

Status and Effectiveness of Maternity and Child Health Care Services: A Micro-Level Analysis in Rural Tamil Nadu

¹A.Karthigaiselvam & ²Dr.S.Ramasamy

¹Asst Professor in Economics, Muthayammal College of Arts & Science, Rasipuram, Namakkal District, affiliated to Periyar University, Salem-11, TamilNadu State (India)

²Asst Professor and Research Supervisor, Department of Economics, Government Arts College (Autonomous), Salem-7, affiliated to Periyar University, Salem-11, TamilNadu State (India)

ARTICLE DETAILS

Article History

Published Online: 15 July 2019

Keywords

Utilisation, achievement, effectiveness, progress, quality and sanitation.

*Corresponding Author

Email: aksecofin[at]gmail.com

ABSTRACT

Public health care services are provided by the institutions of government with appropriate manpower, infrastructure (including laboratories and equipment) and special schemes / specific programmes. The effective implementation and better utilization of such services alone ensure the achievement of desired results. For this, an evaluation of the progress and performance of specific, target - oriented public health schemes becomes necessary so as to improve the delivery of them, especially in rural areas. In this regard, an analysis was made on the status and effectiveness of maternity and child health care services provided by three upgraded Primary Health Centres (PHCs) – Namagiripet, Pillanallur and Sowdapuram - located in Namakkal district of Tamil Nadu. An assessment of the quality of the services (Doctors, Nurses, Pharmacists, Medical and Paramedical Staff) provided by these three centres in the sphere of maternity and child health care revealed a positive status and effective implementation of the government schemes. An analysis of the information and data collected from the beneficiaries of these three PHCs numbering 141 helped to assess the quality and effectiveness of outreach programmes. Though the overall performance was found as impressive, inadequate manpower (especially specialist doctors), poor maintenance and sanitation facilities were the stumbling blocks which slow the progress. All these call for an objective evaluation of the provision of public health care services and their utilization by the targeted poor people in the rural areas.

1. Introduction

Provision of healthcare services to the masses is one of the challenges in rural areas. To improve the patient's health and to get quick recovery from illness, quality of care assumes greater significance. Only by providing apt, relevant and timely medical facilities will satisfy the patient needs and to pay more attention to individual care with polite advice by the doctors at the PHC level.

Upgraded Primary Health Centres provide multifarious services to the rural poor. Attaining quality healthcare services from such government institutions is a major concern in the present day context. Primary Health Centre is a hospital which provides medical and healthcare services, especially maternal care, newborn baby care, child health care, special care units and family planning.

Most of the rural poor can take medical treatment, especially pregnancy check-ups, neo-natal, pre-natal and post-natal care only in Primary Health Centres.

2. Review of Literature

Anand Zachariah (2012) argued that the problem with providing tertiary care is a systematic one related to the western-oriented structure of medical knowledge, the market-driven mode of private tertiary care that has evolved in India and lack of development of public curative services.

Thresia and Mohindra (2011) analysed the health outcomes in Kerala and in Sri Lanka, paying particular attention to the influence of an increasing private sector in the health sector and the Social Determinants of Health. Kerala and Sri Lanka have captivated the global public health community since the late 1970s. The magnitude of health achievements increased, with a visible decline in mortality, fertility and life expectancy both in Kerala and in Sri Lanka. Both Kerala and Sri Lanka have performed relatively better in maternal health care services. The institutional delivery status was worth mentioning in Kerala (99%) and in Sri Lanka (92%).

Selvaraj and Karan (2009) examined the utilisation of healthcare institutions in India both public and private and assessed the current magnitude and pattern of spending in India, by comparing two rounds of National Sample Survey (NSS) data 52nd Round (July 1995-June 1996) and 60th Round (January - June 2006). The authors concluded that households seeking care in public health hospitals are increasingly asked to buy expensive drugs and diagnose from private outlet citing unavailability of these facilities in the existing setup. It is clear that for outpatient treatments, private healthcare facilities are, on an average, one and half times more expensive than the public facilities. The comparative cost of hospitalization indicates that households end up in private healthcare institutions paying more than double that in the government setting. Unfortunately, government healthcare facilities which used to offer services free of cost have been forcing patients to

procure drugs and receive diagnostic services from private sector providers.

