

PRC Report Series 2019-20: 2

**Enablers and Barriers of NQAS
Certification of Hospitals in Kerala**



University of Kerala

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Foreword

National Quality Assurance Standards (NQAS) initiative introduced in India brought about tremendous changes in quality of service in the hospitals. Government of Kerala had introduced the Navakerala Mission under which the Ardram Mission provided quality healthcare services in Government hospitals by adding specialty and super specialty facilities in District and Taluk Hospitals and developed Primary Health Centres (PHC) into Family Health Centres (FHC), capable of meeting the healthcare needs of all members of the family. When the hospitals in Kerala underwent the NQAS assessment process, they topped the list of hospitals in India, further raising the reputation of the State at the National level. PRC Kerala embarked on the study on NQAS certification as per the guidelines of the Ministry of Health and Family Welfare, Government of India. The enablers and barriers to NQAS accreditation are studied so as to highlight the process of maintaining quality standards in the State. The districts selected are those selected for NHM PIP Monitoring in Kerala as per the guidelines of the Ministry and hence 25 health facilities including District hospitals, CHCs and PHCs/FHCs form the sample.

PRC Kerala sincerely thank the Ministry of Health and Family Welfare, Government of India for conducting studies on NHM Flagship programmes which gave the PRCs the opportunity to carryout the study in the State. We sincerely place on record our gratitude to Dr. Rajan N. Khobragade IAS, Principal Secretary, Health and Family Welfare, Government of Kerala, Dr. Rathan Kelkar IAS, State Mission Director, NHM Government of Kerala, Dr. Sarita.R.L, Director of Health Services, Government of Kerala, Dr. Raju.V.R, Addl.DHS Family Welfare for granting permission and Ms. Beula G.S, Urban MIS Manager, NHM for providing information to carry out the study in Kerala. We sincerely thank the District Programme Managers and District Medical Officers for facilitating the study in the selected districts. Our sincere gratitude goes to the Medical Superintendents, Medical Officers, Staff Nurses, and paramedical and field staff for the time they shared amidst their responsibilities in sharing information for the completion of the study. The PROs of the selected health facilities deserve sincere appreciation for their unending support.

I appreciate Dr. Sajini B Nair, Social Scientist for coordinating the study and all the Officers of PRC Kerala for their team work in successfully completing the study on time. I am sure that the findings of the study will be of great use to the State Health Services, Academicians and Policy makers in planning and policy making.

Kariavattom
March 2020

Dr. P Mohanachandran Nair
Director-in charge

Executive Summary

National Quality Assurance Standards (NQAS) assessment has revolutionized the quality aspects of hospitals in the country. NQAS Certification process in Kerala has given a great opportunity to the State to work for best quality standards thereby portraying the quality of care maintained in its hospitals. The top positions occupied by the Primary care institutions of Kerala in the list of NQAS accredited list of hospitals in the country is testimony to this aspect. The present study on this flagship programme of NHM carried out in Kerala identifies the enablers and barriers of NQAS certification of hospitals in the State. Thiruvananthapuram, Kollam, Palakkad and Wayanad, the districts identified by the Ministry of Health and Family Welfare, Government of India for NHM PIP Monitoring during 2019-20 formed the sample. From the selected districts 7 health facilities that have been NQAS accredited are included to understand the factors that enabled the facilities to be certified. The facilities that have applied for NQAS and received Kayakalp awards at the State level formed the second group of 5 facilities which revealed the enablers of excellence in Kayakalp assessment and also the barriers to NQAS accreditation to some extent. The third group included 13 facilities which have to attempt NQAS accreditation reflecting more of the barriers.

An understanding of the factors that facilitated the DH/FHC to achieve its goal of NQAS certification was observed to be both intrinsic, extrinsic factors and contextual. The criteria for certification varied between a PHC and a District level hospital and hence the interplay of enabling factors and barriers varied considerably. The '*Intrinsic Factors*' identified thus have been *Services, Team work and Leadership, Staff attitude and Staff Satisfaction, Staff competency and trainings, Functional coordination with field staff, Documentation and Resource availability*. The '*Extrinsic factors*' that enabled NQAS accreditation had been *LSGD participation, Involvement of NGOs, Community support, Geographical location (in case of the FHC)*. A third set of factors that enabled the NQAS accreditation can be derived, the lack of which stood as barriers to development. These are the contextual factors but linked mostly to those explained as intrinsic and extrinsic factors. These are the '*Contextual factors*' like the *Type of hospital, General Administration and Work load*. The facilities that had depicted these features with all the services as per guidelines achieved the goal like THQH Punalur at SDH level in Kollam, FHC Poozhanad and FHC Chemmaruthy in Thiruvananthapuram, FHC Noolpuzha and FHC Poothady in Wayanad, FHC Sreekrishnapuram and FGC Peruvemba in Palakkad district. The impact of NQAS accreditation is most conspicuous in the OPD attendance and consequently in the performance of the laboratory. The Kayakalp assessment initiative first offered better infection control and NQAS assessment followed. Conversion of FHCs also happened during 2017. FHC Poozhanad shows a 136 percent increase in OPD attendance and FHC Chemmaruthy depicts 126 percent increase. The lab tests done are proportional to the OP in most of the facilities. An increase of 124 percent in number of lab tests in

FHC Poozhanad and 85 percent in FHC Chemmaruthy during 2018-19 to 2019-20. In FHC Noolpuzha and FHC Poothady too there has been increase in OPD of 10 to 20 percent. Since these facilities had good OPD attendance during the past 10 years due to its location in a tribal dominated district the utilization has been almost hovering around 5500 per month and has been steady. THQH Punalur, at the Taluk level serves about 60000 patients on an average every month (2019-20). Over 73000 lab tests are performed every month in the lab of this hospital. This has been a steady increase over the years. Among the facilities that fall in group 3 or those which have not achieved desired quality standards in Kayakalp, conversion to FHC has improved service delivery considerably. Among the FHCs under study in Thiruvananthapuram district, FHC Thonakkal tripled its OPD attendance per month in 2 years 2017-18 to 2019-20 whereas FHC Kottukal and FHC Kilimanoor saw its OPD doubling in 2 years and FHC Aruvikkara showed 50 percent increase in OP during the period of 2 years. All the hospitals developed a patient friendly attitude. Attitudinal change in the Staff through trainings is a great achievement. Quality of service improved tremendously with NQAS accreditation. Patient Satisfaction Score is reflective of it. Availability of doctors throughout the day and services rendered are being appreciated by the public. The population of FHCs now owns the hospitals and feels proud for having the centre in their Panchayat. Bonding between the Panchayat and the FHC was strengthened. LSGD involvement in the functioning of the hospitals increased substantially. Documentation of services improved and data quality management has now become a group initiative. Community level activities increased and formation of self help groups, Arogyasena etc brought the people of the community closer to each other. Wherever the field staff led by the Health inspectors kicked off newer initiatives, scoring in certification process contributed immensely.

Infact the process of certification of each hospital is a story unique to each be it an FHC/PHC or a District Hospital. Some had to overcome the difficulty in geographic location others had to work hard for community support, those that had LSGD behind them found it easy but the overall support from the State was the deciding factor. But every story is a replicable one. Kerala has the will to excel due to which all the barriers to NQAS accreditation are overcome. So it is not surprising that Kerala has occupied the top positions in the list of certified hospitals in India. The commitment of the State and the huge health workforce is indeed a laudable asset to the country.

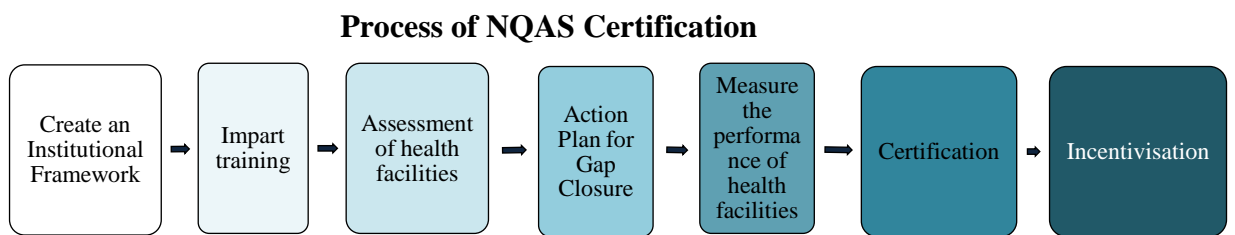
1. Introduction

Access to good quality health care to all is the key to attainment of SDG targets set by India. India presents a heterogeneous picture in terms of achievements in the health sector. As the Southern States, Punjab, West Bengal and Goa are closer to the SDG 3 targets on health and wellbeing and classified as ‘Front runners’, the EAG States, Assam, Arunachal Pradesh and Nagaland are far behind in the race and are categorized as ‘Aspirant States’ as interpreted in the SDG India Index (NITI Aayog, 2018). The indicators indexed under SDG3 were the maternal Mortality ratio in India which is 130 maternal deaths per one lakh live births, U5MR with 50 children dying under five years of age for every thousand live births, immunization coverage of children 12-23 months in India which is 62 percent, tuberculosis at a level of 138 cases per a lakh population annually and the human resources where there are only 221 Government Health workers per a lakh population. The situation in different States normally determines the success of any intervention. There is increasing evidence of the lack of institutional capacities including human resources and infrastructure (Gopal M K, 2019) to achieve the desired rates especially with regard to maternal and child health. Also emphasis is being given on the prevention aspect. So for the achievement of targets set under SDG 3, apart from curative care, focus is now on providing preventive and promotive health care with adequate infrastructure, human resource support, and financial resources for health care.

To overcome the challenges of inadequate facilities, infrastructure, coverage, access, and quality which continued to plague the health system and recognizing the importance of maintaining quality standards in hospitals, Government of India launched NQAS (National Quality Assurance Standards) for District Hospitals in November 2013 and similar standards for PHC and CHC were launched in December 2014. This was a development over the years from the introduction of the Indian Public Health Standards launched in 2005 with revisions in 2011 which defined minimum acceptable levels of physical infrastructure, services available, manpower requirements, equipment norms, list of drugs, reagents and consumables,

statutory compliances, quality assurance and quality control process, and role of RKS.

NQAS focuses on public health and has inbuilt mechanism for certification, It captures all aspects of quality of care within the eight areas of concern: Service Provision, Patients Right, Inputs, Support Services, Clinical Services, Infection Control, Quality Management and lastly the Outcome. Each standard is accompanied with measurable elements & checkpoints to measure compliance to the standards. Flexibility has been given for the States and Health Facilities to adapt the system according to their priorities and requirement



There are eight areas of concern. Every domain has set specific standards, realization of which leads to NQAS certification. These areas are outlined here.

Service Provision	• Curative Services, RMNCHA Services, Diagnostic Services, NHM and State Programmes, Support Services and Service appropriateness to community needs
Patients Rights	• Information access, Privacy, Confidentiality, Patient involvement in treatment, Ethics, financial protection
Inputs	• Infrastructure, Physical safety, Qualified and trained staff, drugs and consumables, defined and established procedures for utilization
Support Services	• Water supply, Electricity, Drug Storage facility, Dietary services, Financial management, Equipment Maintenance
Clinical Services	• Registration, Standard treatment protocol, Nursing care, Record maintenance, Intensive and emergency care, disaster management, Blood bank/ BSU, Anesthetic services, OT services, MCH services, NHM programmes
Infection control	• Effective infection control practices, Personal hygiene, Equipment, Waste segregation and disposal
Quality Management	• Organization framework, Patient and employee satisfaction, Standard Operating procedures, Periodic review, Risk management plan
Outcome Indicator	• Productivity, Efficiency, Clinical care and Service quality indicators

2. Objectives

So the main objectives of the study are:

- To identify the enablers of NQAS quality implementation, certification and sustenance
- To understand what are the barriers for quality implementation and certification
- To understand the overall changes associated with NQAS Certification of hospitals.

3. Data and Methodology

Information available from the State on the list of hospitals included in the process of NQAS certification was first accessed. Health facilities were listed on the basis of status of implementation of qualitative standards and certification. The health institutions were classified as those that have been accredited, those that are in the

list of facilities for process of certification but unable to achieve and those that have not been able to maintain the quality standards for being listed for NQAS certification.

Classification of hospitals :

Group 1. NQAS accredited hospitals – To identify enabling factors

Group 2. Competed for NQAS accreditation but not accredited but Kayakalp Award winners – To identify both enablers and barriers

Group 3. Not listed for NQAS – To identify the barriers

Such a classification could help to identify the enablers of quality implementation and certification as evident from the observations of the first group of health facilities, the barriers in certification process as evident from the third group of health facilities and also the second group to an extent. Since some of the health institutions have been top ranked in NQAS certification, the identification of the factors that enabled them to reach such high standards could be a learning experience for the others in the country.

The selected health institutions included DHs, SDHs, CHCs and PHCs/FHCs since quality assurance standards are maintained at these levels. In one District, the sample is 5 health facilities. The study was done in only 4 districts out of 5 districts allotted due to the pandemic situation (COVID-19) that prevailed in one district during the study period. So to maintain the sample of that 25 health facilities additional 5 facilities from 2 districts were covered so as to include all three groups of health facilities. But from the districts Thiruvananthapuram, Kollam, Palakkad and Wayanad, 7 health facilities that have been NQAS accredited are included to understand the factors that enabled the facilities to be certified. The facilities that have applied for NQAS and received Kayakalp awards at the State level formed the second group of 5 facilities which revealed the enablers of excellence in Kayakalp assessment and also the barriers to NQAS accreditation. The third group included 13 facilities which have to attempt NQAS accreditation reflecting the barriers. All health facilities selected were from the different blocks which enabled a wider understanding of the varying role of LSGD.

District	Group	DH/TH	CHC	PHC/FHC
Thiruvananthapuram	Group 1			FHC Poozhanad FHC Chemmaruthy
	Group 2		CHC Poonthura	
	Group 3	DH Nedumangad		FHC Kilimanoor FHC Aruvikkara FHC Thonakkal FHC Kottukal
Kollam	Group 1	THQH Punalur		
	Group 2			FHC Elampalloor FHC Chathannoor
	Group 3			FHC Perumon FHC Kottamkulangara FHC Chadayamangalam FHC Kulashekkharapuram
Wayanad	Group 1			FHC Noolpuzha FHC Poothady
	Group 2			
	Group 3	DH Mananthavady		FHC Vengapally FHC Appapara
Palakkad	Group 1			PHC Peruvemba FHC Sreekrishnapuram
	Group 2	W&C Hospital Palakkad		PHC Thirumittacode
	Group 3		CHC Koduvayur	

Five districts included in the study as per the guidelines of Ministry of Health and Family Welfare, Govt. of India were Thiruvananthapuram, Kollam, Wayanad, and Palakkad. Thrissur district could not be included due to the pandemic situation during the study period. Five facilities were added from Thiruvananthapuram and Kollam districts.

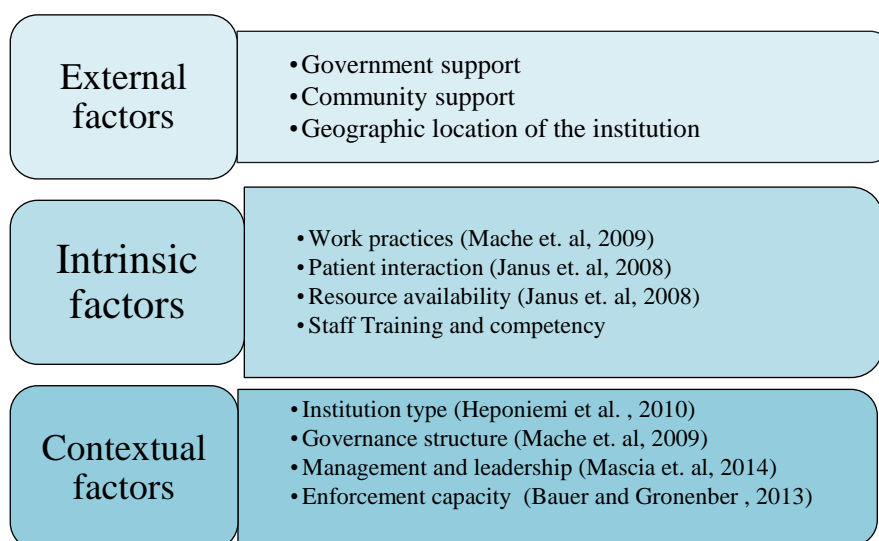
So the study includes 4 District Hospitals, 2 CHCs and 19 PHC/FHCs. In terms of the group classification focused here, there are 7 health institutions which have been NQAS certified, 5 health institutions which have applied for NQAS and yet to be certified but have been State level Kayakalp award winners and 13 health institutions which have not applied for NQAS accreditation.

As there are lesser number of hospitals that received NQAS accreditation at tertiary level in the districts assigned, NQAS certified SDH/DH from Group 1 was selected. In general, factors that enable a hospital to get accredited are

almost common but the barriers to accreditation present in different forms and may be specific to hospitals. Also since the population in remote areas is in more contact with the PHCs and CHCs, the importance of providing better facilities in these institutions assumes greater importance. So maintaining quality standards are important and hence the justification for selecting more PHCs/FHCs.

This study was carried out along with NHM PIP Monitoring in the districts allotted to Kerala for NHM PIP Monitoring following the guidelines issued by the Ministry of Health and Family Welfare, Government of India.

Many factors both internal (within the health facility) and external factors influence the whole process of NQAS accreditation. There are both factors that enable and those that hinder the process. A cross sectoral review of recent studies that have touched upon such factors reveal the interplay of personal, structural, political, cultural dimensions in the sustainability context (Stewart et. al, 2016), geographic, human, technology and social factors in access to health care context (Ensor and Cooper, 2004; Peters et. al, 2008). Barriers in access as pointed out by Ahmed et. al (2006) could be lack of awareness on different aspects, unmet need and lack of opportunity. The present study seeks to look for the following factors from all the eight domains of concern for NQAS accreditation of hospitals as identified in literature reviewed on maintaining quality standards in education, health service delivery, occupation, business etc. that enable any institution to maintain quality standards.



The assessment methods were:

1. Observation
2. Staff Interview and stake holder interview
3. Record review

The impact of certification was identified by analyzing the outcome indicators wherever possible in case of NQAS certified institutions. To name a few: the OPD and IPD attendance, the quantum of diagnostic services, and other indicators for which data is available.

Interviews were done with structured schedules with a set of pre-determined key topics as outlined above on the enablers and barriers to certification to be explored and open-ended questions designed to encourage discussion. Appropriate statistical techniques for analyzing quantitative data would be employed depending on the availability of data and qualitative data collected would be interpreted using appropriate methods.

Limitations

The basic sampling technique in the selection of districts was purposive sampling (those districts allotted for NHM PIP Monitoring) and hence the selection of health institutions had limitations in ensuring sufficient number of NQAS accredited health institutions at Primary/Secondary/Tertiary levels. The study thus does not make any comparison whatsoever between districts or between health institutions. No attempt is made to rank the health institutions on the basis of its performance or the type of enabling factors or barriers as the factors that operate in a Tertiary care and a Primary care institution differ. All those hospitals that received NQAS accreditation in the selected districts were selected to get sufficient number in Group 1 so as to identify the enablers of NQAS certification to partially overcome the limitations.

4. Results

4.1. The Kerala Context

Government of Kerala has not left any stones unturned to improve the health situation of its population. Many strategies have been designed to provide effective healthcare system with better infrastructure and quality services. Under the 'Navakerala' initiative, the *Ardram scheme* is an initiative of Government of

Kerala's ambitious project in the healthcare sector which envisages radical changes in this field.

The objective of 'Ardram' mission is

- to deliver patient-friendly, quality healthcare services in Government hospitals and to add specialty and super specialty facilities in District and Taluk Hospitals.
- to develop Primary Health Centres (PHC) into Family Health Centres (FHC), capable of meeting the healthcare needs of all members of the family and to address the preventive, promotive and rehabilitative healthcare interventions of the local community.

Web-based appointment system, patient reception, and registration, improved amenities in the waiting areas, etc. are part of the FHC concept. The Medical College Hospitals and District Hospitals are also being transformed into more patient-friendly hospitals with many enhanced facilities through the Ardram mission. Apart from the regular OPs, FHCs focus on

- Primary prevention of communicable as well as non-communicable diseases.
- Maternal and child-care services,
- Prevention of infectious diseases
- Proper control of lifestyle diseases
- Counseling facilities for teenagers, couples, elderly and the drug-addicted.

Outpatient wing of FHCs functions from Monday to Saturday (9am - 6pm) and on Sundays from 9 am to 1.30 pm. Laboratory facilities are extended from 8am to 4pm.

All healthcare services implemented by the State as well as the Central government are delivered through FHCs. Various committees have been formed at the panchayat and district level to manage and run the health centres. Enhancement of social factors that in turn give a boost to the healthcare system will also be implemented through local self governments, along with the help of various departments.

Based on the information available from the State Health Department, we find that PHCs, FHCs, CHCs, SDH, DH and GH distributed all over the 14 districts in the State of Kerala have received NQAS Certification.

Evidently the conversion of PHCs to FHCs have improved the quality standards tremendously as we see more than 50 percent of the institutions that received NQAS

accreditation are FHCs in the State. Kerala has been in focus as twelve PHCs of the State occupy the top position in the National List of NQAS accredited facilities till date.

	FHC	PHC	UPHC	CHC	SDH	W&C	DH	GH	Total
Alappuzha		3							3
Ernakulam	3		1	2				1	7
Idukki	2								2
Kannur	9		3						12
Kasaragod	4	2		1			1		8
Kollam		1			1				2
Kottayam	2			1					3
Kozhikode	2		1	1	1	1			6
Malappuram	5	1							6
Palakkad	2	1			1				4
Pathanamthitta	1								1
Thrissur	5		1		1				7
Thiruvananthapuram	2	1							3
Wayanad	2								2
Total	39	9	6	5	4	1	1	1	66

Data as reported in 2020

The latest in the list added were PHC Kallikkad New, Thiruvananthapuram with 95 percent score, FHC Kalladikode, Palakkad with 94 percent and FHC Nenmanikkara with 93 percent score. Earlier FHC Poozhanad in Thiruvananthapuram district and Kayyur in Kannur district had scored 99 percent in NQAS accreditation. In case of district hospitals, Kottamparamaba W&C hospital Kozhikode scored 96 percent and topped in India. In case of sub district hospitals, Chalakudy Taluk hospital topped the list with 98.7 percent score. Kannur became the first district in India to house 12 institutions that obtained NQAS certification.

5. Thiruvananthapuram District

Among the selected districts, FHC Poozhanad of Thiruvananthapuram district topped the list of health facilities in India to be certified under NQAS with a score of 99 percent. Similarly the first FHC in Kerala, Chemmaruthy FHC received NQAS accreditation in 2018. The process that led to these glories is described here thereby identifying the enabling factors and also to find out if there are any barriers to achieving the perfect score. The process followed by this FHC is the same in other

facilities in preparing for NQAS accreditation and hence is elaborated so as to describe the process. It is undoubtedly the conversion of PHCs in the State to Family Health Centres that has been the first step towards the accreditation process as far as this Poozhanad is concerned. The facilities go through the process of assessment in the State under the Kerala Accreditation Standards of Hospitals (KASH). The infection control activities to achieve the Kayakalp Award is the other major process that puts the institution in the track to attempt the NQAS accreditation.

The Ayushman Bharath Health and Wellness Centre (HWC) is implemented in the Kerala as the Family Health Centre to suit the needs of the population who seek only primary level health care in the PHCs. The 'Ardram' Mission under Government of Kerala has been the aiming at radical changes in the health sector and one among the changes made has been the strengthening the PHCs. A role of the Local Self Government in the activities of the FHC has been stressed and the unique initiatives taken by the LSGD in the health facilities are also highlighted here.

5.1 Family Health Centre Poozhanad

Family Health Centre Poozhanad is located in a small Village/hamlet named Poozhanad in Perumkadavila Block in Thiruvananthapuram District of Kerala. It comes under Ottasekharamangalam Panchayat. Poozhanad village is located 6 km from Perumkadavila.

FHC Poozhanad started its journey of serving its population way back in 1935 when it was established by the Maharaja of Travancore as a Centre to procure and distribute medicine Quinine because of Malaria outbreak in the region. In 1965 it was converted as a Primary Health Centre. During the initial period, this Centre has never been able to attract people other than its immediate surroundings because of its location in a remote area with less developed surroundings. Accessibility was an issue.

With new initiatives being implemented from time to time by the Health Department, the services improved since 2011 when the Palliative Care initiative was started from the Centre. It slowly became a better known to the people but the

OP did not increase. The PHC became an award winning institution for Palliative Care. With certain infrastructure development, better service was possible but until 2015 the average OPD attendance per day hovered only around 40.

But later on a good team comprising of very enthusiastic and committed Staff led by the Medical Officer Dr. Vinoj K.V put up great effort in improving the infrastructure with State and NHM support. Under the Ardrum Mission this centre was converted to a Family Health Centre on 7th February 2018 and in the same year it attempted the Kayakalp assessment for the first time and qualified with 92 percent score for NQAS Assessment.

In hardly 6 months, the FHC underwent the NQAS assessment in 2019 by preparing itself based on checklist listing 1000 items and 50 standards. It topped the National Quality Certification list of National Health Mission with a record score of 99 per cent. Now the OP attendance is around 300 per day. It also achieved the status of being the first paperless institution with implementation of e-health. People own the hospital and has now they approach the Staff even to solve personal problems.



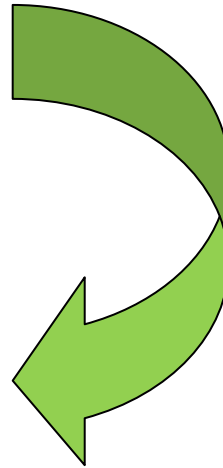
Here an assessment of the enabling factors and barriers are listed out in detail so as to traverse through the accreditation process. It can also form a data base for other institutions in the path of development.



PHC Poozhanad in 2015



FHC Poozhanad in 2018



The PHCs are assigned scores in 4 broad categories: OPD, National Health programme, Laboratory and General Administration. The scores achieved by FHC Poozhanad were

- | | |
|------------------------------|---------------------|
| 1. OPD | :99.46 percent |
| 2. National Health programme | : 99.82 percent |
| 3. Laboratory | : 99.51 percent and |
| 4. General Administration | : 98.25 |
| Total Score | : 99 percent |

There are 8 areas of concern wise scores and FHC Poozhanad was assigned:

- | | |
|-----------------------|----------------|
| 1. Service provision | :99.47 percent |
| 2. Patient rights | :100 percent |
| 3. Inputs | :100 percent |
| 4. Support services | :97.94 percent |
| 5. Clinical services | :99.25 percent |
| 6. Infection control | :100 percent |
| 7. Quality management | :97.89 percent |
| 8. Outcomes | :100 percent |

	Enablers	Further attempts for 100% Score(Barriers to 1% score)
OPD	<ul style="list-style-type: none"> ➤ OP timing from 9am to 6pm (9am to 1.30pm and 1.30pm to 6pm) ➤ Pre Assessment area ➤ Observation ward was initiated with 3 beds ➤ Triage area enabled to provide emergency stabilization care - Crash Cart with emergency basic life support equipments, ambu oxygen facility, ➤ Staff Nurses became multi tasking: <ul style="list-style-type: none"> ◆ Pre assessment ◆ Counseling ◆ Immunization ◆ Palliative care ◆ Diabetic Retinopathy Screening ◆ Maintaining SWAAS Clinic ◆ Maintaining ASWAAS Clinic ➤ Paperless OP-Electronic registration with e-health card, 14000 people given e-health card out of 18000 population ➤ Attitude change of staff in the OP ➤ (“What can I do for you attitude” reflected in the Patient Satisfaction Score achieved though Attitude change of Staff under Ardrum Scheme) ➤ Privacy during examination ➤ Introduced token system ➤ Provided drinking water facility ➤ Installed air cooler ➤ Set up TV as part of entertainment ➤ Installed fire extinguisher for safety ➤ Separate Conference Hall  <p><i>OP Waiting Area</i></p>	<ul style="list-style-type: none"> ➤ Disaster Management system to be attempted ➤ Afternoon OP is less: It has to be improved ➤ NCD Clinic shows female preponderance: Males to be promoted ➤ Sunday OP now started for Males. So Sunday OP has started to increase. Survey points out that only 60% of the patients seek treatment for NCDs in the FHC. So remaining 40% is the target. ➤ Complication screening for NCD to be stressed ➤ Diabetic Neuropathy to be stressed in the FHC. <p><i>Token System</i></p>   <p><i>OP Ticket Counter waiting area with library facility for reading</i></p>
Wards	<ul style="list-style-type: none"> ➤ IP facility not in FHC concept 	
Laboratory	<ul style="list-style-type: none"> ➤ Financial support from Ardrum and NHM ➤ Infrastructure improved ➤ Separate Sample collection area 	<ul style="list-style-type: none"> ➤ Applied for NABL Accreditation ➤ Attempting AB-PMJAY Gold which can be directly applied by an NQAS

◆ Separate Patient waiting area



certified institution



- Enabled Liquid waste management
- Increase in HR reduced patient waiting time
- More lab equipments were procured.
- Doubled the no. of tests including HbA1C
- Enabled tie up with Rajiv Gandhi Institute of Biotechnology at subsidized rates to do tests not possible in the FHC providing patients all lab investigations
- External quality from Vellore



Pharmacy

- Medicine distribution system streamlined



- No medicine stock out issue
- All drugs as per EDL available
- E-health linked stock
- Store made A/c
- Temperature maintained store
- HR increased: 3 Pharmacist s including 1 from LSGD
- Out of stock detected early especially insulin
- Local purchase increased
- Made Modular pharmacy

- Attempting uninterrupted supply of medicines
 - Financial cap if taken away would make diagnostics more smooth
- HR to be increased



A/C Drug storage



Diagnostic services

➤ Diabetic Retinopathy



- All test kits are made available
- ECG facility
- Optometrist is made available
- Early identification of kidney disease through preliminary screening
- Minor procedures done




- Need X-ray machine
- E-health external investigation details to be incorporated
- Improve minor procedures adding more procedures as doctors are trained


Maternity Department

- Respectable maternity care extended
- Privacy ensured
- Emergency obstetrics preliminary management possible. JPHNs given hand held Doppler device with which they can check the foetal heart beat and record which makes antenatal women happy
- Counseling sessions is excellent as all the staff are trained. 30 point check tool is given.
- ICDS Counselor devotes one day every month
- RBSK team involvement appreciable in coordinating work with FHC. Mobile intervention unit provides service monthly once
- Setup separate breast feeding room



- Trying for dedicated maternity care
- Proposed LSGD to give a Female Medical Officer to make maternity service more comprehensive atleast one day OP weekly.

