CHAPTER 4
RESEARCH OBJECTIVES & METHODOLOGY
4. Research objectives and methodology

4.1 Background of the study

India lives in its almost 6.5 lakh villages. If basic health care does not reach the rural areas, no matter how much progress is achieved in the urban and semi-urban areas, the overall growth as a nation will be retarded. India has made significant progress in improving healthcare. But improving access to basic healthcare services to the rural population is perhaps one of the most pressing, from a straightforward human development perspective as well as to ensure a solid foundation for future economic growth. Healthcare indicators vary widely across states, partly reflecting the differing levels of resources available to state governments. But one trend that is totally consistent is that indicators are much worse in rural areas than in urban ones. The critical problem is that of availability and accessibility.

Majority of country’s population lives in rural areas and does not have much awareness about the diseases generated by water and bad sanitation. Further, some of the myths, old beliefs and practices are detrimental, especially in child birth and maternal care, to the development of the society. Situation calls for the creation of mass awareness among the rural masses to minimize the magnitude of the problem and bring in social change. The application of social marketing principles could be made use of to improve health status of the rural community. This is especially true for rural areas with regard to women’s and children’s health, as maternal, infant and child morbidity and mortality rates are intolerably high in India.

Thus, India's health problems are twofold -

(i) Inadequate and inaccessible healthcare services and infrastructure
(ii) Non utilisation of available healthcare services due to low awareness and poverty

In the light of the India’s health status outlined above, the present study is designed to explore the availability of health care services, gaps in the current health care facilities, the level of acceptance of the available services and also the social marketing of the different health programmes to create awareness, educate the rural community in increasing the utilization of the available facilities in the rural parts of Anand and Kheda districts of Gujarat with special focus to Maternal and Child health.
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Gujarat state, situated on the west coast of India, accounts for 6% of the area of the country and 5% (51 million) of the population of India making it rank tenth in the country. Gujarat has been ranked third in the country in terms of growth during the 10th five year plan (2002-2007). The state has registered an overall Gross State Domestic Product (GSDP) growth rate of 12.99 percent. Gujarat has remained among the top three of the 15 largest states in India in attracting industrial investments all through the 90s and the last decade. Based on the wealth index, the state of Gujarat is wealthier than the nation as a whole. However, the state's economic growth could not get translated into human development. Gujarat, ranked 4th in 1981 slipped to the 6th position in 1991 and 2001 despite improvement in its value terms. Therefore, it is inappropriate to presume that economic growth directly results in overall development of its people.

The National Rural Health Mission (2005 – 2012) was launched by Government of India in April 2005 to provide effective health care to rural community in the country with special focus on states which have poor health outcomes and inadequate public health infrastructure and manpower. The primary focus of the mission is to improve access to rural people, especially women and children, to equitable and affordable primary health care. The main goal of the NRHM is to reduce Infant Mortality Rate (IMR) and Maternal Mortality Rate (MMR) by promoting antenatal care, institutional delivery, post-partum care, newborn care and immunization.

Further, The NRHM foundation is built on community involvement in drawing a village health plan under Village Health and Sanitation Committee (VHSC), making rural primary health care services accountable to community and giving authority to the District Health Mission for implementation of the inter-sectoral District Health Plan including drinking water, sanitation, hygiene and nutrition. The interface between the community and the public health system at the village level is entrusted to a female Accredited Social Health Activist (ASHA), a health volunteer receiving performance based compensation for the promotion of universal immunization, referral and escort services for reproductive and child health (RCH), construction of household toilets and other health care delivery programmes. To promote institutional delivery, cash incentive programme under Janani Suraksha Yojana (JSY) is made an integral component of NRHM.
4.2 Objectives of the Study

Through the exhaustive literature, it is very clear that Health Care Services Delivery has four major dimensions which can be represented as ‘4A’ – Availability, Accessibility, Acceptance and Affordability. The basic objective of the present study is to explore the 3 dimensions of the Health Care Facilities -

(i) Availability of the health care facilities in terms of Infrastructure, Manpower and other facilities like Drugs and Laboratory facilities.
(ii) Accessibility of such health care facilities with respect to distance to reach as well as the transportation facilities during emergency.
(iii) Acceptance of such available facilities through getting insight into the level of utilization of health care facilities that are available, by studying awareness of the rural community about the facilities, health care providers, health care programmes to give health education, also knowing the community’s beliefs and practices focusing to Maternal and Child Health.

Thus, the objectives for the study are set as below:

Primary Objective:

- To study the Availability and Acceptance of the Health Care Facilities among the Rural Community.

Secondary Objectives:

- To study the awareness among the villagers about Health Care facilities and services.
- To study the demographic factors influencing the acceptance of available Health Care facilities in rural area.
- To study the role of Non Governmental Agencies in providing health care facilities.
- To study the role of Government Agencies in providing health care facilities.
- To identify the social marketing tools in making the facilities acceptable.
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4.3 Research Methodology

Research Design and Sample Size
The basic objective of the present study is to explore the prevailing conditions of health care facilities in terms of availability and also acceptance level of the existing services in the rural areas of Anand and Kheda districts of Gujarat. The availability of these services is considered from the perspective of the access by vulnerable sections of the society.

Based on the objective of the study two sample surveys were conducted:

(i) House Hold survey
(ii) Health care Facility Survey

4.3.1 House Hold Survey
Household survey was conducted to get the information about socio-economic background of the households, health and health care related information about Mother and the child/children, their awareness with respect to the health care facility in their villages, health care providers, health care programmes that are carried out in the villages to give health care education, their acceptance level through the utilization pattern.

