



# **BARRIERS TO UTILIZATION OF MATERNAL AND CHILD HEALTH CARE SERVICES IN ARUNACHAL PRADESH, INDIA: EMPIRICAL EVIDENCES FROM FIELD SURVEY**

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**Abstract:** Non-utilization of maternal and child health care services at the right time and right place exposed to physical and mental health related problems among the pregnant women, mothers and child and even lead to death. Hence, timely utilization of maternal and child health care services is extremely important for the health of a mother and child as because they are very much vulnerable to health complications especially during the time of pregnancy and child birth. Education exposes women to new ideas, to new information, and to new heights and maternal education is very important as it plays significant role in family welfare and in determination of child's and mother's own health. Many international and national researches have persistently advocated that availability of health personnel and location of facility (distance of the facility from home) as the main barriers to utilisation of health care services. However, in a study conducted in the state of Arunachal Pradesh it was found that besides availability of health personnel and location of the facility; factors like maternal educational level, perception of women, occupation of the mother, transportation and communication bottlenecks etc., also acts as a strong barriers in utilisation of maternal and child health care services in the state of Arunachal. In this paper an attempt has been made to analyze the barriers to utilization of maternal and child health care services in Arunachal Pradesh based on empirical evidences from field survey.

**Keywords:** Arunachal Pradesh, barriers, health care services utilization, maternal health, child health, maternal education, vulnerable.

## **1. Introduction**

Improving the well-being of mothers, infants, and children is an important public health goal across the world today. Their well-being determines the health of the next generation and can help predict future public health challenges for families, communities, and the health care system. The objectives of the Maternal, Infant, and Child Health topic area address a wide range of conditions, health behaviours, and health systems indicators that affect the health, wellness, and quality of life of women, children, and families. A woman can experience sudden and unexpected complications during pregnancy, childbirth, and just after delivery. Although high-quality health services and accessible health care has made maternal death a rare event in developed countries, these complications

often causes fatal in the backward state and tribal dominated like Arunachal Pradesh due to lack of sources of information and being illiterate but mostly due to lack of maternal and child health education especially among the women.

In the context of the state of Arunachal Pradesh, the female literacy rate is only 59.6 compared to male literacy rate which is 73.7 (Provisional Census Report 2011) more specifically 42 percent of mothers with no education National Family Health Survey (NFHS-3). More than two in five women (43%) did not receive any antenatal care. Seventy-three percent of women in urban areas received antenatal care from a health professional for their last birth, compared with 46 percent in rural areas. Younger women are more likely than older women to receive antenatal care, as are women with more education, urban women, and women having their first child. Forty percent of mothers received two or more tetanus toxoid (TT) injections. Coverage with two or more TT injections in Arunachal Pradesh is the lowest among all the states in India. Only 4 percent took a deworming drug during pregnancy. As per District Level Household and Facility Survey (DLHFS-3) Report 2010, 46.7 percent of the women in Arunachal Pradesh had faced at least one delivery complication and about one-fifths of women had post delivery complication. However the report do not provide detail and established relationship between maternal education and maternal and child health. In Arunachal Pradesh, most of the delivery practices are also greatly influenced by the socio-economic status, social customs, beliefs and cultures. Though the institutional delivery is not very common in Arunachal, almost 30 percent of deliveries are conducted at health centres (NFHS-3). The major problems behind the maternal death in Arunachal Pradesh are the results of unsafe delivery practices due to ignorance, poor knowledge and illiteracy. The leading causes of maternal mortality in Arunachal Pradesh are identified to be post partum hemorrhage, septic induced abortion and its complications followed by puerperal sepsis and eclampsia etc. Similarly in many developing countries, complications of pregnancy and childbirth are the leading causes of death among women of reproductive age. More than one woman dies every minute from such causes especially in developing countries (WHO, March 2011). Most of the maternal and neonatal deaths are attributable to the ignorance and illiteracy of the mother as well as lack of resources and health services. This demonstrates that many lives could have been saved had there been adequate education among the women supported by adequate health care services related to maternal and newborn.

Therefore, it is very pertinent to address the problems like; what are the barriers that hinder effective utilisation of maternal and child health care services in Arunachal Pradesh? Do maternal education levels play a critical role in maternal and child health care service utilisation? Etc.

## 2. Objectives of the study

Following are the main objectives of the study:

1. To identify the barriers to utilisation of maternal and child health care services in Arunachal Pradesh.
2. To develop recommendations in addressing the problems.

## 3. Research Methods

The brief description about the research methodology adopted for the study is given as under.

