



UTILIZATION OF HEALTHCARE SERVICES IN KANYAKUMARI DISTRICT OF TAMILNADU

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ABSTRACT

The utilization of health care services depends upon the socioeconomic status of the population, severity of disease, the availability, accessibility and affordability of health care services. The primary, secondary and tertiary health care delivery systems are being revamped and fine tuned in such a way that health care is delivered efficaciously to the people at the bottom of the economic pyramid. The present study was undertaken based on DLHS-3 and DLHS-4 surveys of Kanyakumari district for comparative purpose with secondary data. Literacy status of mothers was significantly associated with the level of services availed by them. On many crucial aspects of health care services, there has been manifold increase from DLHS-3 to DLHS-4. At the same time it is essential to focus more intensively on other areas. Thus, there is a need and scope of more focused information, education and communication efforts towards antenatal and postnatal services provided to mothers especially in rural areas in Kanyakumari district.

KEYWORDS: ANC, Institutional Deliveries and Immunization.

INTRODUCTION

Health is a significant contributor to human capital formation and the health status of the population is an important indicator of human resource development. Investment in health, has direct returns in terms of longevity and improvement in the physical and mental development of individuals. Hence, health planning becomes an integral part of socio-economic planning and provision of health care facilities are related to preventive, curative and primitive services. The utilization of health care services depends upon the socioeconomic status of the population, severity of disease, the availability, accessibility and affordability of health care services. The primary, secondary and tertiary health care delivery systems are being revamped and fine-tuned in such a way that health care is delivered efficaciously to the people covering marginalized sections of the society.

Considerable achievements have been made in Tamil Nadu in health indicators like life expectancy at birth, Infant Mortality Rate (IMR) and Maternal Mortality Rate (MMR). However, women with low educational level, those residing in rural areas, and those with low socioeconomic status were less likely to use maternal services. Some studies have also highlighted lack of knowledge as an important barrier to utilization of care and have pointed out the knowledge improves utilization rates. Literacy status of females was an important factor influencing maternal mortality. Ironically about 45.5 percent maternal deaths were in the illiterate group. Poverty was the major socio-economic factor causing maternal deaths. Also 89 percent deaths were in the below poverty line group (Elango, 2004).

The Millennium Development Goal (MDG) aims at reducing the maternal mortality ratio by three quarters during 1990-2015. Though India has achieved some progress, this needs to be speeded up for a

sustainable faster development (Dreze, 2015). In order to achieve this goal, all women need access to high quality of Antenatal Care (ANC). However, ANC services are available in developing countries including but utilization of these existing services is poor. India continues to lag behind in checking maternal mortality and child mortality to expected levels. As per the census 2011 reports, 89 million children in the age group 0-3 were malnourished, with half of the country's households lacking a latrine, remains a major concerns as well (Venkat, 2015). The utilization of reproductive health service is in turn depends upon availability and accessibility of these services and socio-demographic, communication factors and quality of care provided to the women (Irma 1992, WHO and UNICEF 2003 and Pavalavalli, 1994). In the present exercise the DLHS-3 and DLHS-4 surveys in Kanyakumari district are examined with an objective to study the utilization of healthcare services.

METHODOLOGY

Three rounds of District Level Household and Facility Surveys (DLHS) have been undertaken by the Ministry of Health and Family Welfare, Government of India in the past (Round-I in 1998-99, Round-II in 2002-04, and Round-III in 2007-08). In view of the completion of six years of National Rural Health Mission (NRHM) (2005-12), there was a felt need to focus on the achievements and improvements so far. The Ministry of Health and Family Welfare, Government of India, therefore initiated the process of conducting DLHS-4 during 2012-2013 and designated the International Institute for Population Sciences (IIPS) as the nodal agency to carry out the survey. Bilingual questionnaires in the vernacular language and English pertaining to Household, Clinical, Anthropometric and Bio-Chemical tests (CAB) and Ever Married Women (age 15-49) were used and canvassed using Computer Assisted Personal Interview (CAPI).