		<ul style="list-style-type: none"> ➤ Attempting early detection of low birth weight babies ➤ Fill the gap in early identification of LBW babies
<p>Child care</p>	<ul style="list-style-type: none"> ➤ In the FHC area there is 80% exclusive breast feeding 0-6 months ➤ Vaccine supply improved ➤ Awareness classes regular ➤ Outreach programme once in every two months ➤ RBSK team activities reviewed every month to understand child health situation ➤ Quality infection control improved ➤ Set up separate immunization room  <ul style="list-style-type: none"> ➤ Cold Chain equipment ensured 	<ul style="list-style-type: none"> ➤ Make exclusive breast feeding 100% ➤ Overcome Vitamin A dropout  
<p>General administration</p>	<ul style="list-style-type: none"> ➤ Marked improvement in HR which changed from <ul style="list-style-type: none"> ◆ 2 to 3 Medical Officers ◆ 2 to 4 Staff Nurses ◆ 1 to 3 Lab technicians ◆ 1 to 3 Pharmacist s ◆ 1 LHI, 5 JPHN, 1 PTS ◆ 2 Nursing Assistant ◆ 2 Grade II Hospital Attendant ◆ 1 Grade I Hospital Attendant ◆ 1 palliative Care Nurse (Panchayat) ◆ 1 DEO for Retinopathy from KSSM under Nayanamithram project ➤ Administration improved and documentation smoothened which was the basic criteria for NQAS 	<ul style="list-style-type: none"> ➤ Attempting to get 1 Female MO for maternity care
<p>Auxiliary services</p>	<ul style="list-style-type: none"> ➤ Linen change outsourced ➤ Sanitary condition regularly monitored ➤ Voluntary security service enabled now 	<ul style="list-style-type: none"> ➤ Need regular security service
<p>Infection Control</p>	<ul style="list-style-type: none"> ➤ Drastic change in quality control ➤ Hand hygiene stressed ➤ Infection rate reduced from 20% to 0% ➤ Procured Autoclave 	<ul style="list-style-type: none"> ➤ Trying sponsorship for expenditure on consumables which is presently high

	<ul style="list-style-type: none"> ➤ Team leaders from each section for infection control on continuous basis ➤ Outreach activities for infection control initiated ➤ Biomedical waste management as per IMEP protocol ➤ Staff protected against diseases by immunization ➤ Procured Fogging machine 	<ul style="list-style-type: none"> ➤ Hand hygiene audit to be completed ➤ Repeated training on hand hygiene
<p>NHM Programmes</p>	<ul style="list-style-type: none"> ➤ Source reduction programme once in a month under NVBDCP ➤ Mental health programme under ASWAAS ➤ Geriatric Clinic under NPHCE programme. ‘Poonilavu’ a programme is there where a separate room in the compound is devoted to elderly where they can rest, recreation activities etc during Thursday Clinic days and on all days when the elderly come and spend time together. ➤ Primary screening and if in case detection of Leprosy medicine distribution under NLEP ➤ Salt testing kits under NIDP ➤ Tobacco cessation clinic exists under NTCP. Counseling for patients on specific pre planned days ➤ Field inspection underway ➤ RNTCP-Sputum collection and testing, DOT available ➤ NACP- Free ICTC service available ➤ SHP- JPHN is working under RBSK ➤ Daily disease reporting under IDSP ➤ Palliative Care Programme 	<p>Nil</p>  <p><i>‘Poonilavu’ resting and recreation enabled small building for Elderly setup within the premises</i></p>
<p>Training</p>	<p>Apart from the basic trainings, the Staff have been trained in</p> <ul style="list-style-type: none"> ➤ Ardram Concept level ➤ WHO NCD protocol ➤ E-health ➤ BLS based training ➤ Infection Control-Kayakalp ➤ Biomedical waste management ➤ Tobacco Control ➤ RTI/STI ➤ Trauma care and emergency management ➤ RNTCP ➤ Elderly health care management ➤ Palliative care ➤ Fire and Safety ➤ NQAS training ➤ Nayanamithram: Diabetic Retinopathy 	<ul style="list-style-type: none"> ➤ Refresher trainings required ➤ New staff to be trained ➤ Peer training to be initiated



Description of Flow of patients coming for treatment in FHC Poozhanad.

All these service areas other than Lab are functioning under one roof. Patients are routed from the OP ticket counter waiting area to the OP waiting area following the token number. They are referred to OP1 or OP2 and as per requirement and then to the injection room/ECG room/minor procedure room/observation room/dressing area as required. They get the medicines prescribed from the Pharmacy within the same area. If the patient require lab tests, they have a separate Lab area within the same premises.

Outcome

Team work has been the basic factor in achieving the NQAS accreditation. Repeated trainings in a hall devoted for trainings on all related aspects have been the strength. NHM backed the training process. Financial support from Ardrum and NHM took care of the infrastructure developments. LSGD support came with the conversion to FHC but the real support began after accreditation as the whole panchayat became famous. NGO support was provided from a few. Pharma company helped in observation ward construction. Another NGO, Bhavana Arts Club donated consumables. Agriculture department helped in developing the garden. Residents also involved in the process.



With NQAS quality of service improved drastically.

- Population of the area started owning their hospital.
- *Up to date documentation* is achieved with staff involvement.
- *OPD attendance increased drastically*. Eg. The OPD attendance was 47842 during 2017 which increased to 61968 in 2018 and 71894 during 2019.
- *The number of Lab tests doubled* from 10834 in 2017 to 22187 in 2018 and it is now 25263 during April-January 2019-20
- Percentage Anemia cases treated in the FHC is 100%
- No ANC has been missed
- Percentage of pregnant women given therapeutic IFA dose is 100%
- Percentage of children with diarrhoea treated with ORS and Zinc is 100%

Recent Statistics show that the outcomes have been improving and continue to be so:

	<i>April 2019</i>	<i>February 2020</i>	<i>% increase</i>
OPD per month	4442	6708	51%
OPD per Doctor	1481	2236	51%
Adolescent OPD per month	183	379	107%
Child OPD per month	573	1063	86%
ANC per month	16	20	25%
No. of children immunized per month	146	386	164%

5.2 Family Health Centre Chemmaruthy

Chemmaruthy is a small village of geographical area 1754 hectares located in Chirayinkeezhu Tehsil of Thiruvananthapuram district in Kerala, India. It is situated 15km away from sub-district headquarter Attingal and 50km away from district headquarter Thiruvananthapuram. Varkala is nearest town to Chemmaruthy which is approximately 8km away.



Family Health Centre Chemmaruthy, located in Chemmaruthy panchayat of Manamboor block has the unique achievement of being the first FHC in Kerala to be converted to a FHC in the year 2017. It has the distinction also of being the first in the district to be NQAS certified. With 88 percent score, the centre achieved the status along with 10 other FHCs from among 24 institutions that were accredited in

Kerala. FHC Chemmaruthy received the KASH accreditation in 2013. Since it had validity only till 2018, the accreditation process renewal has been completed now. The centre has a good, committed and experienced staff led by Dr. Anwar Abbas. Kayakalp initiative was focused in the beginning and the efforts made helped the facility to be the Kayakalp Winner during 2017-18. The NQAS accreditation followed and the Staff have great words to say for the Panchayat/LSGD support in achieving the status. The centre has been appreciated for the documentation process that had a strong bearing on accreditation. The efficient documentation is attributed to the involvement of staff in all the service departments who were given charge of their respective departments led by the second MO who was given the charge of NQAS. So a collective effort is visible under the guidance of trained Medical Officers which led the FHC to achieve the certification with the following scores.



- | | |
|------------------------------|---------------------|
| 1. OPD | :90.8 percent |
| 2. National Health programme | : 85.5 percent |
| 3. Laboratory | : 84.8 percent and |
| 4. General Administration | : 89.2 |
| Total Score | : 88 percent |

The 8 areas of concern wise scores assigned to FHC Chemmaruthy are:

- | | |
|-----------------------|---------------|
| 1. Service provision | :94.7 percent |
| 2. Patient rights | :91.4 percent |
| 3. Inputs | :88.6 percent |
| 4. Support services | :90.0 percent |
| 5. Clinical services | :86.1 percent |
| 6. Infection control | :90.2 percent |
| 7. Quality management | :76.8 percent |
| 8. Outcomes | :90.8 percent |

Here we analyze the factors that enabled FHC Chemmaruthy to achieve the NQAS accreditation and also to identify the areas of concern where the facility need to improve in further bettering their scores. The findings are only based on qualitative interviews with the staff.

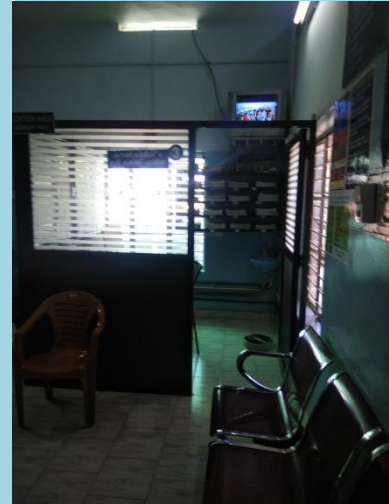
	Enablers	Further barriers
OPD	<ul style="list-style-type: none"> ➤ OP timing from 9am to 6pm (9am to 1.30pm and 1.30pm to 6pm) ➤ Developed waiting area with adequate space and fully furnished with airport chairs. Set up TV as part of entertainment in waiting area ➤ 3 separate OP rooms  <ul style="list-style-type: none"> ➤ OP, Pharmacy, dressing room, injection room, immunization room, observation room all adjacent to make patients comfortable.  <ul style="list-style-type: none"> ➤ Free check up ➤ Pre Check area with TV display and card reading ➤ ASHA accompanying female patients to the FHC ➤ ASHA posting in FHC for monitoring queue at OP ➤ Observation ward was initiated with 3 beds 	<ul style="list-style-type: none"> ➤ Quality indicators to be developed and improved ➤ Training to be improved further  <p><i>OP Ticket Counter waiting area</i></p>  <p><i>Waiting area before OP3 also used to organize classes</i></p>  <p><i>Treatment protocols displayed in the Nursing station</i></p> 



- Privacy during examination
- Attitude change of staff in the OP with intensive training
- Introduced token system
- Provided drinking water facility
- Installed fire extinguisher for safety
- Separate Conference Hall
- E-health
- Change from 1 day NCD clinic to 6 day clinic
- Enabled Physiotherapy
- Separate Geriatric ward
- Overall beautification
- Tobacco cessation counseling given.
- Patient Satisfaction records maintained perfectly and was appreciated by the Assessors
- Documentation for NQAS well appreciated
- Treatment protocols for treatment was developed by a MO which contributed to NQAS scoring in the category. All the protocols are displayed.
- SWWAS programme
- ASWAAS programme
- Diabetic Retinopathy screening.
- Case identification delay has decreased tremendously with active discussions between other MOs.
- Gymnasium attached as an additional component of preventive health care.



Conference hall built with LSGD support







Precheck area




Gymnasium

Wards

- IP facility not in FHC concept

<p>Laboratory</p>	<ul style="list-style-type: none"> ➤ Infrastructure improved tremendously ➤ Liquid waste management set up- waste: drained through wash basin with bleaching solution, drained to soak pit where it remains for 6 hours and then drained into drainage ➤ Increase in HR reduced patient waiting time ➤ More lab equipments were procured. ➤ No. of tests increased ➤ Financial support from Ar dram and NHM was immense 	<ul style="list-style-type: none"> ➤ Has to streamline timely management of equipments by Kirlosker (points lost in this aspect) ➤ Automated machine service delay has to be addressed ➤ Certain lab tests have to be provided free but due to higher demand there is strain ➤ Arogyakiranam fund not yet received from State so some tests are not possible to be given free. This problem has to be sorted out. ➤ Malaria tests to be improved
<p>Pharmacy</p>	<ul style="list-style-type: none"> ➤ Medicine as per EDL available ➤ E-health linked stock ➤ HR increased ➤ Token system introduced in Pharmacy  <p style="text-align: center;"><i>Lab Counter Lab facilities</i></p>  <ul style="list-style-type: none"> ➤ Good waiting area before pharmacy with TV display  <ul style="list-style-type: none"> ➤ Out of stock detected early and stock maintained from other PHCs ➤ Made Modular pharmacy ➤ Modernized drug storage facility ➤ Waiting time for getting medicines decreased 	<ul style="list-style-type: none"> ➤ During assessment there were only 14 out of 15 drugs. The drug not available in the FHC was not available in Kerala at all (lost marks in this aspect) ➤ Stock out of certain drugs that arises due to high OP and demand to be addressed. Presently managed by taking from other PHCs ➤ Medicines are made available only as per FHC criteria ➤ The indent limit for FHCs with high OP should be increased ➤ Demand supply matching to be addressed ➤ Patients from 5 Panchayats come for treatment. So demand is more  <p style="text-align: center;"><i>EDL Displayed</i></p>

Diagnostic services	<ul style="list-style-type: none"> ➤ Made MoU with DDRC. DDRC collects samples from the FHC. All basic treatment based on tests possible are done here and only after that referral is made. ➤ Diabetic Retinopathy screening ➤ Lepto treatment possible ➤ All test kits are made available ➤ ECG facility ➤ Optometrist is made available ➤ Early identification of kidney disease through preliminary screening ➤ Minor procedures done 	<ul style="list-style-type: none"> ➤ Urine sugar strip shortage has been addressed which arises due to high OP load
Maternity Department	<ul style="list-style-type: none"> ➤ ANC register maintained perfectly. ➤ ASHA diary on ANC, field activities maintained and every observation is linked to JPHN report and issues identified when solved are recorded. Documentation of ANC activities was well maintained ➤ Respectable maternity care extended during ANC and Privacy ensured ➤ Counseling sessions is excellent as all the staff are trained. 30 point check tool is given. ➤ RBSK team involvement appreciable in coordinating work with FHC. Mobile intervention unit provides service monthly once ➤ Setup separate breast feeding room 	<ul style="list-style-type: none"> ➤ Nil
Child care	<ul style="list-style-type: none"> ➤ Admin MO is a Pediatrician. So newborn and child care possible. ➤ Vaccine supply improved ➤ Awareness classes regular ➤ Outreach programme brought more children to the FHC ➤ RBSK team activities reviewed every month to understand child health situation ➤ Set up separate immunization room which is child friendly ➤ Register maintenance appreciable ➤ Cold Chain equipment ensured ➤ Vaccine intent from this FHC is the highest which reflects the case load ➤ In immunization satisfaction survey no issues were found ➤ Protein energy malnutrition survey reveals the malnutrition situation and outreach activities address malnutrition issues if any. 	<ul style="list-style-type: none"> ➤ Make exclusive breast feeding 100% ➤ Overcome Vitamin A dropout <div data-bbox="1034 1272 1273 1585" data-label="Image"> </div> <p data-bbox="1034 1585 1273 1619"><i>Immunization area</i></p>
General administration	<ul style="list-style-type: none"> ➤ Marked improvement in HR. HR Changed drastically <ul style="list-style-type: none"> ◆ 4 Medical Officers ◆ 4 Staff Nurses ◆ 3 Lab technicians ◆ 2 Pharmacists 	<ul style="list-style-type: none"> ➤ Vacant posts have to be filled. During assessment the FHC lost marks due to vacant post ➤ JHI vacancy existing now

	<ul style="list-style-type: none"> ◆ 5 JPHN ◆ 1 Nursing Assistant ◆ 2 Hospital Attendant ◆ 1 Palliative Care Nurse (Panchayat) ◆ 1 PTS <p>➤ Administration improved and documentation smoothened which was the basic criteria for NQAS</p>	
<p>Auxiliary services</p>	<p>➤ ECO-friendly approach to cleanliness</p> <p>➤ Haritha Karma Sena at Panchayat level</p> <p>➤ Pot compost –Waste food deposited in pot and converted to manure</p>  <p><i>Pot Compost</i></p> <ul style="list-style-type: none"> ➤ Plastic waste collected by Haritha Karma Sena ➤ Deep burial pit ➤ Bio Medical waste out sourced to IMAGE ➤ Rain water harvesting enabled ➤ Laundry managed by Washing machines ➤ Fish tank developed ➤ Toilet specifically for disabled ➤ “Pachhathoruthu” developed which nurtures herbal plants 	<p>➤ The space beyond the facility has to be converted to herbal garden. Water scarcity for extensive use during summer has to be tackled to develop one.</p>
<p>Infection Control</p>	<ul style="list-style-type: none"> ➤ Infection control and Quality control Nurse assigned specific duty ➤ Hand hygiene stressed ➤ Report of hand washing generated every month ➤ Retraining provided on hand washing if performance is poor ➤ Drastic change in quality control ➤ One Convener from each department formed for quality control ➤ So Team leaders from each section for infection control on continuous basis ➤ Staff Appraisal Committee formed ➤ Infection rate reduced ➤ Procured Autoclave ➤ Outreach activities for infection control initiated ➤ Staff protected against diseases by 	<ul style="list-style-type: none"> ➤ Repeated training on hand hygiene is being done especially for new staff ➤ New staff to be given repeated infection control training. Shortage of gloves at times to be addressed and continuous supply to be ensured ➤

	<p>immunization</p> <ul style="list-style-type: none"> ➤ Procured Fogging machine ➤ NSS Volunteers involved in maintenance of FHC. 	
NHM Programmes	<ul style="list-style-type: none"> ➤ Mental health programme under ASWAAS ➤ Geriatric ward set up under NPHCE programme. ➤ SWAAS programme for COPD management ➤ Source reduction programme at community level under NVBDCP ➤ Primary screening provided under NLEP ➤ Tobacco cessation clinic exists under NTCP. Counseling for patients on specific days are provided which earned points during assessment. Examples of cessation are not rare in the area. ➤ RNTCP-Sputum collection and testing extended, DOTS corner available ➤ SHP- JPHN is working under RBSK ➤ Daily disease reporting under IDSP. Meetings are regularly organized. ➤ Palliative Care Programme with panchayat support is a mass programme in the centre. 	<ul style="list-style-type: none"> ➤ Reporting format of NHM programmes to be maintained as per the required format ➤ Follow up data on implementation of programmes to be maintained
Training	<p>Apart from the basic trainings, the Staff have been trained in</p> <ul style="list-style-type: none"> ➤ Ardran Concept level ➤ WHO NCD protocol ➤ E-health ➤ BLS based training ➤ Infection Control-Kayakalp ➤ Biomedical waste management ➤ Tobacco Control ➤ RTI/STI ➤ Trauma care and emergency management ➤ RNTCP ➤ Elderly health care management ➤ Palliative care ➤ Fire and Safety ➤ NQAS training ➤ Nayanamithram: Diabetic Retinopathy 	<ul style="list-style-type: none"> ➤ New staff to be trained ➤ Peer training to be initiated

The journey to NQAS had been a long and strenuous process. Initially internal assessment earned a score of 55 percent. After improvement the District level assessment assigned 68 percent score. The status improved in 2-3 months during second level assessment and score improved to 80 percent. FHC Chemmaruthy got the highest score of 92 at the State level assessment and the National assessment awarded certification with 88 percent score. This reflects the commitment of the

Chemmaruthy FHC team to excel in whatever they attempt. The centre received special praise for documentation of records. The uniform flow to the documentation procedure at the health centre was appreciated.

Community level activities and innovative practices are worth highlighting.

- ASHAs are very active. They are always ready to track any patient any time. Whatsapp group has been formed
- School students work on projects on communicable diseases and one of the projects received second prize in a Panchayat level competition
- Awareness classes are regularly organized on various issues at Schools and Colleges
- ‘Sneha Kuppayam’ is an initiative formed by Pravasi group in Varkala to help people of poor socio economic group, those living alone and elderly population with good clothes. Donors bring clothes of all sizes which are usable and after material recycling kept in community box. These are sorted out and needy beneficiaries identified by ASHA collects the clothes
- Palliative Care initiative has good community support as there are sponsors for buying wheel chair, special disabled chairs, etc
- Crowd funding was very useful. A patient who wanted liver transplant was given Rs. 25 lakh collected in few days through crowd fund and he successfully underwent operation. Today he earns his lively hood running an auto rickshaw.
- As the COVID-19 situation prevailed, the HI of the area developed a slogan ‘*Thoovala oru cheriya Sadanam Alla*’ (meaning *Hand Kerchief is not a small thing*) which is the *simile* of a Malayalam Movie title. This caught the attention of the public and they could easily spread the message of sing hand kerchief while coughing and sneezing.
- The team under the initiative of the HI collected old sarees, washed and sanitized it well, made cloth bags in place of plastic bags and distributed free of cost house to house. The Kudumbasree worker was given the duty of stitching which proved to be an earning to them @ Rs. 5/- per bag. The financial support was covered by an NGO. This activity reduced the use of plastic bag considerably.

- Demand for services and acceptance among people has reached a level wherein the people in the area demand bus service to FHC Chemmaruthy
- The HI has documented all the achievements of FHC Chemmaruthy especially the community activities that made news into an album which is indicative of the excellence in documentation and also the focus on community activities.



Support received

- NHM funding has been very helpful in NQAS achievement. State level and NHM trainings deserves mention in this regard. Support in manpower from NHM was of great help. Chemmaruthy got preference from NHM as it was the first institution attempting NQAS accreditation.
- Good rapport between the Panchayat and FHC has been an important aspect. Panchayat/LSGD provides anything requested if it is found necessary for the welfare of its population. The conference hall was built with LSGD fund. Patient waiting area was developed, Ambulance waiting area was developed,
- NGO support is visible in Chemmaruthy FHC area. ‘Sneha Kuppayam’ mentioned above is one of the NGO initiatives.
- Team work has been the greatest achievement. It has developed to such a level that voice of each and every staff is heard with patience in decision making process. So based on experience of the even a Grade II staff and their views are given patient hearing in decision making. Personal problems are sorted out in meetings.
- The Admin MO has given to the second MO full charge of NQAS. Full freedom to work has been extended. Whichever staff is assigned a specific duty, freedom

to work is given to work and express their views on achieving their target and proving their excellence. This has been the backbone of every success story.

- All staff are ready to do any work. An HI sets an example by cleaning the toilet if it is not clean. The Doctors never hesitate to pick up rags from floor and pile it to help the sweeper maintain cleanliness. All activities are collectively done even if a person is assigned specific duty.
- Patients are given importance. They are not made to wait for any need. Even if an important meeting is in progress and if a patients needs something the doctor make arrangements to attend to the patient.

Impact of NQAS accreditation

- Quality improved a lot. Patient Satisfaction Score is reflective of it. All solutions to any comment is addressed.
- The population of Chemmaruthy owns the FHC.
- Average OP goes up to 600 some days. The OPD attendance had reached maximum for the year 2019-20 to 10205 in July 2019 and average per month during April-January 2019-20 being 8507.
- The number of lab tests during the same period April-January 2019-20 is 5129 per month on an average peaking at 7256 during July.

5.3 District Hospital Nedumangad

District Hospital Nedumangad comes under Nedumangad block. This hospital has a long history of existence from the time of King of Travancore. It started functioning as '*Palace Hospital*' or '*Palace Block*' in 1920 in a single building (*Top left building*). Later it became a Taluk Hospital. In 2014 it got the status of District Hospital.

The year 2020 marks the 100 years of its existence. The whole hospital building is located in a slightly elevated area from the main road. It occupies a total area of 4.51 acres. Different services are put up in numerous buildings: small and big. The catchment population is reported to be 645326. NHM, State and local support in infrastructure development is visible as the DH now has made good infrastructural development during the past few years.



Following the infrastructure development and services being put up in 2 new buildings apart from the old buildings which remain scattered in the huge compound, DH Nedumangad attempted Kayakalp assessment for the first time in the year 2017. The Peer assessment score carried out by DMH Peroorkada assigned a score of 71.3 percent. When a DH goes in for NQAS assessment there are numerous areas of concern to be excelled. Here we assess the major changes that have been made in infrastructure and quality control aspects in the process of preparation of Kayakalp assessment

<i>Services</i>	<i>Enablers</i>	<i>Barriers</i>
OPD	<ul style="list-style-type: none"> ➤ Infrastructure modifications in the form of two new buildings improved quality of treatment ➤ Heritage building maintained and is being converted to Administrative block ➤ A 350 bedded hospital. ➤ All services essential for a DH is available ➤ General OP, Paediatric OP, Dental OP, Ophthalmic OP, Orthopaedic OP, Gynaec OP, ENT OP, Skin Op, Physical Medicine OP functional 	<ul style="list-style-type: none"> ➤ Space is a major limitation in certain OPDs ➤ Lack of Specialists keeps referral rate high ➤ No Psychiatrist, Microbiologist, Forensic Specialist, Radiologist, ➤ Shortage of doctors in the Casualty and the OPD attendance is quite high averaging to nearly fifty thousand per month.



Dental Op

- DH Nedumangad has around half lakh OPD attendance every month
- Waiting area developed before every OP



Waiting Area – Gynaec OP



Waiting Area- PP Unit

- SWAAS Programme implemented
- Stroke management is done
- Diabetic retinopathy screening and treatment is provided
- Mental health care provided
- Separate Adolescent Friendly Health Clinic
- Separate ICTC Centre “Jyothis”
- CKD management rendered as there is a dialysis Unit
- The Physiotherapy Unit extends its service to the community by organizing classes with the involvement of the Dietician

- Increase in OPD not supported by appointment of Doctors and paramedical staff
- Shortage of Staff Nurse because different services are put up in different buildings.
- Physical Medicine OP is put up in a separate building which is an old one but renovated to provide adequate services.
- Token system has not been initiated.
- In General OP crowd is always an issue because of huge turn out under limitations in space availability.
- Very limited space in NCD clinic and patient waiting area is not there. Only BP is being monitored in the clinic

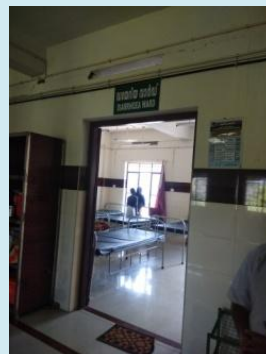
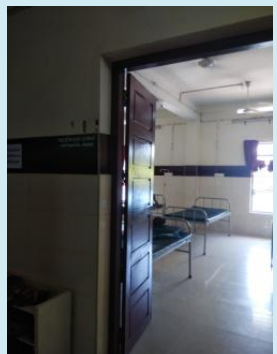


ICTC

Centre

IPD and Wards

- Sanctioned beds 225, functional 350 beds
- New Maternity block has well maintained wards



- Lack of adequate housekeeping staff to maintain cleanliness.
- Male and Female Surgery wards not sufficiently developed
- Digital IEC to be made in the waiting area of wards
- Diet not provided to all inpatients

	<p><i>Maternity wards in the new block</i></p> <ul style="list-style-type: none"> ➤ The new block has the male and female general wards ➤ Rainbow color policy to bed sheets where the patient sleeps on rainbow-coloured bed sheets changed every day is in final process of implementation 	
<p>Pharmacy</p>	<ul style="list-style-type: none"> ➤ Pharmacy is put up in a separate building but a renovated one. ➤ Essential drug list is available and displayed. ➤ Computerized inventory management has been made. ➤ Karunya Medical Store functions round the clock in the hospital premises under HMC supplying all medicines, giving the public opportunity to buy medicines at nominal rates.  <ul style="list-style-type: none"> ➤ All IP patients given free medicines from in-house pharmacy and under KASP 	<ul style="list-style-type: none"> ➤ Ideal drug dispensing system has to be initiated ➤ Patient queue is always visible during OP hours.  <ul style="list-style-type: none"> ➤ No waiting area to sit in front of Pharmacy ➤ Lack of Token system in the Pharmacy ➤ E-health to be developed and with it queue system will be properly initiated ➤ IFA syrup with dispenser is not available ➤ Availability of Vitamin A syrup, common ailments and anti- allergic drugs not sufficient ➤ Vaccines for rabbies are not sufficient. ➤ Drugs for diabetes runs out of stock ➤ Supplies of pregnancy testing kits, urine albumin are also not sufficient. ➤ More space is needed for storing surgical items. ➤ All medicines as per EDL has to be ensured ➤ Stock out rates during the 3 months preceding the months of visit is 20-25%
<p>Laboratory</p>	<ul style="list-style-type: none"> ➤ Lab functional 24x7 basis ➤ Heavy workload in the lab as the OPD attendance is huge one nearing half lakh a month 	<ul style="list-style-type: none"> ➤ Manpower shortage is felt here as this lab caters to the needs of a huge population.