### 3.1 Study Area

Considering the nature of the study, the area has been divided into two (02) strata. The first stratum comprises of the urban area and the second stratum comprises the rural area. The study was conducted in the selected 34 rural villages and 26 urban colonies located in the four districts of Arunachal Pradesh viz. Papum-Pare, East Siang, Lohit and Lower Dibang Valley. The districts undertaken for study have been selected from the top five literate district of the state as per the literacy rate of 2011 census as well as considering similar geographical features in terms of topography and vegetations. As per 2011 census report Papum Pare district has the highest literacy rate in the state with nearly 80 percent and the lowest being East Siang with 72.54 percent, Lower Dibang valley with 69.13 percent and Lohit with 68.14 percent literacy rate.

### 3.2 Sample and sampling technique

In order to achieve the stated objectives; community based cross sectional survey was conducted in the selected rural and urban areas of Arunachal Pradesh to assess educational status of women, their maternal and child health care practices by adopting descriptive methods. Accordingly a total of 640 sample representatives were selected from both urban and rural area. Out of the total sample, 321 sample respondents are from the urban areas and 319 sample respondents were selected from rural areas across the study area (Table 1).

**Table 1: Urban-Rural Distribution of Sample Representatives/Household Covered**

Name of Districts	Urban Representatives	Rural Representatives	Total Representatives
Papum Pare	91	96	187
East Siang	84	80	164
Lohit	76	76	152
Lower Dibang Valley	70	67	137
<b>Total</b>	<b>321</b>	<b>319</b>	<b>640</b>

The selections of sample representatives have been made by adopting purposive sampling technique under non-probability sampling method. The target representatives in the study comprises of the mother of a child who had at least one delivery during the last five years preceding the survey date. While selecting the sample representative utmost care has been taken to ensure that respondent were a mother and has a child in the age group between 0-5 years of age or at least a pregnant woman with a child.

The survey was conducted during the year 2015 to mid 2018 on pro-rata basis during the month of December to February and June with an interval considering the overall conduciveness and favourability for conduct of survey especially in the rural areas.

### 3.3 Sources of data and data collection procedure

Taking into consideration the nature of investigation, objectives and scope of the inquiry, and the desired degree of accuracy; data was collected from both primary and secondary sources. Primary data were collected by administering interview schedule consisting of 12 questions related to knowledge and health care practices of women on maternal and child health. Interview schedule also include questions related to general profile of the respondent. It may be noted that before administering the interview schedule reliability and validity of the schedule was established by pre-testing it in a pilot survey taking 30 sample respondents each from rural and urban area located in Nirjuli and Doimukh circle of Papum Pare district respectively. Besides, information was also obtained from health personnel like Accredited Social Health Activist (ASHA), Auxiliary Nurse Midwifery (ANM) and Angganwadi Workers (AWW) and practicing medical officer on gynae and paediatric discipline to supplement the findings through formal and informal discussion.

To collect secondary data various publication and government reports like SRS (Sample Registration System) Bulletin, Census of India, DLHS (District Level Household Survey), NFHS (National Family Health Survey) etc., in the context of Arunachal Pradesh have also been referred.

## 4. Results and Discussion

The results and discussions have been made in the following order.

- a. General Profile of the Respondents
- b. Barriers to utilization of maternal and child health care services in Arunachal Pradesh
- c. Measures suggested in addressing the problems

#### 4.1 General Profile of the Respondents

The general profile of the respondents has been analyzed in terms of respondent's age; level of education, occupation, marital status; religious affiliation and category belong to (Table 2).

**Table 2: General Profile of the Respondents**

Sl. No.	Particulars	Categories	No. of Respondents	Values/ Percentage (%)
1	Age	Minimum		16.00
		Maximum		49.00
		Mean		30.92
		Std. Deviation		6.40
2	Level of Education	Illiterate	128	20 (%)
		Matriculate	221	34.5 (%)
		Graduate	291	45.5 (%)
		<b>Total</b>	<b>640</b>	<b>100 (%)</b>
3	Occupation	Government job	208	32.5 (%)
		Self employed	123	19.2 (%)
		Farmer	69	10.8 (%)
		Housewife	240	37.5 (%)
		<b>Total</b>	<b>640</b>	<b>100 (%)</b>
4	Marital Status	Never Married	2	0.3 (%)
		Married	629	98.3 (%)
		Widow	5	0.8 (%)
		Separated	4	0.6 (%)
		<b>Total</b>	<b>640</b>	<b>100 (%)</b>
5	Religion	Buddhist	5	0.8 (%)
		Hindu	148	23.1 (%)
		Muslim	25	3.9 (%)
		Christian	199	31.1 (%)
		Indigenous Faith	263	41.1 (%)
<b>Total</b>	<b>640</b>	<b>100 (%)</b>		
6	Category	ST	466	72.8 (%)
		SC	65	10.2 (%)
		General	50	7.8 (%)
		OBC	59	9.2 (%)
		<b>Total</b>	<b>640</b>	<b>100 (%)</b>
7	Area	Urban	321	50.1 (%)
		Rural	319	49.9 (%)
		<b>Total</b>	<b>640</b>	<b>100(%)</b>