For House Hold survey, Multistage Stratified Sampling method was adopted as given below:

- **I stage** - District level - Anand and Kheda districts were selected.
- **II stage** - Division on the basis of Talukas / Tehsilels. Here, to have the clear and complete picture, all the 8 talukas of Anand and 10 talukas of Kheda district were considered.
- **III stage** - In selection of villages, Proportionate Stratified Sampling was adopted, where 5% of the villages of each taluka were selected.

The villages were selected on the basis of certain criteria. Criteria for the selection of villages:

(i) Village should have a minimum population of 5000 people according to Census 2001. According to the norms of Rural Health Care system in India there should be at least one Health Sub Centre for every 5000 population in plain area and for every 3000
people in the hilly or tribal area. Since both Anand and Kheda are plain and non tribal areas minimum bench mark population was taken as 5000.

(ii) Village should have the service of the NGO, Tribhuvandas Foundation (TF). The reason being that TF is serving in almost 95 – 98% villages of Anand and Kheda districts.

Apart from the above criteria the other factors considered while selecting the villages were (a) the selected villages should belong to different Primary Health Centres (PHC) and (b) should be distinctly placed to cover the whole district. The following table 4.1 gives the selection of the villages based on the above criteria:

<table>
<thead>
<tr>
<th>District</th>
<th>Taluk</th>
<th>Villages</th>
<th>No of Villages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anand</td>
<td>Anand</td>
<td>Navli, Sandesar, Kasor</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Anklav</td>
<td>Bhetasi, Kosindra</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Borsad</td>
<td>Alarsa, Kavitha, Salol</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Khambat</td>
<td>Vatadra, Haripura, Nagara</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Petlad</td>
<td>Palaj, Pandoli, Khadana</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Sojitra</td>
<td>Devtalpad</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Tarapur</td>
<td>Moraj, Bhudej</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Umreth</td>
<td>Khankuva, Pansora</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td><strong>Total villages of Anand District</strong></td>
<td><strong>19</strong></td>
<td></td>
</tr>
<tr>
<td>Kheda</td>
<td>Balashinor</td>
<td>Pandwa, Othwad</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Kapadvanj</td>
<td>Antisar, Antroli, Motizer, Torna, Vadol</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Kathlal</td>
<td>Anara, Bhaner, Lasundra</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Kheda</td>
<td>Radhu</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Mahudha</td>
<td>Alina, Chunel,</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Matar</td>
<td>Ratanpur, Sinjiwada, Mahelaj</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Mehmendabad</td>
<td>Modaj, Rudan, Sinhuj</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Nadiad</td>
<td>Akhdol, Keriyavi, Sodpur</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Thasra</td>
<td>Agarwa, Wanghrolli, Kuni, Sonipur, Pipalwada</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Virpur</td>
<td>Bar, Saradiya, Virpur</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>Total villages of Kheda district</strong></td>
<td><strong>30</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Grand Total</strong></td>
<td></td>
<td><strong>49</strong></td>
</tr>
</tbody>
</table>
• **IV stage** - This Rural Health Care services study focuses mainly on the Maternal and Child Health. The study involves maternal health care during antenatal, intranatal and post natal periods, new born or infant child health care and health care for children under 5 years of age and immunization for infants as well as children under 5 years of age.

To ensure the relevant data for the study, selection of the households was done on the basis of the following criteria:

(i) The household should contain any one of the following
   (a) A post natal mother with a baby (less than 3 months old) and a less than 5 years old child
   (b) A child less than 1 year old and a child less than 5 years old
   (c) A post natal mother with a baby (less than 3 months old)
   (d) A child less than 1 year old

(ii) The duration of the dwelling of the household in the village should be at least 2 years.

Apart from the above criteria, the other factors considered while selecting the household were - the appropriate representation of different castes and ensuring that the household belonged to lower income group.

Fitting to the above criteria, the number of households that could be taken as sample varied from 13 to 26 in different villages during the household survey period of 4 months. Thus, 10 households were selected from each village making the sample size of 190 households from 19 villages of Anand District and 300 households from 30 villages of Kheda district. Therefore, the sample size of the study is 490 households.

The household survey was carried out through structured questionnaire. (Annexure II) Along with the survey, the other sensitive aspects of maternal and child health information were collected through informal interviews with the mothers, elderly ladies of the house and through observation.
4.3.2 Health Care Facility Survey

Health care facility survey was conducted to know the actual availability of the infrastructure, manpower and other facilities according to Indian Public Health Standards (IPHS). The doctors / Nurses / Village Health Workers were taken as respondents for this survey.

The Health Care Facility Survey was carried out through structured questionnaire (Annexure III) and interviewing the health care professionals like Government Doctor / Nurses / ANM and service assistants like Village Health Worker / Accredited Social Health Activist (ASHA) . This survey provided the information about the available Health Care Facilities in the villages, awareness of the people about facilities and health issues from the health provider perspective. One health centre (Sub centre / PHC / TF Centre) is selected from each village and therefore the sample size for Health care facility survey is 49.

4.4 Analytical tools used

Descriptive statistics like frequency distribution and cross tabulations are exhaustively used in describing and understanding the households characteristics. Chi-Square is adopted to know the association and its significance between different variables. Binary Logistic Regression is used in exploring the effect of the predictors in the context of utilization of different health care facilities. The influence of demographic factors in accepting the available health care facilities are studied through logistic regression analysis. Satisfaction of maternal care was analyzed through descriptive analysis. One way ANOVA analysis was used to understand the satisfaction level of the different health programmes. Also one way ANOVA Post Hoc test (LSD) was used to understand the multiple comparisons of ratings of different health care facilities. The association between the different health programmes and different targeted health outcomes are studied by the Chi-Square test.
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Bibliography:

Books:


Reports:

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