- The staff work on shifts
- The staff intake from HMC fund is 10 Lab Technicians apart from only 6 regular staff



- More new equipments are required to meet the demand for lab services
- ESR Analyzer, Sodium Potassium Analyzer, Hormone Analyzer are the most wanted equipments.
- All tests are not free as HMC fund is generated from nominal charges
- Protection of LTs from infections to be ensured

- Rajiv Gandhi Centre for Biotechnology has put up Lab services where they collect blood samples
- The HIND Labs also have a counter in the DH compound.
- Over 43000 lab tests are performed every month
- Equipment maintenance is done by KIRLOSKAR Limited.
- All tests rendered through in-house lab/RGCB/HIND Labs



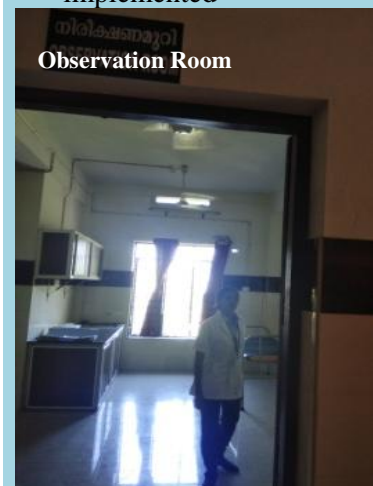
Maternity Care

- The Maternity block accommodates the Labour room, Gynaec OP, Pediatric OP
- The entrance to the new building has a reception which is also the Birth and Death Registration KIOSK.



- The ANC, PNC and Gynaec OP are in the 1st floor and the pediatric ward is in the 2nd floor.
- ANC services are provided on daily basis by 4 Gynecologists.
- Respectable Maternity care is extended as Laqshya Programme has been implemented

- IEC to be improved in the new maternity block
- PPIUCD services not provided
- No separate Counselor for Family Planning
- Birth companionship Programme yet to be implemented





Labour room

Isolation ward

- Separate room for first stage of labour
- Only Laqshya trained staff attend labour room
- OBG services are rendered in the GH by 4 Gynecologists.
- DH manages assisted and forceps or vacuum delivery, c-section deliveries
- The ANC, PNC and Labour room has 55 beds.
- Breast feeding area
- All the newborn babies have been breastfed within 1 hour of delivery.
- KMC is provided to LBW babies
- Post natal ward with all facility
- Neither still births nor preterm deliveries or infant deaths are reported during the 3 months preceding the visit
- The importance given to cleanliness : separate racks are maintained before the entrance of the wards for the bystanders to keep their belongings.
- A separate shoe rack is also kept in the corridor.



Room for First Stage of labour



Racks for Bystanders






Shoe Rack in front of Wards

Child care

- Presence of Paediatrician enables provision of newborn care
- Separate PP Unit
- NBCC is functional
- NBSU is functional
- There is adequate vaccine stock.
- ILRs and functional deep freezers, cold chain for vaccine storage are available.
- Separate diarrhoea ward is maintained
- No SNCU Level II newborn care
- Lack NSSK trained SN
- Since it is an NBSU with limited number of beds, outborn babies are not admitted

		
	<ul style="list-style-type: none"> ➤ Child friendly Immunization area. Good ambience ➤ Child friendly pediatric ward ➤ Diarrhoea ward are maintained separately. ➤ At present warmers and Phototherapy is only used ➤ Daily immunization for new born babies ➤ Immunization on Mondays and Wednesday ➤ Outreach immunization conducted ➤ Immunization register well maintained ➤ 	
Support services		
ICU	<ul style="list-style-type: none"> ➤ Only certain Emergency cases are managed 	<ul style="list-style-type: none"> ➤ No ICU.
OT	<ul style="list-style-type: none"> ➤ Gynaec OT is functional in the new building 	<ul style="list-style-type: none"> ➤ General OT has only limited surgeries ➤ Very few LSCS are night time C-section deliveries ➤ Shortage of instruments are reported as the case load is high ➤ Shortage of SNs is often an issue that needs to be addressed. ➤ Cleaning staff shortage is felt to maintain cleanliness and infection control.

	<ul style="list-style-type: none"> ➤ The Gynaec OT manages only C-section deliveries ➤ General OT is functional ➤ Surgical site infections have reduced with infection control ➤ Ophthalmic OT 	 <p>Emergency GynaecOT</p>
Blood bank and Blood storage unit	<ul style="list-style-type: none"> ➤ Blood Storage Unit is functional. ➤ Blood bags are procured from GH Trivandrum. ➤ If sufficient stock is available the blood bags are issued outside based on demand. 	<ul style="list-style-type: none"> ➤ Has to develop a fully equipped Blood Bank
Mortuary	<ul style="list-style-type: none"> ➤ Medico-legal Postmortem services are provided 	<ul style="list-style-type: none"> ➤ No Forensic Specialist
Diagnostic (Radiology) services	<ul style="list-style-type: none"> ➤ X-ray services are well utilized ➤ Digital x-ray and dental x-ray 	<ul style="list-style-type: none"> ➤ Ultrasound scan (obstetric and general) and Endoscopy is not performed here ➤ USG Services outsourced ➤ X-ray wing is in the ground floor of Maternity block X-ray services need to be put up separately
Dialysis Unit	<ul style="list-style-type: none"> ➤ Started functioning in January 2018 ➤ 11 bedded unit. ➤ Most of the patients who need dialysis are covered under KASP. 	<ul style="list-style-type: none"> ➤ No Nephrologist although a Dialysis Unit is functional. ➤ So new patients are not admitted ➤ Patients from MCH Thiruvananthapuram who require continued dialysis are only admitted here. So a Nephrologist appointment is essential to improve the functions of the dialysis unit
Medical Records Unit	<ul style="list-style-type: none"> ➤ The Medical Records Library documents the services given systematically. 	<ul style="list-style-type: none"> ➤ Has to be made digital
Palliative Unit	<ul style="list-style-type: none"> ➤ A 12 bedded Palliative Care unit in the new building 	<p>--</p>
Geriatric Ward	<ul style="list-style-type: none"> ➤ Geriatric ward is separate. 	<ul style="list-style-type: none"> ➤ More beds needed. Yet to be fully functional in the new building
Cancer care unit and ward	<ul style="list-style-type: none"> ➤ Cancer care Unit set up in the top floor of maternity block 	<ul style="list-style-type: none"> ➤ Cancer care Unit yet to start functioning due to lack of HR

ICTC Centre	<ul style="list-style-type: none"> ➤ The ICTC Centre is put up separately as the ‘Jyothis’ Medical and Counselling Centre. ➤ A separate Counsellor and Lab Technician manages the clinic 	<ul style="list-style-type: none"> ➤ Functioning in the old building ➤ Infrastructure development required
General administration	<ul style="list-style-type: none"> ➤ Good administration under a competent Medical Superintendent ➤ Managing lack of HR by employing huge work force from HMC funds 	<ul style="list-style-type: none"> ➤ HR to be as per IPHS standards to enable administrative activities as per standards required for National level accreditation ➤ Lack of support staff ➤ To take the DH to NQAS certification, administrative staff support is essential as documentation for NQAS is a cumbersome task and repeated trainings are essential
Auxiliary services	<ul style="list-style-type: none"> ➤ The hospital has power back up facility with generators in every block. ➤ Water supply is available on 24 x 7 basis. ➤ There are separate toilets for males and females and cleanliness is maintained. 	<ul style="list-style-type: none"> ➤ The use of Bed sheets of different colours have been planned is expected to be used shortly.
	<p><i>Dietary services</i></p> <ul style="list-style-type: none"> ➤ Dietary service extended to inpatients under JSSK ➤ Dietary service out sourced 	<ul style="list-style-type: none"> ➤ All inpatients not provided food due to lack of in-house dietary service ➤ Only milk provided to ANC PNC patients
	<p><i>Laundry services</i></p> <ul style="list-style-type: none"> ➤ Power laundry system adds to the cleanliness and hygiene 	<p>--</p>
	<p><i>Security services</i></p> <ul style="list-style-type: none"> ➤ 11 security staff takes care of security aspects 	<ul style="list-style-type: none"> ➤ Setting up of Police aid post initiated as violent situations erupt frequently ➤ Security services have to be strengthened
Infection Control	<ul style="list-style-type: none"> ➤ Has set up an infection control committee. ➤ One Head Nurse is in charge of infection control. ➤ Daily monitoring helps to overcome many of the limitations in maintaining cleanliness of the older structures. ➤ The cleanliness of wards of the new buildings is extremely good. 	<ul style="list-style-type: none"> ➤ No Sewage treatment plant (STP) ➤ Old buildings are barriers to control infection ➤ Renovation and proper maintenance needed in old buildings ➤ Drainage system has to be improved

	<ul style="list-style-type: none"> ➤ To reduce infection, fumigation is done biweekly once and autoclaves are functional. ➤ The hospital is maintained as a plastic free zone. ➤ For general cleanliness, segregation of waste at the point of generation is done. ➤ Biomedical Waste Management outsourced to 'IMAGE' ➤ Waste management as per IMEP protocol ➤ Bio-Gas plant is maintained in the compound. ➤ Incineration mechanism is adopted here. ➤ Harithakarma sena from the Corporation collects plastic wastes. 	<ul style="list-style-type: none"> ➤ Training of all staff on infection control needed ➤ Hand hygiene to be promoted ➤ Training HMC staff who form large numbers is a challenge as they keep changing ➤ Regular housekeeping staff required
<i>NHM Programmes</i>	<ul style="list-style-type: none"> ➤ Services rendered under the following NHM programmes ➤ JSSK ➤ JSY ➤ PMSMA ➤ LAQSHYA ➤ NVBDCP ➤ RNTCP ➤ National AIDS control program ➤ SWAAS ➤ Mental Health (ASWWAS) ➤ NPCDCS ➤ IDSP ➤ NTCP_displayed tobacco free boards. ➤ Conducted awareness classes at schools 	<ul style="list-style-type: none"> ➤ Most of the programmes implemented as per guidelines. ➤ But documentation to highlight the performance of each one is lacking ➤ Huge effort to be put on documentation process
<i>Training</i>	<ul style="list-style-type: none"> ➤ EmOC, NSSK, ➤ IUCD, PPIUCD ➤ IMEP, ➤ Immunization Cold Chain ➤ NVBDCP, ➤ NLEP ➤ National AIDS control program ➤ ASWWAS (Mental Health) ➤ SWAAS, ➤ NPCDCS ➤ NTCP_Tobacco control program ➤ IDSP, ➤ NIKSHY portal ➤ HMIS, ➤ RCH ➤ Biomedical waste management ➤ Infection Control 	<ul style="list-style-type: none"> ➤ Training register to document competency of staff not maintained ➤ Lack of trained staff in BEmOC, NSSK, PPIUCD ➤ Induction training and refresher training is needed ➤ Trained permanent staff are essential for a DH to render continuous good quality service

The assessment made hitherto has not been made strictly as per the checklist of NQAS assessment as every hospital has documented the developments based on the checklist and such an assessment would be a repetition. The study is purely based on qualitative indepth interviews and so the output is based on interview with the Medical Superintendent and the Staff of various service Departments which was basically the method adopted for the study.

Here we find that DH Nedumangad has to overcome numerous barriers in most of the service departments to take it to the goal of certification. It is a very big hospital put up in a nearly 4.5 acres of land with buildings both old and new which is the greatest challenge.

- Maintaining quality standards in the old buildings is a cumbersome task. All the service department have to excel equally.
- The maternity section has improved, the general medicine department, the wards etc maintains good standards. Laqshya programme has provide respectable maternity care. But birth companion programme has to be implemented
- The programme part now needs focus. For instance the NCD unit is presently functioning under limited infrastructure with the patients waiting outside.
- RNTCP services need focus
- Attempts to provide geriatric care under NPHCE is commendable but geriatric friendly initiatives like separate queue in OP, Pharmacy, Lab etc have to be provided.
- Since the building and service departments remain scattered more housekeeping staff, security staff and attenders are needed.
- Lack of manpower is the foremost challenge. Presently a large workforce of more than 150 staff is employed on contract/daily wages from the HMC who keep changing. So trainings are to be repeated. Uninterrupted service delivery is the foremost objective and the staff are left with very little time for training. So getting regular staff is the primary requirement
- Building a good team work is the most important parameter as visible in NQAS accredited institutions. Presently the permanent staff have built a good rapport between themselves but the service demand from a huge

population depending on the DH forces them to spend very little time for quality control aspects. Whatever time they have are spent on trainings. The Grade II staff who have very important role in quality control lacks motivation.

- Availability of funds is the second issue. Lack of fund is reported. HR itself is not as per IPHS standards due to lack of fund availability from Government. Untied fund is just a drop of the requirements.
- Whatever development that has been observed that helped the DH to get 2 new buildings has been from LSGD and Government. But the DH still require a huge amount for meeting the requirements
- Cleanliness has certainly improved. Awareness has been created among all staff. But department wise evaluation is necessary to get accurate output.
- Presently the DH is approaching Kayakalp assessment achievement in a phased manner. Now Laqshya programme has improved the maternity care. Similarly others are to be attempted in a phased manner.

DH Nedumangad has definitely been on the path of development. The service quality has improved, infrastructure has improved and manpower increase is also evident. The trend in OPD attendance is itself reflective of the huge load DH has been taking over the years.

5.4 Community Health Centre Poonthura


Poonthura CHC, located in coastal zone, covers 3 wards of the Corporation area of Thiruvananthapuram. The centre started functioning in 1965 as a PHC and later upgraded as CHC.



It is situated in the Manikyavilakam ward of Thiruvananthapuram Corporation and caters services to people in the three wards- Poonthura, Manikyavilakam and Puthanpally. There are several slum dwellers in the area of the centre. Parvathy Puthanar, a man-made river is flowing very near to the centre. The river is presently polluted severely exposing the residents to communicable diseases. This CHC is in the process of being converted to a Family Health Centre under which the Ardram scheme of Government of Kerala has given the hospital a new look. Major modifications are now seen in the infrastructure.

A new building has now been constructed. The first floor accommodates the 4 OP counters with sufficient waiting area, the injection room, the dressing room, the pharmacy, eye testing room, Nurses station, Secondary palliative care room, nebulization room, observation room. The second floor is all set up to have 2 wards with all facilities. The construction work is complete but due to technical reasons, there is difficulty in making it fully functional. The old building accommodates the MOs room, NCD Clinic, Immunization, wards, lab, primary palliative care room, Office and conference hall. Yet another modification to be done is the creation of a ramp or path way between the new and old building so that the lab which is functional in the old building can be accessed easily. Government support is visible in the infrastructure developments.

State level Kayakalp assessment has been completed and the CHC was assigned a score of 84 percent. This was an improvement from a score of 72 percent in 2018-19. Here we identify the factors that enabled the CHC to improve its services and what are the barriers to NQAS accreditation.

	Enablers	Further barriers
OPD	<ul style="list-style-type: none"> ➤ OP timing from 9am to 6pm ➤ 4 separate OP rooms ➤ All OP with sufficient waiting areas ➤ Developed waiting area with adequate space and fully furnished with airport chairs. Set up TV as part of entertainment in waiting area ➤ OP, Pharmacy, dressing room, injection room, immunization room, observation room all adjacent to make patients comfortable. 	<ul style="list-style-type: none"> ➤ Quality indicators to be developed and improved ➤ Training to be improved further  <p><i>OP Ticket Counter waiting area</i></p>



- Observation ward was initiated with 3 beds
- Spacious front entrance



- Repair and maintenance of old building
- Furnishing with curtains added to the beautification
- Privacy during examination
- Introduced token system
- Provided drinking water facility
- Installed fire extinguisher for safety
- Separate Conference Hall
- E-health
- Change from 1 day NCD clinic to 6 day clinic
- SWWAS programme
- ASWAAS programme
- Eye Testing: Retinopathy screening.



Waiting area before NCD Clinic

Waiting area before OP2



Way to the Conference hall built with LSGD support






Eye-testing: Retinopathy

IPD and Wards


- IP facility rendered
- The first floor of the new building to be converted to new wards.
- 24 New beds have been procured and kept in the new building
- Presently there are 24 beds.


- Technical snag in completion of Ardram initiative in completing the construction process. The new beds remaining unutilized have to be addressed.
- Presently wards are in the old building and a path to connect the two buildings is being attempted to make the patient movement freely
- The modification work has been

		<p>tendered</p> <ul style="list-style-type: none"> ➤ Shift to new building possible with the creation of the new path way ➤ Support staff to be increased with more IP facility ➤ Rainbows coloured sheets has been attempted and once the new wards becomes functional it will be used ➤ Public announcement system to be initiated ➤ Geriatric wards needed
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<p>Laboratory</p>	<ul style="list-style-type: none"> ➤ Infrastructure improved ➤ Procured more equipments ➤ One year quality certificate for the equipments ➤ Corporation fund has been useful in improving lab ➤ More lab equipments were procured. ➤ No. of tests increased ➤ collection point of Rajiv Gandhi National Institute of Biotechnology is available ➤ They come and collect the sample and provide the result on the same day ➤ Storage facility improved 	<ul style="list-style-type: none"> ➤ Space limitation in the lab since it is in the old building. The path way is too narrow and no proper lighting and ventilation. The lab needs air purifiers ➤ Computerization not yet achieved ➤ Renovation of lab needed  <p><i>Rates of lab test displayed</i></p>
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<p>Pharmacy</p>	<ul style="list-style-type: none"> ➤ Pharmacy air-conditioned ➤ Medicine as per EDL available ➤ Improved storage facility ➤ Out of stock detected early and stock maintained ➤ Rearranged old Pharmacy as store 	<ul style="list-style-type: none"> ➤ Token system for Pharmacy not introduced ➤ No waiting are for patients in the drug distribution area ➤ Double locking system to be
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	<ul style="list-style-type: none"> ➤ Renovated drug storage facility ➤ Waiting time for getting medicines decreased ➤ Register maintenance improved ➤ Vaccine for Rabbits and Antivenum are not available ➤ Medicine for diabetes are in shortage at the centre 	<ul style="list-style-type: none"> ➤ enabled ➤ Labeling pending  <p><i>EDL Displayed</i></p>
Diagnostic services	<ul style="list-style-type: none"> ➤ No. of tests done increased ➤ LFT, RFT etc done now ➤ All test kits are made available ➤ Optometry is made available ➤ Early identification of NCD through preliminary screening ➤ Minor procedures done 	<ul style="list-style-type: none"> ➤ Need ECG ➤ X-ray facility on demand ➤ No scanning facility ➤ Thyroid testing facility needed
Maternity Department	<ul style="list-style-type: none"> ➤ ANC register maintained ➤ Respectable maternity care extended during ANC and Privacy ensured ➤ Counseling sessions are organized ➤ PMSMA is observed on every 9th in the centre. The program has a positive effect on the coastal people. 	<ul style="list-style-type: none"> ➤ ANC services are provided without the service of a Gynaecologist. ➤ ANC care and facilities to be improved ➤ High risk pregnancy cases are not managed in the CHC
Child care	<ul style="list-style-type: none"> ➤ Immunization services are provided on all Wednesdays ➤ Vaccine supply improved ➤ Outreach programme are organized ➤ Register maintenance appreciable ➤ ILR and Cold Chain equipment ensured 	<ul style="list-style-type: none"> ➤ Has to set up separate immunization room which is child friendly ➤ Only immunization services are rendered
General administration	<ul style="list-style-type: none"> ➤ Administration improved but shortage of staff felt ➤ Admin MO reviews the activities ➤ PRO's role is important in coordinating the activities for quality assessment 	<ul style="list-style-type: none"> ➤ Vacant posts have to be filled. ➤ A good team effort is absent. ➤ Staff coordination at lower levels absent ➤ Non cooperation in activities observed ➤ Data documentation poor. ➤ HMIS data quality poor ➤ So documentation for NQAS would be a very difficult process unless the much lacking team effort is developed
Auxiliary services	<ul style="list-style-type: none"> ➤ Deep burial pit ➤ Bio Medical waste out sourced to IMAGE ➤ Laundry managed by Washing machines ➤ Fire and safety updated ➤ 3 bucket system practiced in cleaning ➤ Electricity power backup facility ensure ➤ Water supply on 24x7 basis ensured 	<ul style="list-style-type: none"> ➤ The space in front of the facility has to be converted to herbal garden.

Infection Control	<ul style="list-style-type: none"> ➤ Head Nurse assigned charge of infection control ➤ Committee formed for Kayakalp assessment activities ➤ Hand hygiene stressed ➤ Report of hand washing generated every month ➤ Retraining provided on hand washing if performance is poor ➤ Drastic change in quality control ➤ Infection rate reduced 	<ul style="list-style-type: none"> ➤ Repeated training on hand hygiene is being done especially for new staff ➤ New staff to be given repeated infection control training.
NHM Programmes	<ul style="list-style-type: none"> ➤ SWAAS programme for COPD management ➤ Source reduction programme at community level under NVBDCP ➤ Primary screening provided under NLEP ➤ Palliative Care Programme with panchayat support is a mass programme in the centre. 	<ul style="list-style-type: none"> ➤ Geriatric ward has to be set up under NPHCE programme. ➤ Reporting format of NHM programmes to be maintained as per the required format ➤ Follow up data on implementation of programmes to be maintained 
Training	<p>Apart from the basic trainings, the Staff have been trained in</p> <ul style="list-style-type: none"> ➤ Ardrum Concept level ➤ E-health, BLS based training ➤ Infection Control-Kayakalp ➤ Biomedical waste management ➤ Tobacco Control, RNTCP, RTI/STI ➤ Trauma care and emergency management ➤ Elderly health care management ➤ Palliative care, Fire and Safety ➤ NQAS training, Nayanamithram: Diabetic Retinopathy 	<ul style="list-style-type: none"> ➤ New staff to be trained ➤ Peer training to be initiated

This CHC is yet to attempt NQAS accreditation. Whole hearted support from all staff in building a good team is lacking which should be prioritized as all the NQAS certified institution speak out with pride the team effort they have built up.

Government support in the form of infrastructure and service enhancement activities under the Ardrum scheme and the funds released by the Corporation has been of

great value in improving the CHCs outlook and capacity in providing good quality services. Corporation of Trivandrum supported in renovating the Staff Quarters which eased the stay of staff of the CHC and made them available at times of need. HMC support and the public support are worth highlighting.

NGO support from organizations like the Santhwana Charitable Society in providing Aqua guard water purifier, organization of camps and the small but valuable funding from the Rotary club and their support in providing vehicles have contributed to the development of the CHC.

Documentation initiative is poor as reflected even in HMIS data uploading. The concerned Staff not ready to take up responsibility. Change in staff attitude is necessary as NQAS Certification is based heavily on documentation.

CHC Poonthura, due to its location in a coastal area is a much utilized facility. Change in infrastructure and implementation of new programmes have improved the services

5.5 Family Health Centre Kilimanoor

FHC Kilimanoor generally known as PHC Mulaykalathukavu is situated in an interior part of the village. FHC Kilimanoor has been in focus due to the LSGD participation in the FHC activities. During the conversion to an FHC, the Panchayat contribution in improving the infrastructure has




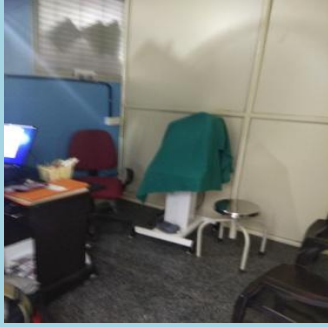






been noteworthy. The panchayat President maintained a good rapport with the FHC team in all its activities and even today makes daily visit to the Centre so that the staff doesn't lose the punctuality in providing service.

It has not applied for NQAS, but is in the preparation mode and attempting in a phased manner. As an FHC it has increased the service delivery with quality and hopes to get accreditation in NQAS. Kayakalp assessment score of the centre is 73 only during 2018-19. They have improved to 77.2 during the internal assessment in

2019-20. The major drawback they had assessed themselves is the geographical position of the centre. Factors that can be called ‘Beyond the boundary’ are the major barrier in this centre.

Here we look at some of the developments in its conversion to FHC and what more changes are to be attempted so as to make its way to NQAS accreditation

	<i>Enablers</i>	<i>Barriers</i>
OPD	<ul style="list-style-type: none"> ➤ New OP counter to route persons to the OP.  <p><i>OP Counter</i></p> <ul style="list-style-type: none"> ➤ Minor procedures managed ➤ ECG facility introduced ➤ SWAAS Programme to manage COPD ➤ ASWAAS programme to manage mental Health ➤ Set up TV as part of entertainment ➤ Introduced token system ➤ Provided drinking water facility ➤ Enabled e-health ➤ Special path for disabled persons ➤ Observation bed ➤ Diabetic Retinopathy treatment under ‘Nayanamithram’ ➤ Improved waiting area adjacent to the OP counter to make patients comfortable.  <p><i>Waiting area</i></p>	<ul style="list-style-type: none"> ➤ Waiting area is not spacious ➤ Congested pre-check room ➤ OP registration area need space ➤ Need a spacious OP block  <p><i>ECG room and Minor Procedure room</i></p>  <p><i>Retinopathy Room</i></p>  <p><i>Nayanamritham</i></p>

Wards	<ul style="list-style-type: none"> ➤ 2 bedded observation ward ➤ Air conditioned Palliative care ward for day-observation 	<ul style="list-style-type: none"> ➤ No IP services on 24 X 7 basis (It is beyond the concept of the centre)
Laboratory	<ul style="list-style-type: none"> ➤ Services are available from 8.30 AM to 6 PM ➤ Two LT are appointed ➤ All the necessary services are available  <p><i>New lab facility</i></p> <ul style="list-style-type: none"> ➤ Displayed the details of lab tests along with time required and cost involved ➤ Received good accreditation from Kayakalp team 	<ul style="list-style-type: none"> ➤ No complaints at all  <p><i>Lab test rates displayed</i></p>
Pharmacy	<ul style="list-style-type: none"> ➤ Store Air conditioned ➤ Maintains medicine tray  <p><i>Medicines stored in the Pharmacy</i></p> <ul style="list-style-type: none"> ➤ Separate paper pouch is given for each medicines ➤ Ensures 2 months medicine supply 	<ul style="list-style-type: none"> ➤ The corridor connecting the pharmacy is congested
Diagnostic services	<ul style="list-style-type: none"> ➤ Special screening for COPD ➤ All test kits and ENT kits are made available ➤ ECG services are rendered 	<ul style="list-style-type: none"> ➤ Need X-ray machine ➤ Cardio cases are frequently referred
Maternity Department	<ul style="list-style-type: none"> ➤ Amma Manass – program to identify postpartum mental issues id initiated ➤ Classes and counseling during ANC and PNC are provided 	<ul style="list-style-type: none"> ➤ All staff are not trained for counseling. ➤ Both ANC and PNC are attended by les people (22 percent only) ➤ Shortage of IFA and Calcium ➤ No proper travel facility

Child care	<ul style="list-style-type: none"> ➤ Immunization services are proper ➤ Registers are maintained well ➤ Staff attitude is good ➤ Immunization on all Wednesdays ➤ 2 RBSK nurses have joined recently 	<ul style="list-style-type: none"> ➤ Immunization room is not child friendly and a change is attemptable ➤ RBSK screening in the area is not proper
General administration	<ul style="list-style-type: none"> ➤ 2 Medical Officer ➤ 2 Staff Nurse ➤ 2 Lab technician ➤ 2 Pharmacist ➤ 1 LHI ➤ Sufficient cleaning staff 	<ul style="list-style-type: none"> ➤ Area activities are not properly monitored ➤ MO-in charge has to look into the timeliness of staff ➤ Need more monitoring at the grass root level
Auxiliary services	<ul style="list-style-type: none"> ➤ An air conditioned dining hall has been constructed using MP fund. ➤ Free breakfast is supplied to all NCD patients on Saturday clinic ➤ Entire programme is conducted by raining donation 	<ul style="list-style-type: none"> ➤ No Laundry services
Infection Control	<ul style="list-style-type: none"> ➤ IMAGE collects biomedical waste once in two weeks ➤ Autoclave is used ➤ Apart from one regular staff, one from HMC is also appointed 	<ul style="list-style-type: none"> ➤ More training on infection control to be given to staff especially new appointments.
NHM Programmes	<ul style="list-style-type: none"> ➤ RNTCP-Sputum collection and testing, DOT available ➤ NACP- Free ICTC service available ➤ Mental Health Programme-Mental Health project ➤ NPHCE(elderly)- Conduct Elderly camp ➤ RBSK-Two JPHNs are working under RBSK ➤ Palliative Care programme implemented well with huge response <div data-bbox="461 1379 956 1711" data-label="Image"> </div> <p data-bbox="461 1715 903 1742"><i>Air-conditioned Palliative Care Unit</i></p>	<ul style="list-style-type: none"> ➤ PRO has to look after 9 institutions in the block ➤ No financial assistance for NQAS ➤ Untied fund are not proper ➤
Training	<ul style="list-style-type: none"> ➤ In-house trainings are properly conducted ➤ A separate training register is kept updated ➤ The MO of FHC Poozhanad (NQAS accredited centre) has given training to all the staff here at FHC Kilimanoor ➤ Infection control programmes are managed by a nurse in the centre 	<ul style="list-style-type: none"> ➤ Training Gaps have been identified with consultation with NQAS accredited facilities ➤ Newly appointed staff need training ➤ Gaps in programmes like RNTCP, area based counseling

FHC Kilimanoor has not applied for NQAS. With all the above mentioned parameters they are eligible for NQAS, but the issues beyond the boundary generally become an obstacle for this.

