CHAPTER 3

THE RESEARCH METHODOLOGY
THE PROBLEM

“AN ANALYTICAL STUDY ON PRIMARY HEALTH CENTERS IN SAURASHTRA REGION”

The same can be expressed in following questions.

The on going debate on health care services gives rise to some questions.

(1) What are the facilities available at Primary Health Center in Saurashtra region?
(2) What are the shortfalls at Primary Health Center in Saurashtra region?
(3) Critical evaluation of National Health Programme implemented at PHC level
(4) Moral environment at PHC level or Working environment at PHC
(5) Critically analyzing implementation of NRHM at PHC.

Above questions are the matters of further research. First set consist of what are the facilities available at PHC level? And second set consists of evaluation of National Health Programme and National Rural Health Mission. The first area has been further analyzed in three major areas namely need for health care services, rationale for health care services, approaches of the practice and lastly implementation and practice of health care services. In the second set includes various operational aspects of NRHM & National Health Programmes like tuberculosis, RCH programme, Polio eradication, RNTCP etc.. Thus over here main problem is divided into several problems and various set of questions related to the sub problems have been furnished and all these questions together furnish a problem statement “AN ANALYTICAL STUDY ON PRIMARY HEALTH CENTER IN SAURASHTRA REGION”
The study is aimed at “**AN ANALYTICAL STUDY ON PRIMARY HEALTH CENTERS IN SAURASHTRA REGION**”. The study focuses on the facilities provided by Primary Health Centers, implementation of various National Health Programmes by PHC. And to assess the impact of National Rural Health Mission on Child care, Maternal Care and general health care at PHC in Saurashtra region. For the analytical study 150 PHCs in Saurashtra region will be selected. To complete the whole study there is the need for the generation of primary data. For the collection of data Primary Health Center is selected. The data will be collected by personally contacting the concerned person or by sending a representative at the hospital or by mail or email. I will try to done my best to get as broad representation as possible. The quality of each PHC will be assessed.

**RESEARCH DESIGN**

Exploratory research design will be used to make an analytical study on Primary Health Centers in Saurashtra region.

**SAMPLING DESIGN**

**Sampling Universe:** Sampling Universe consists of every Primary Health Center in Gujarat from where sample related with study of PHC at Saurashtra region will be drawn.

**Target Population:** Primary Health Center at Saurashtra region will be selected for study.

**Sampling Unit:** Primary Health Center

**Sampling Method:** as Sample unit in health do not constitutes a homogeneous group. The Universe is divided in terms of different geographical region and sample will be selected through **Area sampling Method and Purposive Sampling Method**.
Sample Size: For the analytical study on PHC in Saurashtra region Sample Size will be consists of 150 Primary Health Center of Saurashtra regions includes Amreli, Junagadh, Jamnagar, Bhavnagar, Rajkot, Surendranagar, Porbandar districts. (Doctors and Patients)

Doctors: Estimated 150 from below no. of PHC

<table>
<thead>
<tr>
<th>City</th>
<th>No. of PHC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bhavnagar</td>
<td>25</td>
</tr>
<tr>
<td>Amreli</td>
<td>21</td>
</tr>
<tr>
<td>Junagadh</td>
<td>31</td>
</tr>
<tr>
<td>Jamnagar</td>
<td>22</td>
</tr>
<tr>
<td>Rajkot</td>
<td>26</td>
</tr>
<tr>
<td>Surendranagar</td>
<td>19</td>
</tr>
<tr>
<td>Porbandar</td>
<td>06</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>150</strong></td>
</tr>
</tbody>
</table>

Patients: 500 from 7 districts PHC in Saurashtra region.

SOURCES OF DATA:

Since the data needed for this research are primary as well as secondary and related to the practice of the health care services at PHC in Saurashtra region. So, primary as well as secondary sources will be selected for collection of data of PHC in Saurashtra region.

Secondary Sources: - For conceptual clarity information that is obtained from various previously published materials such as books, magazines, journals, health care publications and websites.

Primary Sources – Primary Data will be collected from doctors, administrative staff and from patients.
OBJECTIVES OF THE STUDY

Objectives of the study are

(1) Developing a report card about Health care facilities available at Primary Health Center in Saurashtra region.

(2) To assess the current scenario of Child care services and Maternal Care Services and General Health Care Services including OPD, Indoor, Emergency services, in terms of quality and Capacity in Primary Health Centers in Saurashtra.

(3) To identify the shortfalls at PHC level in Saurashtra region.

(4) Critical review and evaluation of National Health Programme at PHC of Saurashtra Region.

(5) Service Quality assessment of PHC.