Purohit (2010) assessed the efficiency variation in health system performance in Karnataka. The estimated efficiency parameter should help health policy makers to improve district level and thus, the State Level health system performance. The study indicates that the efficiency of the public healthcare system remains low. The prevalence of considerable disparities across districts in terms of per capita availability of hospitals, beds and manpower inputs has an adverse impact on improving the life expectancy in the State.

Roy and Gupta evaluated the content of PPP concerning provisioning of diagnostic services in the rural hospitals of West Bengal, their user fees structure, and how PPP and user fees work together. Nearly 45 per cent of the Below Poverty Line (BPL) families in West Bengal could not access the out-patient department due to economic barriers. The State government requires re-apprising policies on direct provisions and investment of essential diagnostic services at the primary level. The structure of user charges in government healthcare institutions, exemption policy and its impact on utilisation across socially and economically marginalized groups require more research, the authors observed.

3. Research Issue

The reproductive child health care related to maternity and child health Schemes like Dr Muthulakshmi Reddy Maternity Benefit Scheme (Cash assistance of Rs.18,000/-), Janani Suraksha (rural Rs.700/- and urban Rs.800/-), Provision of newborn baby kits to economically vulnerable people are implemented in Tamil Nadu. To assess the quality of such healthcare services, a few research questions are raised.

1. What is the status of quality of healthcare services about Maternity and Child Healthcare offered by the upgraded PHCs to the pregnant women and children?
2. Does the manpower at the PHCs are enough to provide better services?
3. How far the healthcare facilities offered to the patients in the PHCs benefited them?
4. To what extent the welfare schemes reached to the targeted groups?
5. How the in-patients met their out of pocket expenditure?

Hence, the present study concentrates on assessing the quality of healthcare services in the selected upgraded Primary Health Centres, with specific reference to maternal and child health care services.

4. Objectives of the study

1. To assess the quality of maternal and child health care services offered in the selected up-graded PHCs.
2. To know about the level of awareness and utilisation of schemes relating to maternity and child health care services.

5. Methodology

At the first stage, three upgraded Primary Health Centres located in Pillanallur, Namagiripet and Sowdapuram in Namakkal district of Tamil Nadu were selected randomly. After a pilot study in June 2017, a list of patients in each PHC was taken in to account with the help of registers maintained by the PHC. From this list, 50 per cent of them were selected as respondents. It came to 107 males and 174 females (Total 281).

Table 1 General Information on Selected PHCs

S.No	Particulars	Pillanallur PHC	Namagiripet PHC	O.Sowdapuram PHC
1	Inception year	1969	1981	1972
2	Up-graded year	2014	1984	2014
3	Town Panchayat (Coverage)	1	2	2
4	Village Panchayat (Coverage)	7	1	11
5	Villages (Coverage)	36	16	26
6	Number of in-patients admitted per day	5	4	3
7	Number of outpatient visits per day	150	250	160
8	Number of deliveries per month	13	25	11
9	Number of family planning measures taken per month	12	23	9

Source: Primary Data

The upgraded Primary Health Centres provide special care units like Siddha and Eye check-up facilities. Namagiripet is the only PHC providing dental care, operation theatre for caesarean, blood bank facilities. These facilities were absent in Pillanallur and Sowdapuram PHCs.

These upgraded Primary Health Centres have also been providing Mobile Health Unit (MHU) treatment, immunization camp; free eye check-up camp, AIDS awareness Campaign and counselling, Leprosy and Tuberculosis special treatment.

Out of three upgraded PHCs, Pillanallur PHC has Cradle Baby Reception Centre scheme but till now no such baby received by them. There are wide fluctuations in providing treatment to dog bite and minor injuries. But at the same time, the snake bite case is only treated in O.Sowdapuram and Pillanallur and Namagiripet offering only the first aid. Moreover, Namagiripet PHC alone has a DGO specialist.