- A good rapport has been developed between the Panchayat and health sector in this area. Panchayat involved positively in all the programmes. Members regularly visit the centre and timeliness of staff and service quality is also discussed in combined meetings.
- With the leadership of Panchayat, donations and support from various NGOs are obtained for the development of the centre.
- The programmes like VHND, VHNSC are well utilized in the area.
- Arogyasena has been initiated for creating better community platform for area activities with a volunteer from every area getting together and making house visits to solve community health problems, health awareness campaigns and other community activities.
- The support from the LSGD (Panchayat) is overwhelming. Air conditioned Palliative care ward, waiting area, air conditioned dining hall are constructed using donations and plan fund of the Panchayat. The dining hall provides food to NCD patients so that they don't have to remain hungry after the first fasting blood test and before the PPS test.



The FHC expects improvement in services with NQAS accreditation which they are attempting now. Checklist for each service have to be developed and followed

which would further improve the quality of care. Identified gaps in each wing will be sorted out. However, the issues like poor connectivity and area activities need to be improved.

5.6 Family Health Centre Aruvikkara





FHC Aruvikkara is in Nedumangad block. It is 8km away from Nedumangad GH and 10km away from Perrorkada DH. This FHC has undergone assessment for Kayakalp with 65.8 percent score in self assessment and 56.9 percent in peer assessment. Peer assessment was done by CHC Palode and is yet to receive the assessment card. Cleanliness is good but constraints are regarding space. Now construction is in progress. As this FHC got Kayakalp score of 56.9




percent only they did not go for NQAS. Five certificates mandatory for NQAS and fire certification, pollution certification, IEC and HMC registration are pending. Committee is formed for NQAS but because construction is going on IEC display is to be developed.

With the conversion of PHC Aruvikkara to an FHC, there has been a huge development in infrastructure. So here an assessment is made on what have been the achievements of the facility which would probably take it to better quality control and earn points in Kayakalp assessment. Also what are the factors that pose to be the barriers are also noted.

There is no other hospital in the Panchayat in the vicinity of FHC Aruvikkara. Changes have appeared in PHC after conversion to FHC but due to space constraint Kayakalp score is less. Since number of MO is increased, service is ensured upto 6pm. Transport is available to Nedumangad GH and to Peroorkada DH if referred.

	Enablers	Barriers
OPD	<ul style="list-style-type: none"> ➤ Infrastructure development has taken place and new construction is in progress ➤ Reference to nearby hospitals are easy ➤ There is no other hospital in the Panchayat ➤ OPD time of FHC has increased to 6pm  <ul style="list-style-type: none"> ➤ Waiting area was developed ➤ Separate OP counters with 3 Medical Officers which reduce consultation time ➤ Provided drinking water facility ➤ Set up TV as part of entertainment ➤ Separate OP counter with token system 	<ul style="list-style-type: none"> ➤ Special counter for Aged people is required ➤ Exit and entry through same door which has to be modified if guidelines are to be followed strictly  
Wards	Not Applicable	
Laboratory	<ul style="list-style-type: none"> ➤ More lab equipments available now ➤ Presence of one additional lab technician from HMC ➤ Displayed the details of lab tests along with time required and cost involved ➤ Lab time is extended upto OPD time. 	<ul style="list-style-type: none"> ➤ Modification needed for collection area ➤ Need waiting area separately for lab ➤ Area needed for sputum collection and examination ➤ Thyroid test need to be included based on demand
Pharmacy	<ul style="list-style-type: none"> ➤ Utilization is more as people shifted from GH and DH now have started coming to FHC 	<ul style="list-style-type: none"> ➤ Infrastructure not sufficient to keep medicine ➤ More staff needed ➤ EDL is not displayed in board as new construction is progressing ➤ Drug availability and stock was not sufficient ➤ IFA is shortage for five months

	<ul style="list-style-type: none"> ➤ Air conditioned Store to maintain temperature Drug distribution counter modified Made modular pharmacy ➤ Two Pharmacists are posted 	
Diagnostic services	<ul style="list-style-type: none"> ➤ All test kits and equipments are made available ➤ ECG is made available 	<ul style="list-style-type: none"> ➤ Need X-ray machine ➤ Need fetal Doppler and hemoglobinometer
Maternity Department	<ul style="list-style-type: none"> ➤ ANC clinic conducted on Tuesdays ➤ Separate building for ANC with sufficient space 	<ul style="list-style-type: none"> ➤ The construction is progressing ➤ ANC check up, immunization and breast feeding in one room ➤ Could not be able to provide privacy ➤ To cater better ANC services fetal Doppler, and hemoglobinometer is needed ➤ Shortage of IFA
Child care	<ul style="list-style-type: none"> ➤ Displayed IEC to attract kids ➤ Ensured availability of all vaccines and medicines at any point of time 	<ul style="list-style-type: none"> ➤ Child friendly atmosphere needed ➤ Need waiting area ➤ There is no separate immunization room ➤ Vehicle is needed for conducting outreach programme
General administration	<ul style="list-style-type: none"> ➤ Administrative activities have improved and the Admin MO has built up a good team. ➤ 3 Medical Officers ➤ 4 Staff Nurse ➤ 2 Lab technician ➤ 2 Pharmacist ➤ 1 PHN, 1 HI, 4 JHI ➤ 6 JPHNs, 1 PTS ➤ 1 Nursing Assistant ➤ 1 Palliative Nurse ➤ 1 Hospital Attender grade II ➤ 28 ASHAs, 1 Driver 	<ul style="list-style-type: none"> ➤ Need one Pharmacist, Housekeeping staff and Data entry operator
Auxiliary services	<ul style="list-style-type: none"> ➤ Installed fire extinguisher for safety 	<ul style="list-style-type: none"> ➤ Need security and laundry service ➤ Need equipment for wellness centre
Infection Control	<ul style="list-style-type: none"> ➤ Biomedical waste collection outsourced to "IMAGE". ➤ Colour coded bins are available ➤ Checklist is developed to improve the functioning as per guidelines ➤ Autoclave is used 	<ul style="list-style-type: none"> ➤ Need bio bin ➤ Need water treatment plant ➤ Need more awareness classes ➤ Not using three bucket system

NHM Programmes	<ul style="list-style-type: none"> ➤ Palliative care programme functions in 16 days in a month and a vehicle is allotted for it ➤ Under NPHCE(elderly)- Conduct Elderly camp ➤ SHP- One JPHN is working under RBSK ➤ NTCP- School awareness classes. A board was placed at all schools showing that smoking is injurious to health. ➤ Inspection in shops is organized, IEC is given importance ➤ People will be charged Rs 400/- if they smoke in public places 	<ul style="list-style-type: none"> ➤ For controlling NCD there is no provision for space and equipments for regular exercise. ➤ Public spaces and parks can utilize for regular exercise ➤ No counsellor is available for AIDS control programme ➤ Visit of mental health team the FHC in monthly once is needed
Training	<p>Given training on</p> <ul style="list-style-type: none"> ➤ BEmOC, ➤ IUCD & PPIUCD ➤ F-IMNCI, NSSK, ➤ SWAAS, ASWAAS, ➤ Infection control ➤ Hand hygiene ➤ Also conducting classes on relevant topics 	<ul style="list-style-type: none"> ➤ Refresher trainings required ➤ Needed training in Infection Control ➤ Needed training in quality management ➤ Needed training in national programmes

In FHC Aruvikkara, ANC clinic is conducted for 8 to 9 women every Tuesday. There are three sub centres under FHC and two of them have own building and one is functioning in shop with shutter. Main challenge is lack of privacy in sub centres for ANC check up. This is also true in case of FHC also. ANC check up is conducted in immunization room. The room is also assigned for breast feeding. Now construction is going on and maintenance of other building should extend privacy. Free lab tests are extended for JSSK beneficiaries. PMSMA is not conducted. Availability of IFA is to be ensured. There is no IP in the FHC. All lab equipments are available. ECG facility is extended but X-ray facility is needed. To cater to better ANC services fetal Doppler, and hemoglobinometer is needed. EDL is not displayed in board as new construction is going on and now it is displaying only in paper in FHC Aruvikkara. Drug availability and stock was sufficient earlier but since utilization of services are on the rise in the FHC with more people not going to Nedumangad DH, facilities too have to be improved. Indent has to be changed. Infrastructure to stock medicine is not sufficient. More staff is needed in pharmacy. IFA is not available since the past five months.

There is no change observed regarding child care after conversion to FHC. Any abnormality cases found among babies are referred to higher facilities. Immunization services and primary child care are provided from FHC. One vehicle is needed for conducting outreach programme.

FHC Aruvikkara faces problem with general waste management as the waste from local area is disposed in the household premises as there is land around the houses. Since this panchayat is near Thiruvananthapuram city, large amount of waste is brought from the city and dumped here which would be uncontrollable in future. People from city area are buying land in the panchayat but these lands are being used for dumping waste. Dumping of waste in rivers too is a problem to be addressed as these pose to be environmental threats. Presently there is no mechanism to stop the waste dumping. Spot fine system can be applied and amendment to the existing rules is necessary for stopping such activities.

In FHC Aruvikkara area palliative care is rendered 16 days in a month. Once in a month they visit every patient. Frequency of visits increases according to the severity of illness. Secondary palliative care functions in five panchayats. Now there is one vehicle for the palliative care programme.

FHC Aruvikkara has implemented activities under NPHCE, NPCDCS, IDSP, NHP for Deafness, SHP for school health and NIDP and NTCP programmes. Salt testing and IEC activities are done under NIDP. Under Tobacco control programme IEC activities are conducted. Inspection in shops for displaying warning boards and timing are made. Whether the shops are keeping distance from schools is also being inspected.



5.7 Family Health Centre Kottukal





FHC Kottukal is located in Athiyannoor block and is 25km from District Headquarters. GH Neyyattinkara is the first referral unit and is 12km away from FHC. It takes 15minutes to reach the hospital. It started conversion work in 2018 and started functioning as a FHC from December 2019. Internal assessment for Kayakalp is completed. They got 84% in self assessment and 46 percent in peer assessment. This FHC is yet to qualify for NQAS.




LSGD cooperation is very good. New OP is constructed under MP fund. An amount of One lakh has been sanctioned for Kayakalp activities. HMC is providing lab support. All buildings, garden are being developed by panchayat. NGO support is good. Good team work is visible in the functioning of the centre. Rotary club has taken the estimate; they are planning to provide NCD clinic equipments. Rs 5000/ is given for heritage garden. Panchayat backup for children park is reported. NHM fund is one lakh for development. Twelve projects are sanctioned in Panchayat for the appraisal of hospital management. Cabin cubicles are arranged under 2 lakh project. For painting Rs 35000/ is allotted by HMC. One lakh fifty thousand has been spent for furnitures and for LCD, sound system lap top they spent two lakh. Seventy thousand for curtains, for interlock tiles in front of the FHC they spent four lakh. But water logging is a problem in front of the FHC.

FHC Kottukal has separate cabins for each OP due to space constraint. Token system has been introduced. TV Display is also available in waiting area. E health started in the FHC. Reference is given in separate paper. For vision centre there is no room now.

	Enablers	Barriers
OPD	<ul style="list-style-type: none"> ➤ New OP is constructed with well furnished waiting area ➤ Introduced token display system ➤ Provided drinking water facility ➤ Set up TV as part of entertainment ➤ OPD time extended to 6pm ➤ Reference to nearby hospitals are easy ➤ E health started in the FHC ➤ Separate cabins are started for each OP 	<ul style="list-style-type: none"> ➤ Special counter for Aged people is needed ➤ Exit and entry through same door ➤ There is no separate room for vision center ➤ NCD Clinic is to be improved with more testing facilities ➤ Garden has to be developed ➤ Cubicles to separate service areas
Wards	<ul style="list-style-type: none"> ➤ Observation ward is available  <ul style="list-style-type: none"> ➤ Three beds are there ➤ One bed is elderly friendly ➤ Mental health screening is done under ASWAAS programme. 	<ul style="list-style-type: none"> ➤ No IP ➤ Beds are not sufficient as sometimes more patients need observation ➤ As the FHC equip for better services demands of patients also increase and now there is strong demand for IP facility
Laboratory	<ul style="list-style-type: none"> ➤ Most of the tests based on present requirement is done ➤ One additional lab technician from HMC is posted to speed up tests and reduce waiting time ➤ Displayed the details of lab tests along with time required and cost involved ➤ Lab time is extended upto OPD time. ➤ There is tie up with Kirlosker for equipment maintenance 	<ul style="list-style-type: none"> ➤ Sputum microscopy is not conducting ➤ Semiautoanalyser is not working and is proposed for maintenance ➤ For FBS screening patient waiting area is not available. Patients have to wait outside of the gate ➤ Sample collection room is congested
Pharmacy	<ul style="list-style-type: none"> ➤ Pharmacy modified to stock medicines in modular storage mode ➤ Air-conditioned store to maintain temperature 	<ul style="list-style-type: none"> ➤ Drug availability and stock was not sufficient ➤ Storage space is not sufficient

	<ul style="list-style-type: none"> ➤ Two staff in Pharmacy ➤ e health has implemented ➤ Medicines indented as per requirement to KMSCL online 	
Diagnostic services	<ul style="list-style-type: none"> ➤ All test kits and equipments are made available ➤ ECG is made available ➤ Optometrist is made available once in a month from Venpakal CHC ➤ Spirometry is made available under SWAAS programme ➤ Retinopathy instruments are there. 	<ul style="list-style-type: none"> ➤ Need X-ray machine 
Maternity Department	<ul style="list-style-type: none"> ➤ ANC clinic conducts in Fridays ➤ Separate cabins are there for privacy ➤ Beds are purchased for ANC and for IUCD insertion 	<ul style="list-style-type: none"> ➤ ICTC lab is needed ➤ IEC activities should be strengthened
Child care	<ul style="list-style-type: none"> ➤ One doctor in the FHC is a Paediatrician and so paediatric services are rendered. ➤ One separate building for vaccination and it is made child friendly ➤ Breastfeeding cabin is modified to make it more babies friendly. ➤ Curtains are included ➤ Displayed IEC related to kids 	<ul style="list-style-type: none"> ➤ Space constraints are report 
General administration	<ul style="list-style-type: none"> ➤ Administration in general has improved with more training received by staff on implementation of different programmes. ➤ Admin MO has adequate staff now to document the activities to prepare for Kayakalp ➤ 3 Medical Officer ➤ 4 Staff Nurse, Lab technician ➤ Lab Attender ➤ 2 Pharmacist, 1 HI, 8JPHN, 4JHI, ➤ 1 Palliative care Nurse 	<ul style="list-style-type: none"> ➤ Need two more cleaning staff ➤ More training needed for staff in documentation process

	<ul style="list-style-type: none"> ➤ 1 School Health JPHN ➤ 1 PTS, 1 Nursing Assistant ➤ 1 ECG technician ➤ 1 Housekeeping staff grade II ➤ 1 Clerk, 1 Office Attendant ➤ 1 DEO, 1 Ambulance Driver 	
Support services	<ul style="list-style-type: none"> ➤ Geriatric clinic is functioning in 2 to 4 pm in every Tuesdays 	<ul style="list-style-type: none"> ➤ Terrain of the FHC is a problem for elderly
Auxiliary services	<ul style="list-style-type: none"> ➤ Dhobi service is available ➤ Daily colour code is used for changing bed sheet 	<ul style="list-style-type: none"> ➤ Need security service ➤ Mechanized laundry to be attempted ➤ Need equipment for wellness centre
Infection Control	<ul style="list-style-type: none"> ➤ Biomedical waste outsourced to IMAGE.  <ul style="list-style-type: none"> ➤ Autoclave and sterilization enabled ➤ Paper waste is disposed to degenerate in big pits ➤ Panchayat is taking the plastic waste through 'Haritha Keralam' project 	<ul style="list-style-type: none"> ➤ Need bio bin ➤ Need more awareness classes for staff ➤ Infection control activities to be stepped up with more training ➤ Repeated hand washing training to staff to be given especially new staff
NHM Programmes	<ul style="list-style-type: none"> ➤ Palliative care programme functions and a vehicle is allotted for it ➤ NPHCE(elderly)- Geriatric clinic functions and Elderly camp is organized ➤ SHP- One JPHN is working under RBSK ➤ NCD programme IHMI card is registered ➤ NVBDCP is controlled by source reduction activities. For dengue and chikungunya testing and monitoring activities are doing. ➤ NLEP LCDC skin screening camp was conducted ➤ MHP- Detected more cases and hence arranged nearest CHC team to visit the FHC on first Monday of every month 	<ul style="list-style-type: none"> ➤ For controlling NCD there is no provision for space and equipments for regular exercise. ➤ Public spaces and parks can utilize for regular exercise ➤ No counsellor is available for AIDS control programme ➤ Visit of mental health team the FHC in monthly once is needed ➤ Under RNTCP sputum examination is not conducting
Training	<ul style="list-style-type: none"> ➤ Yoga training is conducted for staff on all Mondays ➤ All staff got training in mental health programme ➤ Biomedical waste management classes conducted by IMAGE ➤ DEO is trained retinopathy ➤ E-health trainer is available always. 	<ul style="list-style-type: none"> ➤ Refresher trainings required ➤ Needed training in national programmes ➤ e-health based rotation training needed to all staff ➤ Ensure trained staff in FHC

- Special day classes are arranging for PTS based on the importance of the day
- 1 JPHN trained in IUCD
- IMEP – one Doctor and 2 SNs are trained
- 1 Doctor trained in Immunization and cold chain
- NVBDCP-Doctor and HI trained
- RNTCP- Doctor and SN trained
- NLEP – Doctor Trained
- SWAAS- 3 doctors, 4 SNs and 1 Pharmacist are trained
- AASWAAS(MH) -3 doctors, 4 SNs, 10 JPHNs , 3JHIs 2.LT and 1 Pharmacist are trained
- NPHCE- one doctor trained
- NPCDCS- One doctor trained
- IDSP- one Doctor and one HI are trained
- NIKSHAY-1 doctor, 10 JPHNs, 4 JHIs and 1 HI are trained
- HMIS- 10 JPHNs are trained
- RCH Portal -10 JPHNs are trained

There is one ward and three beds after conversion to FHC. One bed is elderly friendly. Some times more patients need observation and hence more beds are needed. HMC lab is functioning in FHC Kottukal. All tests are conducted except TB sputum microscopy. Semi autoanalyser is not working and is placed for maintenance. For FBS patient waiting area is not available. FHC opens only at 8am. Patients have to wait outside the gate. ECG machine purchased was from panchayat fund and technician's salary is met by panchayat. Spirometry is enabled under SWAAS programme to detect COPD. Retinopathy instruments are there.

FHC Kottukal had one Pharmacist but now two regular posts are there in the center and e-health has smoothened the functions. Storage space is not sufficient and there is shortage of NCD medicine. ANC check up is conducted along with OP. Specially all Fridays are for ANC clinic and vaccination. Separate cabins are there to extend privacy during examination. Beds are purchased for ANC and for IUCD insertion. ICTC lab is needed and IEC activities should be strengthened. The presence of a Paediatrician in FHC Kottukal enables the FHC to render Paediatric services. Every Wednesday immunization services are given. Breastfeeding cabin is modified to make it more mother and baby friendly. Curtains add beauty to the area. FHC Kottukal has initiated daily colour code for changing bed sheets but is yet dependent on dhobi for laundry. So attempting mechanized laundry services should improve

the quality of service. Gate remains closed before 8am which restricts patients entry inside for waiting for FBS test.


In FHC Kottukal NVBDCP is controlled by source reduction activities. For dengue and chikungunya testing and monitoring activities are done. Under RNTCP sputum collection is done but testing facility is not there and hence is sent to nearest DMC. Under NLEP LCDC skin screening camp was conducted. Every Tuesday geriatric clinic is conducted for Elderly person especially for NCD review. Camp is conducted under NPCDCS for children below 2 years. Camp is conducted on World Cancer day. For Cancer and stroke management palliative care team is functioning and medicine and management is done by the FHC team. Kottukal Panchayat however has enabled collection of plastic waste through 'Haritha Keralam'. Paper waste is disposed to degenerate in big pits in FHC Kottukal. No separate room is there for sterilization and autoclave.

5.8 Family Health Centre Thonakkal


FHC Thonakkal is located in Pothencode block and is 26 km from District Headquarters. Taluk Hospital Attingal is the first referral unit and is 9 km away from FHC. MCH Thiruvananthapuram is also a higher referral facility which is about 20 km away from the FHC. It started post creation from 2018 and inaugurated its function as a FHC from December 2019. This FHC has undergone assessment for



Kayakalp. The peer assessment score under Kayakalp was not intimated to them. Assessment for NQAS fetched a score of 63 percent and hence has not qualified for NQAS certification. Good team work is there within FHC. LSGD cooperation is very good. HMC is providing lab. Building is provided by panchayat. There is no NGO support. Such aspects are analyzed here.

	Enablers	Barriers
OPD	<ul style="list-style-type: none"> ➤ OPD separated by Screen ➤ Waiting area well furnished  <ul style="list-style-type: none"> ➤ Patients privacy increased ➤ Records and reports standardized ➤ Proper queue management ➤ Introduced token system and put ASHA for duty for this. ➤ Provided drinking water facility ➤ ASHA provides emergency support to patients ➤ Put up box for patients feed back ➤ A good waiting area with 40 chairs ➤ Set up TV as part of entertainment, Newspaper and Magazines are there ➤ Mike system for announcement ➤ OPD time of FHC has increased to evening time ➤ Reference to nearby hospitals are easy ➤ e- health started in the FHC 	<ul style="list-style-type: none"> ➤ Infrastructure needed ➤ OPD arrangements are not in a stream lined manner like Registration-Pre check-doctor-observation-pharmacy/ lab etc ➤ Separated rooms and separate examination table needed for OP ➤ Special counter for Aged people ➤ Need separate OP block ➤ Exit and entry through same door ➤ Separate room needed for vision center, now the arrangement is very congested
Wards	Not available	<ul style="list-style-type: none"> ➤ Not in FHC concept
Laboratory	<ul style="list-style-type: none"> ➤ Lab services systematic, SOP for all system ➤ Tie up with collection centre (GHS rate) ➤ Proper infection control and quality care, internal and external care quality care ➤ Monthly sample sent from CMC Velloor and they employ external check. ➤ One additional lab technician from HMC is placed ➤ Displayed the details of lab tests along with time required and cost involved ➤ Lab time is extended up to OPD time. 	<ul style="list-style-type: none"> ➤ Sputum microscopy is not conducting, collection only ➤ Ventilated area not available ➤ Space not sufficient ➤ Token system needed ➤ Waiting area is not available in front of lab for patients. ➤ Sample collection room is congested
Pharmacy	<ul style="list-style-type: none"> ➤ Pharmacy separate ➤ Store made A/c ➤ Labeled rack ➤ Prescription auditing ➤ Separate system for storing medicines 	<ul style="list-style-type: none"> ➤ More modular rack needed ➤ Drug availability and stock was not sufficient, indent not sufficient , Rs. 10 lakh only

	<ul style="list-style-type: none"> ➤ SOP for all system ➤ Two staff in Pharmacy ➤ e health has implemented ➤ 275 drugs are in the Pharmacy, slow moving not given in the Indent 	<ul style="list-style-type: none"> ➤ Storage space is not sufficient ➤ Waiting area not available ➤ One Pharmacist on leave ➤ Now one available on working arrangement but not sufficient ➤ Sub stoke not sufficient ➤ Fund inadequate
Diagnostic services	<ul style="list-style-type: none"> ➤ All test kits and equipments are made available ➤ ECG , LT/UT machines, Pulse Oxymeter ➤ Spirometer and Retinoscope Nonmydriatic camera are made available ➤ Auto scope for ear testing ➤ Electronic BP apparatus and glucometer are available 	<ul style="list-style-type: none"> ➤ Tele consultation not available ➤ Need X-ray machine ➤ Vehicle facility not provided ➤ Sputum microscopy is not available due to lack of space and ventilator. ➤ X-ray services needed
Maternity Department	<ul style="list-style-type: none"> ➤ ANC clinic conducted on Wednesdays(TT vaccination only) ➤ AN Check up regularly at SC level, ➤ Kit available at SC ➤ Diabetes checking, HBsAg, VDRL and HIV testing are in the FHC 	<ul style="list-style-type: none"> ➤ ICTC lab is needed ➤ IEC activities should be strengthened ➤ Separate examination room needed ➤ Hand held Doppler needed ➤ Physiotherapy provision needed
Child care	<ul style="list-style-type: none"> ➤ Displayed IEC related to kids ➤ OP and Vaccination room is made child friendly ➤ Breast feeding cabin is modified to make it more baby friendly. ➤ Curtains are included 	<ul style="list-style-type: none"> ➤ More Infrastructure needed ➤ Waiting are separate needed ➤ Strengthen the nutrition clinic ➤ Facility needed for Autism and disability needed
General administration	<p>HR has improved. Presently there are</p> <ul style="list-style-type: none"> ➤ 4Medical Officers ➤ 3 Staff Nurses ➤ 2 Lab technician, ➤ 2 Pharmacist ➤ PTS, 1 Nursing Assistant ➤ 1 Hospital attendant ➤ Cleaning staff , 1 Clerk, 1 OA 	<ul style="list-style-type: none"> ➤ Administrative staff not sufficient, one Clerk and 1 PRO support needed ➤ Need two more cleaning staff ➤ One more Nursing Assistant needed ➤ One Hospital attendant needed for reception duty
Auxiliary services	<ul style="list-style-type: none"> ➤ Laundry outsourced 	<ul style="list-style-type: none"> ➤ Need security service
Infection Control	<ul style="list-style-type: none"> ➤ Autoclave and electric sterilizer available ➤ Soakage pit for Lab waste(liquid) separate sealed soakage pit available ➤ Disinfection by standard protocol ,PEP and PPE treated(all) 	<ul style="list-style-type: none"> ➤ Separate space needed for Autoclaving and sterilization ➤ No earmarked area available for storing the infection control things

	<ul style="list-style-type: none"> ➤ SOP for all blood spill, needle spill and mercury spill etc. ➤ Standardized waste segregation 	
<p>NHM Programmes</p>	<ul style="list-style-type: none"> ➤ NVBDCP- School level programmes(for awareness) training and classes given, formed Arogya sena with student - 5 houses for student cleaning campaign , ➤ Mosquito repellent given to households. ➤ Source reduction activities for dengue and chikungunya testing and monitoring activities ➤ RNTCP- Follow up strengthened, ASC kit given. ➤ SHP- One JPHN is working under RBSK ➤ COPD camps conducted for screening (including migrant camps) ➤ NAIDS-HIV screening started Awareness classes , drama, proper documentation ➤ NCD programme HMI card is registered ➤ NLEP – School based surveys and Aswamedham household surveys, skin screening camp was conducted, ➤ MHP- ASWAAS clinic started and follow up given. ➤ Sampurna Manasika arogyam programme -started ➤ NPHCE- Elderly clinic functions once in a week(every Tuesdays) ‘Vayojana dinam’ conducted, classes given, honoured the oldest male and female ➤ NCPDCS- SWAAS programme started, Classes given for respiratory hygiene, Cough corner placed, ➤ IDSP- Reporting strengthened ➤ NIDP- Kit available with ASHA(at SC level) ➤ NTCP- Yellow line campaign implemented, classes given, CODPA strengthened-fine introduced, smoking cessation clinic started at FHC 	<ul style="list-style-type: none"> ➤ Stop plastic use is more effective than removal ➤ Rodent vector control is needed, Pothencode Market has not a sufficient programme for public waste collection and waste disposal, LSGD involvement needed for the above. ➤ For RNTCP Sputum examination and X-ray are not available, very poor people suffering from TB need help in getting food ➤ NLEP has no barriers ➤ NAIDS-HCV testing needed ➤ For controlling NCD there is no provision for space and equipments for regular exercise. ➤ Public spaces and parks can utilize for regular exercise
<p>Training</p>	<ul style="list-style-type: none"> ➤ All the staff trained according to the work. 	<ul style="list-style-type: none"> ➤ Refresher trainings required. ➤ PRO's support needed or a PRO needed for the FHC

FHC Thonakkal has a well furnished waiting room with 40 chairs. Exit and entry through same door and congested rooms are some limitations of the FHC. TH Attingal, THQH Chirayinkeezhu and MCH are not very far from the centre. So according to the requirements and convenience of patients they are referred to these hospitals. In Thonakkal e-health has been implemented. Drug availability and stock was not sufficient, indent not sufficient, (Rs. 10 lakh only) because people from four panchayats are using FHC. There is space limitation to stock medicine. As one Pharmacist is on leave people have to wait more time in getting medicine.