The village and health facility questionnaires were canvassed by using paper and pen in DLHS-4. In the household questionnaire, information on all members of the household and socio-economic characteristics of the household was collected. The ever-married women questionnaire contained information on women's characteristics, maternal care, immunization and childcare, contraception and fertility preferences, reproductive health including knowledge about HIV/AIDS. For the first time, a population-linked facility survey has been conducted in DLHS- 4. At the district level, all Community Health Centres (CHCs) and the District Hospitals and Sub Divisional Hospitals were covered. Further, all Sub-Health Centres and Primary Health Centres (PHCs) which were expected to serve the population of the selected Public Sector Undertakings (PSUs) were also covered. Fieldwork in Kanyakumari was conducted during January to July 2013, gathering information from 1294 households and 887 ever married women and 79 Health Facilities.

ANALYSIS AND DISCUSSION

Access to health services leads to improved intake of maternal healthcare facilities. The quality of care has an independent and significant effect on the use of ANC indicating special emphasize should be laid for providing good quality care in order to improve the health of the pregnant women. Maternal medical complications were not significantly different between the teenage and older mothers assuming the socioeconomic status of both teenage and older mothers. Table 1 outlines the socio economic features of the selected households.

Table – 1: Socio Economic Background of the Sample Household

Indicators	DLHS-3 (2007-08) N=1080	DLHS-4 (2012-13) N=1294
Having electricity	96.6	98.6
Drinking water	98.4	95.1
Having Toilet facility	91.5	95.5
Use clean fuel for cooking	29.9	52.5

Source: DLHS-3 & 4.

The above table shows that about 98.6 percent and 96.6 percent of the respondents have electricity respectively in DLHS-4 and in DLHS-3. It can be understood that drinking water source decreased in Kanyakumari district from 98.4 percent (DLHS-3) to 95.1 percent (DLHS-4)¹. Nirmal Gram Puraskar scheme is successful in Kanyakumari district as only 60.0 percent of the household have well in their homes. Like that use of clean fuel for cooking in Kanyakumari district is estimated to 52.5 percent during DLHS-4 survey.

ANC is the 'care before birth' to promote the well-being of mother and fetus and is essential to reduce maternal morbidity and mortality, Low Birth Weight (LBW) and perinatal mortality. The utility of ANC visit in delivery of a healthy baby is of utmost importance. Laborious work should not be undertaken by pregnant mothers. The methods of birth spacing must be stressed during the antenatal advice given to mothers, especially for the age group of 20-30 years (IGMC-DPSM, 1998). ANC serves as the initial point of contact of expectant mothers to maternal health care providers before delivery.

The table 2 shows that 99 percent of respondents received ANC in DLHS-3. Because of the Government of Tamil Nadu introduced Dr.Muthulakshmi Reddy Maternity Benefit Scheme in September 2006. This is one of the innovative health care intervention incentive schemes in Tamil Nadu. Many empirical studies have found out that many pregnant women benefitted from this. Under the scheme, cash assistance of ` 6000/- is given to pregnant women falling below poverty line (` 3000/- before delivery and (` 3000/- after delivery). This intervention is meant to help women cover costs of nutritious food and also compensate for wage loss so that they get adequate rest.

Table – 2: Antenatal Care Services in Kanyakumari District

Indicators	DLHS-3 (2007-08)	DLHS-4 (2012-13)
ANC received	99.0	94.1
ANC Check-up in first trimester	86.2	52.7
3 and more ANC visits	98.0	72.0
At least one TT doses	92.8	87.8
BP checkup	98.1	77.3
Hb Tested	98.6	60.7
Abdomen examined	97.6	33.6
Consumed 100/more IFA tablets	92.6	34.0
Full ANC checked	60.6	32.2

Source: DLHS-3 & 4.