Sources: Field Survey

The Table 2 shows that the out of the total 640 respondents, the age of the respondents ranges from minimum of 16 years of age to a maximum of 49 years with mean age and standard deviation of 30.92 and 6.40 respectively. This shows that the respondents' falls under reproductive age group. In case of level of education, 128 respondents (20 percent) are illiterate. Out of the total 640 respondents, 34.5 percent respondents are matriculate and 45.5 percent respondents are graduate and above. With respect to the occupation, maximum number of 240 respondents (37.5%) was housewife followed by government job holder/working women of 208 respondents (32.5%). Self employed and farmer constitutes 19.2 percent and 10.8 percent of the total respectively. In terms of marital status, 98.3 percent respondents were married and remaining comprises few cases of women who have never married (0.3%), widow (0.8%) and separated (0.6%). Most of the respondents (41.1%) believe in Indigenous Faith followed by Christianity with 31.1 percent and Hindu 23.1 percent. Respondents having religious affiliation with Muslim and Buddhist were

3.9 percent and 0.8 percent. In respect of the category, out of total 466 respondents (72.8%) belong to Scheduled Tribe community followed by Scheduled Caste with 10.2 percent. Respondents belong to General category and OBC comprises of 7.8 and 9.2 percent respectively. The urban and rural sample respondent constitute 50.1 percent and 49.9 percent respectively.

#### 4.2 Barriers to utilization of maternal and child health care services in Arunachal Pradesh

Based on survey, the following have been identified as the main barriers to utilization of maternal and child care service:

- a. **Availability of health personnel and location of facility:** The maternal and child health care services are found to be highly depends upon availability of the health personnel (Doctor, ANM) and distance from the home to health centre. During the course of study it was found that many households especially the house located in the rural villages are far from the health centre and most of the Sub Centre, Primary Health centre located in the rural areas does not have required manpower and staff (there was shortage of health care professional and under utilization of currently available services). Further modern medical equipments like Ultrasonography (USG) and diagnostic facility are available only at District Hospital/Private clinic located at towns and district headquarters. In such circumstances the poor women at the village unable to visit the facility for routine health checkups due to distance and lack of money.
- b. **Lack of knowledge and poor health care practices among the illiterate mothers:** When compared to educated/graduate women, the women in the category of illiterate and matriculate category lack knowledge on maternal and child health care. The data collected during the survey revealed that:
  - i. More than 50 percent respondents in the category of illiterate women have never gone for reproductive health checkups mainly citing the reasons that they don't felt it necessary.
  - ii. 2.9 percent respondents who are not aware of ANC belong to the category of illiterate and matriculate.
  - iii. Around 60 percent of illiterate respondent do not know and bother about monitoring of weight and blood pressure of self and baby's growth during pregnancy.
  - iv. More than 57 percent illiterate respondents have not taken care of required food intake and nutritional diet during pregnancy.
  - v. Around 60 percent of illiterate respondents do not make any advance plan and preparation for delivery of child.
  - vi. More than 58 percent of illiterate women preferred to deliver the child at home.
  - vii. More than 54 percent illiterate respondents do not adopt family planning measures.
  - viii. Cases of incomplete immunization have also been observed in case of illiterate and matriculate women citing the reasons "facility is far".
  - ix. Around 80 percent illiterate respondents do not monitor the weight gain/loss of their child.
  - x. More than 60 percent illiterate respondents do not take care of nutritional diet, hygiene of child. Most of them reported that they have "no money".
- c. **Prevalence of early marriage:** As per the Provisions of Child Marriage Act 2006, the minimum legal age at marriage for women in India is 18 years. It may be noted that early marriage especially among the girl leads to many harmful consequences like; losing the opportunities for further education, sexual exploitation, early pregnancy, maternal health problems, premature child birth, infant mortality rate, early separation from family & friends and prone to domestic violence etc. The study reveals that out of 640 respondents, 67 respondents were found to have married at the age less than 18 years especially among the poor and illiterate class in the rural areas. It can be seen from the Table 4.71 that age at first marriage of the respondents (above 18 years) is found to 89.5 percent of the total. In other words 10.5 percent respondents got married at the age less than 18 years. The data further reveals that among the respondents, the cases of getting married at the age of 15 and 16 years are found only in the category of illiterate and matriculate women. This

implies that illiterate/matriculate and women belong to poor socio-economic condition tends to get marry at early age when compared to respondents in the category of graduate.

