Chapter-7
Towards a Sustainable E-Healthcare Framework
7.1 Processes in Healthcare

In this section the patients were asked about the healthcare processes in their area. They were asked questions like; main focus of healthcare services in their area, target group of healthcare centre, reasons behind health related problems in the area, health services available in their area, and satisfaction with health care services and reasons behind dissatisfaction.

7.1.1 Main focus of Healthcare Services and Target Group of these Healthcare Centers

Majorly half of the sample population i.e. 51% patients indicated that the healthcare services in their area focus on health in general. 22% respondents indicated that it focused on women and child health. 6% patients indicated that it is targeted at men and 9% mentioned that they workers are the target group. In terms of diseases healthcare centers make sure that people are made aware about their personal hygiene and focus on diseases like AIDS/STDs, Environmental health, and tuberculosis as indicated by 27% patients.

7.1.2 Reasons behind Healthcare Problems

Majorly 34% patients indicated that people in their area don’t maintain personal hygiene which leads to health problems in the area. 24% respondents blamed poor salaries which lead to poor personal hygiene or lack of knowledge
regarding how to maintain personal hygiene and avoid diseases. 16% respondents revealed that the public health care system has not been able to meet the demands and needs i.e. the diagnostic and treatment options are not viable. 14% respondents indicated that people don’t have enough knowledge, they ignore symptoms and prefer traditional healers over private or public healthcare practitioners. Remaining 12% respondents indicated that the area lack proper sanitation and infrastructure which is mandatory for better healthcare processing.

*Chart 7.1: Reasons behind Health Problems in the area*
7.1.3 Healthcare services available and reasons influencing use of these health care services

**Chart 7.2: Healthcare services used by patients**

Majorly 51% respondents indicated that public health services are available to them and they rely on them. Quarter of the population indicated that they rely on private sector hospitals corresponding to 25% of the total sample population. Surprisingly, 17% respondents indicated that they relied on traditional healers and 7% respondents indicated that they preferred going to quacks for their health related problems.

The main factor which influences decision regarding which health care service to use was price of health service as highlighted by 46% of the sample population. Surprisingly, quality was rated less important in comparison to price as indicated by 28% of the respondents. 15% respondents also indicated that distance from the healthcare facility also influences their decisions as they don’t want to spend too much on transportation. 6% respondents indicated that they have tried
many hospitals and clinics however, depending on the availability of doctor as per their time and schedule is the reason which influences their decisions. Other reasons like, attitude of health centre staff and availability of medicine were important factors for them as indicated by 3% and 2% respondents.

![Chart 7.3: Factors influencing decisions regarding which healthcare service is to be used](chart)

**Chart 7.3: Factors influencing decisions regarding which healthcare service is to be used**

### 7.1.4 Satisfaction with healthcare services and reasons behind dissatisfaction

14% respondents indicated that they were highly satisfied and 34% respondents indicated that they were satisfied with the healthcare facilities in their area corresponding to 48% respondents who were satisfied cumulatively. 29% respondents indicated that they were somewhat satisfied.

23% respondents indicated that they were not at all satisfied and they were further asked about the reasons behind their dissatisfaction. 7 i.e. 30% respondents indicated that the healthcare services were too expensive. 5 respondents i.e. 22%
indicated that medicaments are not available at the time of needs and they have to wander around for medicines. 5 respondents indicated that due to lack of staff, waiting time is too long. 4 respondents indicated that the healthcare facility is far away from the place their live. 2 respondents also indicated that doctors do not explain them about their problems and treatment options available.

![Bar chart showing reasons behind dissatisfaction among patients]

**Chart 7.4: Reasons behind dissatisfaction among patients**

### 7.2 Healthcare process effectiveness

This section examines the quality of primary healthcare services in the rural areas in the Haryana in India using a 23-item scale. The scale is based on a 20-item instrument developed and validated for use in Guinea by Haddad, Fournier and Potvin (1998) and J K Sharma and Ritu Narang, (March 2001) modified it to add three more item making is a 23-item instrument.
7.2.1 Health Care Delivery

In this section the respondents were asked about the doctors, diagnosis, prescription, quality of drugs, recovery and cure, time devoted by doctor per patient and payment arrangement.

35% respondents indicated that they were satisfied with availability of doctors at time of checkup however 43% respondents indicated that they were not at all effective. 22% respondents maintained a neutral stand. In terms of effectiveness of diagnosis mixed response was received, 45% respondents indicated that the diagnostic facility was effective and another 44% respondents indicated that they were not satisfied. Half of the sample population was not satisfied with prescription as well as the quality of drugs at certain pharmacies in their area as they felt that they were too expensive and took time to treat diseases. Due to poor quality of drugs 59% respondents indicated that they were not at all effective.

Patients also complained about time given by doctors while diagnosing their disease, 58% respondents indicated that doctors didn’t give sufficient time to patients. 56% respondents also complained about the payment arrangement at the healthcare facility.
7.2.2 Interpersonal and Diagnostic aspect of Health care

In this section the respondents were asked about overall reception facility, honesty among hospital staff, effectiveness of clinical examination, medical equipments and follow-up of patients.

54% respondents seemed dissatisfied with the overall reception facility at the healthcare facility, which is reflected due to the fact that there is lack of resources, lack of staff which leads to lot of work on selective staff which makes their reception ineffective. 65% respondents indicated that they were satisfied with the honesty of doctors at the healthcare facility. 70% respondents indicated that the clinical examination process were also effective. 54% respondents indicated that follow up and monitoring facilities were also effective however, 30% respondents indicated that they were not satisfied. More respondents (45%) think that medical
equipment are not at all effective in comparison to respondents who think that they were effective (34%).

Chart 7.6: Responses for Interpersonal and Diagnostic aspect of Healthcare

7.2.3 Facility

In this section the respondents were asked about, adequacy of rooms, adequate availability of doctors, neat and clean hospital premises, clean appearance of staff and proper disposal of waste.

50% respondents indicated that they were satisfied with the number of rooms in the hospital as per the requirement of the patient however, 37% thought that they were not at all effective. In terms of availability of doctors for women specifically, one of the patients indicated that it was effective while another one third of the population indicated that they were not at all effective. 61% respondents complained about the neatness and cleanliness in the hospital premises. 44% respondents agreed
that staff had neat appearance. 62% respondents indicated that waste was properly disposed in the hospital facility however 23% respondents denied same.

![Chart 7.7: Responses for Healthcare Facility](chart)

### 7.2.4 Health personnel conduct and drug availability

In this section the respondents were asked about the conduct of healthcare personnels towards patients and availability of drugs.

While 43% respondents indicated that healthcare facility staff was compassionate and supportive about their patients however, 45% respondents denied it. 60% respondents indicated that they effectively received respect from the staff. In terms of availability of drugs at the healthcare facility, 43% respondents indicated that they were not at all effective.
7.2.5 Financial and Physical access to care

In this section respondents were asked if the health care facility provided value for money treatments or not. Also they were asked about ease of obtaining drugs and ease of approachability towards the centre.

54% respondents indicated that the healthcare facilities were expensive and not at all effective while 40% respondents indicated that they were effective. 40% respondents indicated that they could easily obtain drugs from the pharmacy while 43% respondents denied it. In terms of ease of approachability, 56% respondents indicated that the healthcare facility was near to the place where they were living.
Chart 7.9: Responses to Financial and Physical Access to care

7.3 Sustainable E-Healthcare Framework

Based on the above findings, it can be concluded that the application of e-health solutions in the developing countries is still scanty. The ICT infrastructures that are currently in place are a few computers, internet and information systems in the pharmacy and at the finance offices. However hospital information systems, electronic health records or telemedicine services are not yet available. There are number of barriers/challenges towards implementation of ICT in rural hospitals and the infrastructure is still unreliable, inaccessible, and not sustainable. Flowchart 7.1.3a and 7.1.3b reflect the current and proposed models for better e-healthcare implementation system in rural communities of India.
Flowchart 7.10: Current Model Reflecting Rural Healthcare Sector Challenges and Barriers for Effective E-Healthcare System Implementation
Towards a Sustainable E-Healthcare Framework

Flowchart 7.11: Proposed Model for Rural Healthcare Sector after elimination of Challenges and Barriers for Effective E-Healthcare System Implementation