Diary for ASHA workers	31829	200	6365800
3	ASHA Sammelan	31829	1000	31829000
4	ASHA Redressal Mechanism	14	25000	350000
5	Awards to ASHAs/ Link workers	1	1568277	1568277

Source: Kerala PIP 2013-14, NRHM

Awards are also given to ASHAs to encourage them.

Threats

Neo-liberalism is a label for economic liberalism. It supports free trade and open markets, privatization, deregulation and decreasing the size of the public sector and cut backing social programmes. The important aspects of the present health scenario in Kerala are:

- The privatization of medical care
- Over hospitalization
- Over administration of medicines
- Escalation of health care cost

- Marginalization of the poor
- Large number of ill-qualified doctors
- Decline in professional ethics in the health sector
- Increase in medicine's price
- Lack of political commitment
- Bureaucratic inefficiency
- Corruption
- Lack of proper planning.

Kerala has the country's highest caesarians rate of 30.5% which is not just three times the national average but also higher than the World Health Organization's recommended rate (15 percent) (Nithya , 2013).

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