- d. **Availability of health personnel and location of facility:** The maternal and child health care services are found to be highly depends upon availability of the health personnel (Doctor, ANM) and distance from the home to health centre. During the course of study it was found that many households especially the house located in the rural villages are far from the health centre and most of the Sub Centre, Primary Health centre located in the rural areas does not have required manpower and staff (there was shortage of health care professional and under utilization of currently available services). Further modern medical equipments like Ultrasonography (USG) and diagnostic facility are available only at District Hospital/Private clinic located at towns and district headquarters. In such circumstances the poor women at the village unable to visit the facility for routine health checkups due to distance and problem of money.
- e. **Transportation and communication bottleneck:** Many villages are far away from district headquarters and do not have proper transportation and communication network due to remoteness, difficult geographical conditions, poorly developed transportation and communication. Hence, the women lives especially such areas are unable to go to town frequently for health checkups, treatment and institutional delivery.
- f. **Low income:** Many women especially in rural areas are illiterate farmers. During the course of field survey it was found that these women earn very less income from agriculture and due to this many of them have also reported that despite of their health problems of self and child they have not gone for treatment as well availed the health care services due to lack of money.
- g. **Absence of MMR Data:** During the course of study it was observed that the state of Arunachal Pradesh has no record of Maternal Mortality Rate (MMR). It may be noted that MMR is considered as important measure of social and human development and therefore keeping record of MMR data is very important to know the overall health status of women (maternal). Presence of MMR data is very important for policy makers for evolvement of action based strategy regarding health related issues of women.
- h. **Commitment of Ground Level Health Workers:** During the course of field survey many respondents informed at the time of informal discussion that ground level health workers like Accredited Social Health Activist (ASHA), Anganwadi Worker (AWW) and General Nursing Midwifery (GNM) lack enthusiasms and commitment in their works. On the other hand, on interaction with some of the ground level health workers during the course of field survey it was found that most of the illiterate women in the village ignore minor health problems of self and their children and avoid going to health centers stating that they don't have time as they are busy in farming. It was also informed by some ASHA that despite repeated request, the pregnant women reluctant to undergo for ANC as per the norms of Janani Suraksha Yojna (JSY) due to which they fail to get cash assistance under the scheme. However it was observed that ground level health workers need more training for better execution of health care services especially at rural areas.
- i. **Others:** The state of Arunachal Pradesh is tribal dominated state and it has 26 major tribes. Each tribe has its own distinctive culture and belief system. During the course of field survey it was also observed that utilization of maternal and child care services are to some extent are influenced by social customs and traditions, cultures and belief system. During the course of study it was found that the women/household who is deeply involved in social customs and traditions, cultures and belief system perceives that practice of maternal and child care is not necessary.

### 4.3 Recommendation

On the basis of present research work the following measures are recommended to improve the practices of maternal health and child care service utilization among the women in the study area in particular and state of Arunachal Pradesh in general.