The VHN who examines the beneficiary during pregnancy would be sufficient to avail the benefit; also the pregnant women took ANC in government institution. In 2012 the Government of Tamil Nadu raised incentive amount to `12000/- up to two deliveries for Below Poverty Line (BPL) women. Of this, first `4000/- paid during the seventh month after completing ANC, `4000/- immediately after delivery in a government health facility and the final installment of `4000/- in the fifth-month after the child receives the immunization as per the national schedule. In DLHS-4, only 94.1 percent of the respondents received ANC it depended Education, age, number of living children, transportation and health insurance are other factors that were found to influence the use of ANC.

It is noted that 86.2 percent of respondent subjected to ANC check-up in first trimester during DLHS-3. It decreased 53 percent (58.2 percent) in DLHS-4. 98 percent of respondents 3/more ANC visits in DLHS-3, it decreased 18 percent (72 percent) in DLHS-4. 92.8 percent of the pregnant women received at least one TT doses in DLHS-3. It is decreased 5 percent in DLHS-4 (88.8 percent). During DLHS-4 11 percent decreased in Blood Pressure (BP) taken, 38 percent decreased in Hemoglobin (Hb) tested, 64 percent decreased in

¹ It is a common feature now that ground water table is fast depleting and households get erratic supply of drinking water in Kanyakumari district.

Abdomen examined and 58 percent decreased consumed 100/more IFA tablets. It can understand that only 32 percent of the pregnant women full checked ANC and other are not. Antenatal women are hesitant to avail Iron and Folic Acid (IFA) tablets as the tablets are bitter in taste and also feel sleepy/drowsiness. When they consume tablets, vomit immediately and become dull. After that women cannot go for their routine work. Educated women are aware of the utilities of the IFA and hence consume the tablets regularly unlike less educated counterparts (Rajendran and Ramachandran, 2013). Lack of health education is one of the reasons for low level of full ANC received. Not only this and also in BP taken, Hb tested, Abdomen examined and consumed 100/more IFA tablets.

The improvements in ANC coverage are effective means for increasing professional assistance at delivery, and especially for increasing institutional delivery. Around 99 percent of the respondents had their deliveries in the Government and Private institution. It is increased 0.8 (99.2) percent in DLHS-4. Because of the cash incentive raised from `6000 to `12000/-. 21.4 percent of the respondent's delivery in government hospital. It is increased 11percent in DLHS-4. Because of caesarean delivery increased from 5.3 percent (DLHS-3) to 10.2 percent (DLHS-4) in Kanyakumari district.

Table – 3: Particulars on Institutional Deliveries during DLHS-3 and DLHS-4

Indicators	DLHS-3 (2007-08)	DLHS-4 (2012-13)
Institutional delivery	98.9	99.2
Delivery at government health institutions	21.4	32.8
Delivery at private health institutions	77.5	66.4
Delivery by Caesarean section at government health institutions	5.3	10.2
Delivery by Caesarean section at private health institutions	25.7	34.6
Delivery at home	0.5	0.0
Delivery at home conducted by skilled health personnel ⁶ (Out of total Deliveries)	1.1	0.0
Mothers who received post-natal care within 48 hours of Institutional delivery	90.0	46.7
Mothers who received post-natal care within two weeks of Institutional delivery	95.2	48.2
Delivery attended by skilled health personnel	100.0	99.2
Discharge of mothers from institution after minimum stay of 48 hours	NA	94.5
Out of pocket expenditure per institutional delivery in Public health facility(Rs. in 000's)	NA	2.5

Source: DLHS-3 & 4.

The NRHM strengthens 30 beds hospital at PHC levels and also it leads to increased caesarean in Governmental Hospital (GH) and it increased nine percent in private hospital from 25.7 percent (DLHS-3) to 34.6 percent (DLHS-4). Home delivery was around zero because of maternity welfare scheme. When the pregnant women go to the GH, it leads to increase the delivery attended by healthcare personnel. It helped to save the mother and child life. Mother who received postnatal care within 48 hours of institutional delivery was decreased from 90 percent (DLHS-3) to 47 percent (DLHS-4). Mother who received postnatal care within two weeks of institutional delivery decreased from 95.2 percent (DLHS-3) to 48.2 percent (DLHS-4). Mostly the delivered women would not like to stay in the hospital because they do not realize health risk of the postnatal. There were no data for out of pocket expenditure per institutional delivery in DLHS -3 and it is ` 2500 in DLHS-4.