ANC clinic is conducted on Wednesdays (TT vaccination only) in Thonakkal. There is no separate examination room and Hand held Doppler is needed for better ANC service. In FHC Thonakkal sputum collection is there but testing is not done. Tie up is there with collection centre and waiting room in front of the lab is needed. All equipments and reagents are met from panchayat project and untied fund and only thing needed is space. External quality check with Vellore CMC is maintained. Spirometer and Retinoscope Nonmydriatic camera are made available. In FHC Thonakkal, Arogya Sena are formed with one student for 5 houses under NVBDCP programme. COPD camps were conducted for screening (including migrant camps). Elderly clinic functions once in a week (every Tuesdays). Mosquito repellent is provided to households under areas of FHC Thonakkal.

In all the FHCs, OPD time of FHCs have increased with evening OP also until 6pm. All FHCs now have better lab facilities with more lab equipments. Laboratory equipments are now sufficient. Apart from regular lab technician one additional laboratory technician is now available under HMC. Lab time is extended upto OPD time. TSH and sputum testing is not rendered now as there is no space for sputum testing. Sample collection room is congested. X ray facility is not there. OP and Vaccination room is made child friendly in Thonakkal FHC. Breast feeding cabin is modified to make it more baby friendly.

Additional staff in all the FHCs with more Medical Officers and extended OP time benefits the population. LSGD support in providing additional staff is an added benefit. Now what the FHCs need is more housekeeping staff. Thonakkal FHC needs more administrative staff and PRO support.

With regard to diagnostic services, X ray, USG scan, and geriatric ward are the felt needs of the community in all the 3 FHCs. FHC Aruvikkara and Thonakkal has no dietary services and laundry services. Improvement in basic facilities is needed. Patient friendly atmosphere is needed. Equipments are necessary for working as a wellness centre. All FHCs have made tie up with IMAGE for biomedical waste management. Checklists are used but 3 bucket system is not adopted. Autoclave and sterilization process is underway. Standardized waste segregation is enabled in Thonakkal. Soakage pit for Lab waste (liquid) is available. Pothencode does not have sufficient programme for public waste collection and waste disposal in the Market and LSGD involvement is needed for the above.

Palliative care programme functions well under all the FHCs. Since inclusion of wellness concept in FHC is only in a budding stage, for controlling NCD there is no provision for space to practice Yoga or exercising neither are there any equipments in this regard in FHC Aruvikkara. Public spaces and parks can be utilized for regular exercise. FHC Kottukal has started registration with IHMI card under NCD programme. FHC Kottukal also conducts Yoga clinic is for staff on all Mondays. But there is no such provision in FHC Thonakkal.

Mental Health programme under ASWAAS is well accepted programme in all the FHCs. Referral to Vellanad CHC is enabled from FHC Aruvikkara. According to Medical Officer, if mental health team can visit the FHC monthly once it will be good. ASWAAS programme in FHC Kottukal has been able to detect more mental instability cases and hence has arranged nearest CHC team to visit the FHC on first Monday of every month. The clinic is conducted on all Thursdays in FHC Thonakkal. In field ASHA screens patients with depression and sends them to the ASWAAS clinic day in FHC. If anyone is in need of medicine ASHA supports them for buying medicine from the centre. DMHC visits on second and third Thursdays in FHC.

All the three FHCs are regular in imparting training to the staff. Training is however needed in IMEP protocol, quality management and on national programmes for staff especially for those who are newly appointed.

6. Wayanad District

Wayanad is a tribal dominated district in the State. This health care services rendered by the Government health facilities are given importance as a large tribal population depend on it. The Facilities selected for the study on NQAS in Wayanad district were GH Mananthavadi, FHC Noolpuzha, FHC Poothadi, FHC Vengapally and FHC Appapara.

6.1 District Hospital Mananthavadi

The work for getting NQAS certification started in DH and one Paediatrician is in charge of the process of the NQAS certification work. The present Kayakalp Score of the facility is 76%. NQAS committee was formed, started construction and modification works and purchased equipment as per NQAS standard. Training of all staff has been completed, monthly meeting is organized for the NQAS certification. At present, the DH is waiting for the district assessment.

Enabling changes and barriers

As Part of getting NQAS, the OP transformation work is in the last stage. Under this, separate computerized OP registration counter with 5 separate counter, separate private cabin for each OP, more waiting area for patients, shifting of pharmacy and lab with more space are underway. The OP transformation work is with NHM fund of Rs. 1.07 crore. The construction work is done by Nirmithi, the work is in final stage, but in slow process due to delay in fund release. The transformation work of the OP complex is as per the NQAS standard and with the functioning of the new transformed OP, it will be more beneficial to the patients.

The support of Jilla Panchayat is very much visible for the on-going procedure for NQAS certification. The renovation of maternal ward and paediatric ward is almost completed. The renovation of maternal and paediatric wards are planned as per the requirement of NQAS standard and the work is being done with the funding of JillaPanchayat (Rs. 1.05 crore for maternal ward and Rs. 50 lakh for paediatric ward). The renovation of male and female wards with geriatric friendly approach in view of NQAS criteria is underway. Extra beds were provided in IP wards to avoid

sharing of beds by more than one patient. In view of NQAS, the DH purchased instruments for Rs. One Crore from Jilla Panchayat. The necessary equipment for Lab was purchased, computerization work has been completed in Lab, computer generated reports from Lab is available and electronic token system is implemented in Lab. The renovation of Pharmacy is going on with the OP transformation work and is expected to be completed soon. The renovation of maternity wing as per the LAQSHYA standard is going on.

The renovation work of Labour room, maternity OT, Post operative OT ward, antenatal and postnatal wards are going on. The renovation of maternity block in LAQSHYA standard is initiated with the funding of Rs. 1 crore from NHM. Necessary equipments were purchased with the funding of Rs. 1 crore and construction of Cath lab with funding of Rs. 8.4 lakh, both these funds have been released by NHM.

The construction of SNCU is also complete and handed over to the hospital. The work of hand wash area of SNCU is progressing and after its work the NBSU of the DH will shift to newly constructed SNCU. The NRC of the DH was modified , but the area for the NRC is not sufficient.

The Human resource for the DH is satisfactory in most of the cadre to attain NQAS. But there is acute shortage of nursing assistants and cleaning staff. The doctor said that more cleaning staff can be recruited from the RKS fund but the posting of Nursing assistants is a major challenge. It is not possible to recruit nursing assistant from RKS fund. Number of Anaesthetists is less to meet the requirements.

In view of NQAS certification central CSST will be implemented soon. Autoclave and space for installation is ready and will be implemented soon. The construction of the new building is going on and about 60% work has been completed. After the completion of the new building the current space limitation will be resolved to a great extent. The radiology wing, ICU and blood bank will shift to the new building. There is provision of facility for radiology, ICU and blood bank.

The accident and emergency wing of the hospital was renovated in view of NQAS

and 95% work has been completed so far. The current power laundry is not sufficient as per the NQAS norm, so planning for purchase of a new power laundry is underway.

Presently no free food is given to inpatients and JSSK patients from the hospital. There is Government supply of bread, milk and eggs to patients without cooking. Presently NGOs are providing free food to patients and bystanders at noon and at night. Hospital decided to provide free food to patients as per the requirement of NQAS with the support of NGOs. The infection control of the DH is now at desired level. The biomedical waste of DH is managed by IMAGE, food waste is managed by one pig farm. Disposal of general waste is managed with incinerator and STP is there in DH. In 2019, the DH got 3rd prize in the state from pollution control board. All the 18 departments started their work to attain the goal of NQAS. Under JSSK, 3 cars are outsourced for drop back home after delivery.

The three “*mathraryana*” vehicles are doing the job in good manner. The Government, NHM, JillaPanchayat and NGO support is good for the NQAS work. In addition to the renovation of maternal and paediatric wards, JillaPanchayat released an amount of 60 lakh for generators, 30 lakh for lift, 30 lakh for ICU. In addition to the support for LAQSHYA, equipment purchase, OP transformation, CATH lab etc. an amount of Rs. 25 lakh was released for autoclave, 60 lakh for Limb fit centre etc in view of NQAS from NHM. The involvement of NGOs and well wishers are also there. One person spent Rs. 12 lakh for the renovation of Dialysis unit and purchase of Dialysis machines.

The construction of tube well, water purifier and TV for patients, inpatient waiting areas are from some others well wishers. The Medical Officer in charge of NQAS reported that the team work is there for getting NQAS certification and they are working hard for getting certification in 2020 itself.

6.2 Family Health Centre Noolpuzha

FHC Noolpuzha received first price in the State for Kayakalp during 2018-19. This FHC was quality certified under NQAS in August 2018. The overall score of health



facility was 98%. Department wise scoring was : 98.7% for OPD, 95.6% for Laboratory, 97.3% for national Health programmes and 98.2% for general. The score obtained for different area of concern was :

service provision

96.8%, patient rights 96.2%, Inputs 98.6%, Support service 99.7%, clinical service 97.7%, Infection control 99.4%, quality management 91.0 and outcome 100%.



Enabling factors for NQAS accreditation

OP service: PHC Noolpuzha was upgraded as FHC in November 2017. The health facility got NQAS certification in August 2018. The NQAS certification procedure started in 2017. At that time there were two doctors and no system for the OP registration and OP consultation. There were no queue for the OP registration and OP consultation. The quarrel between the patients and with staff was usual in the OP. There was no privacy in the OP consultation. Numbers of Staff Nurses were two at that time, the work load of the staff was high at that time but there was no systematic manner in the OP management. The Medical Officer reported that average daily OP was about 100 then and after upgradation of FHC and NQAS accreditation, the daily OP increased to nearly 200 per month. During that period there were only two buildings, one was used for OP and the second one was used for IP. In 2017, one building was built under the MSDP fund. In 2017, with the projects of Panchayat, complete interior work of the new building was completed. Sufficient computers were purchased for OP registration, Doctor consultation, in Pharmacy, Lab etc. The e-health software was implemented in the hospital.

This FHC is the first and was for some time the only one FHC that implemented

e-health in the State. The data collection of basic information of all household and household members in the Panchayat is in the final stage, after completion of data collection, smart card will be provided to all individuals. Presently member of the family is linked with mobile number of the head of family. So, patient details can be retrieved in OP counter with the registered phone number.

The OP ticket with token number is generated in the OP registration counter within seconds and there is no much queue in the OP registration. There is one e-health kiosk near the OP registration counter, If one patient visits the hospital within one month, there is no need to go to OP registration counter, but with previous OP number he/she can avail token number for the consultation. After the OP registration, the patient can wait in the primary waiting area. There are sufficient good quality Chairs, high quality cushioned sofa, good quality bamboo chairs and elderly friendly chairs in the primary waiting area.

The assessment of anthropometric measures, vital assessment and history taking in e-health portal based on the token number is done in the pre-check area. There are three doctor's OP rooms. There is enough privacy and bed for the patient check up. Diagnosis, prescription of medicines and lab tests etc are managed by the Medical Officers using e-health software.

The distribution of medicine, lab tests, etc are also carried out using the e-health software. Implementation of NQAS helped the patient to follow a systematic procedure in OP. Previously, there was only morning OP, now 3 Medical Officers provide OP in the morning and one Medical Officer OP during evening till 6 pm. If more patients attend during OP time patients can leisurely wait there in the primary waiting area. There are audio visual programmes and classes given by health experts in another TV, there is mini Library with interesting books and magazines, mobile charging points, free wifi for 1 gb data per day to all patient etc.

There is a children's park near the secondary area, one snack shop run by palliative patients organisation "thanal" etc. Now patients are adjusted with the systematic system. All the staff are also adjusted and comfortable with the new system. After the implementation of the e-health system the waiting time of patients considerably

reduced.



OP Registration Counter e-Health enabled Consulting Room



Token System



MSDP Fund Building



Sofa Set in Patient Waiting Area



E-Health kiosk



TV



Cuff Corner



Emergency Mobile Charger

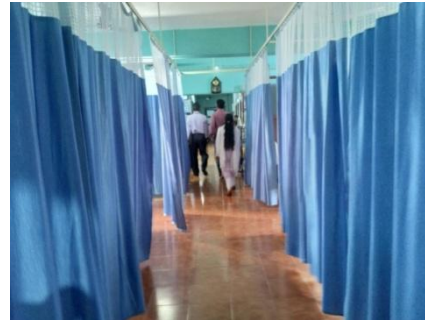
IP service: Before the up gradation of PHC into FHC and NQAS certification, there was an IP block with 10 beds. The condition of the IP was very poor. There was no good toilet facility, no food for the in patients. After the work started for the NQAS, the IP building was renovated, good quality beds and mattress were put in the IP wards, there are two neat toilets (one Indian style and one European style). Privacy is ensured for each bed with curtains around, sufficient fans are available in the IP. With panchayat fund, free food is provided to all patients and bystanders during morning, noon and night. There is drinking water facility in the IP and boiled water facility to make coffee or tea to patient in the morning and evening.

The hospital has one 108 ambulance, one jeep from tribal department, one new Ambulance from MP fund. All these vehicles were attained as a part of the NQAS

preparation. Either of these vehicle is used for transporting pregnant women from the tribal home to the nearest Delivery point TH Sulthan Bathery.



Ward Beds



Privacy ensured with Curtains



Female Toilet



Male Toilet

Tribal home concept was introduced for tribal pregnant women in the facility. Pregnant tribal women from the interior region can stay in the hospital for days or weeks with bystanders. Free breakfast, lunch and dinner are available to the pregnant women and bystanders till they leave to other health facility for delivery.

After the NQAS certification, one Tribal maternity home is under construction with the project fund of Panchayat. Two tribal pregnant women with family from remote area can stay in this maternity home for several days before delivery. This maternal home is also planned to provide stay to mother and child along with family members for one week after delivery to provide guidance on breastfeeding, to provide awareness about the feeding of new born, dietary details for mother and immunization related matters of child. Breakfast, lunch and dinner for the inmates of the maternity home and their family will be free during the stay. This programme also will be implemented with the project fund of the Panchayat.



Tribal Maternity Home



Tribal Maternity Home Interior

Lab service: Before upgradation of FHC and start of the NQAS activities, there was one lab technician and limited lab tests were there. Space was limited for the Lab and number of lab tests also was limited during the period. There were no quality controls for the lab tests earlier.

After the up gradation of FHC and start of the NQAS initiation, lab with sufficient space started functioning. Systematic arrangements were made in Lab. One registration counter is there and fee collection for lab tests from patients is at the registration counter. All Lab tests are free to all tribal patients and all beneficiaries of all national programmes such as JSSK. There is blood sample collection area, urine, sputum sample collection area etc and these are separated from the working area of the Lab Technician. Separate wash area, increased IEC regarding lab services, increased protocol posters, etc are other changes made in lab as part of NQAS. The lab technician posts was increased to two, but both the lab technician posts are vacant now. Now, one lab technician is appointed from the Panchayat fund.

There is another innovative project with the funding of Panchayat to detect TB among the tribal people. Two lady staff were recruited from among tribals and training is provided to collect sputum sample from the tribal people. These staff collects sputum from tribal people from 6am on every day and reach the FHC by 11 am. All the sputum collected from the lab is tested in lab for detection of TB. Since there is only one Tab technician in lab, it is difficult to manage all tests, so these trained ladies assist the Lab technician in the lab till 5pm. With this new initiative, five cases were identified as TB and treatment started.



Laboratory Sample Collection Area



Laboratory Equipments

After NQAS, patient load increased, number of lab tests increased, but the modification in lab helped the LTs with better working environment. After the initiation of NQAS, lab equipment considerably increased. There are altogether 16 machines/ equipment in the lab which includes one centrifuge, calorimeter, semi auto analyzer, hbA1c machine, haematology analyzer, urine analyzer etc. The satisfaction level of LT and beneficiaries increased with NQAS. There is external and internal Quality control measurements for lab tests. For bio chemical test there is tie up with CMC Vellore and for Haematological tests, there is tie up with AIIMS New Delhi for the quality control. All the machines of the labs were calibrated and the calibration certificate is there in the Lab. The calibrations of machines were carried out by Agappe diagnostic Ltd, Kirloskar Tech Ltd and medical engineering and services. After the process of NQAS 36 tests are managed in the lab. There is sufficient supply of reagents from KMSCL and additional requirement is met from Panchayat project fund.

Pharmacy: After the upgradation of FHC and the initiation of NQAS, there is tremendous change in the pharmacy. Earlier it functioned in a small room, now one room with sufficient space is there for the pharmacy. E-health is implemented in the pharmacy. Earlier there was only one Pharmacist and working time was till noon. Now, there are two regular Pharmacists and one NHM contractual Pharmacist in the facility. The lab functions from 8am to 6pm. There are two computers for management of drug distribution using e- health software, hence there is no delay in getting medicine after prescription of medicine by Medical Officers. Token system is implemented in pharmacy to avoid queue, but most of the time token system is not required to manage the pharmacy. Earlier, number of medicines was less, now number of medicines distributed from the lab is about 235 and about 40 type medicines for the NCD patients. Number and quantity of total drugs and NCD drugs

increased with patient load after the initiation of NQAS. The pharmacy of the hospital is well equipped and well arranged.



Pharmacy Counter



Drugs List Displayed

There is one Tribal Mobile Medical Unit (TMMU) functioning under the FHC. There is one doctor and Staff Nurse along with one vehicle for the TMMU. The medicine for the TMMU is also managed from the pharmacy. DDMS online software is used for the online intend of medicine. Current year the indent for the medicine was for 25 lakh, the medicine supply is from the district warehouse 3-4 times according to the availability of medicine in the district warehouse. When there is any shortage of medicine, it is either managed from the nearby hospital and replenished after the supply from the KMSCL or local purchase either from Karunya medical store or from Neethi medical store. Medicines which are not supplied from the KMSCL, and shortage of medicine from KMSCL were managed with the Panchayat project fund. Medicine for Palliative care, some of the medicine for TMMU and psychiatric medicine are managed using the Panchayat fund. Sufficient IEC regarding drugs and drug utilization, essential drug list, protocol poster were prepared in good quality and displayed in an effective manner.

RCH: There is one ANC clinic of the main centre on all Thursdays and immunization session of the FHC on all Wednesdays. Before the implementation of FHC and NQAS, the facility in terms of space, arrangements, management of patients were poor. Now there is sufficient space, good arrangement for the management of NAC and immunization clinics. So number of ANCs and children increased considerably. There is one well equipped room for IUCD insertion. This exclusive room with all facilities developed with the initiation of NQAS. Under the policy of the Kerala Government, no delivery is performed at PHC level, hence no

labour room is there in the facility. The Panchayat and FHC is ready to develop LAQSHYA standard labour room and neonatal care especially for the rural and interior tribal population, the NQAS external team also suggested and recommended to develop a labour room, but not started it because of the policy of the government. But, there is sterilized delivery kit in the IUCD insertion room and basic requirement is there to manage delivery in emergency situation. Last year two emergency deliveries were carried out in the IUCD insertion room by the trained staff. Both the cases were tribal women and their travel from the interior to the TH Bathery was not possible and so approached FHC as emergency.



IUCD Room



IUCD Bed

Human resource: Number of Doctors, Staff Nurses, Pharmacist and Lab technicians increased after the conversion to FHC. There is no change in HR with NQAS. The attitude of all staff towards their work changed with the team work spirit to attain the NQAS certification. The team spirit and hard work by entire staff is the reason for attaining the NQAS standard. After the NQAS certification and e-health implementation, number of staff increased with the support of the Panchayat. There is one doctor appointed from Panchayat. There is no regular LT, but manage with one LT appointed form the Panchayat and two staff appointed in the project for detection of TB among tribal population. Another important appointment from the Panchayat is that of Computer engineer for the FHC. Since the e-health programme was implanted first in this FHC in the State, there is no regular technical support from there. The Panchayat has no provision to appoint one computer engineer for FHC. Special sanction was received from the planning board to appoint computer engineer. With the help of the engineer, all the IT functions in the hospital in very good manner

NHM Programmes: PMSMA and NRC was developed and implemented along

with the NQAS certification. One NRC with 2 beds was started in the facility with the funding of NHM. One new building was constructed and one Dietician was appointed for the NRC. Since the admission in NRC is less, the Dietician is for the NCD clinic and providing nutritional guidance to all NCD patients and taking nutrition related class arranged at field level by ANM.



NRC Building



NRC Building- Play area

PMSMA is conducted in this centre on 9th of all months. The average attendance during PMSMA is about 100. On the PMSMA days pregnant women collected from the area of the PHC using FHC vehicle. The collection of pregnant women from field was planned to collect tribal women from the interior part. Now all pregnant women are utilizing this facility. On the day of PMSMA, Gynaecologist is available in the facility and ANC check up is carried out by the Gynaecologist. All lab tests and medicines are free to all cases on that day. There is a tie up diagnostic centre at Sulthan Batheri for conducting antenatal ultra sound scanning. Three free scanning is available under JSSK. Breakfast and lunch is available in FHC to all beneficiaries of PMSMA on the day. After ANC check up and lunch, all pregnant women dropped back to their home using the hospital vehicle. The FHC vehicle is utilized for pick up tribal women from their settlements to Sulthan Batheri for Ultra sound scan and drop back after scan.

Under RNTCP Programme, the detection of TB is available in the FHC lab. After NQAS, the detection programme extended in the tribal community area with a special project of Panchayat. Under this initiative, two lady staff was recruited from tribal and provide training to collect sputum sample collection from the tribal people. These staff collects sputum from tribal people from 6am on every day and reach the FHC by 11 am. All the sputum collected from the lab is tested in lab for

detection of TB. With this new initiative, five cases were identified as TB and treatment started.

Auxiliary services: After the facility was upgraded as FHC and initiation of NQAS, free breakfast, Lunch and Dinner to patients started in the FHC. Laundry system was implemented in the facility. One ROP plant was implemented in the FHC. The FHC is situated about 500 metres away from the main road. Patients have to walk that much distance to get private transport vehicle. With the Panchayat project one electric auto was purchased to transport aged patient to the nearest bus stand. Tribal department provided one jeep to the FHC and with the Jeep picks up tribal pregnant women on the day of PMSMA and drop back after antenatal check-up, helps to conduct immunization in tribal colonies, picks antenatal women to Sulthan Batheri to conduct Ultra sound scan and back to colony after scanning.



Electric Auto



Hospital Jeep



Thanal Snack Shop



Children's Park

One physiotherapy building is under construction with the funding of CRS fund of Cochin Shipyard and NHM fund, there is one children's park near the secondary waiting area. There is a counter outside the OP where Dietician provides counseling to the NCD patients. One snack shop is there run by the organisation "thanal" run by palliative society. Another unit is there to make medicine cover, the covers are made by family members of bed ridden patients/cancer patients.

Infection Control: After the initiation of the NQAS, the infection control system of the hospital developed tremendously. The bio medical waste management is outsourced to IMAGE. The plastic waste of the hospital is managed by the Panchayat. The food waste of the hospital is disposed using compost pit. Autoclave is available in the FHC. Three bucket system is implemented in the FHC for cleaning. With the help of the cleaning staff, the hospital and its premises are kept very clean.



Bucket for Waste



Compost Pit



Autoclave



Hospital and its Premise

Training: All the staff were trained for achieving the NQAS certification. Almost all staff were found trained on all national programmes. Doctors, JPHNS and JHIs were trained on national programmes such as NVBDCP, RNTCP, NLEP, National AIDS control programme, NPHC, IDSP, NHP for deafness, NTCP, HMIS, RCH portal and NIKSHAY portal. All JPHNs were trained on programmes such as SBA, NSSK, and IUCD& PPIUCD insertion. All the 18 ASHAs were trained on the national programmes such as NVBDCP, RNTCP, NLEP, and National AIDS control programme, IDSP, NIDP and NTCP. All doctors, JPHNS, JHIs and ASHAs were trained on state specific special programmes such as SWAAS and ASWAAS. Staff were sent for all training programmes at State and district level. After such training, the trained staff imparts the training received to all other staff. The Medical Officer is very keen in to provide periodic training to all staff at hospital level to maintain

the hospital in very good manner. Periodic training is there by staff of FHC to all staff on various current and relevant health and allied topics.

Factors contributed to the present status: The team work is the main reason for the achievement. In 2017 the Kayakalp score assessed by the district was 78% and assessment was 73 %. After the state assessment, the entire staff of the hospital unanimously decided to proceed for the NQAS certification. All the staff were divided into four groups such as: OPD, public health, Office, Pharmacy and Lab. One doctor was assigned the charge of the team and Medical Officer in charge of the FHC provided all support to the teams. Within six months, the external assessment of NQAS was carried out and 98% score was attained. NHM provided the service of two quality officers and bio medical engineer.

The main support for the attainment of NQAS and all the good indicatives in the FHC after the accreditation is mainly because of the Grama Panchayat. During the 4 year from 2016-17 to 2019-20, about 200 lakh were provided from Panchayat for various projects. After the NQAS accreditation, the support from NGOs and public are more. One NGO is providing tea, snacks, lunch to all antenatal women and bystanders on the day of PMSMA days. Another NGO is providing medicine kit, TV and some other supporting services were provided by well wishers. The major



contribution of all the achievement found in the FHC is the leadership and hard work of the Medical Officer in charge Dr.Dahir Muhammed. This health facility was a below average PHC of the district till 2016-17. The leadership quality, planning capability, farsightedness, affection to the poor people especially to the poor tribal people of the Panchayat, caring and support to his staff in FHC, ability to gather funds for various projects from appropriate sources etc are the main reason behind all achievement observed in this health facility within four years period.

6.3 Family Health Centre Poothadi

The FHC Poothady was quality certified under NQAS on 28th October 2019. The overall score of health facility was 97%. Department wise scoring was: 97.1% for OPD, 98.5% for Laboratory, 98.9% for national Health programmes and 93.1% for general. The score obtained for different area of concern was: service provision 98.9%, patient rights 96.0%, Inputs 95.6%, Support service 94.7%, clinical service 98.5%, Infection control 94.8%, quality management 93.1 and outcome 100%.

Enablers of NQAS accreditation

OP service: PHC Poothady was upgraded as FHC in August 2018. The NQAS certification process was completed in September 2019 and NQAS certification was awarded in October 2019. The average OP per month from 2014-15 till the up gradation of FHC was 4700. After the up gradation of FHC till the NQAS certification, average monthly OP was 6100. After the award of NQAS (from October 2019 to January 2020), the average monthly OP was 6200. Even though the period after the Accreditation is not the season for communicable diseases, the average OP slightly increased when compared with that during the pre accreditation period. After the national level accreditation to the FHC, people of the area have more trust on FHC rather than the General hospital and District hospital and even private hospital. After the accreditation, more people from the neighbouring Panchayats such as Kaniyampatta, Panamaram, Pulppally and Meenagadi depend on the FHC for OP services.

Lab service: Part of the modifications of NQAS accreditation were systematic arrangements made in Lab, one registration counter, fee collection for lab tests from patients, blood sample collection area, urine sample collection area etc separated from the working area of the Lab Technician. Separate wash area, increased IEC regarding lab services, increased protocol posters, etc are the main changes made in lab as part of NQAS. These changes helped Lab technician with better working environment and satisfaction of the patients regarding the lab service increased. After NQAS, patient load increased and number of lab tests increased, but the modification in lab helped the LTs for better working environment. There is external Quality control measurements for lab tests from CMC Vellore and internal quality

control measures after the NQAS.

Pharmacy: The pharmacy is arranged in an organized manner with the NQAS work. Sufficient medicine racks are arranged in systematic manner. Medicine attaining the date of expiry is arranged in manner such that to distribute before the expiry. Number and quantity of total drugs and NCD drugs increased with patient load. More racks were purchased and systematic arrangements of medicine was implemented in Medicine store. Sufficient IEC regarding drugs and drug utilization, essential drug list, protocol poster was prepared in good quality and displayed in an effective manner. Psychiatric drugs are stored in double lock rack and one lock is kept by Pharmacist and second one is with Medical Officer to avoid the misuse of psychiatric medicines. One more Pharmacist is appointed from the Panchayat fund so as to manage the pharmacy in good manner and functioning of the pharmacy from 9 am to 6pm.

RCH: Number of ANCs increased in the ANC clinic conducted on Thursdays. There is class on each session before ANC registration and ANC Check up. Modification and beatification of space for ANC clinic / immunization clinic was carried out with the NQAS. The cleanliness of the ANC clinic / immunization room enhanced. Children from other area is utilizing the immunization service of FH. Number of attendance on immunization days before NQAS work was 20-25, now the attendance increased to 40-60.