(6) To suggest measures to improve the performance of primary health care system in the area.

(7) To assess the impact of National Rural Health Mission on Child care, Maternal Care and general health care at PHC in Saurashtra region.
HYPOTHESIS OF THE STUDY

(A)
(1) H0 - There is equitable distribution of various primary health facilities at PHC in Saurashtra region.

    H1 – There is not equitable distribution of various primary health facilities at PHC in Saurashtra region

(B) H0 – There is no significant difference between Child Care services, Maternal Care Services and General Health Care Services provided by each PHC in Saurashtra region.

    H1 – There is significant difference between Child Care services, Maternal Care Services and General Health Care Services provided by each PHC in Saurashtra region.

(C) H0 – There is equitable implementation of National Health Programmes by each PHC in Saurashtra region.

    H1 – There is not equitable implementation of National Health Programmes by each PHC in Saurashtra region.

(D) H0 - There is no significant difference between qualities of health services by each PHC in Saurashtra region.

    H1 - There is significant difference between qualities of health services by each PHC in Saurashtra region.

(E) H0 – There is positive impact of National Rural Health Mission on Child Health Care, Maternal Health Care and General Health Care at PHC in Saurashtra region.

    H1 - There is no impact of National Rural Health Mission on Child Health Care, Maternal Health Care and General Health Care at PHC in Saurashtra region.
DATA COLLECTION METHOD

Mail questionnaire method and personal interview method will be employed for collection of primary data. The information related to health care services are derived from various sources like articles, journals, periodicals, newspapers, various websites etc.

Since the data needed for this research are primary and related to the analytical study of Primary Health Centers in Saurashtra region mailed questionnaire method and personal interview are employed for collection. Mails were sent via both the ways by courier and by email.

To meet the research objective of an analytical study of Primary Health Centers in Saurashtra region the data was generated in the specific fashion. Two separate areas of questionnaire were prepared for the collection of primary data one is for questionnaire for doctors on Analytical study on Primary Health Centers in Saurashtra region and another is for questionnaire for Patients to measure Satisfaction level. The questionnaire contains three types of questions:

(a) Questions to which responses are in Yes or No. These questions are aimed at eliciting the views of doctors and patients on Analytical study on Primary Health Centers on Saurashtra region.

(b) Questions that are set on Likert-type scale to obtain response relating to attitudes where measurement is sought in terms of degree of importance or agreement. The scale is as given below:

7- Strongly agree/very much important
6 – Agree/Important
5 - Slightly Agree/ Slightly Important
4 - Neutral
3- Slightly Disagree/Slightly Unimportant
2 - Disagree
1- Strongly disagree/very much unimportant.
The respondents are asked to carefully read the statements and place X on the appropriate number that represents their perception in terms of agreement or importance.

(c) Question that allow multiple responses. The respondent is free to give answers.

**DATA ANALYSIS**

The collected data are duly edited, classified and analyzed using relevant statistical techniques and employing the most appropriate non-parametric test. The data are presented through simple classification and with help of percentage and Chi Square hypothesis test at 5% level of significance.

Chi-square test for independence is applied when two categorical variables provides from a single population. It is used to determine whether there is a significant association between the two variables. It also explains the dependency of one variable on other. The researcher has used the Chi-square test for independence to show how one variable affects the other variable under study. The researcher has also studied how services of Primary Health Centers are affected by the various variables for one or more parameters using the same test.

Also, charts and plots were used to depict better picture of information sorted from the survey.
A Basic Explanation on the Statistical Evaluation.

For overall statistical evaluation the generated data is grouped and regrouped in different categories. The Data collected from Doctors on Analytical study on Primary Health Centers in Saurashtra region analyze in
   a) District wise
   b) Age wise
   c) Experience wise
   d) Qualification wise

And data collected from Patients to measure Satisfaction level on services provided by Primary Health Center on Saurashtra region Data are analyzes on the basis of
   a) Age wise
   b) Gender wise
   c) Occupation wise
   d) District wise

Nature of the Research Findings

The findings of the study are based on the responses of doctors and patients to the mailed questionnaire and personal interview. A basic assumption in setting the questionnaire is the truthfulness and honesty of the respondent. In fact, the responses are likely to be colored by the respondent’s perception of service provided by Primary Health Centers in Saurashtra region. Despite all these efforts it is supposed that the findings of the study cannot be taken as true generalizations due to certain inherent weaknesses in the questionnaire method. The findings will have to be validated by further research, more elaborate and in-depth type. Until such studies are made, this study can find its utility as an indicator of the view of doctors and patients towards Primary Health Centers and its services in Saurashtra region.