Disease burden is the impact of a health problem as measured by mortality and morbidity. High cost of medicines and longer duration of treatment leads to financial burden to low income groups. Improving the general health and nutrition of the girls' child, increasing the age of marriage and subsequent childbearing along with timely and quality ANC reduces the incidence of anaemia, Pregnancy Induced Hypertension (PIH), Intra-Uterine Growth Retardation (IUGR), foetal loss and LBW babies (Saxena et al., 2010). Here the table 4 offers complication pertaining to pregnancy and deliveries during two surveys.

Table -4: Complications for Pregnant Women during Two Reference Period

Indicators	DLHS-3 (2007-08)	DLHS-4 (2012-13)
Pregnancy related complication	76.7	38.7
Delivery related complication	61.4	4.3
Any post –delivery related complication	29.5	7.4

Source: DLHS-3 & 4.

It can be understood that pregnancy related complication in Kanyakumari district was around 77 percent in DLHS-3 and decreased 38 percent level (38.7 percent) in DLHS-4. When the pregnant women conduct their health checkup in the GH it leads to substantially reduce the delivery complication from 61.4 (DLHS-3) percent to 4.3 percent (DLHS-4) and post delivery complication increased from 29.5 percent (DLHS-3) to 7.4 percent (DLHS-4). Perhaps the contribution of Accredited Social Health Activists (ASHA) on health education to pregnant women in Kanyakumari is very important for reducing complication from pregnancy and delivery. It is a known fact that the ASHA do have direct contact with pregnant women and offer valuable and useful ANC.

Immunization is one of the most cost-effective public health interventions and largely responsible for reduction of under 5 mortality rate. Nonetheless, vaccine preventable diseases are still responsible for deaths. The vaccination of children against six² serious but preventable diseases has been the cornerstone of the child health care system. Health Immunization Programme is being implemented on a priority basis. Effective implementation of this measure has drastically reduced the outbreak of these diseases in the State. Under Universal Immunization Programme, it has been proposed to cover all infants and pregnant women in the State. As against the target, the achievement of administering vaccines fell short in all the years. Hence this needs to be addressed on war footing. The following table 5 illustrates particulars of child immunization during two DLHS surveys (three and four).

Table – 5: Details of Child Immunization (age 12-23 months) in the Study Area

Indicators	DLHS-3 (2007-08)	DLHS-4 (2012-13)
Received full vaccination*	77.3	35.1
Received BCG vaccine	98.7	84.5
Received 3 doses of DPT vaccine	83.8	63.2
Received 3 doses of polio vaccine	86.5	59.6
Received measles vaccine	97.6	70.2

Source: DLHS-3 & 4.

Note: * means BCG, 3-injection of DPT, 3 doses of Polio (excluding polio zero) and Measles

Around 77percent of the child received full vaccination during DLHS-3 survey. It is reduced to 35 percent in DLHS-4. This is being followed by BCG vaccine decreased at 14 percent (from 98.7 percent DLHS-3 to 84.5 percent DLHS-4); received 3 doses of DPT vaccine decreased at 20 percent (from 83.8 percent DLHS-3 to 63.2 percent DLHS-4); received 3 doses of polio vaccine decreased at 27 percent (from 86.5 percent DLHS-3 to 59.6 percent DLHS-4) and received measles vaccine decreased at 27 percent (from 97.6 percent DLHS-3

² Diphtheria, Pertusis, Tetanus, Measles, Poliomyelitis and Tuberculosis

to 70.2 percent DLHS-4). This can be related as because the pregnant women have lack of education on health education, vaccination and are some of the reasons for this low vaccination in DLHS-4.