Human resource and training: Number of Doctors, Staff Nurses, Pharmacist and Lab technicians increased after the uplift of FHC. There is no change in HR with NQAS. The attitude of all staff toward the work changed with the team work to attain the NQAS certification. There are so many limitations such as old building; constructional modification of building is not possible etc. The team spirit and hard work by entire staff is the reason for attaining the NQAS standard. There were four teams: OPD, public health, Office, Pharmacy and Lab. Each team worked hard to attain their goal. The dedicated work from Medical Officers to the cleaning staff is commendable. There were several trainings to all staff in connection with the NQAS. Now the training programme is continuing. Topics are give to each staff and they are taking classes to others on different health and allied subjects.

Support system: The support from the NHM to attain the NQAS certification is good. All guidelines and support to attain the standard is from NHM. Two staff were provided from the NHM for the guideline and support. The Panchayat carried the renovation and modification of the building using plan fund. Panchayat conducted the ceiling work of the patient waiting area, separate toilets for male and female, gate for the main entrance, modification of pathways etc. There are three staff working in the FHC using the Panchayat fund. The salary for evening OP doctor, one Pharmacist and one cleaning staff are met from the Panchayat fund. This year an amount of Rs. 43750/- was received as untied fund, Rs74500/- received from NQAS, and Rs. 135500/- received from Kayakalp. Water dispenser, lab equipment. TV in trauma area, condom vending machine, magazine rack, painting, name boards, gardening etc and some sort of plumbing electrician work was carried out using these funds. There was no support from any NGOs

Challenges / barriers after NQAS for further betterment: Since the building is very old and made up of rock, the structural modification of the building is not feasible. There is sufficient primary waiting area in the FHC and 24 chairs are there in the primary waiting area. The secondary waiting area (after the OP consultation of doctor to LAB, pharmacy etc) has very limited space and no chairs are there. As patients in OP are increasing, there is crowd in the secondary waiting area. There is only one Staff Nurse in the pre check area. Anthropometric Measurements of all patients, BP check for all patients above 18 years, temperature assessment, taking other vitals and history assessment are the duties of the Staff Nurse in pre check area. During morning OP time, there are three doctors in OP but only one pre check area with only one staff. Since patients in OP increased, the waiting time for service increased due to the waiting time in pre check area and Lab. So, one more Staff Nurse is required in pre check area or another ASHA has to assign duty in pre check area for anthropometric assessment.

One fundus camera was provided for the detection of retinopathy in FHC, The Staff Nurses were trained to do the procedure. But it has not started the function even after several months of installation of machine and training of staff. There is some misunderstanding or concern regarding the treatment or referral system after the identification of retinopathy and in the process of detection of retinopathy. The Medical Officer agreed to start the function of diagnosis of retinopathy with the help

of fundus camera immediately after consultation with district office.

6.4 Family Health Centre Vengapally

The preliminary work for getting NQAS certification started in FHC. The present Kayakalp Score of the facility is only 55%. The FHC started the gap analysis for OPD, Pharmacy and Lab etc. Proposal is prepared for modification of pre check area of OP and to develop secondary waiting area with more chairs etc. The FHC is providing OP service only. The IP service and deliver services are not in the FHC concept. The HR regarding MO, Staff Nurses, nursing assistants are adequate for the management of patient load as per requirement. But there is shortage of Lab Technician. There are 2 regular posts of Lab Technician, but both the posts are found vacant. Now one lab technician is appointed from HMC who is working 3 days, so no lab technician is available in FHC for three days per week.

The plumbing work started in the FHC as per the NQAS standard, procedure started for changing all taps to elbow tap as per the requirement of NQAS. The process stated for IEC regarding various national and other programmes, sign board, protocol posters etc as per the NQAS prescribed quality. Quality signboard implemented in the FHC, IEC for some of the national programmes and protocol posters are ordered for printing.

Various training programmes for entire staff in view of the NQAS was started. The training programmes on hand wash, PPE, Auto clave, dressing of wounds, preparation of bleach solution, TB elimination, Tele medicine , National Immunization schedule, Pulse polio, National deworming day etc was given to all staff including ASHA workers. The data collection for the e-health from the field is completed. All necessary Computers for OP registration, pre check area, doctors, Pharmacy and Lab etc are ready to implement e- health programme. One staff was trained in e-health so far. The implementation of e-health will help the quality of service at FHC.

Teams were not formed for the work of NQAS accreditation. The financial support of Rs. 43750/ towards untied fund and Rs. 55000/- towards Kayakalp received from

NHM this year and utilized for infrastructure and other activities in view of NQAS. There is no support so far from any NGO or other groups.

The public transport bus facility to the FHC is very much limited. The FHC is useful for the 3-4 wards of the 13 wards of the Panchayat. From other wards there is frequent bus services to GH Kalpetta and UPHC Munderi, so most of the people of the Panchayat except for 3-4 wards mainly utilize other health facility than the FHC. The transport facility to the FHC is the main concern here.

6.5 Family Health Centre Appapara

There is no initiative from the FHC towards NQAS. The present Kayakalp Score of the facility is only 40.6%. The Appapara PHC was upgraded as FHC in 2017. One new building was constructed for the FHC and inaugurated in 2018. There is no initiative from the Medical Officer in charge and other doctors and other staff to enhance the quality of work, quality of service to better the score for Kayakalp and for any steps towards NQAS. This FHC is situated in Belur Panchayat, there are 17 wards in the Panchayat. The service area of the FHC is 8 wards of the panchayat and there is another PHC for the remaining 9 wards of the Panchayat. The catchment area of the Panchayat is the most undeveloped area of the aspiration district of Wayanad. The proportion of tribal population is comparatively high in the area. There is no transportation facility to most of the tribal colonies.

There are five Medical Officers in the FHC. Among these one Medical Officer is regular, two are appointed from NHM and two are adhoc posting. There are 6 SNs and one head nurse, 2 regular Pharmacist , 2 regular Lab technicians, one HI, one LHI, 3 JHIs, 4JPHNs in the facility.

The new OP building has sufficient space for OP registration, pre check up area, two doctor consultation rooms and pharmacy. But there is no effective management of space and staff in the facility. The average monthly OP in the facility is below 3000, it means that below 100 patients utilizing the facility. There are two doctors for morning OP, one for evening OP, one for TMMU and Medical Officer in charge is doing administrative work. This facility is the one of the most needed health facility

of the district. There were 8 home deliveries from the field area during 2018-19 and 12 home deliveries during 2017-18. There are more than sufficient staff, but no unity among the staff, and hence no initiative from the staff for the development of the health facility and for getting NQAS accreditation.

The pharmacy and the pharmacy store is functioning in one room. There is no separate pharmacy store. All medicine stock is maintained in pharmacy and open spaces and corridors. There is no space for medicine disbursement, no rack for keeping medicine for disbursement etc. The lab is functioning in one old building and working in one congested room. The FHC submitted proposal for construction of one building in place of old OP building and planned to shift the pharmacy and lab to the new building. Sanction was received to demolish the old OP building, but no initiative from the Medical Officers and team of FHC.

One NRC was sanctioned for the FHC from the CRS fund of HLL and Rs. 40 lakh was sanctioned for it, another fund of Rs. 4 lakh was sanctioned from NHM for the development of NRC. Since there is no sincere effort from the FHC to demolish the old OP building, the construction was not started and the sanctioned fund is going to be lapsed.

There is male and female ward in the FHC. The infrastructure facility, cleanliness etc of both wards are poor. The ILR is attached with the male ward. One portion of the male ward is used to dump the useless articles of the FHC and another portion of the male ward is separate with cabin for Optometrist. The toilet of the male ward is very poor. On the day of visit no one was admitted in both male and female IP. There is quarters for doctors in the health facility, there are five doctors but no one is residing in the quarters and no one is assigned for night duty. Earlier Medical Officer resided in the quarters. The Medical Officer reported that since there is no doctors during night, patients are referred to district hospital Mananthavady now a days. Hence there is no functional IPD service and no initiative from the Medical Officer and team for starting of the IP service and renovation of IPD.

The Block programme officer of NHM is very active and provided all help for the FHC in getting fund for NRC. With his initiative, the Panchayat is ready to provide

all possible support for the development of the FHC and meet requirement of NQAS, but there is no initiative from the Medical Officer and team.

There is one Tribal Mobile Medical Unit (TMMU) for this FHC. One Medical Officer, one Staff Nurse and one vehicle with driver is there for TMMU. But the functioning of the TMMU is not proper. There was no visit of the team to the tribal area by the team for January and February. The Medical Officer reported silly reasons for the non functioning and told that the functioning of the team will start by the month of March

The Panchayat, NHM and other organizations are ready to support in all aspects to uplift the quality of FHC in NQAS standard. The quality improvement of this FHC is very much essential for the poor tribal people of the catchment area. But there is no coordination between the staff and there is no good leadership. Hence reshuffling of staff and one Medical Officer with leadership quality is essential for the development of the FHC and for the NQAS accreditation procedure.

7. Palakkad District

The facilities selected for identifying the enablers and barriers of NQAS accreditation are PHC Peruvemba, PHC Thirumittacode, FHC Sreekrishnapuram, CHC Koduvayur and W & C Hospital Palakkad and. All these facilities are selected from the different blocks of Palakkad district. PHC Peruvemba has received NQAS certification in 2019 and the score is 81%. PHC Thirumittacode has not received NQAS certification but has applied for NQAS. The Kayakalp score of this PHC is 98.1%. But CHC Koduvayur has not received NQAS certification and this facility has undergone assessment for Kayakalp. But did not achieve Kayakalp as the score is only 35%.

The enablers and barriers of the selected facilities are detailed below

7.1 Primary Health Centre Peruvemba

PHC Peruvemba is 8km away from the district headquarters and is located in the Kuzhalmannam block of Palakkad district. The facility is 12 km away from the

nearest CHC. There is only one village under this PHC. This PHC is covering a population of 21480. The PHCs are assigned scores in 4 broad categories: OPD, National Health programme, Laboratory and General Administration. The scores achieved by PHC Peruvemba was

1. OPD :91.5%
 2. National Health programme : 82.5%
 3. Laboratory : 75.9%
 4. General Administration : 73.2%
- Total Score : 81%**

There are 8 areas of concern wise scores and PHC Peruvemba was assigned:

1. Service provision :85.4%
2. Patient rights :74.2%
3. Inputs :71.6%
4. Support services :78.2%
5. Clinical services :87.9%
6. Infection control :82.1%
7. Quality management :76.3%
8. Outcomes :96.9%

	<i>Enablers</i>	<i>Barriers</i>
OPD	<ul style="list-style-type: none"> ➤ Introduced token system ➤ Provided drinking water facility ➤ Installed air cooler ➤ Set up TV as part of entertainment ➤ Installed fire extinguisher for safety ➤ Mike system for announcement 	<ul style="list-style-type: none"> ➤ Need to install AC ➤ No Special counter for Aged people ➤ Lacking patient waiting area ➤ Need an observation room ➤ Need separate OP block ➤ Install air purifier plant
Wards	Not Applicable	
Laboratory	<ul style="list-style-type: none"> ➤ Installed Haematology machine, ➤ Installed Bio chemistry semi analyzer and HbA1C machine ➤ Displayed the details of lab tests along with time required and cost involved 	<ul style="list-style-type: none"> ➤ Need more human resources ➤ Want to start RNTCP ➤ Modification need for collection area ➤ Need waiting area ➤ Area needed for sputum collection
Pharmacy	<ul style="list-style-type: none"> ➤ Store airconditioned ➤ Kept medicine tray ➤ Made modular pharmacy ➤ Introduced Token system ➤ Double lock system setup for keeping narcotic medicine 	<ul style="list-style-type: none"> ➤ Presently the same door for store room and pharmacy. This needs to be changed and make it separate ➤ To make Pharmacy A/c
Diagnostic services	<ul style="list-style-type: none"> ➤ All test kits and ENT kits are made available ➤ ECG is made available ➤ Optometrist is made available 	<ul style="list-style-type: none"> ➤ Need X-ray machine ➤ Lacking human resources
Maternity Department	<ul style="list-style-type: none"> ➤ Special room arranged for ANC ➤ Purchased new examination table ➤ A curtain was placed for privacy 	<ul style="list-style-type: none"> ➤ Need separate building for maternity department. The construction is progressing

	<ul style="list-style-type: none"> ➤ Purchased Doppler analyzer ➤ Setup separate breast feeding room 	
Child care	<ul style="list-style-type: none"> ➤ Set up separate immunization room ➤ Displayed IEC related to kids ➤ Ensured availability of all medicines at any point of time 	<ul style="list-style-type: none"> ➤ Need a playing area for kids ➤ Need play tools for kids like swing, toys etc
General administration	<ul style="list-style-type: none"> ➤ 2 Medical Officer ➤ 1 Staff Nurse ➤ 1 Lab technician ➤ 1 Pharmacist ➤ 1 LHI ➤ 5JPHN ➤ 1 PTS ➤ 1 Nursing Assistant ➤ 1 Housekeeping staff grade II 	<ul style="list-style-type: none"> ➤ Need more Staff Nurse, Pharmacist, Lab technician, Cleaning staff and Data entry operator
Auxiliary services	<ul style="list-style-type: none"> ➤ Nil 	<ul style="list-style-type: none"> ➤ Need security and laundry service
Infection Control	<ul style="list-style-type: none"> ➤ Linked with an agency called “Image” for collecting the biomedical wastes. ➤ Fumigation is done monthly ➤ Colour coded bins are available 	<ul style="list-style-type: none"> ➤ Need bio bin ➤ Need water treatment plant ➤ Need more awareness classes
NHM Programmes	<ul style="list-style-type: none"> ➤ RNTCP-Sputum collection and testing, DOT available ➤ NACP- Free ICTC service available ➤ Mental Health Programme-Mental Health project ➤ NPHCE(elderly)- Conduct Elderly camp ➤ SHP- One JPHN is working under RBSK ➤ NTCP- School awareness classes. A board was placed at all schools showing that smoking is injurious to health. ➤ People will be charged Rs400/- if they smoke in public places 	
Training	<p>Given training on</p> <ul style="list-style-type: none"> ➤ Fire and rescue ➤ CPR-First Aid ➤ Spill Management ➤ Biomedical waste management ➤ Infection Control ➤ Maintenance of equipments ➤ Ante Natal Care ➤ Emergency Patients Care ➤ Also taking classes on relevant topics 	<ul style="list-style-type: none"> ➤ Refresher trainings required ➤ Induction trainings to be organized for the newly joined staff also

In FHC Peruvemba a good team work is observed. They have not limited their activities in line with the responsibilities entrusted with them and the position. Every staff will do all types of work. Their intention is only development of the

PHC for the welfare of people. NHM support is highly appreciable. NHM has funded an amount of Rs.1,25,000/- After achieving NQAS certification, all quality services increased in terms of treatment, availability of medicine, infrastructure etc.

7.2 Primary Health Centre Thirumittacode




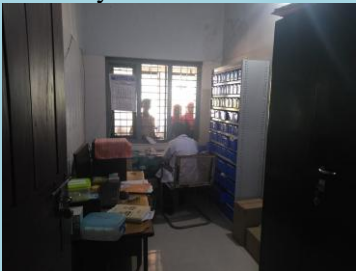

PHC Thirumittacode is about 80 km away from the district headquarters and is located in Thirthala block of Palakkad district. The facility is located near the road and is easily accessible to the public. This PHC serves in 2 villages. It was started as a PHC in 1994 as a non bedded hospital. It is functioning in a Government building not in good condition and surroundings are in very good condition having a beautiful herbal garden. There are 6 sub centres









including main centre under PHC Thirumittacode covering a population of 37987. Only one Staff quarter in facility built by panchayat in 2006 is available for MO which is not fit for living. Request has been given before panchayat for new quarters. Bore well and overhead tank in used for ensuring proper water supply in the centre.

Pharmacy (Store room),consultation room, Injection room, Procedure room and NCD clinic are in the Nirmithi building and Pharmacy, dispensing room, lab, ILR room, IUD room and breast feeding room are in the new building. The PHC is a not a delivery point and only outdoor cases are managed and others are referred. There is only an observation room in the PHC for males and females. Separate toilets for males and females are available and having only one toilet used for both staff and patients in the lab and IUD room. Bio-medical wastes are separated in colour coded bins and is outsourced to IMAGE. This center has complaint/ suggestion box and also has no ICTC and PPICTC service in this hospital. But a counselor from CHC Chalussery visited monthly once for ICTC/PPTCT. Help desk is not functional in the facility. Tally is not implemented in the facility. AYUSH service is not available in the facility it is available in panchayat. OP time in the facility is 9am to1pm.. The average OP per day is around 100- 125. This hospital has received Kayakalp award in 2019 with score 98%.

PHC Thirumittacode has applied for NQAS certification. They reported that presently lab is very poor, need more development. Hence they did not qualify for NQAS.

	Enablers	Barriers
OPD	<ul style="list-style-type: none"> ➤ Modified seating arrangements with airport chairs ➤ Wall Mounted TV ➤ Setup separate reading corner ➤ Provided Drinking water facility ➤ Provided Tea and Snacks free of cost with sponsorship from one NGO ➤ Introduced Token system with the support of Rotary club  <p>Ensured privacy in treatment</p>	<ul style="list-style-type: none"> ➤ Space Constraint ➤ Need an OP building 
Laboratory	<ul style="list-style-type: none"> ➤ Separate area is there in taking blood ➤ Maintaining more registers ➤ Constructed waiting area for patients 	<ul style="list-style-type: none"> ➤ Lack of space-major problem ➤ Trying to construct a new building
Pharmacy	<ul style="list-style-type: none"> ➤ Modified rack for keeping medicines ➤ Arranged additional chairs in the patient waiting area ➤ Token system installed 	<ul style="list-style-type: none"> ➤ Space Constraint 
Maternity Department	<ul style="list-style-type: none"> ➤ Constructed separate breast feeding room ➤ Separate clinic room for ANC and PNC 	<ul style="list-style-type: none"> ➤ Need a Doppler analyzer ➤ Need service of a gynecologist ➤ Better infrastructure is needed like a cupboard for keeping medicine

	<ul style="list-style-type: none"> ➤ Maintaining privacy comparatively ➤ Developed new IEC materials ➤ All maintenance work done including painting ➤ In ANC room one bed was arranged ➤ Purchased vaccine box, buckets, colour coded bins ➤ Arranged curtains for maintaining privacy ➤ Have separate IUD rooms 	<p>and IUD</p> 
<p>Child care</p>	<ul style="list-style-type: none"> ➤ Child friendly room ➤ Displayed charts related to child care etc ➤ Conducting house visit for promoting immunization ➤ Conducting health education ➤ Constructed separate breast feeding room ➤ Separate waiting area and arranged air port chairs ➤ Purchased toys for kids 	<ul style="list-style-type: none"> ➤ Need a playing area ➤ Need more improvement in IEC ➤ Need a new vaccine carriers (25 years old bags are now available) ➤ Need a vehicle for outreach activities 
<p>General administration</p>	<ul style="list-style-type: none"> ➤ 1 Medical Officer ➤ 1 Staff Nurse ➤ 1 Lab technician on contract ➤ 1 Pharmacist ➤ 1 House keeping staff ➤ 1 Part time sweeper ➤ 1 Clerk ➤ 1 Office Assistant ➤ 1 Nursing Assistant ➤ 6 JPHN ➤ 3 JHI ➤ 1 HI ➤ 1LHI 	<ul style="list-style-type: none"> ➤ Need one more Medical Officer ➤ Need one lab technician on regular post ➤ Need more housekeeping staff
<p>Auxiliary services</p>	<ul style="list-style-type: none"> ➤ NIL 	<ul style="list-style-type: none"> ➤ Immediately need these services for applying for NQAS
<p>Infection Control</p>	<ul style="list-style-type: none"> ➤ Biomedical Waste management outsourced to “IMAGE”. Food waste are kept in drum compost which is taken by farmers weekly ➤ Chappals are not allowed inside the hospital. The hospital people provide their own chappals to wear inside the hospital. 	<ul style="list-style-type: none"> ➤ Want new incinerator 

		
NHM programmes	<ul style="list-style-type: none"> ➤ If PW deliver in government accredited private hospital then JSY payments are given online ➤ World AIDS day is observed on December 1st ➤ Margadeepthi-the team visits the FHC monthly once ➤ School vaccination programme is available as part of school health programme ➤ IEC programme on tobacco control ➤ People will be charged Rs400/- if they smoke in public places 	<ul style="list-style-type: none"> ➤ Need to increase the human resources. Follow up of NHM programmes are not done due to lack of staff ➤ Shortage of RNTCP medicine
Training	<ul style="list-style-type: none"> ➤ Quality manager has given training on Infection control to all the cleaning staff 	<ul style="list-style-type: none"> ➤ Need more training for the paramedical staff

In PHC Thirumittacode there is a good team work. All the staff working in this PHC is very cooperative and supportive. Irrespective of their post they are working for the welfare of the facility. No support from the government side. Plan funds are available. NHM support is good. They have funded an amount of Rs.52,000/- NGO is supporting the PHC by all means. They have installed the token system and arranged tea and snacks regularly for the people. Public support is highly valued. Public helped in buying a nebulizer, chairs, almirah, baby metals, wheel chairs, water bed. Recently one man who did not want to disclose his identity donated 10 lakh for the construction of a new building in the PHC.

7.3 Family Health Centre Sreekrishnapuram

Primary Health Centre Sreekrishnapuram was converted to Family Health Centre (FHC) in April 2017 and this is the first PHC to be converted in the district of Palakkad. FHC Sreekrishnapuram is located in the Sreekrishnapuram block of Palakkad district. Population served by this PHC is 25,013 in 14 wards. Five Medical Officers against the sanctioned post of three are available at the facility. In

that one Medical Officer is appointed from the HMC fund and other four are on regular basis.



Modifications made as per the conditions of FHC and ARDRAM project are precheck room, separate reception counter, Spacious patient waiting area with airport chairs, separate consultation rooms with token system, bedded observation room, modified and spacious immunization area, IUD room, ANC clinic , dressing room and well equipped Lab. Staff and LSGD representatives were trained in three phases.


The quality policy displayed at the facility ensures a safe, transparent and patient friendly environment in the hospital and effort to uphold the dignity of each patient.

The facility has undergone assessment for Kayakalp. FHC Sreekrishnapuram was the winner of the State Level Kayakalp Award in 2017 with a score of 95.4 percent. The latest Kayakalp score obtained is 98.6. NHM funds of 8.15 lakh has been utilized for furnishing the basic amenities needed for the upgradation. Additional posts sanctioned during conversion to FHC include one assistant surgeon, two Staff Nurse, one lab technician and one Pharmacist. Panchayat plan fund, Arogyakeralam award fund, Kayakalp award funds were also utilized for modification of the FHC. These factors helped in attaining the certification.

The enablers and barriers at different departments are given below.

	Enabling changes	Barriers (What the department still need)
OPD	<ul style="list-style-type: none"> ➤ OPD attendance increased to about 300 from 160 ➤ Token system enabled for OPD consultation ➤ Two counters were formed ➤ Set up reading corner 	<ul style="list-style-type: none"> ➤ Ventilation is not in the OPD room and air conditioner has to installed
Laboratory	<ul style="list-style-type: none"> ➤ OPD increased and correspondingly lab tests also increased ➤ Haematology analyzer purchased ➤ HIV tests available ➤ All tests for pregnant women are free at the laboratory ➤ Free service to under 18 years ➤ Free service to BPL patients 	<ul style="list-style-type: none"> ➤ Presently one lab technician is available and the working hours is 9 – 4 pm thus need one more lab technician

		
Pharmacy	<ul style="list-style-type: none"> ➤ Modular pharmacy ➤ Double lock system for narcotic medicines ➤ Two Pharmacist available ➤ Air conditioned store room available ➤ The Panchayat gave one month medicine for NCD 	<ul style="list-style-type: none"> ➤ More air-conditioners required ➤ Sufficient medicine are not available ➤ Daily OPD increased to about 300 per days and medicines are not sufficient to meet the increased OPD. ➤ Shortage of medicines especially NCD medicines and local purchase is done ➤ 7 lakh allotted but now itself medicines purchased for 13 lakh
Diagnostic Services	<ul style="list-style-type: none"> ➤ All basic diagnostics required for PHC and more available ➤ ECG available 	
Maternity Department	<ul style="list-style-type: none"> ➤ ANC clinic during Monday 9AM to 1PM ➤ Counseling given to ANC mothers on family planning, breast feeding, ANC care etc. ➤ All lab tests are done free of cost 	
Child care	<ul style="list-style-type: none"> ➤ Immunization clinic conducted every Wednesday ➤ Monthly 20 camps conducted for immunization in 5 sessions per month ➤ 3 Anganwadi and one sub centre in a day ➤ Breast feeding room available ➤ Conducted healthy baby completion to make aware of the need for balanced diet 	<ul style="list-style-type: none"> ➤ Under this FHC area partially immunized, unimmunized children are there ➤ Some believe in naturopathy. ➤ Vehicle facility not available, it is very much needed for conducting outreach immunization. ➤ Vehicle and driver required. ➤ The existing system is to hiring auto is very difficult as many things to carry for immunization. ➤ Rotavirus given as two drops is appreciated by now 2.5 ml vaccine is given which is difficult to give to the babies.

		<ul style="list-style-type: none"> ➤ MR Vaccine stock is not adequate. ➤ Toys are placed for babies to play while waiting for doctors.
General Administration	<ul style="list-style-type: none"> ➤ No NHM staff ➤ 4 Medical Officers including one from LSG, 4 Staff Nurse (3+1 from HMC), One Lab Technician, 2 Pharmacist, one housekeeping staff and 2 cleaning staff 	<ul style="list-style-type: none"> ➤ Need one each lab technician, Pharmacist and Staff Nurse
Auxiliary Services	<ul style="list-style-type: none"> ➤ Laundry services are done with the washing machine available by the grade II staff 	
Infection Control	<ul style="list-style-type: none"> ➤ Biomedical waste management is done as per protocol, outsourced with "IMAGE", will collect weekly twice from the FHC. ➤ Plastic waste are collected by "Harithasena" and plastic shredding unit is there in the Panchayat and the shredded granules used for tarring. ➤ (Harithasena is a team under Panchayat to collect plastic from houses and institutions) ➤ Thumpurmozhy model bio-waste plant is there. ➤ Incinerator is there but its use is reduced 	
NHM Programmes	<ul style="list-style-type: none"> ➤ For JSY programme there is no pending payments. ➤ Treatment and follow-up as part of NVBDCP for malaria, dengue during outbreak. ➤ Under RNTCP 12 patients are undergoing treatment. ➤ 3 patients with Leprosy under the area of this FHC, undergoing treatment. Screening is going on. ➤ AIDS day observation is done and awareness classes conducted, patients given ART medicine. ➤ Every Friday "ASWAAS clinic" (mental health clinic) is there for treatment and counselling of patients for mental health ➤ Every Monday SWAAS Clinic is conducted for COPD and Bronchial Asthma patients. Spirometry test done for accurate diagnosis and progress ➤ For elderly care Day care home is there where food is given and 	<ul style="list-style-type: none"> ➤

	<p>medical camps for elderly are conducted.</p> <ul style="list-style-type: none"> ➤ Every day NCD screening and treatment is given after converted the facility to FHC. ➤ A representative took part in the PTA meetings, conduct classes, distribute iron tablets, and quiz programmes conducted. ➤ For NTCP special campaigns are conducted, bike rally, awareness programs conducted 	
Training	<ul style="list-style-type: none"> ➤ Under ARDRAM programme all staff are adequately trained. ➤ Separate register is maintained on staff training ➤ Medical Officer is providing training to other staff on requirement. ➤ Resource persons are called for training if any particular training requirement is felt. 	➤

The FHC was NQAS certified in 2019 June. A very good team work and involvement of all staff in all type of works for the betterment of the facility and service provision irrespective of the designation and hierarchy contributed to the achievements. It is reported that the JHI is having more innovative ideas and everyone is there to implement it in a successful way. The factors behind success mentioned specifically are

- Well qualified and trained staff
- Team work
- Well supported LSGD
- Well mannered and cooperative patients
- Good support from voluntary organizations
- Good and sincere ASHAS and AWWs
- Well supported by Hon. MP, MLA, DMO, DPM and so on
- Well supported HMC

Untied fund of Rs. 87,500, Kayakalp amount of Rs. 50,000 and for ward health nutrition Rs. 1,40,000(10,000 for one ward X 14 wards) got from the NHM in the 2019-20. Services in kind are provided by the NGOs. Staffs are sponsoring some of the expenses. Very good public support is also there.

7.4 W&C Hospital, Palakkad

W&C Hospital was established in 2012, until then the hospital was part of the District Hospital. After bifurcation of the W&C hospital in 2012 all maternal and child health services has been shifted. The functional bed strength of the hospital is 250. The health facility is located within the city and is easily accessible to the population.

The quality control maintained in the hospital is reflected in the achievement this hospital earned for being the State level Kayakalp Award winner in 2017 with a score of 88%. The first internal assessment for NQAS certification has been completed which fetched them more than 70 percent. The second assessment is underway.