- a.* It is suggested that adequate number of doctors and health personnel be posted in the each SC/PHC located in rural areas with required infrastructure, life saving drugs, ambulance, labor room and provides modern equipments like USG and other diagnostic facility. Special attention and care should also be given to new born baby to contain neonatal mortality by opening Neonatal Intensive Care Unit (NICU) at least at district hospitals. For this purpose government should earmarked budget every year. This would not only improve the morbidity and mortality of the study area in particular and state in general but also save the time, money and energy of the illiterate women and economically backward community in health related cases.
- b.* With regard to the above challenges it is strongly suggested to intensify health awareness camp across the villages and rural areas of the study area in particular and state in general. In such camps programmes related to importance of reproductive health, ANC, institutional delivery, immunization, nutritional diet and family planning etc. should be intensified by using audio-video, distribution of pamphlets and demonstrations. Besides, intensifying the broadcasting of maternal and child health related programmes through Television, Radio and social media. This would greatly create awareness especially among the illiterate women and lead to decrease in morbidity and mortality especially among the pregnant women, mothers and children. Besides, adult education and other non-formal education system should be emphasized especially in the rural areas in order to improve the literacy among the illiterate adult women/couples. Each and every child should be allowed to go for compulsory education at least up to secondary level as envisage in RTE Act 2009. For this purpose every school located in remote and border areas should also be renovated with required infrastructure, teachers and secular education.
- c.* In view of the harmful consequences of early marriage; district administration, village panchayat and society at large should develop social norms against early marriage following the Provisions of Child Marriage Act 2006 (i.e minimum age of marriage for male is 21 years and female is 18 years) and firmly implement it. In this regard women community especially in rural areas should be sensitized through well coordinated awareness programme. Marriages should be encouraged only after providing the required education to the children. Local community indulged in promoting or helping solemnization of marriage before marriageable age should be discouraged. Village council should also be empowered to take policy decisions in order to contain problems related to early marriages, superstition social and cultural belief system, and social discrimination on women, widows, divorce cases and separation among the married couples.
- d.* In the context of above it may be noted that development of transportation, communication and other infrastructure is a government subject. However, without the involvement of the community it is hardly possible on the part of the government to bring changes and development. Hence, it is suggested that community at the village level should take the initiatives through concern block and district administrators, implementing agencies and involving local elected representatives for overcoming infrastructure problems by giving priority to education and health sector.
- e.* With regard to above it is very much understood that communities at village and rural areas depend on agriculture for their livelihood. Therefore agriculture sector of the study area in particular and state in general needs proper attention for marketing of the produces. The local technologies adopted in agricultural and local industries should be replaced with modern technology. It is evident that that if agriculture and industry is modernized and upgraded than more and more people in the rural areas will get employment. Besides, self employment activities like carpentry works, handloom & handicraft, petty contractors, running of restaurants & shops, home stay, operation of private transport etc., should be encourage. This would result in improvement of living standard of people of economically backward areas.

- f.* Department of Health and Family Welfare, Government of Arunachal Pradesh need to frame guidelines and issue directives to concern department at district/block/village level to maintain and report the record of MMR on monthly basis. This would help the government in containing the problems associated with MMR.
- g.* ASHA, AWW and GNM play a very important role in mobilization of maternal and child health related issues at community level. They also acted as a linking pin between the community and health centre. Therefore training of at least two days should be conducted twice a year. In such training programme, they should be imparted knowledge on: how to conduct counseling, developing positive behavior and communication skill, record keeping, basic computer education, village sanitation and hygiene besides other requirement. They may also be asked to submit a report of activities undertaken by them on monthly basis so that policy measures can be develop by the concern department. For this purpose and to motivate them honorarium due to them should be release regularly. Besides, to boost up the morale, enthusiasm and commitment in works they may also provided low cost laptop, pen drive, mobile handset and incentives for counseling at household level.
- h.* The social customs and traditions, cultures and belief system of the tribal people of the state and its practices and preservation is very important. However, in case of education and health related problems of mother and child it would be better not to compromise with their social customs and traditions, cultures and belief system especially in the area of ANC, institutional delivery, nutritional diet, immunization, health and hygiene, family planning etc. In this regard the tribal community especially at village and rural areas need to be educated, sensitized and motivated to adopt scientifically proven health measures for the overall improvement of maternal education, maternal and child health.

## 5. Conclusion

From the foregoing discussions it is evident that along with maternal education level; availability of health personnel and location of the facility, perception of women, occupation of the mother, transportation and communication bottlenecks etc., does acts as a strong barriers to utilization of maternal and child health care services in the study area in particular and state of Arunachal Pradesh in general. The matriculate and illiterate women lacks knowledge on maternal and child health related issues and also utilize less maternal and child health care services when compared to educated mothers. In other words educated women are more concern about their reproductive health, routine health checkups, taking nutritional diet during pregnancy, family planning. They also prefer to go for institutional delivery considering the safety of the mother and child. The educated mothers are also taking better care to their children in terms of providing nutritional diet and hygiene. Hence along with maternal education, emphasized should also be given to other factors that effects the maternal and child health for achieving balanced growth and development of health and economy. For this purpose the measures suggested on the problems if adhered to, then it is expected that not only the status of women education of the study area in particular and state in general will improve but also the practices of maternal and child health care utilization. In this respect all the stakeholders such as the district administration, the state government, policy makers and the society are expected to consider the valuable recommendations put forwarded out of the empirical evidences and ideas gained from the present research.



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