Lack of personal hygiene, poor sanitation, nutritional deficiency and poor mother and child health services, absence of health education, lack of national preventive programmes, and lack of available health services are responsibility for the poor health of women (Deepan and Ramachandran 2016). To make the immunization cent percent successful, focus should be on increasing demand for vaccination by using effective Information Education and Communication (IEC) and bringing immunization closer to the communities. Complete immunization should be made mandatory to get admission in schools by appropriate legislation. In immunization, the State had achieved two distinctions - polio free status since 2004 and elimination of neonatal tetanus since 2006. Nonetheless, within the state, the performance varies among various regions. The sample (Kanyakumari) district is moderately developed and hence the healthcare delivery is expected to be satisfactory.

Table – 6: Distribution of Health Facilities in Kanyakumari District

Indicators	DLHS-3 (2007-08)	DLHS-4 (2012-13)
No of Sub Centers	17	25
No. of PHCs	10	14
No of CHC (including Black PHC)	09	12
No of District Hospital	01	01

Source: DLHS-3 & 4.

The above table reveals that the number of sub centers increased from 17 (DLHS-3) to 25 (DLHS-4). Because of NRHM strengthening rural hospital by PHCs for every 5000 populations in Kanyakumari district made possible this. This is being following by number of PHCs which should increase from 10 (DLHS-3) to 14 (DLHS-4). It is increased 6 percent in number of CHC and constant number of district hospitals.

CONCLUSION

Utilization of healthcare has been increased as the standard of living increased. In the same way utilization was more for household having television and radio. Lack of information was the main reason for non immunization in almost two thirds of the children. Low awareness among the clients is one of the major reasons of low utilization of services. Around 96 percent of the respondents have electricity in DLHS-4 and it was 90.9 percent in DLHS-3. Surprisingly drinking water source decreased in Kanyakumari district from 99.3 percent (DLHS-3) to 97.1 percent (DLHS-4). Totally 60 percent of respondents used toiled. Like that use of clean fuel for cooking in Kanyakumari district was increased 43.2 percent (from 40.3 percent DLHS-3 to 74.3 percent DLHS-4).

About 98 percent of respondents' had 3 and more ANC visits; 58.2 percent of the pregnant women received at least one TT doses. During DLHS-4 four percent decreased in Bp taken, 16 percent decreased in Hb tested, 58 percent decreased in Abdomen examined and 41 percent decreased consuming 100/more IFA tables. Home delivery was 0.4 in Erode district. Mother who received post natal care within 48 hours of institutional delivery was decreased from 95.2 percent (DLHS-3) to 58.0 percent (DLHS-4). Mother who received post-natal care within two weeks of institutional delivery was decreased from 97.0 percent (DLHS-3) to 59.8 percent (DLHS-4).

Pregnancy complication in Kanyakumari district was 38.8 percent in DLHS-3. Around 81 percent of the child received full vaccination in DLHS-3. BCG vaccine decreased at 17.5 percent (from 100 percent DLHS-3 to 82.5 percent DLHS-4), received 3 doses of DPT vaccine decreased at 23 percent (from 95.8 percent DLHS-3 to 72.5 percent DLHS-4), received 3 doses of polio vaccine decreased at 4 percent (from 94.4 percent DLHS-3 to 75.0 percent DLHS-4), received measles vaccine decreased at 19 percent (from 94.4 percent DLHS-3 to 75 percent DLHS-4). Health education of mothers was significantly associated with the level of services

availed by them. Thus there is a need and scope of more focused information, education and communication efforts towards antenatal and postnatal services provided to mothers especially in rural areas in Kanyakumari district.

SUGGESTIONS

Health status can be improved significantly by scientifically executed intervention with target appropriate education material by picture formed and techniques. Proper counselling to the targeted women on pregnant complications such as anemia by improving the consumption of iron and folic acid tablets and better self-care for a safe delivery is the order of the day. In reproductive and child health program and subsequently the intergraded management of neonatal and childhood illnesses. The Information Education and Communication (IEC) should reach all for enhancement of knowledge of communicable and non communicable diseases. The Behavioral Change Communication (BCC) should be strengthened to utilize more health services. Attractive bill boards should be placed on vantage points like PHCs to educate and motivate the pregnant women to avail the facilities in the Government Hospitals.

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