	<i>Enabling changes</i>	<i>Barriers (What the department still need)</i>
OPD	<ul style="list-style-type: none"> ➤ OP computerized ➤ Token system introduced ➤ Announcement system available in the OPD. ➤ Two counters at OPD available one for pregnant women and other for children ➤ At a time two doctors manage OP ➤ More chairs arranged at waiting area. ➤ Privacy during examination ensured ➤ Separate infertility clinic conducted. ➤ Separate breast feeding area kept ➤ Reading materials placed at cupboard. ➤ Setting up of separate ARSH clinic done. 	<ul style="list-style-type: none"> ➤ Space constraint ➤ Toilet facility for OP patients to be addressed. Presently there is only one toilet ➤ Sanitation and hygiene to be constantly maintained

Wards: /IPD	<ul style="list-style-type: none"> ➤ More beds (264) available (250 sanctioned beds.) ➤ Proper documentation done at IPD ➤ Registers maintained properly ➤ Announcement in wards as part of IEC on different topics which need attention of patients. ➤ Topics include importance of ANC check-up, immunization etc. 	<ul style="list-style-type: none"> ➤ Crowd control is an issue in the wards ➤ Bed occupancy rate is more than 115 percent which shows beds shortage ➤ Extra effort needed to proper documentation of registers. Kept checklist for this purpose. ➤ Disaster management training required. ➤ Instrumentation, toilets etc. satisfactory score sheet achievement is difficult
Laboratory	<ul style="list-style-type: none"> ➤ All equipments are available. ➤ New building and spacious ➤ Wide range of tests are now possible than before ➤ Thyroid function test now possible ➤ A part of the lab where equipments are placed are air-conditioned ➤ For microbiology and pathology tie-up with private laboratory is done. ➤ Liquid waste management enabled with the lab waste water being disinfected and then drained 	<ul style="list-style-type: none"> ➤ More human resource requirements are there to reduce the patient waiting time for results of blood investigations. ➤ Air conditioning should be done for the laboratory as a whole. ➤ Microbiology and pathology to be enabled in the in-house lab
Pharmacy	<ul style="list-style-type: none"> ➤ Essential drug list available ➤ Most of the essential drugs are available. ➤ One month stock for supply always ensured even when there is more demand ➤ If shortage is there purchased from Panchayat fund 	<ul style="list-style-type: none"> ➤ Modular pharmacy work is ongoing. ➤ Store room has to be air conditioned. ➤ Store room to be shifted. ➤ More human resources required. ➤ Token system in Pharmacy not introduced ➤ Proper waiting area for Pharmacy needed
Diagnostic Services	<ul style="list-style-type: none"> ➤ Most of the diagnostics needed are available including Ultrasound scanning. ➤ Specialist to do USG outsourced. 	<ul style="list-style-type: none"> ➤ Post of Radiologist is not there. Presently it is hired privately. ➤ Lack of Specialist incurs huge expenses as ANC and delivery services are to be provided free of cost ➤ Pathology lab also needed
Maternity Department	<ul style="list-style-type: none"> ➤ Respectable maternity care rendered ➤ High risk pregnancies managed ➤ Well maintained 45 bedded ANC ward and 45 bedded PNC ward ➤ Labour room has 17 beds. ➤ Laqshya implemented. All construction activities completed . Yet to complete all processes to go in for Laqshya certification ➤ Birth companion programme 	<ul style="list-style-type: none"> ➤ Drinking water facility has to be arranged in maternity wards. ➤ More registers and checklists needed. ➤ Awareness on birth companionship to be given ➤ Crowd management to be focused as W&C caters to a group of tribal population and very poor people. They have to be sensitized on

	<p>implemented but awareness on the programme to be created.</p> <ul style="list-style-type: none"> ➤ Emergency newborn care Checklist, partographs, IEC, flowcharts are sufficiently maintained at maternity department. ➤ All maternity services provided free of cost under JSSK ➤ RBSK/Arogyakiranam programme benefits extended to girls below 18 years 	<p>infection control aspects</p> <ul style="list-style-type: none"> ➤ More focus on cleanliness of wards to be given due to the crowd ➤ All newborns to be breastfed within 1 hour of delivery ➤
Child care	<ul style="list-style-type: none"> ➤ Paediatrics including neonatology services are provided ➤ 14 bedded SNCU functional with 2 Phototherapy Units and 4 warmers ➤ 12 beds are for inborn babies and 2 beds in outborn unit ➤ Specialist newborn care rendered ➤ Special area available and baby friendly appearance ➤ Immunization sessions are carried out on daily basis. ➤ Under RBSK programme birth defects of newborn identified and treatment required if any are provided 	<ul style="list-style-type: none"> ➤ Labour room in the first floor and SNCU in the ground floor due to shortage of space for following Laqshya guidelines. But both connected by ramp for mother and baby's safety ➤ Bed shortage in SNCU ➤ HepB0 vaccine coverage to be increased ➤ Crowd management in the Paediatric ward to be focused ➤ Congestion in the wards
General Administration	<ul style="list-style-type: none"> ➤ New Office set up ➤ Medical Superintendent has built a good team for smooth administration ➤ Good team effort visible in all activities ➤ General surgeon is not there ➤ Senior Medical Consultant -1 ➤ Medical Consultant -3 ➤ Jr Medical Consultant -1 ➤ Paediatricians-3, 2 Anaesthetist ➤ CMO-3, Asst. Surgeon-4 ➤ 1 Dentist (NHM), ➤ Nursing Superintendent-2 ➤ Staff Nurse-81, Pharmacist -3 ➤ Lab Technician-8 ➤ Lab Assistant(RSBY)-6 ➤ Optometrist-1 ➤ Nursing Assistant-24 ➤ Hospital Attendant-12 ➤ LHI-1, JHI-1, JPHN-1 	<ul style="list-style-type: none"> ➤ Of the mentioned posts general surgeon is not there. ➤ Radiologist is privately hired. ➤ More human resource required. ➤ Radiologist, Pathologist are needed ➤
Operation Theatre	<ul style="list-style-type: none"> ➤ Increased area in OT ➤ Maintained separate washing area. ➤ Ventilators are also available in the OT ➤ Two OTs are available, old and new 	<ul style="list-style-type: none"> ➤ Certain technical issues to be overcome ➤ Laqshya based OT is being set up


	<ul style="list-style-type: none"> ➤ Centralized oxygen system enabled ➤ Liquid waste management in OT 	
Support services	<ul style="list-style-type: none"> ➤ Paediatric and Gynaecology ICU are here. ➤ ICUs are well-equipped ➤ X-ray and ECG are there ➤ In geriatric ward only one bed is available 	<ul style="list-style-type: none"> ➤ BSU is not available but all arrangements are done, will start shortly. ➤ Radiologist is privately hired
Auxiliary Services	<ul style="list-style-type: none"> ➤ Diet provided include milk, bread, egg and biscuits for inpatients. ➤ Laundry services are available. ➤ Security services are outsourced. ➤ Herbal garden with medicinal plant is in the hospital. 	<ul style="list-style-type: none"> ➤ Permanent postings needed for security service. ➤ Patient satisfaction score to be improved ➤ No kitchen in the facility,
Infection Control	<ul style="list-style-type: none"> ➤ Committee formed on infection control ➤ Cleaning of wards are done thrice daily. ➤ Colour coded bins placed for segregating waste. ➤ Hand washing stressed ➤ Biomedical waste management is done as per IMEP protocol. ➤ IMAGE is collecting the segregated waste. ➤ Fumigation is done at OT and labour room. ➤ For general waste disposal, tie-up is made with Municipality. 	<ul style="list-style-type: none"> ➤ More housekeeping staff required ➤ Repeated trainings to be given on infection control ➤ Documentation process to be focused
NHM Programme	<ul style="list-style-type: none"> ➤ JSSK and JSY entitlements are provided from the facility. ➤ Outreach activity conducted under PMSMA. ➤ LAQSHYA assessment is under way. ➤ ICTC counsellor and technician are available at the facility. ➤ Other activities under NHM are provided from the District Hospital, Palakkad. 	<ul style="list-style-type: none"> ➤ The fund available under JSSK is inadequate. ➤ Documentation of NHM programme implementation has to be emphasized
Training	<ul style="list-style-type: none"> ➤ Separate training for all staff is given on different topics. ➤ Regular additional trainings are given at the facility itself by Superintendent on infection control, waste management etc. 	Regular refresher trainings has to be done to improve the functioning.



The facility is planned to apply for the NQAS certification by April 2020. Internal assessment score obtained is 79%. Achievement of quality check of each department is specifically given to the senior staff of the corresponding department. Three lakh rupees of fund received for this financial year as NHM support. Other supports received include wheel chair by Lions club, water filter and power grid by Rotary club, fifteen lakh given by Kuwait pravasi and other public supports. The authorities expect more service utilization if it is cherished with certifications including NQAS.

7.5 Community Health Centre Koduvayur

CHC Koduvayur is situated in Koduvayur block at a distance of about 13 Km from the district head quarters. The year of establishment of this CHC is 26th September 1956. The sanctioned and functional bed strength is 33. It is situated near the main road and is easily accessible for the patients. The facility serves about 273419 people in 2 Villages. The catchment population is that of the CHC area and the 6 SCs under it.

For the preparation of Kayakalp in the CHC the changes that were made and those to be enabled are discussed here

	Enablers	Barriers
IPD	<ul style="list-style-type: none"> ➤ Installed Inverter, Nebulizer ➤ Arranged airport chairs ➤ Fixed Mosquito net to avoid the attack of mosquitoes ➤ Patients were given mosquito net ➤ Kept water filter for drinking water facility ➤ Closet was changed ➤ Set up drainage system 	<ul style="list-style-type: none"> ➤ Lack of space ➤ Building structure is not good ➤ No washing machines ➤ No separate rooms for patients for taking food ➤ One grade II staff is required
OPD	<ul style="list-style-type: none"> ➤ Arranged airport chairs ➤ Kept water filter for drinking water facility ➤ Renovated the whole OPD ➤ Ceiling was kept ➤ Installed three bucket system 	<ul style="list-style-type: none"> ➤ Need Staff Nurse on permanent post 

Wards	<ul style="list-style-type: none"> ➤ Separate ward is available for males and females ➤ Arranged airport chairs 	<ul style="list-style-type: none"> ➤ Burns ward, paediatric ward is needed.
Laboratory	<ul style="list-style-type: none"> ➤ Arranged airport chairs ➤ All tests are available ➤ AC is installed ➤ Arranged drinking water facility for the patients ➤ Separate aluminum fabrication case is made for keeping AC 	<ul style="list-style-type: none"> ➤ Nil
Pharmacy	<ul style="list-style-type: none"> ➤ Separate racks are arranged for keeping medicines ➤ Adequate drugs are available ➤ AC is installed 	<ul style="list-style-type: none"> ➤ Drug storage facility is not adequate and more space is required for proper storage. ➤ NCD drugs runs out of stock of mostly towards the year end
Diagnostic services	<ul style="list-style-type: none"> ➤ X-ray is available 	<ul style="list-style-type: none"> ➤ Nil
Maternity department	<ul style="list-style-type: none"> ➤ ANC clinic is conducted during Monday ➤ IUCD insertion is there 	<ul style="list-style-type: none"> ➤ Nil
Child care	<ul style="list-style-type: none"> ➤ Immunization is conducted on Wednesdays 	<ul style="list-style-type: none"> ➤ Nil
General Administration	<ul style="list-style-type: none"> ➤ 1 Hospital superintendent ➤ 4 Medical Officer ➤ 5 Staff Nurse (1 PSC, 3NHM, 1 HMC) ➤ 2 Lab technician ➤ 2 Pharmacist (1PSC, 1 HMC) ➤ 1 PTS, 1 Radiographer ➤ 1 Optometrist, 1 Counsellor ➤ 3 Clerk, 1 OA, 1 Driver ➤ 1 X-ray Attendant ➤ 1 Health supervisor ➤ 1 HI, 3 JHI grade I ➤ 1 Public health nurse ➤ 1 LHS, 6 JPHN ➤ For Palliative 1 Staff Nurse, 1 Pharmacist 	<ul style="list-style-type: none"> ➤ Need more staff ➤ Shortage of manpower reported by the MO, specialist services are requested as it is 15 KM away from the DH. 

Auxiliary services	<ul style="list-style-type: none"> ➤ Laundry is outsourced- Laundry services are available weekly thrice. Amount is met from the HMC 	<ul style="list-style-type: none"> ➤ Nil
Infection control	<ul style="list-style-type: none"> ➤ Three bucket system ➤ Practicing hand washing ➤ Using sterilized instruments ➤ Biomedical wastes are segregated by an agency named “IMAGE” and other wastes are burned. 	<ul style="list-style-type: none"> ➤ Need an incinerator ➤ Need a pit for other wastes
Training	<ul style="list-style-type: none"> ➤ After receiving training the Superintendent has given training to all the staff of the CHC. 	

This CHC stepped for the Kayakalp. Good team work is available among the staff. There is good support from the panchayat and block panchayat. NHM is commendable. NHM has provided 18 lakh fund and this amount was utilized for the renovation of the CHC.HMC fund is available. This centre is charging an amount of Rs5/- for OP ticket. Arogyakiranam project is there in which pregnant women and children upto 19 years of age can access any services from the CHC free of cost. This amount incurred will be recouped by the NHM to the CHC. There is a good support from the public side also.

This CHC has no space to accommodate the buildings here. Need services of specialists, Lack of parking area.

8. Kollam District

For studying the key factors that either enable or hinder hospitals to meet the National Quality Assurance Standards, the following five hospitals from Kollam district are selected: Taluk Headquarters Hospital, Punalur, FHC Perumon, FHC Elampalloor, FHC Veliyam, FHC Chathannoor and FHC Chavara. These are selected from the Revenue Division of Punalur (THQH Punalur), Chittumala block (FHC Perumon), Palathara Block (FHC Elampalloor), Nedumoncave block (FHC Veliyam), Ittikara block (FHC Chathannoor), Chavara block (FHC Chavara).

THQH Punalur has received NQAS certification in February 2018 and the score is 96.0 %. This is the only one hospital which has acquired NQAS certification in

Kollam district. The Kayakalp score is 100%.The FHC Perumon has not applied for NQAS certification because the facility didn't acquire the eligible score for applying NQAS. The external assessment score available to the hospital is only 66.6%. Even though the FHC Elampalloor has applied for NQAS certification they have not yet received the NQAS certification.. The Kayakalp score of this PHC is 91.9%. The FHC Chathannoor has not received NQAS certification but has applied for NQAS. The Kayakalp score of this FHC is 94.0%.The FHC Chavara didn't apply for NQAS certification due to an insufficient score in the Kayakalp award. They have acquired only a 68.3 % score in the external assessment.

8.1 Taluk Head Quarter Hospital Punalur

THQH Punalur was established in 1930, considered as one of the oldest and at the same time the neediest secondary health care institution in India with ultra-modern facilities at the southeast hilly belt of the state. Now, it is the biggest Government Taluk Hospital in Kerala with 10 Floors. Punalur taluk is the biggest Taluk of the state and at the same time the most backward area among southern districts. This hospital is having bed strength of 144 but is catering around 250 inpatients and daily; out patients are about 2500. Here there are 21 tribal settlements in this area, out of the 23 in the district.

There is a proposal for this Hospital to be upgraded as a General Hospital/District Specialty Hospital. This has set a benchmark in public sector healthcare to get a new hi-tech building under Kerala Infrastructure Investment Fund Board (KIIFB). Proposals have been submitted to upgrade this hospital to a General Hospital / District Specialty Hospital. The hospital was built by INKEL, the 200,000-square-foot hospital with an estimated cost of 68 crore under the Ardrum Mission. This is the first of its kind among Taluk hospitals in Kerala. With the opening of 10 storied new building, the number of beds will increase to 500.The inauguration of the building is planned for April 20, 2020. The unit will work with 32 doctors in the different outpatient units. The hospital has already used 50 advanced cosmetology procedures including skin platelet plasma administration, follicle transplantation, squint correction, and dental jewelry. The hospital has received awards from the Kerala State Pollution Control Board for six consecutive years of which three are

excellence awards. The programme ‘Beside you – birth companion scheme’ permits husband or female relative of pregnant women to be present in the labour room at the time of delivery.



Before 2018



In 2018



The hospital is also the first to employ a painless delivery facility in a public sector hospital in the state. The hospital has centralized systems for air, oxygen, and suction in all beds, probably the unique facility in public health centres. The dialysis and cancer care services are free.

The departments available in the hospital

- | | |
|--|---|
| <ol style="list-style-type: none"> 1. Emergency department 2. General medicine 3. Transfusion medicine 4. Obstetrics and gynecology 5. General Surgery 6. Ophthalmology_ excellence in every angle 7. Orthopedics 8. Dermatology | <ol style="list-style-type: none"> 9. ENT 10. Peadiatrics 11. Anesthesiology 12. Psychiatry 13. Cancer care_ Pournami_450 OP 14. Dental care- more than 43 procedures |
|--|---|

Specialties and innovations

- | | |
|--|---|
| <ol style="list-style-type: none"> 1. Painless normal delivery 2. Birth companionship 3. Excellent labour room with labour suit 4. Electronic labor coat and ordinary labor coat 5. Breast feeding area | <ol style="list-style-type: none"> 6. Post natal ward with all facility 7. Child friendly pediatric ward 8. Good NBSU set up 9. Phototherapy unit 10. Play area for kids_POOMPATTA 11. Cosmetology & Lab (with new innovative procedure) more than 50 procedure per month |
|--|---|

12. ICTC Lab_750 caseload per year
13. Infertility lab_ Punerjani
14. Radio diagnosis around 3000/ month
15. USS Department
16. Digital X-ray and Dental X-ray
17. CLIA regulations for screening
18. Hemo dialysis Unit_Sanjeevani_ 1200 dialysis per month
19. Free Hemo dialysis
20. Palliative ward (Nilaavu)_Daily sponge for bed ridden patients with sanitizer
21. Bio safety cabinet-500 Chemo per month
22. Physiotherapy
23. Medical ICCU
24. Surgical ICU
25. CSSD
26. Blood bank and Blood transfusion medicine. 1000-1200 issues and 500-2000 donors per year. The mother blood bank of the area
27. Oxygen generating system_first time in public sector (natural oxygen to all)
28. Centralized Air /Oxygen/ Suction for all beds
29. Ideal Pharmacy (queue system)
30. Ideal drug dispensing system
31. Planned drug storage room
32. Condom vending machines
33. Napkin vending machines, Napkin burners
34. All services are round the clock
35. Free food to all patients_ Padheyam
36. Space for dine
37. Free snacks to HD (Huntington disease) patients
- 38.
39. Rainwater harvesting_ MazhathulliKaruthal
40. Total LED lighting
41. Night lighting by solar
42. Solar water heater for hot water (Hot water facility for bath)
43. Music to all
44. Rainbow color policy to bed sheets where the patient sleeps on rainbow-Mazhavilnidra
45. Plastic recycling
46. Ideal way of waste transportation
47. E-waste management and compost storage
48. Authoritative for BM waste Management
49. Aerobic Composting of biological waste
50. Sewage treatment plant (STP)
51. Heath education for Plastic recovery
52. Plastic recovery centre_plastic recycling
53. General waste burner with scrubber
54. Most modern cleaning Mechanism
55. Garden with rainbow fountains, Chandalabhishuki theme statue
56. Herbal garden
57. Greeneries all round
58. Vegetable cultivation
59. Good corridors
60. Postmortem room
61. Checklist for various activities
62. Antibiotic policy
63. Charity box in all floors
64. And many more



Check lists in force





1. Baby emergency drug
2. Baby resuscitation corner
3. Baby resuscitation tray
4. Baby warmer




5. Biological waste
6. Bleaching solution preparation
7. Blood spill
8. Chapel cleaning
9. Cheatle forceps cleaning
10. Cleaning after each procedure
11. Compound cleaning
12. Crash cart
13. CSSD equipment
14. Deep freezer
15. Dressing trolley
16. Emergency trolley gen
17. Emergency trolley L R
18. Essentials of ambulance
19. Fire extinguisher
20. Chute
21. Oxygen mask
22. Temp. control and ventilation in laundry
23. UPS Checking
24. Freezer mortuary temperature chart
25. General waste segregation & removal
26. Housekeeping at OT
27. Housekeeping status & hygiene practices for food handlers
28. Mercury spill
29. Mortuary cleaning
30. O R S preparation
31. O2 cylinder checklist
32. OHT cleaning
33. OP cleaning
34. OT cleaning after each surgery
35. Oxynose cylinder
36. Oxynox mask
37. Oxynox mask cleaning.
38. Phototherapy cleaning and working status
39. Public address
40. Refrigerator temperature recording
41. Security movement
42. Temperature control and humidity
43. Toilet cleaning
44. Waiting area and passages
45. Ward cleaning
46. Washbasin cleaning
47. Water purifier and drinking water





Services	Enablers	Barriers
<p>OPD</p>	<ul style="list-style-type: none"> ➤ The NQAS score is 98% ➤ With all ultra-modern facilities available. ➤ 14 Outpatient departments  <p><i>OP deapartment</i></p>  <p><i>Waiting Area</i></p>  <p><i>Ophthalmology op</i></p>	<ul style="list-style-type: none"> ➤ Daily 2500 OPD including causality. Relatives of patients with OPD and bystanders of inpatients are crowded in the OP counter as well as in the corridors. By shifting into the new building all these problems will be resolved  <p><i>Dental OP....with more than 43 procedures</i></p>  <p><i>Emergency dept.. old one with new look</i></p>
<p>IPD and Wards</p>	<ul style="list-style-type: none"> ➤ The NQAS score is 98%  <ul style="list-style-type: none"> ➤ Sanctioned beds 144, functional 250 beds ➤ With all ultra-modern facilities available like centralized systems for air, oxygen, and suction in all beds 	<ul style="list-style-type: none"> ➤ A small shortfall in the NQAS score was due to floor patients; it was because of lack of space in the wards ➤ By shifting into the new building the bed strength will be increased 500.



	<ul style="list-style-type: none"> ➤ Rainbow color policy to bed sheets where the patient sleeps on rainbow-MazhaviNidra 	
Pharmacy	<ul style="list-style-type: none"> ➤ The Pharmacy has acquired 90 % score with all modern facilities in the pharmacy and in the store ➤ Ideal Pharmacy (queue system)↓  <ul style="list-style-type: none"> ➤ Ideal drug dispensing system ➤ Planned drug storage room 	<ul style="list-style-type: none"> ➤ The reason for the drop in score was the overcrowding caused by the space limit in front of the pharmacy. ➤ It will be resolved when shifting into the new big building  <p style="text-align: center;"><i>Drug dispensing</i></p>
Laboratory	<ul style="list-style-type: none"> ➤ The NQAS score percentage of the lab is 100. ➤ A complete in one_ All modern lab equipment  <p>Lab.. more than 70000tests /m</p> <ul style="list-style-type: none"> ➤ Microbiology lab_ rare one_ 450 samples per month  <ul style="list-style-type: none"> ➤ <i>Punarjani_</i>infertility lab ➤ Cosmetology lab ➤ I C T C Lab 	<ul style="list-style-type: none"> ➤ Then there were no obstacles. The new lab in the new building has all modern facilities and equipment  <p style="text-align: center;"><i>Punarjani...infertility lab..</i></p>  <p style="text-align: center;"><i>I C T C Lab...client load of 750</i></p>
Support services	<p>Overall score 97 %</p>	
ICU	<ul style="list-style-type: none"> ➤ Medical I C U ➤ Surgical Intensive Care Unit (SICU) 	<ul style="list-style-type: none"> ➤ No barriers, in the new building total8ICUs are setup. In addition






		<p>to that one burn ICU is also set up.</p>  <p><i>Medical ICU</i></p>
<p>OT</p>	<ul style="list-style-type: none"> ➤ Score was 100%. ➤ At the time of the NQAS inspection, the hospital was operating an operating theater complex consisting of 4 different operation theaters and CSSD such as <ol style="list-style-type: none"> 1) Orthopedic OT with replacement surgery 2) General OT and Gynec OT 3) ENT OT 4) Ophthalmology OT ➤ In the new building has set up 7 independent OTs such as <ol style="list-style-type: none"> 1. Orthopedic OT with replacement surgery 2. General OT 3. Trauma 4. Emergency 5. ENT 6. Gynec OT 7. Ophthalmology OT ➤ Quality is strictly maintained 	<ul style="list-style-type: none"> ➤ No barriers  <p><i>Operating theater complex</i></p>
<p>Mortuary</p>	<ul style="list-style-type: none"> ➤ Postmortem services 	<ul style="list-style-type: none"> ➤ The mortuary at the time of NQAS is demolished now, but a well-equipped new mortuary has been set up in the new building. A temporary set up is arranged presently

<p>Blood bank and Blood storage unit</p>	<ul style="list-style-type: none"> ➤ The NQAS score of blood storage unit _99% ➤ Still continue the quality ➤ Blood bank and Blood transfusion medicine. ↓  <ul style="list-style-type: none"> ➤ Refrigerator temperature recording ➤ 1000-1200 issues and 500-2000 donors per year. ➤ Component separation 24 hours ➤ Regular camps ➤ Voluntary donators of bloods ➤ The mother BB of the Punalur area 	<ul style="list-style-type: none"> ➤ Score was 99%. ➤ No barriers, to be shifted to the new building with new set up very soon  <p><i>Blood bank donor area</i></p>
<p>Diagnostic (Radiology) services</p>	<ul style="list-style-type: none"> ➤ NQAS score of Radiology 96 % ➤ Radio diagnosis_ around 3000pts/month↓  <ul style="list-style-type: none"> ➤ Digital x-ray and dental x-ray ➤ USS Department ➤ CLIA regulations for screening↓ 	<ul style="list-style-type: none"> ➤ A small drop of the score is due to lack of space and crowd ➤ Additional facilities included in the new building are CT, Mamo, TMT
<p>Dialysis Unit</p>	<ul style="list-style-type: none"> ➤ Hemodialysis Unit_Sanjeevani ➤ Free Hemodialysis ➤ 1200 dialysis per month  <p><i>Hemo dialysis unit</i></p>	<ul style="list-style-type: none"> ➤ No barriers. Dialysis was not included in the NQAS module at the time of assessment but in the revised module dialysis is also included. It is arranged in the new building

Oxygen Administration	<ul style="list-style-type: none"> ➤ Oxygen generating system first time in the public sector (natural oxygen to all)  <p><i>Oxygen generator...natural oxygen to all..</i></p> <ul style="list-style-type: none"> ➤ Centralized Air /Oxygen/ Suction for all beds↓ 	<ul style="list-style-type: none"> ➤ No barriers
Stroke Unit		<ul style="list-style-type: none"> ➤ No stroke unit at the time NQAS. A stroke unit is now set up in the new building
Burns ward		<ul style="list-style-type: none"> ➤ No separate burn ward at the time of NQAS and burn ICU is set up in the new hospital building
Palliative Unit	<ul style="list-style-type: none"> ➤ Palliative ward (Nilaavu)_Daily sponge for bed ridden patients with sanitizer ➤ Palliative outreach programme is there 	<ul style="list-style-type: none"> ➤ No barriers
Geriatric Ward	<ul style="list-style-type: none"> ➤ A geriatric ward is arranged in the new building 	<ul style="list-style-type: none"> ➤ No barriers
Cancer care unit and ward	<ul style="list-style-type: none"> ➤ Cancer care_Pournami_450 OP ➤ Bio safety cabinet-500 Chemo per month  <p><i>Pournami... Cancer Unit</i></p>	<ul style="list-style-type: none"> ➤ No barriers  <p><i>Chemotherapy unit...500 chemo per month</i></p>
De-addiction centre	<ul style="list-style-type: none"> ➤ A de-addiction ward with 12 beds named “Pradeeksha” is arranged after NQAS assessment 	<ul style="list-style-type: none"> ➤ No barriers
Maternity Department	<ul style="list-style-type: none"> ➤ Score percentage at PP Unit is 96 ➤ ANC clinic- Monday 	<ul style="list-style-type: none"> ➤ But after assessment the labor room is demolished and now it is functioning in another building. So

	<ul style="list-style-type: none"> ➤ Modern Labour Room↓ ➤ Painless normal delivery ➤ Birth Companion...arikae... ➤ Excellent labour room with labour suit ➤ Electronic labor coat and ordinary labor coat ➤ Breast feeding area↓  <ul style="list-style-type: none"> ➤ Post natal ward with all facility 	<p>it has some temporary infrastructure issue. But, by shifting into the new building all problems will be resolved</p>  <p><i>Ordinary labour coat</i></p>  <p><i>Electronic labour coat</i></p>
<p>Child care</p>	<ul style="list-style-type: none"> ➤ Score at NBSU 88 % ➤ Child friendly pediatric ward↓ ➤ NBCC- 2 in LR and 1 in OT ➤ Good NBSU set up at the time of NQAS. ➤ At present warmers and Phototherapy is only used ➤ Daily immunization for new born babies ➤ Wednesday and Saturday special clinic ➤ Outreach _ monthly 7 days ➤ 4 SC area _ same day. ➤ Total 28 outreach ➤ Play area for kids_POOMPATTA↓→ 	<ul style="list-style-type: none"> ➤ No barriers  <p><i>NBSU</i></p> 
<p>General administration</p>	<ul style="list-style-type: none"> ➤ 98% ➤ Total staff including doctors <ul style="list-style-type: none"> Permanent staff: 109 Contract staffs: 138 NHM staffs: 22 ➤ Total doctors in various specialties:28 ➤ Causality doctors -9 ➤ Medical superintendent -1 	<ul style="list-style-type: none"> ➤ No barriers
<p>Auxiliary services</p>	<p>Score 88%</p>	

Dietary services	<ul style="list-style-type: none"> ➤ Free food to all patients_ Padheyam ➤ Free snacks to Huntington disease patients ➤ Separate space for dine ➤ Programme is supervised by the dietician. 	<ul style="list-style-type: none"> ➤ No barriers  <p><i>space to dine... in all floors</i></p>
Laundry services	<ul style="list-style-type: none"> ➤ Laundry machines are there ➤ Rainbow color policy to bed sheets where the patient sleeps on rainbow-MazhavilNidra→ 	<ul style="list-style-type: none"> ➤ No barriers
Security services	<ul style="list-style-type: none"> ➤ 24x7 basis security services ➤ Total of 18 staff ➤ 6 am to 8 am free entry ➤ 8am to 4 pm restricted entry ➤ 4 pm to 6 pm again free entry 	<ul style="list-style-type: none"> ➤ No barriers
Infection Control	<ul style="list-style-type: none"> ➤ Score 98% ➤ CSSD ➤ Authoritative BM waste Management↓ ➤ A separate area for waste management ➤ Use colour coded bins↓ ➤ An ideal way of waste transportation ➤ Biomedical waste by 'IMAGE' ➤ Aerobic composting of biological waste ➤ E-waste management and compost storage ➤ General waste burner with scrubber ➤ Sewage treatment plant (STP) ➤ Heath education for Plastic recovery ➤ Plastic recycling ➤ Plastic recovery centre for plastic recycling ➤ Most modern cleaning Mechanism 	<ul style="list-style-type: none"> ➤ No barriers. In the new building has attached anaerobic compost with biogas plant  <p><i>Waste transportation Mechanism</i></p>  <p><i>Aerobic composting</i></p>  <p><i>E-waste and compost storages</i></p>

	 <p>S T P...of 70 KLD...</p>	 <p><i>Plastic recovery centre for plastic recycling...</i></p>
<p>Others</p>	<ul style="list-style-type: none"> ➤ All services are round the clock ➤ Napkin vending machines ➤ Napkin vending machines, Napkin burners ➤ Garden with rainbow fountains, Chandalabhishuki theme statue ➤ Herbal garden ➤ Vegetable cultivation ➤ Greeneries all round ➤ Rainwater harvesting_ MazhathulliKaruthal ➤ Total LED lighting ➤ Night lighting by solar ➤ Solar water heater for hot water (Hot water facility for bath) ➤ Music to all ➤ Good corridors ➤ Checklist for various activities ➤ Antibiotic policy ➤ Charity box in all floors ➤ and many more <p><i>Solar heater for Patients....</i></p>	<p><i>Garden</i></p>   <p><i>Vegetable garden</i></p>  <p><i>Mazhathullikaruthal...Rain Harvesting</i></p>
<p>NHM Programmes</p>	<ul style="list-style-type: none"> ➤ JSSK_ All entitlements are free. But provision of diet has been stopped by government. However, hospital is providing diet to all through patheyam programme ➤ JSY_ Last three months pending due to the insufficient fund ➤ LAQSHYA_Arike-- ➤ NVBDCP ➤ RNTCP_ awarded 2019 ➤ National AIDS control program_ state award for the best ICTC @ Taluk hospital level 	<p>All programmes running smoothly</p>

	<ul style="list-style-type: none"> ➤ SWAAS ➤ Mental Health (ASWWAS) ➤ NPCDCS ➤ IDSP ➤ NTCP_displayed tobacco free boards. ➤ Conducted awareness classes at schools 	
Training	<p>Apart from the basic training the staff have been trained in</p> <ul style="list-style-type: none"> ➤ NSSK, IMEP, RNTCP, NLEP ➤ National AIDS control program ➤ ASWWAS (Mental Health) ➤ SWAAS, NPCDCS ➤ NTCP_Tobacco control program ➤ NVBDCP ➤ NIKSHY portal ➤ Kayakalp, NQAS ➤ Biomedical waste management ➤ Fire and safety 	<ul style="list-style-type: none"> ➤ Majority of the staffs are trained in the specific topic they engage ➤ Induction training and refresher training is needed
Other programme	<ul style="list-style-type: none"> ➤ Every 3rd or 4th Friday fixed for Hospital cleaning ➤ Regular ward meetings ➤ Case sheet and Register checking ➤ Staff Appreciation ➤ ‘Onanilavu’_ Onam celebration with all staff with family ➤ ‘Jubilation’_ New year celebration with family ➤ Many more 	



THQH Punalur has been NQAS certified in February 2018. THQH Punalur has good teamwork under the competent leadership of the hospital superintendent. He has managed to form a core team and tackles issues one by one by collectively discussing problems and providing immediate solutions. Each staff are trained to do all types of work, with a motive of overall development of the hospital and thus the welfare of people. They have set simple and clear targets visualizing the result and staying focused on what they need to do to get there. They utilize funds effectively and tackle even small things in a highly professional manner. The acquired Kayakalp score of the hospital was 100%, got Rs.15 lakh as Kayakalp award. The HMC fund was mainly used for NQAS preparation. During the year 2016-17 and 2017-2018, NHM has funded 6 lakh and 2 lakh respectively for the preparation of NQAS. The state bank of India




donated wheel chairs and trollies and Bank of Baroda donated wheel Chairs. The NSS Unit in the police department, students in Poly Technique College and Lions club have participated in the cleaning activities of the hospital. Lion's club provided food to children who are engaged in the cleaning of the hospital. The students in the Poly Technique did the pictorial painting in the pediatric wards and did the wheelchair repair and maintenance. The hospital has been receiving over Rs. 1 lakh from the Pollution Control Board for the past eight years. The public has donated wheelchairs. The World Malayali Council donated twenty TV sets and 6000 new bed sheets for the new building. After achieving NQAS certification, all quality services increased in terms of treatment, availability of medicine, infrastructure etc.

8.2 Family Health Centre Elampalloor

FHC Elampalloor located in Palathara block is 10 km away from district headquarters and the district hospital Kollam. It serves 44447 people in 21 wards under the FHC. Since 1979, this facility started functioning as a PHC and on 1st January 2018, it was converted as FHC Elampalloor. The first linked referral hospital is THQH Kundara which is 4 km away from the FHC. Under the FHC area, 3 sub-centers are functioning. Each JPHN manage 7 wards. It is very difficult for managing the 7 wards by a single JPHN. The Kayakalp score in the internal assessment is 91.6 % and the external assessment score is 95.8 %. The score card is not available at the time visit. So the thematic score of internal assessment of Kayakalp is 58% for PHC upkeep, 60 % for sanitation and hygiene, 57% for waste management, 57 % for infection control, 24 % for support service, 29 % for hygiene promotion and 46 % for beyond hospital boundary.



Items	Enablers	Barriers
OPD	<ul style="list-style-type: none"> ➤ Defined procedures for registration and consultation of OPD patients ➤ OP counters ➤ Precheckup room ➤ Mosquito free environment ➤ Priority given to aged people ➤ Modified seating arrangements with airport chairs ➤ Mounted TV ➤ Provided drinking water facility ➤ Introduced Token system ➤ Ensured privacy in treatment ➤ Reading room nearby OP ➤ Displayed various IEC ➤ Signage display boards ➤ Ensured accuracy of clinical equipment ➤ Fundus camera ➤ Observation room-4 beds ➤ Separate male female toilets ➤ Sufficient MOs, SNs, Lab tech and Pharmacist , non-medical staff ➤ Three bucket system for mopping 	 <p>OP room</p>  <p>FHC Elampalloor_ Waiting area</p>
Laboratory	<ul style="list-style-type: none"> ➤ Blood collection area ➤ Waiting area ➤ Hematology Analyzer ➤ HbA1C Analyzer ➤ Semi auto biochemistry Analyzer ➤ Drainage system- soak pit ➤ Out of the 25 listed in Ardrum guideline only 19 tests are done ➤ Calibration, maintenance by KMSCL tie-up with Kirloskar company ➤ Accuracy is confirmed through the internal and external quality control 	<ul style="list-style-type: none"> ➤ Need Separate sputum collection area- No designated space and Lack of training of Lab technician ➤ Formation of ICTC centre- Request submitted to the DMO ➤ Difficulties to do the HbA1C _ costly reagent, sudden expiry, people not willing to do the test
Diagnostics	<ul style="list-style-type: none"> ➤ Available ECG facility  <p>FHC Elampalloor ECG room</p>	

Pharmacy	<ul style="list-style-type: none"> ➤ Modern air conditioned drug store ➤ Modular rack for keeping medicines ➤ Computer facility ➤ Double locked system for keeping narcotic medicines ➤ Drug labeling is introduced ➤ Dispensing counter ➤ Arranged chairs in the patient waiting area ➤ Displayed Pharmacy protocol and IEC 	<ul style="list-style-type: none"> ➤ Need separate area for keeping dressing material and chemicals  <p>PHC Elampalloor_ Pharmacy</p>
Maternity Department	<ul style="list-style-type: none"> ➤ Separate breast feeding room ➤ Separate clinic room for ANC and PNC ➤ ANC clinic_ every Monday ➤ Examination Table ➤ Doppler is available ➤ Silent walk for pregnant women ➤ Ensured privacy in ANC check up ➤ Separate IUD insertion room ➤ Displayed IEC materials regarding AC and childcare, importance of breast feeding etc. ➤ Proper waste management_, segregate waste in colour coded bins 	<ul style="list-style-type: none"> ➤ Need service of a gynecologist ➤ No other barriers  <p>FHC ELampalloor_ Observation room</p>
Child care	<ul style="list-style-type: none"> ➤ One of the Medical Officer is a pediatrician ➤ Child friendly room ➤ Displayed charts related to child care etc ➤ Immunization _ every Wednesday ➤ Conducting house visit for promoting immunization ➤ Conducting health education for mothers ➤ Arranged separate breast feeding room ➤ Waiting area with airport chairs ➤ Anuyatra team visit every Saturday 	<ul style="list-style-type: none"> ➤ Need a playing area. Planned to arrange a playing area for kids ➤ Need toys_ Lack of fund  <p>Immunization room</p>
General administration	<ul style="list-style-type: none"> ➤ Adequate qualified and trained staff ➤ Roles and responsibilities of every staff are determined ➤ Staff Position <ul style="list-style-type: none"> ➤ 3 Medical Officers ➤ 4 Staff Nurses ➤ 2 Lab technicians ➤ 2 Pharmacist s 	<ul style="list-style-type: none"> ➤ Need more JHI_ 18 wards having only 2 JHIs ➤ Need one data entry operator ➤ Need one more doctor ➤ Need housekeeping staff

	<ul style="list-style-type: none"> ➤ 1 Clerk, 1 Office Assistant ➤ 1 Nursing Assistant ➤ 3 JPHN, 3 JHIs, 1 LHI, 1 HI ➤ 1 Palliative Nurse ➤ 2 Health Attendant Grade II ➤ 1 PTS, 1 Optometrist ➤ 2 School Health Nurse ➤ 28 ASHAs 	
Auxiliary services	<ul style="list-style-type: none"> ➤ Laundry-Washing Machine 	<ul style="list-style-type: none"> ➤ No security services
Infection Control	<ul style="list-style-type: none"> ➤ Outsourced to an agency named “IMAGE”. ➤ Food waste and other general waste _ Thumbapoomozhi Compost ➤ Haritha Sena from Panchayat collects plastic waste @ Rs. 30/- ➤ Hand washing ➤ Used Mask and gloves ➤ Mopping with disinfectant_ Three bucket system ➤ Conducting awareness classes ➤ Market inspection ➤ source reduction, stagnant and polluted water disinfected 	<ul style="list-style-type: none"> ➤ Need cleaning staff
NHM programmes	<ul style="list-style-type: none"> ➤ JSY_ women delivered in accredited private hospital ➤ NVBDCP_ Regular cleaning, source reduction, stagnant and polluted water disinfected, fogging, Conduct awareness classes ➤ NPCDCS_ Clinic all days, camps conducted ➤ SWAAS_ Tuesday ➤ NLEP Ashwamedham programme ➤ NTCP_ IEC, awareness classes at schools ➤ Mental Health (ASWWAS)_Thursday ➤ IDSP_ outreach programmes and awareness classes ➤ School Health programme (RBSK) ➤ SWAAS and ASWAAS Clinic ➤ PALLIATIVE Programmes 	<ul style="list-style-type: none"> ➤ Need Strips for testing sugar ➤ Insufficient Thyroid medicine ➤ RNTCP_ No programme due to lack of training for lab technician and separate space for sputum collection
Training	<ul style="list-style-type: none"> ➤ Given frequent institutional training ➤ EmOC, LSAS, NSV, IUCD, PPIUCD ➤ MTP, SBA, ➤ National AIDS control programme ➤ NVBDCP, RNTCP, NLEP, 	<ul style="list-style-type: none"> ➤ Refresher trainings required ➤ Induction trainings to be needed for the newly appointed staff ➤ Transfer of trained staff affected the NQAS activities ➤ As per the checklist some

	<p>NPHCE</p> <ul style="list-style-type: none"> ➤ SWAAS, ASWAAS ➤ Immunization Cold Chain ➤ HMIS, RCH, IMEP, E- health ➤ Kiran survey, E-Vin, SHP ➤ Fire and safety training 	<p>training has not been given to the staff</p>
Others	<ul style="list-style-type: none"> ➤ Made rainwater harvesting ➤ Ensured 24x7 power supply and water supply ➤ Innovative programmes <p>Innovative project named <i>AdichoPidicho</i> is being carried out for the patients who visit the Lifestyle Disease Control Clinic and in the geriatric clinic. People reveal their old habits and eating habits through old-fashioned games.</p> <p>As part of the ArogyaMuttam programme, the Kudumbasree Health Volunteers go to the homes for health awareness, collection of garbage etc.</p>	<ul style="list-style-type: none"> ➤ Need ➤ A garden ➤ CCTV facility ➤ Intercom facility ➤ Public addressing system ➤ Better locking facility ➤ Some painting works ➤ Compound wall painting_ lack of fund ➤ To set up a vegetable garden

FHC Elampalloor has applied for NQAS certification. All hospital staff is in the process of preparing for NQAS assessment. In FHC Elampalloor there is a good team work. All the staff working in this FHC is very cooperative and supportive. Irrespective of their post they are working for the welfare of the facility. Nodal officers coordinate all activities. Meetings are conducted weekly to assess the improvement the activities carried out in each section. Regular institutional wise training regarding of infection control and biomedical management has been given. During the current year Rs. 104456/- (including OB) was received as untied funds. NHM has provided Rs. 58000/- for the preparation of Kayakalp. As per the decision of HMC an amount of Rs. 76480/- was utilized to set up a garden and herbal garden, area cleaning, IEC, notice board and signboard. The HMC fund is mainly used for NQAS preparation. The panchayat has constructed a Karnataka model sewage treatment plant and a Thumboormuzhi food waste management unit. A person donated a clock. The achievements of Kayakalp are



increased level of patients satisfaction, Proper documentation and the hygiene of the hospital increased

8.3 Family Health Centre Chathannoor

Chathannoor FHC is located in the Ithikkara Block, 17 km away from the District Headquarters and District Hospital, Kollam. It started functioning as FHC in August 2017. Under this FHC, 34506 populations lie in 18 wards. The first referral hospitals are the Medical



College Hospital Parippally and THQH Nedungolam. It is away by 6 km and 8 km respectively. Under the FHC, there are 5 subcentres in 18 wards. The overall Kayakalp score obtained in the external assessment during 2019-2020 is 94.0%. The thematic score of Kayakalp is 38% for PHC upkeep, 40 % for sanitation and hygiene, 35% for waste management, 37 % for infection control, 18 % for support service, 20 % for hygiene promotion and 33 % for beyond hospital boundary

	Enablers	Barriers
OPD	<ul style="list-style-type: none"> ➤ Defined procedures for registration and consultation OPD patients ➤ OP counters ➤ Priority is given to aged people ➤ Modified seating arrangements with airport chairs ➤ Mounted TV ➤ Provided drinking water facility ➤ Introduced Token system ➤ Ensured privacy in treatment ➤ Reading room nearby OP ➤ Displayed various IEC ➤ Signage display boards ➤ Ensured accuracy of clinical equipment ➤ Observation room- 4 bedded ➤ Separate male female toilets ➤ Sufficient MOs, SNs, Lab tech and Pharmacist other non-medical staff ➤ Three bucket system for mopping 	<ul style="list-style-type: none"> ➤ Due to lack of fund the following are not purchased <ul style="list-style-type: none"> ○ Furniture and fixture not sufficient ○ Need cash locker  <p>FHC Chathannoor OP Room</p>  <p>FHC Chathannoor_Observation Room</p>

Laboratory	<ul style="list-style-type: none"> ➤ Blood collection area ➤ Waiting area ➤ Hematology Analyzer ➤ Biochemistry Analyzer ➤ Karnataka model drainage system ➤ All the listed tests in Ardram guideline are done in the lab ➤ Calibration, maintenance by KMSCL tie-up with Kirloskar company ➤ Accuracy is confirmed through the internal and external quality control ➤ External quality _ tie up with Vellore Medical college ➤ Antyodayasheme- All investigations are free  <p style="text-align: center;">FHC Chathannor _ Laboratory</p>	<ul style="list-style-type: none"> ➤ Designated RNTCP area_ aluminium fabrication work is pending due to lack of fund ➤ A fully Auto Analyzer for Biochemistry is needed. Proposal is submitted to NHM  <p style="text-align: center;">FHC Chathannor _ Laboratory</p>
Diagnostics	<ul style="list-style-type: none"> ➤ Available ECG facility 	
Pharmacy	<ul style="list-style-type: none"> ➤ Modified and air conditioned drug store ➤ Modified rack for keeping medicines ➤ Double locked system for keeping narcotic medicines ➤ Drug labeling is introduced ➤ Dispensing counter ➤ Arranged chairs in the patient waiting area ➤ Displayed Pharmacy protocol and IEC  <p style="text-align: center;">FHC Chathannoor labelled Medicines</p>	<ul style="list-style-type: none"> ➤ Refrigerator with temperature recording_ No fund  <p style="text-align: center;">FHC Chathannoor - Drug Store</p>
Maternity Department	<ul style="list-style-type: none"> ➤ Separate breast feeding room ➤ Separate clinic room for ANC and PNC ➤ Examination Table ➤ Ensured privacy in ANC check up ➤ Separate IUD insertion room 	<ul style="list-style-type: none"> ➤ Need a Doppler analyzer ➤ Need service of a gynecologist ➤ LHI post Vacant ➤ Main Centre JPHN on long leave_ affect the record maintenance and ANC checkup

	<ul style="list-style-type: none"> ➤ Displayed IEC materials regarding AC and childcare, importance of breast feeding etc. ➤ Proper waste management_, segregate waste in colour coded bins ➤ 3 Bucket system for mopping 	
Child care	<ul style="list-style-type: none"> ➤ One of the Medical Officer is a pediatrician ➤ Child friendly room ➤ Displayed charts related to child care etc ➤ Conducting house visit for promoting immunization ➤ Conducting health education for mothers ➤ Arranged separate breast feeding room ➤ Waiting area with airport chairs 	<ul style="list-style-type: none"> ➤ Need a playing area. Planned to arrange a playing area for kids ➤ Need more toys_ Lack of fund
General administration	<ul style="list-style-type: none"> ➤ Adequate qualified and trained staff ➤ Roles and responsibilities of every staff are determined ➤ Staff Position ➤ 3 Medical Officers ➤ 4 Staff Nurses ➤ 3 Lab technicians ➤ 3 Pharmacist s ➤ 1Clerk, 1 Office Assistant ➤ 1 Nursing Assistant ➤ 5 JPHN, 2JHIs, 1 HI ➤ 1 Palliative Nurse ➤ 2 Health Attendant Grade II ➤ 1PTS ➤ 1School Health Nurse ➤ 20 ASHAs 	<ul style="list-style-type: none"> ➤ Need LHI ➤ Need more JHI_ 18 wards having only 2 JHIs ➤ Need one data entry operator
Auxiliary services	<ul style="list-style-type: none"> ➤ Laundry-Washing Machine 	<ul style="list-style-type: none"> ➤ No security services
Infection Control	<ul style="list-style-type: none"> ➤ Outsourced to an agency named “IMAGE”. ➤ Food waste and other general waste are put in compost ➤ HarithaSena from Panchayat collects plastic waste @ Rs. 30/- ➤ Hand washing ➤ Used Mask and gloves ➤ Mopping with disinfectant_ Three bucket system ➤ Conducting awareness classes 	<ul style="list-style-type: none"> ➤ Fumigation Machine_ lack of fund

NHM programmes	<ul style="list-style-type: none"> ➤ NVBDCP_ Regular cleaning, source reduction, stagnant and polluted water disinfected, fogging, Conduct awareness classes ➤ RNTCP_ Running ➤ NPCDCS_ Clinic all days, camps conducted ➤ SWAAS ➤ Mental Health (ASWWAS) ➤ IDSP_ outreach programmes and awareness classes ➤ NIDP_ Conducted awareness classes ➤ NTCP_ Conducted awareness classes at schools ➤ SWAAS and ASWAAS Clinic ➤ PALLIATIVE Programmes 	<ul style="list-style-type: none"> ➤ National AIDS control program_ proposal submitted to start ICTC counseling. 1 trained Staff Nurse is there NPHCE (elderly)_ is planning. Saturday @ SC ➤ Is planned to conduct a camp for deaf
Training	<ul style="list-style-type: none"> ➤ Given frequent institutional training ➤ NTCP (Tobacco control programme) ➤ National AIDS control programme ➤ NVBDCP, IDSP, RNTCP ➤ SWAAS, ASWAAS ➤ NIKSHY portal ➤ Immunization Cold Chain ➤ HMIS, RCH, IMEP ➤ E- health, Kiran survey, E-Vin 	<ul style="list-style-type: none"> ➤ Refresher trainings required ➤ Induction trainings to be organized for the newly appointed staff also ➤ Transfer of trained staff affected the NQAS activities ➤ As per the checklist some training has not been given to the staff
Others	<ul style="list-style-type: none"> ➤ Made rainwater harvesting ➤ Ensured 24x7 power supply and water supply 	<ul style="list-style-type: none"> ➤ Need <ul style="list-style-type: none"> ➤ A garden ➤ CCTV facility ➤ Intercom facility ➤ Public addressing system ➤ Better locking facility ➤ Building beautification

FHC Chathannoor has applied for NQAS certification. All hospital staff are in the process of preparing for NQAS assessment. They reported that due to lack of funds, there is still some work that needs to be done. In FHC Chathannoor there is a good team work. All the staff working in this FHC is very cooperative and supportive. Irrespective of their post they are working for the welfare of the facility. Three nodal officers coordinate all activities. Meetings are conducted weekly to assess the improvement the activities carried out in each section. Regular institutional wise




training such as infection control and emergency management of fire and safety has been given. In addition to the Untitled Fund of Rs. 87500/- NHM has provided a financial assistance of Rs.100000/- for the preparation of NQAS. The HMC fund is mainly used for NQAS preparation. Rotary club helped in constructing a food compost pit and purchasing a trolley. A private bank helped in buying three observation beds. Doctors trust donated a washing machine and Co-operative bank Chathannoor donated an incinerator.



8.4 Family Health Centre Perumon

FHC Perumon is located in the Kundara health block and Chittumala revenue block which is 9 km away from the district headquarters and the district hospital Kollam. The catchment population in 16 wards under FHC is 29592. The PHC Perumon has transformed as FHC since 2018. The linked first referral hospital is THQH Kundara which is 12 km away from FHC. The time taken to reach this hospital from FHC is 20-30 minutes.



This is the only government facility available within 6 to 7 km area. The FHC has 3 subcentres. The Kayakalp score in the external assessment was 66.6 %. The external assessment Kayakalp score card is not available at time of visit. But the internal assessment score card is available. The thematic score of Internal assessment score of Kayakalp is 41% for PHC upkeep, 43 % for sanitation and hygiene, 41% for waste management, 33 % for infection control, 26 % for support service, 19 % for hygiene promotion and 18 % for beyond hospital boundary

Items	Enablers	Barriers
OPD	<ul style="list-style-type: none"> ➤ Completion of the new building is over and its inauguration is planned to be held in April 2020. With the opening of the new building, almost all the difficulties will change. Present situation at FHC ➤ OP counters ➤ Priority given to aged people ➤ Modified seating arrangements with airport chairs ➤ TV for entertainment ➤ Music system ➤ Provided drinking water facility ➤ Displayed various IEC ➤ Signage display boards ➤ Ensured accuracy of clinical equipment ➤ Available infrared thermal scanner ➤ Pre check and Observation room- 2 beds ➤ Sufficient MOs, SNs, and Pharmacist other non-medical staff <div style="text-align: center;">  <p data-bbox="469 1163 837 1194">FHC perumon _ Waiting Area</p> </div>	<ul style="list-style-type: none"> ➤ Ensured privacy in treatment but lack of space sometimes it is difficult ➤ Introduced Token system- Old system. Making confusion among patients ➤ No separate male female toilets ➤ Need one more Lab tech_ work load is high ➤ No power back up ➤ No separate Nebulization area, dressing area ➤ Actual examination table is not available <div style="text-align: center;">  <p data-bbox="984 1142 1289 1173">FHC Perumon_ OP Room</p> </div>
Laboratory	<ul style="list-style-type: none"> ➤ Blood collection area ➤ Waiting area ➤ Hematology Analyzer ➤ Biochemistry Analyzer ➤ HbA1C Analyzer ➤ Septic tank drainage system ➤ Out of the 25 listed in Ar dram guideline only twenty tests are done in the lab ➤ Functionality of Equipment, Calibration/Maintenance Calibration, maintenance by KMSCL_ tie-up with Kirloskar company ➤ Accuracy is confirmed through the internal quality control ➤ Antyodaya Scheme: All investigations are free 	<ul style="list-style-type: none"> ➤ Need one more lab technician. ➤ Need facility for waste water cycling at lab ➤ Lack of space_ but it is resolved when occupy the new building <div style="text-align: center;">  <p data-bbox="984 1787 1289 1818">FHC Perumon_ Laboratory</p> </div>

Diagnosics	<ul style="list-style-type: none"> ➤ Available ECG facility_ trained staff do the test 	
Pharmacy	<ul style="list-style-type: none"> ➤ Modified and air conditioned good drug store ➤ Pharmacy also air conditioned ➤ Double locked system for keeping narcotic medicines ➤ Drug labeling is introduced ➤ Dispensing counter ➤ Arranged chairs in the patient waiting area ➤ Displayed Pharmacy protocol and IEC ➤ HMC fund and Panchayat fund is available for purchasing additional medicine ➤ Every year Panchayat has given a good amount to purchase generic medicines and palliative medicines 	<ul style="list-style-type: none"> ➤ Modular rack needed for keeping medicines  <p>FHC Perumon_Pharmacy</p>
Maternity Department	<ul style="list-style-type: none"> ➤ Separate breast feeding room ➤ Doppler analyzer ➤ Maintained the service quality with the limited space ➤ Proper waste management_ segregate waste in colour coded bins ➤ Maintained and updated Registers ➤ Mother absolute Affection programme is conducting every three months 	<ul style="list-style-type: none"> ➤ LHI post Vacant ➤ An IUD insertion room will be arranged in the new building ➤ The difficulties are resolved when occupy the new building
Child care	<ul style="list-style-type: none"> ➤ Conducting immunization programme _ all Wednesday ➤ Conducting house visit for promoting immunization ➤ As part of RBSK screening, School Health Nurse screens children at School and Anganwadi ➤ Displayed charts related to child care etc ➤ Conducting health education for mothers ➤ Arranged separate breast feeding room ➤ Waiting area with airport chairs 	<ul style="list-style-type: none"> ➤ Need a playing area. Planned to arrange a playing area for kids after the inauguration of the new building ➤ Need more toys  <p>FHC Perumon _Immunization Room</p>
General administration	<ul style="list-style-type: none"> ➤ 3 Medical Officers ➤ 4 Staff Nurses ➤ 1 Lab technicians ➤ 2 Pharmacist s ➤ 1Clerk ➤ 1 Office Assistant ➤ 1 Nursing Assistant ➤ 4 JPHN, 3JHIs, 1 LHI_VACANT ➤ 1 HI- working arrangement 	<ul style="list-style-type: none"> ➤ Need LHI and Lab Technician, housekeeping staff ➤ Need one data entry operator

	<ul style="list-style-type: none"> ➤ 1 Palliative Nurse ➤ 2 Health Attendant Grade II ➤ 1PTS, 1School Health Nurse ➤ 25 ASHAs 	
Auxiliary services	<ul style="list-style-type: none"> ➤ Laundry-Washing Machine 	<ul style="list-style-type: none"> ➤ No security services
Infection Control	<ul style="list-style-type: none"> ➤ House Keeping Checklist is being prepared ➤ Outsourced to an agency named “IMAGE”. ➤ Food waste and other general waste are put in compost ➤ HarithaSena from Panchayat collects plastic waste @ Rs. 30/- ