

Chapter 3

SITUATIONAL ANALYSIS

Key Messages

- The baseline survey was undertaken to assess knowledge, attitude and practice of the hospital staff on the 5S practices. On average, 70% of the respondents at each pilot hospital scored satisfactory for the attitude test, but only 30% had satisfactory knowledge on 5S. The level of service quality, assessed by checklists which include multiple indicators addressing various quality elements, varied among the five pilot hospitals, the highest attainment being 70% and lowest 40%.
- The result of the patient satisfaction survey shows that patients tend to be dissatisfied with the present conditions of hospital facilities (tangibles), which is one of the key elements constituting `responsiveness` of the health care system defined in the WHO report 2000. The other study shows that 98% of time spent in the hospital is waiting time.
- Some public hospitals followed the steps of the Castle Street Hospital for Women to improve the quality of services through the Japanese style of management, 5S-TQM. The General Hospital Ampara won a number of awards, including the Pacific- Asian Quality Award (2007).

This chapter provides information of the North Western Province including its health system. This review analyses the health system in the two districts of the province and the profiles of the five pilot hospitals. Conduct of the Baseline Survey in the five pilot hospitals is recorded. Supplemental studies on clinical pathway, patient and staff satisfaction surveys are described. In addition, summary of the two case studies of Ampara and Monaragala hospitals is incorporated.

3.1 SITUATIONAL ANALYSIS ON THE TARGET AREA

3.1.1 HEALTH SERVICES IN THE NORTH WESTERN PROVINCE OF SRI LANKA

The two districts of Kurunegala and Puttalam which form the North Western Province, (also known as Wayamba) were selected. The province has an area of 7,888 km², and a population of 2,184,136 (2005). The province is reputed for its numerous coconut plantations. Its capital is Kurunegala, which has a population of 28,571. The other chief cities in this province are Chilaw (24,712) and Puttalam (45,661), both small fishing towns. The majority of the population of Wayamba province is Sinhalese. There is also a Tamil-speaking Muslim minority around Puttalam. Fishing and prawn farming are other main industries, alongside coconut and rubber plantations.

3.1.2 HEALTH ORGANISATION OF THE PROVINCE

The Teaching Hospital Kurunegala comes under the purview of the Ministry of Health while the rest of the hospitals are managed by the Provincial Ministry of Health. The Provincial Director of Health Services (PDHS) is the overall in-charge of the health services in the province, and is responsible to the Provincial Ministry for the implementation of provincial health plan. He is also responsible to the National Ministry of Health in implementing its national health policy.

His office is housed in Kurunegala District. Two deputy provincial directors (DPDHS) assist the Provincial Director in directing and monitoring health services of the two districts. Kurunegala DPDHS Office is located in Kurunegala town while Puttalam DPDHS Office is located in Madampe. The Provincial Director and his deputies have planning officers under them, who co-ordinate the planning functions in the province. The provincial and district directorates are responsible for both curative and preventive services in the province. Teaching hospitals are under the management of National MOH. (See Organisation Chart)

3.1.3 HEALTH STATUS IN THE PROVINCE

Progress of health in Wayamba Province has been slow but steady over the period 2000-2005. The infant mortality rate (IMR) declined to 12.9 per 1,000 live births and 13.9 per 1,000 live births in Kurunegala and Puttalam Districts respectively, and maternal mortality rate (MMR) to 6.3 per 10,000 live births. However, these remain high compared to the national figure of

IMR and MMR, being 12.2 per 1,000 live births and 3.7 per 10,000 live births (year 2005) respectively.