6. Status of Man Power at PHC

Healthcare system in India is effectively functioning with the help of provision of manpower. At the same time, the

appointment of adequate medical and paramedical staff will determine the quality provision of healthcare services to the

public, especially in the rural areas.

S.No	Name of the Post	Sanctioned			Serving			Vacancy		
		Pillanallur	Namagiripet	Sowdapuram	Pillanallur	Namagiripet	Sowdapuram	Pillanallur	Namagiripet	Sowdapuram
1	Block Medical Officer	1	1	1	1	1	1	Nil	Nil	Nil
2	Doctor	5	4	7	4	4	7	1	Nil	Nil
3	Staff Nurse	2	6	2	2	6	2	Nil	Nil	Nil
4	Nurse (ANM)	1	2	2	Nil	Nil	Nil	1	2	2
5	Sector Health Nurse (SHN)	1	2	2	1	Nil	2	Nil	2	Nil
6	Community Health Nurse (CHN)	1	1	1	1	1	1	Nil	Nil	Nil
7	Ophthalmologist Asst	1	1	1	1	1	1	Nil	Nil	Nil
8	Radiographer	1	1	Nil	Nil	1	Nil	1	Nil	1
9	Pharmacist	1	2	3	1	2	3	Nil	Nil	Nil
10	Lab-Technician Asst	1	1	1	Nil	1	1	1	Nil	Nil
11	Health Inspector	2	2	4	2	2	1	Nil	Nil	3
12	Block Health Supervisor	1	1	1	1	Nil	Nil	Nil	1	1
13	Superintendent	1	1	1	1	1	1	Nil	Nil	Nil
14	Block Assistant	1	1	1	1	1	1	Nil	Nil	Nil
15	Junior Asst	1	2	1	1	2	1	Nil	Nil	Nil
16	Store Keeper	1	1	1	Nil	Nil	Nil	1	1	1
17	Hospital worker	4	2	6	4	2	6	Nil	Nil	Nil
18	Block Health Statistician	1	1	1	Nil	Nil	Nil	1	1	1
19	Block Extension Educator	1	1	1	Nil	Nil	Nil	1	1	1

Source: Primary Data

As per the information was given by the Block Medical Officer of the respective PHC, there are vacancies exist especially Doctor in the Pillanallur PHC (4 workings against five sanctioned posts). In the case of Block Health Statistician and Block Extension Educator post still vacant in the three PHCs. Besides, Store Keeper is a post which sanctioned by the government but not filled in the three PHCs. Another most important post of Radiographer is available only in Namagiripet PHC and rest of two PHCs like Pillanallur and O.Sowdapuram still vacant. This would create more burden on the existing staff to adjust the additional work. It indicates that quality improvement practices should be taken to attain better healthcare service and government to provide adequate manpower based on the population coverage to the respective PHCs.

7. Effectiveness of Maternity and Child Healthcare Services at PHC

Healthcare system in India is moving forward and providing affordable, accessible to all and to preventive care from illness for the well being of the people. After the implementation of the National Rural Health Mission (2005) and the National Urban Health Mission (2013), the health sector has widely recognized and appreciated by the public. The flagship programme of NRHM and NUHM are jointly functioning under the umbrella of National Health Mission. The NHM has covered many areas but the Reproductive Child Health is one of the most significant domain which constitutes maternity and child healthcare, family planning, tribal health, Medical or Mobile Health Unit (Mobile Health Unit), adolescent health and ASHA (Associated Social Health Activist), At the same time, in TamilNadu State strongly neglect ASHA worker and this group has been functioning under contract basis in other States of India.

Maternal care is a care which includes entire care and save of mother and born baby i.e., Body Mass Index (BMI), confirmation of carrying mother, urine test, blood test, HIV test,

Scan, HB1 sugar and urine albumin test. These tests are carried out in Primary Health Centres for pregnant women and improve the health condition of both mother and baby.

8. Quality of Care

The upgraded PHC is effectively involved in medical and healthcare services. These PHCs have paid more attention to the maternity and child healthcare in the best possible manner. Quality of care means to give more priority and improvement on pregnant women and foetus. The maternity care is starting from BMI, confirmation of carrying mother, Blood Pressure and pulse check-up, registration process of PICME with the help of Village Health Nurse (VHN), periodical check-up, mother and child tracking system (MCTS) and all other tests. These are the prime areas which express the standard of healthcare service availed by the beneficiaries.

9. Cash assistance, free transport and free diet provisions

Maternity Benefit Scheme is a scheme which covers the cash amount of Rs.18, 000/- to the concerned person to be treated as an institutional delivery case. This scheme is called as Dr.Muthulakshmi Reddy Maternity Benefit Scheme, which is being sanctioned under three phases to the beneficiary. This scheme can be availed only when the pregnant woman is properly registered her personal information concomitant with PICME number. The PICME is Pregnancy and Infant Cohort Monitoring and Evaluation software which came into existence

on 1st April 2008. This PICME is an identity card which specifies one person's particular details.

In the case of free diet, each pregnancy woman can avail one time free meals from PHC while coming for medical check-up and status of knowing baby growth through Scan. The diet is being provided with nutritional and good quality to the pregnant mother periodically. At the same time, a mother is willing to take family planning operation; the PHC can give free diet to the person for two days.

The doctor has found that one (pregnancy woman) who gets much labour pain and unable to meet normal delivery, they would be given caesarean operation wherever possible in PHC. This facility is offered only in Namagiripet upgraded PHC. The free transport facility is also available to the mother and baby after taking maternity treatment at PHCs.

10. Status of Child Care

The PHC has been given the baby kit to the newborn baby and an appropriate vaccine also catered. The proper screening test is also being provided to the school children by PHC up-to 16 years old. Meanwhile, the Home-Based Neonatal Care (HBNC), periodically follow-up of immunization camps would help the child to become a healthy one. The distribution of 281 patients between the three PHCs is given in Table 2.

Table 2 Status of treatment on maternity and family planning in selected upgraded PHC

S. No	Nature of the cases	Name of the PHC			Total
		Pillanallur	Namagiripet	Sowdapuram	
1	Pregnancy Check-up	08	34	42	82
2	Family Planning	01	02	00	03
3	Immunization and Other cases	73	59	62	196
Total		82	95	104	281

Source: Primary Data

11. Quality of Maternal and Child Healthcare Services

Most of the patients were given a positive opinion about Doctors role and their individual care. As for as maternity case was concerned, each doctor of PHC has played a major role to save the mother and child by means of offering facilities by the PHC.

Nurses found dealing with pregnant women and babies with much care. The Village Health Nurses (VHN), done their duty very well, and the patients gave a good opinion about all the nurses in the PHCs studied.

Pharmacists and other non-clinical staff found giving satisfactory services to the poor patients.

Measurement of the healthcare service quality is an uphill task. By observation method, the quality in healthcare services in the three Primary Health Centres was assessed. The selected patients were asked to rank the services in to first (very good) Second (good) third (fair) and fourth (poor). Accordingly, it was found that no one ranked the variables/ indicators of quality of services as poor. Uniformly all the patients of Pillanallur PHC ranked the service quality as fair. However, the other two PHCs got the second rank as good.

Ranking on quality of healthcare service at upgraded PHC

S.No	Parameter	Pillanallur	Namagiripet	O.Sowdapuram
1	Doctor	III	II	II
2	Nurses	III	II	II

3	Pharmacist	III	II	II
4	Proper examination of patient / Diagnosis	III	II	II
5	Time spent with the patient	III	II	II
6	Timely Medical assistance	III	II	II
7	Patient recovery	III	II	II
8	Drugs prescribed	III	II	II
9	Cleanliness	III	II	II
10	24 hours availability of medicine	III	II	II

Source: Primary data

That is two extremes- very good and poor- not found a place indicating the scope for improvement, particularly in PHCs like Pillanallur.

12. Welfare Schemes

Government schemes like maternity and child healthcare with cash assistance, free ambulance service for institutional

delivery (Childbirth) and free baby care kit have to be reached all the needy in rural areas. The level of awareness about welfare schemes among the beneficiaries is one of the parameters that will help to assess the hospital staff orientation of scheme to the beneficiaries.