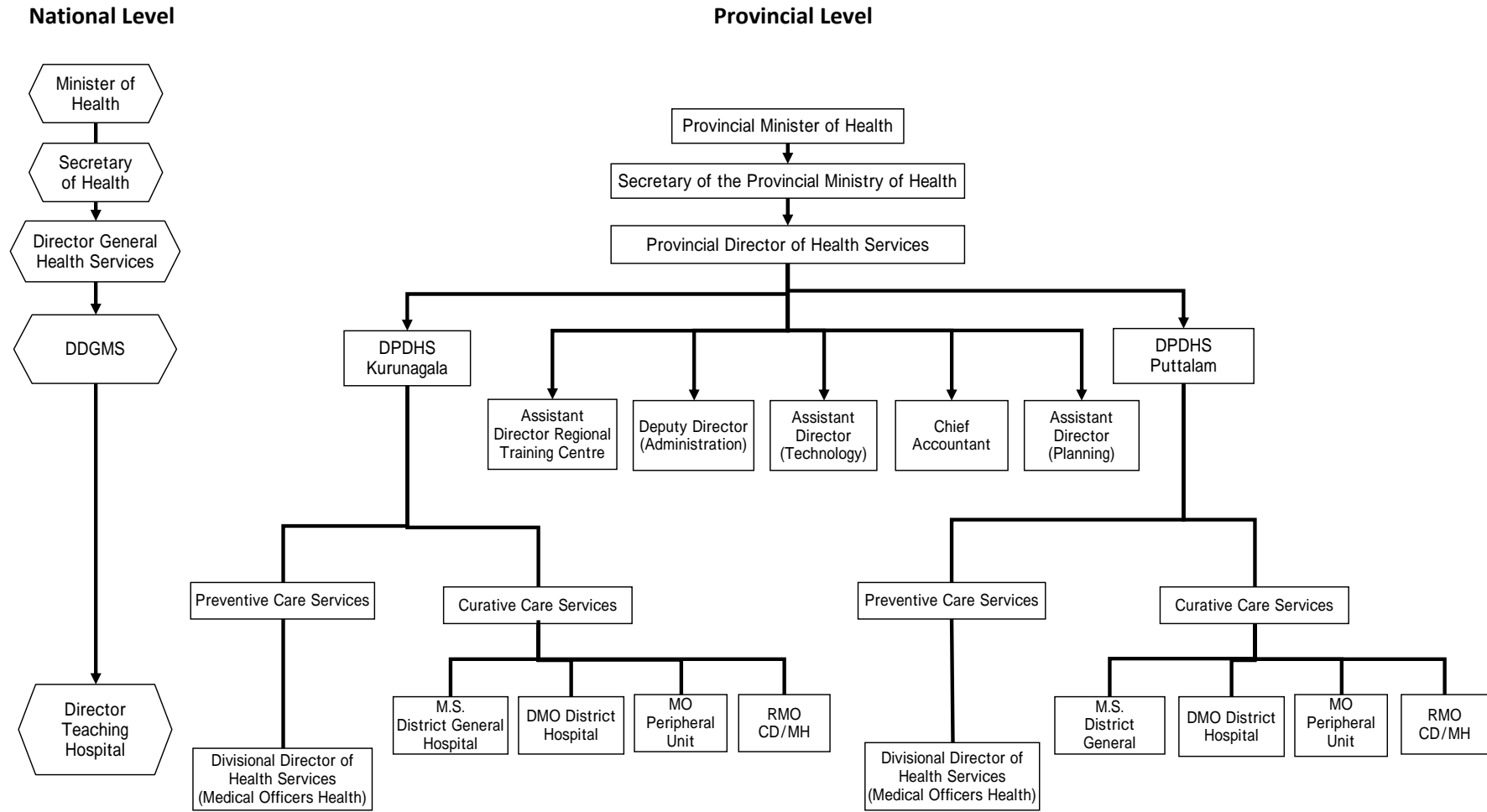
Childhood malnutrition rates also remain high with 34% of children being underweight, compared with the national figure of 29% (DHS 2000). The phenomenon of epidemiological transition is also apparent in the province, which highlights the double disease burden of communicable diseases such as malaria, tuberculosis, Japanese encephalitis, dengue, and acute respiratory infections along with the diseases of cardio vascular and cerebro vascular systems, diabetes and cancer. There is also a high incidence of suicide and traumatic injuries. Gradual increase of sexually transmitted infections (STI) is also noted.

On an analysis of patient admission statistics in 2005, traumatic injuries are found to be a major cause of hospitalisation in both Kurunegala and Puttalam Districts, while diseases of respiratory system and diseases of gastro intestinal tract also occupy a prominent place.

An increase in non-communicable diseases is evident from the mortality figures in large hospitals in the province that reports a soaring number of deaths from cancer and diabetes. Though mental disorders are shown as an addition to the disease burden in Sri Lanka, this is not reflected in hospital admissions in the province.

Among the causes for hospital morbidity, non-communicable diseases such as ischemic heart diseases, hypertension and diabetes along with infectious diseases are significant in heavy utilization of hospital curative services. Degenerative diseases and other NCDs that are on the rise cause a longer hospital stay and repeated visits to clinics pose as double burden on hospitals owing to increased costs and attempts to cater to the expectations of patients.

FIGURE 3- 1: ORGANISATION OF HEALTH SERVICES UNDER NATIONAL AND PROVINCIAL HEALTH SERVICES



3.1.4 HEALTH CARE DELIVERY SYSTEM IN THE PROVINCE

Health care delivery system in Sri Lanka consists of public and private services. The extensive network of government health services are organised into a multi-tiered system. This is classified according to the level of sophistication of its services, bed strength and the available sub-specialties. They range from Dispensaries, Maternity Homes at the lowest level to Teaching Hospitals at the highest level (tertiary care institutions). All hospitals offer outpatient treatment where hundreds of patients are treated daily.

The 13th Amendment to the Constitution in 1989 saw some powers and functions of health services being devolved to the Provincial Councils. The devolved functions included the management of Provincial Hospitals, excluding Teaching Hospitals of the province. There are several levels of curative care services. At the apex is a Teaching Hospital (TH) that comes under the purview of the National Ministry of Health. Next is the District General Hospital (DGH), one for each district, the third level has Base Hospitals (BH), one or two for a district, the fourth level is the District Hospital (DH) one covering 1-3 divisions in the district, the fifth level is occupied by Peripheral Units (PU) and Maternity Homes while the central dispensaries become the smallest units providing medical care. **Table 3-1** summarises the categorisation of hospitals.

TABLE 3- 1: RE-CATEGORISATION OF HOSPITALS

	Hospital Type	Peripheral Level	Requirement Criteria
1	Teaching Hospital (TH)	3	1 per Province
2	District General Hospital (DGH)	2	1-2 per District
3	Base Hospital (BH)	2	1 per District
4	District Hospital (DH)	1	1 per Division
5	Peripheral Unit (PU)	1	Not fixed

There are 67 hospitals in the province where a Medical Officer heads the institution and he is designated as Medical Superintendent (MS), District Medical Officer (DMO) or Medical Officer (MO) in charge according to the category of hospital.

Hospitals are a vital component of any health system. They provide complex curative care, depending on their capacity. They are classified as primary care, secondary or tertiary care level in the curative care facility. However in Sri Lanka, a proper referral system is not in place. These hospitals also provide emergency care, and also act as centres imparting knowledge and skills. They constitute an essential source of information and power, and generally consume the major share of national health resources.

Hospitals are complex systems where a single patient undergoes a series of processes that involves consultation with doctors, number of diagnostic tests, treatment etc. It is a hierarchical environment where doctors, nurses, attendants and labourers carry out defined functions. It is also a knowledge-focused and a skill-intensive environment. In addition, a patient

comes across several providers whose attitudes and behaviour heavily influence the patient's perception of quality.

MOH both at national and provincial levels, including the hospital management, uses a top-down command and control approach in managing its operations. Hospitals have far less capacity to plan and analyse their operations. They have no policy to guide the operations.

3.1.5 PROFILE OF THE PILOT HOSPITALS

Overcrowding is a major problem in TH Kurunegala. Patients are naturally compelled to seek its services owing to the availability of tertiary care services with over 30 specialist doctors providing services of both major and sub-specialities. However, DH Dankotuwa and PU Madampe are relatively underutilized. The reason for the latter is that a hospital with specialist services (T.H. Kurunegala) is located in close proximity to these smaller hospitals. Absence of a proper referral system is chiefly contributory. The lack of services such as a well equipped laboratory and vital drugs are also contributory factors. Improvement of such services and quality of care can increase the utilisation rates. The accident and emergency service in the T.H. Kurunegala provides emergency care for trauma victims and serves as a referral point for other hospitals for emergency surgery.

Although the hospital staff is assigned specific duties, in achieving quality improvement, the culture of compartmentalization of the duties has to be modified to secure a culture of team work .

Table 3- 2: Health Manpower in 5S Selected Hospitals in North West Province

Health Manpower	Name of the Health Institution				
	TH Kurunegala	DGH Chilaw	BH Kuliyapitiya	DH Dankotuwa	PU Madampe
Specialist	31	15	9	0	0
Administrative Grade Medical officers	1	1	1	1	1
Grade Medical officers	187	117	55	6	1
Dental Surgeons	10	6	6	1	1
AMPs/ RMPs	2	0	1	6	2
Nurses	779	168	172	18	6
Pharmacists	26	11	11	0	0
Physiotherapist	7	3	2	0	0
Radiographers	10	2	2	0	0
MLTs	25	2	10	1	0
Dispenser	1	2	0	1	1
Microscopist	2	2	1	1	0
Hospital Midwives	61	17	20	4	3
Overseers	7	2	2	1	0
Attendants	129	48	43	14	4
Ordinary Labourers	114	35	35	8	3

Sanitary Labourers	432	85	51	5	6
Total staff	1824	510	421	67	28

The staff of five hospitals under the study, is proportionally distributed. To initiate quality improvement, Work Improvement Teams (WIT) should be organised, which includes the entire labour force in the hospitals. It is a huge task in case of TH Kurunegala with its staff numbering over 1800. To achieve objectives of the 5S campaign, every category of staff should be motivated to support quality improvement concept.

A. TEACHING HOSPITAL KURUNEGALA

This is the highest level of referral in the Wayamba province. Training of medical post-graduates and nurses also take place, thus it was elevated to the state of a Teaching Hospital in year 2000 and comes under the purview of central MOH. Teaching hospitals usually possess over 1000 beds (Kurunegala TH 1276 beds). They have outdoor and indoor patient services including clinics at the Outpatient Department (OPD) providing preliminary care and emergency services. Hospital also provides separate medical and surgical intensive care. Separate department in case of accident and trauma, termed 'Accident Services' is established at Kurunelaga Hospital. With all the above mentioned facilities T.H. Kurunegala receives referrals and receives direct admission not only from North Western Province but also from North Central and other provinces.

B. DISTRICT GENERAL HOSPITAL CHILAW

Previously known as Base Hospital Chilaw, it was declared a District General Hospital under the re-categorisation. The Ministry of Health's policy of re-categorising the hospitals requires listing one District General Hospital to each district devoid of a Teaching Hospital or a Provincial General Hospital. DGsH Chilaw is located in a major urban centre (Chilaw) in Puttalam District. This hospital has over 400 beds and offers several specialist services.

C. BASE HOSPITAL KULIYAPITIYA

Situated in a large town in Kurunegala District, this hospital has over 400 beds and basic specialist services. It is one of the 17 Base Hospitals identified by the 'Mahinda Chintanaya' for upgrading.

D. DISTRICT HOSPITAL DANKOTUWA

This hospital is located bordering the Western Province and has a bed-strength of 102. No specialist services are offered here and a District Medical Officer (DMO) in charge with several Medical Officers (MO) and Assistant Medical Officers (AMO) are available. This hospital provides first contact- care for the people of that area and has a lower level of referral facility.

E. PERIPHERAL UNIT MADAMPE

This is the smallest hospital with three wards and 33 beds, with a MO supported by two AMOs. It offers basic first contact medical care and maternity care.

- Statistics of curative care services in five hospitals

In TH Kurunegala and BH Kuliypitiya, bed occupancy is high. DH Dankotuwa and PU Madampe, first contact hospitals for the patients in those areas, show a very low bed occupancy rate. This could be due to the deficiency in available services and low standards of these two hospitals. Individuals in need of specialist medical opinion such as high-risk pregnancies are always transferred to specialist centers from non specialist centers like DH Dankotuwa and PU Madampe.

TABLE 3- 3: CURATIVE CARE SERVICES IN 5 HOSPITALS OF NW PROVINCE 2005

	Name of the Health Institution				
	TH Kurunegala	DGH Chilaw	BH Kuliypitiya	DH Dankotuwa	PU Madampe
No of wards	54	19	14	6	4
No of beds	1379	414	469	119	38
In-patients average per day	354	110	114	16	4
Bed occupancy	95	82	51	28	8
Out-patients per day	950	569	575	224	128
Births per year	12153	5345	5056	144	38
Deaths per year	2125	522	347	33	3
Maternal deaths	10	-	1	-	-

3.1.6 BASELINE SURVEY

The survey was conducted in June 2006.

- Objectives
 - To study the current situation on the 5S- TQM at the five selected pilot hospitals in the Wayamba province
- Specific objectives
 - To develop a pilot test tool for the baseline survey.
 - To conduct the survey in on the selected hospitals.
 - To analyse and prepare a report on 5S-TQM status in the selected hospitals.
- Methodology
 - The survey had three stages as follows:

Table 3- 4: Baseline Survey Methodology

Stage 1	<ul style="list-style-type: none"> ▶ A workshop was held to prepare the tool for the baseline survey according to the guidelines of the National Quality Secretariat/ Ministry of Health. The tool consisted of two questionnaires ▶ Assessment of the present state of the quality and productivity of the selected institutions ▶ Assessment of the Knowledge, Attitude and Practices (KAP) of the 5S TQM concept ▶ The workshop with participation of the National Quality Secretariat/ Ministry of Health, MDPU / Ministry of Health, and the JICA Team and resource personnel finalised the questionnaires.
Stage 2	<ul style="list-style-type: none"> ▶ A workshop was held to train the investigators on using the tools for the baseline survey. It was patronized by the National Quality Secretariat/ Ministry of Health, MDPU/Ministry of Health, the JICA Team and 12 investigators ▶ A pilot study was carried out in CSHW to test the instruments and train the investigators.
Stage 3	<ul style="list-style-type: none"> ▶ The collection of the data by the trained investigators using the instruments was conducted in the 5 Selected Hospitals. All units of the 5 hospitals were surveyed by using the Questionnaire 1 while Questionnaire 2 covered 198 respondents from all categories of staff.

A. STUDY DESIGN AND ANALYSIS

The study was a cross-sectional descriptive one. The Questionnaire 1 assessed the current situation of *Seiri, Seiton, Seiso* and *Quality Services* at the selected hospitals. 165 units of the five hospitals were surveyed. A score was given to each observation. Questionnaire 2 collected data on KAP from various categories of staff consisting 10% of the total staff selected randomly. Questionnaire 2 also had a marking system from which the status of KAP among the staff was graded. The analysis was carried out using MS Excel software programme. Bi-variant and multi-variants analyses were performed with the application of simple statistical methods. The data was presented as percentages that indicate the level of achievement.

B. RESULTS OF STUDY

From the analysis, it was possible to list the areas where the dimensions measured have shown a low value. Sites/zones where the measures were low are listed under each hospital as shown below, depicting the average value as a percentage. In general, the results show that *Seiri* scored the highest in all hospitals, which probably is due to the active role of the staff in the 5S campaign in the hospitals after the initial sensitisation. Of the five hospitals, Dankotuwa DH and Madampe PU have shown the highest average score for *Seiri* compared to others.

Systematic arrangement of items which is expected under *Seiton* was generally unsatisfactory; rated highest was the TH Kurunegala (65.2), and lowest was the BH Kuliypitiya (36.6).

Of the four dimensions under survey, the lowest score was recorded for *Seiso* showing poor hygiene in four hospitals except Kurunegala. **Figure 3-2** shows the status of five hospitals in terms of four dimensions of 5S. Error! Reference source not found.



FIGURE 3- 2: SUMMARY STATUS OF 5S AT FIVE HOSPITALS

TABLE 3- 5: LOW VALUES ZONES OF FIVE S AT 5 HOSPITALS

	Seiri	Seiton	Seiso	Quality Services
Kurunegala TH				
Average Value	65.7	65.2	66.3	70.8
Zones with low values	Medical Ward 10 OPD&Clinics Laboratory Overseer's Office	Medical Ward 10 Canteen Paying Ward ECG Room	Laboratory Stores Carpentry Workshop	Paying Ward Office
Kuliypitiya BH				
Average Value	46.8	36.6	34.8	46.8
Zones with low values	Surgical Ward OPD Laboratory	Office Surgical Ward Physiotherapy Kitchen	Surgical Ward Physiotherapy Medical Ward	Laboratory Dispensary Physiotherapy Office
Chillaw DGH				
Average Value	53.5	46.9	42.5	58.6
Zones with low values	Kitchen X-ray OPD	Laboratory X-ray Kitchen	OPD Clinics, Kitchen X-ray Room	Record Room Dental Clinic Surgical Ward
Dankotuwa DH				
Average Value	72.4	51	45	46.4
Zones with low values	Dispensary Dental clinic	Dental Clinic Dispensary Maternity Ward Children's Ward	Dental Clinic Dispensary Medical Ward Surgical Ward	Medical Ward OPD
Madampe PU				
Average Value	73.5	31.6	42.8	39.6
Zones with low values	Labour Room Maternity Ward	Labour Room Maternity Ward Ward 1	Labour Room Maternity Ward Ward 1	Ward 1

B.1 DETAILED RESULTS OF QUALITY OF SERVICE IN THE HOSPITALS

The quality of service is highest in T.H. Kurunegala. The lowest quality of service is in P.H. Madampe, which is 40%.

- Peripheral Unit Madampe

The overall quality of service is less than 40%. Average is 39.8. Three units are above average. Only ward No.01 indicates poor quality of services in this hospital. Highest quality of service is maintained in the Dental Unit.

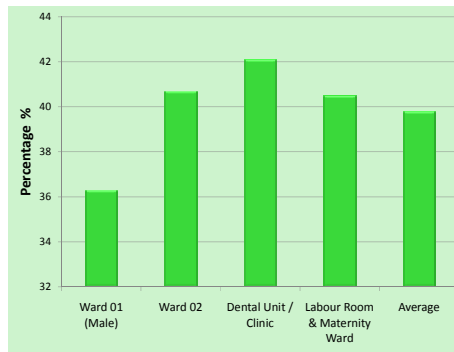


FIGURE 3- 3: QUALITY OF SERVICE AT PU MADAMPE

- District Hospital Dankotuwa

Average value is 46.4. Eight units are above the average and three units are below average. Medical ward No.1, No.05 and No.06 are less than the average. According to the table, highest quality of service is apparent in the dispensary.

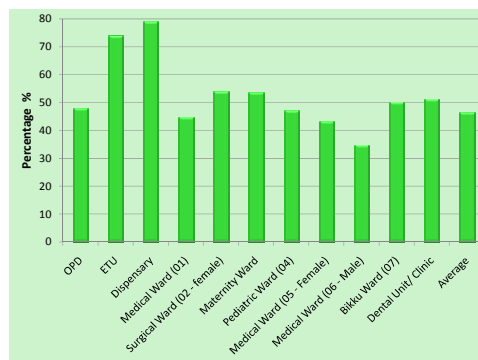


FIGURE 3- 4: QUALITY OF SERVICE AT DH DANKOTUWA

- Base Hospital Kuliypitiya's

Average value is 46.8. Sixteen units out of thirty units in the hospital are above the average. Laboratory, Surgical Ward No.1, Paying Ward, Bikku Ward, Eye Clinic, Dispensary, and Medical Ward No.11 offer a service quality below average.

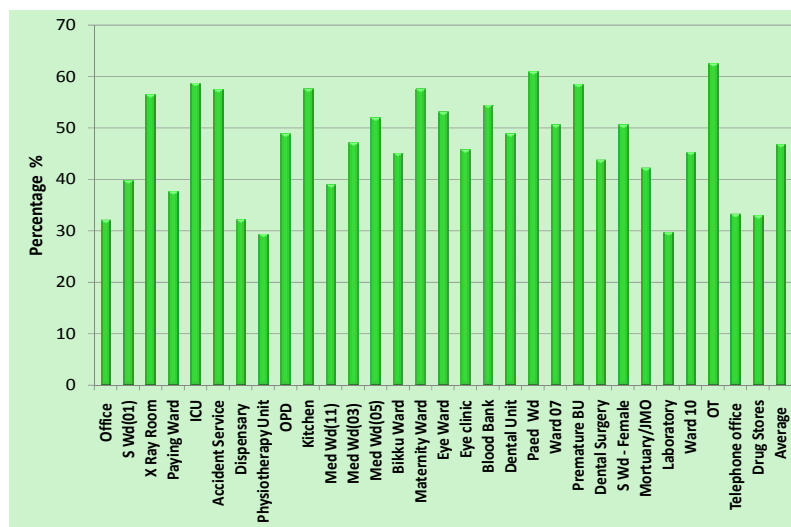


FIGURE 3- 5: QUALITY OF SERVICE AT BH KULIYAPITIYA

- General Hospital Chilaw

Average value is 53.6. Eleven units have service quality above average and eighteen units have values below average. Especially Dental unit, Ward No.16, Surgical Ward No.04, X-ray unit, Ward No.05, 09, 14, 15, 16, 18, Blood Bank and Operation Theatre are below average.

Operation Theatre and Surgical Ward No.04 have poor quality of service.

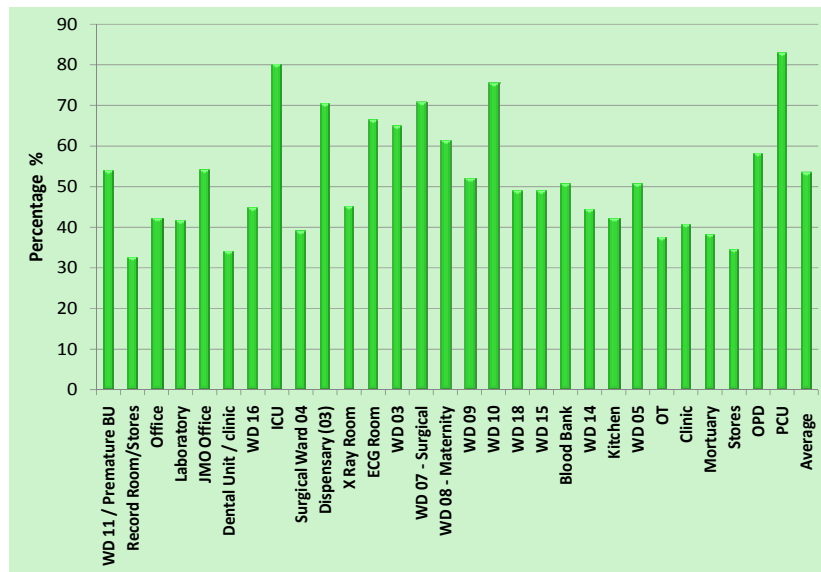


FIGURE 3- 6: QUALITY OF SERVICE AT GH CHILAW

- Teaching Hospital Kurunegala

Average is 70.8. Thirty-seven units are above the average and nineteen units between 50% and the average. Paying ward indicates

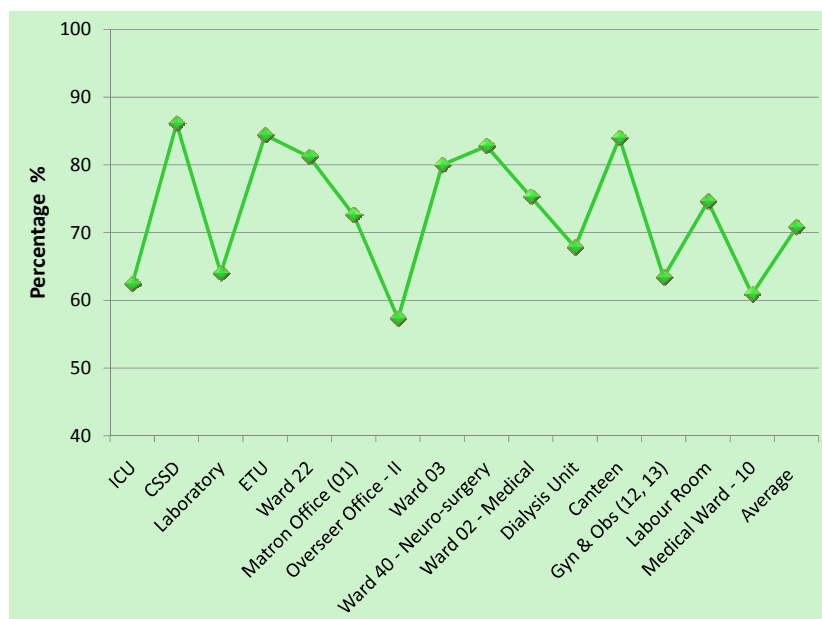


FIGURE 3- 7: QUALITY OF SERVICE AT TH KURUNEGALA

a poor quality of service.

B.2 ASSESSMENT OF THE KNOWLEDGE, ATTITUDE AND PRACTICE OF THE 5S TQM CONCEPT AMONG THE VARIOUS CATAGORIES OF PILOT HOSPITALS.

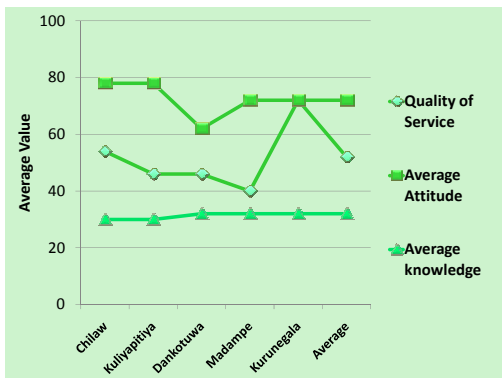


Figure 3- 8: Knowledge, Attitude & Quality of service at the 5 Pilot hospitals

Average value in five hospitals for 'attitude' is 71.38. Lowest value is in D.H. Dankotuwa, which is 62.67. In addition, the average value for 'knowledge' is 30.4 for all five hospitals.

It is noteworthy to record that the feedback of the KAP was very low (10% to 20%), which could reflect bias, as many of them familiar with the subject were included in the initial awareness sessions. This is evident in their answering of the question about the importance of the in-service training as a main source of obtaining knowledge about quality, and productivity concepts.

- BH-Chilaw

Most of them who responded were aware of productivity concepts and had participated in awareness programmes. The source of Knowledge: the in-service training programme plays an important role as the source of knowledge.

Where the attitude was concerned, that of Medical officers seem to be poorer than the other para medical and the minor staff.

- TH – Kurunegala

The knowledge among the various categories of staff was average and equally distributed among the categories. Among those who responded, the overall attitude of all categories of the staff has been satisfactory. The in-service training programme plays an important role as the source of knowledge for the major and minor staff alike.

- PU-Madampe

Knowledge pertaining to 5S-TQM among the hospital staff was satisfactory. As regards the response, that of the minor staff was poor and other categories was satisfactory.

- DH Dankotuwa

Among those who responded, the attitude of the majority of the minor staff was poor and other categories satisfactory with a high value placed on Medical officers

- Base Hospital Kuliyaipitiya

The knowledge is not uniform among all segments of the staff. The in-service training programme plays an important role as the source of knowledge.

3.2 STUDIES ON ASPECTS OF HOSPITAL QUALITY

3.2.1 CLINICAL PATHWAY

In each unit of a hospital, patient-provider inter-phases that are characterised by a series of processes lead to a production of a clinical product, examples of which are medical treatment of a condition, surgical operation or a normal obstetric delivery. The process is a transformation of a set of inputs into desired outputs that should satisfy patient's needs and expectations. Examination of the inputs and outputs of a process would give an idea of the progress of the process and how it should be improved to achieve superior quality.

A clinical pathway can be described as the sum of all the activities, contacts and events, which, the patient experiences during his or her interaction with the health care system. Any quality improvement programme should look at the processes in the clinical pathway of a patient with a view to improving them to achieve patient satisfaction. The hospital quality improvement teams would engage in this analysis in order to identify the problem areas which call for necessary action.

One obvious area which needs to be addressed is the immediate environment of a hospital. By ensuring a pleasant and a welcoming environment, a patient can experience a sense of security, which is one of the paramount objectives of the health sector.

Initial actions of 5S are directed at this aspect. The patient, who visits a hospital for treatment at the OPD, gets him/her self registered, examined by a doctor, gets a prescription and moves to the pharmacy to purchase the prescribed medicine. Those needing admission from the OPD or from the emergency service is admitted to a ward, examined, investigated, treated and finally discharged from the hospital. Most often the patient is accompanied by a family member who will also have the opportunity of witnessing the process.

They will be witnesses to many events from the time they step into the OPD. They assess the procedure of reference, the hospital environment, how the care and treatment given by the team managing the patient, the level of organization of the work, the continuity and coordination of the process and the degree of patient education.

When dealing with patients, the quality of care in treatment and nursing, the concern shown to patients and the family, communication, cleanliness and orderliness – will all be observed and evaluated by the patient. The patient and the family would also evaluate the use of technology and the results of the treatment. As part of the specific clinical pathway and also general improvement of quality, it is thus important to analyse the experiences of the patients and the family.

Process study was conducted in one hospital (Gampaha GH). The study reveals that waiting time comprises 98% of the time spent in hospital. The details are shown in **FIGURE 3-9**.

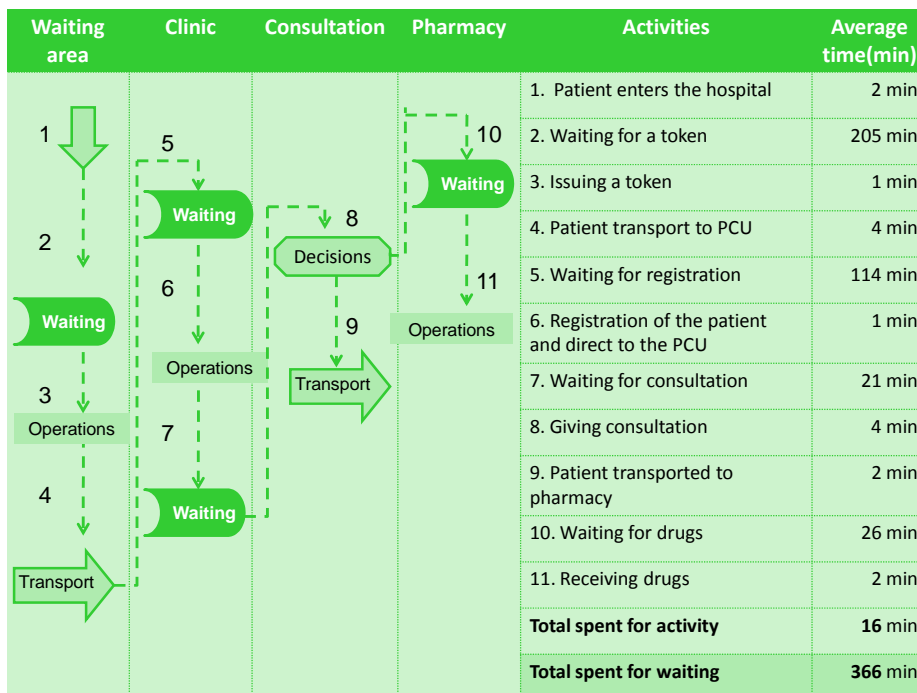


FIGURE 3-9: PATIENT'S PATHWAY

3.2.2 PATIENT AND STAFF SATISFACTION SURVEY

Our interventions are aimed at facilitating the learning of all hospital staff to continuously transform the hospital towards achieving the goal of high quality and performance. The degree to which the hospital achieves this goal is determined by outcomes that can be measured. Some important measures of outcome are patient and staff satisfaction. These elements are influenced by cultural, social, economic and political factors.

Hence, the levels of patient satisfaction and staff motivation within the organisational fabric of the hospitals need to be studied. These results would help to re-organize the health system to achieve a sustainable quality management setup.

A. RESEARCH PLAN

A comparative assessment of customer and staff satisfaction in pilot hospitals in the North Western province.

- Purpose

This study is aimed at gathering evidence on patient and staff satisfaction to support development of a 5S-TQM system.

- Objectives

To assess and compare the level of patient satisfaction in relation to service quality and the level of staff satisfaction in relation to

organisational backdrop of selected hospitals. Specific objectives include the following:

- To conduct a literature review of patient and staff satisfaction studies.
- To assess the level of outdoor patient satisfaction in the process of registration, consultation and drug dispensing in relation to service quality dimensions.
- To assess patient satisfaction in the admitting process and in-patients care in relation to service quality dimensions.
- To identify the patients' perceptions of service quality.
- To identify factors that lead to staff satisfaction in relation to the organizational structure.
- To make recommendations on quality improvement interventions based on the findings of the study.

A.1 METHODOLOGY

- Study Framework

- The study carried out from 25 July 2006 to 23 August 2006.

The method of data collection was mainly interviewer-administered questionnaires. Questionnaires designed to include determinants of customer perception of quality in service provisions.

Each service quality dimension covered in a series of questions.

1. Tangibles: questions concerning comfort of physical facilities, cleanliness of the ward, and availability of medical instruments were used to assess patient satisfaction on physical facilities.
2. Responsiveness: questions concerning promptness of staff to process patient admission, promptness of medical care provided after admission, promptness of ward's staff response and whether informed consent for surgical procedures is obtained by nurses, were taken into account to assess responsiveness.
3. Empathy: how well doctors listened to patient's inquiries, how well nurses listened to patient concerns, availability of doctors in wards were the questions to assess empathy.
4. Assurance: courtesy of the nurses towards patients, friendliness of doctors in wards, politeness of attendants and labourers in wards, how well doctors examine the patient, how well nurses perform procedures and how well universal precautions for infection prevention are practiced were the questions adopted to measure assurance.
5. Reliability: Improvement of condition during hospital stay, how well hospital staff followed the time schedule, were markers used to assess patient satisfaction on reliability.

A.2 SELECTED RESULTS

- An average rate of satisfaction on responsiveness was recorded in all hospitals. The number satisfied about 50% in all hospitals.

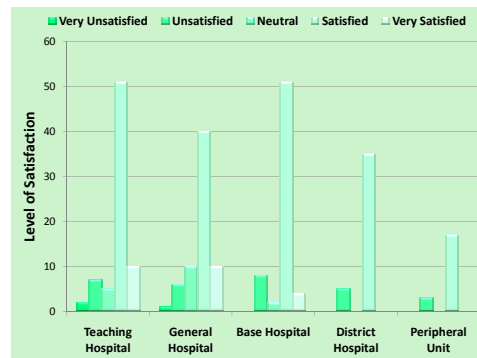


FIGURE 3- 10: DISTRIBUTION OF THE LEVEL OF INDOOR PATIENT SATISFACTION ON RESPONSIVENESS

- The satisfactory level in all hospitals is comparatively less on responsiveness. The response on waiting for doctors in B.H. Kuliypitiya recorded the lowest satisfaction.

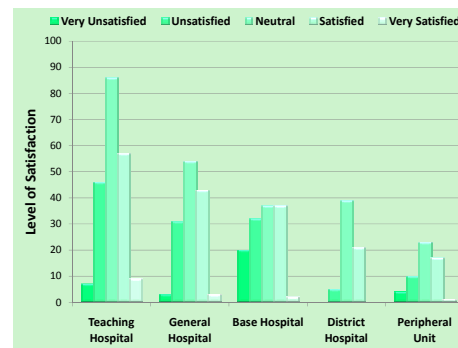


FIGURE 3- 11: DISTRIBUTION OF THE LEVEL OF OUTPATIENT SATISFACTION ON RESPONSIVENESS

- Assurance is a composite dimension of few general determinants of service quality including courtesy, competence, security and credibility. T.H Kurunegala and B.H Kuliypitiya, display the highest rate of patient satisfaction on assurance.

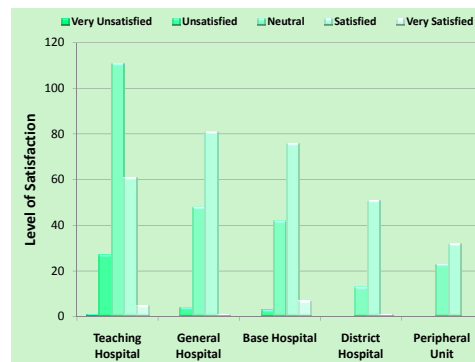


FIGURE 3- 12: DISTRIBUTION OF THE LEVEL OF OUTPATIENT SATISFACTION ON ASSURANCE

In comparison to other hospitals, unsatisfied segment is very high at T.H. Kurunegala .

The neutral response at all hospitals was high. The fact that those who frequent the out-patient department are particular about obtaining the physician's service with least delay, is an assumed contributory factor in this regard.

The response on comfort and outlook at P.U. Madampe was poor due to the lack of facilities available.

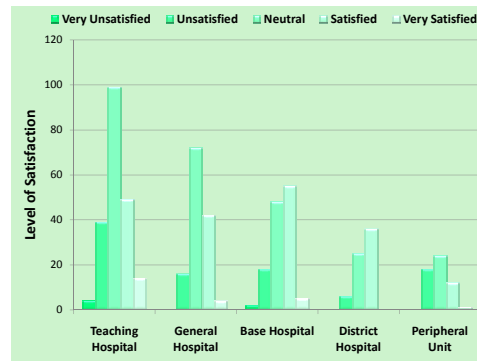


FIGURE 3- 13: DISTRIBUTION OF THE LEVEL OF OUTPATIENT SATISFACTION ON TANGIBLES

A.3 STUDY OUTPUTS

The mean scores on satisfaction levels of all four dimensions used to measure outpatient satisfaction were lower in out-patient units compared to in-patient units.

Generally there is dissatisfaction for tangibles and responsiveness regarding the delivery of services.

Health care services cannot be tested for quality with out considering customer experience. Therefore customer experience is very often the most important parameter to assess the quality of health care service.

A.4 RECOMMENDATIONS

- It is very important that quality improvement programmes facilitate delivery of quality services centering the patient. Policymakers should pay attention to improve quality improvement programmes. Having an ongoing quality improvement programme is also a requirement.
- Provision of basic amenities, necessary equipment and improving physical surroundings is recommended mainly for primary care hospitals. To improve these areas using available facilities to the maximum and following the Japanese 'Kaizen & 5S practices' would be a sound solution.
- Existence of over-crowded high-level health facilities and under-utilized low-level health facilities is a key reason for the low quality service. Efficient resource allocation would be an effective solution for this problem.
- Training communication skills for the health staff is of significant value for a better quality service. Specially, minor grade hospital staff should be given a periodical training on public relations.