Awareness on welfare schemes

S. No	Name of the scheme	Awareness (%)	Number of Patients the Service availed (%)
1	Dr.Muthulakshmi Reddy Maternity Benefit Scheme	86.8	44.1
2	Janani Suraksha Yojana	85.8	28.8
3	Free Ambulance Service	85.8	24.9

Source: Primary data

The level of awareness was found as very high regarding the three major schemes. At the source, time number of selected patients utilized or availed was found as low.

13. In-Patient Treatment

The government upgraded Primary Health Centre is also concentrating in-patient care like delivery, family planning, diarrhoea, viral fever, low blood pressure, low blood sugar, minor injuries like mild cut or bruises, hand sprain, strain, leg fracture etc.

The normal delivery or caesarean cases have been treated as an in-patient and provided them with sufficient food at free of cost (three times a day) and for 3 and 7 days respectively. In addition, family planning cases are also treated and given food in the PHCs. On the contrary, the rest of the minor injury cases, fever, and loose bowels have been treated as in-patients and PHC does not provide food for them. The high-risk cases are recommended by the Block Medical Officer for further improvement in the Taluk or District Head Quarters Hospitals.

Out of Pocket Expenditure, the inpatients have to spend to buy articles like milk, oil, bath soap, powder etc. The patient, wise fever, diarrhoea, minor injuries have to meet food, transport, and other expenses at their own cost. When calculated it was found that the patients were spending between Rs.450 and Rs.600 per day to meet the expenses during their stay in the PHC. The attendances not only spent money to meet their food and transport expenses but also forgo their wages.

14. Periodical Inspection

National Rural Health Mission is a governing body which is providing funds to all the States to deliver healthcare services. This NHM conducts periodical visits or inspection to audit each Primary Health Centre of the respective State government. Similarly, each State government is having bodies like Directorate of Public Health and Preventive Medicine and respective District offices also monitor under the Deputy Director of Health Services.

In TamilNadu periodical inspections of government hospitals and Primary Health Centre to assess their performance and quality are taking place.

15. Conclusion

An assessment of the quality of healthcare service in select upgraded Primary Health Centres in Namakkal District, TamilNadu revealed the absence of certain facilities like operation theatre, specialist doctors (DGO) created for treatment. In the case of medical and paramedical staff in selected PHCs, the government has to fill all the vacancies. Pillanallur PHC has a sanctioned post of Doctors, but only 3 doctors are serving now. The PHCs like Pillanallur and O.Sowdapuram are not having Dental specialist and Radiographer.

16. Suggestions

Most of the patients expect that Skin Specialist, ENT Specialist and Eye Doctor are to be made a visit regularly the PHCs to take better and cheap medical and healthcare from PHC. Proper sanitation has to be ensured in all the PHCs to protect the patients from their diseases/Infection. A separate ward to be arranged for aged people have to be given special

treatment to arrest their Dengue or Chikungunya fever cases spread.

References

- [1]. Anand Zachariah (2012), "Tertiary Healthcare within a Universal System - Some Reflections", Economic and Political Weekly, (57), (12), March 24, pp - 39-45.
- [2]. Bijoya Roy and Siddharta Gupta (2011), "Public-Private Partnership and User fees in Healthcare: Evidence from West Bengal", Economic and Political Weekly, 56, (38), Sep 17, pp - 74-78.
- [3]. Brijesh C.Purohit (2010), "Efficiency Variation at the Sub-State Level: The Healthcare System in Karnataka", Economic and Political Weekly, 55, (19), May 08, pp -10-15
- [4]. Sakthivel Selvaraj and Anup K.Karan (2009), "Deepening Health Insecurity in India: Evidence from NSS Since 1980's", Economic and Political Weekly, 40, October, 54, pp -55-60.
- [5]. Sujatha Rao (2012), "Long on aspiration, short on Detail - Report on Universal Health Coverage", Economic and Political Weekly, 57, (6), Feb 11, pp - 12-16.
- [6]. Thresia, K.S. Mohindra (2011), "Public Health Challenges in Kerala and SriLanka", Economic and Political Weekly, 56, (31), July 30, pp - 99-105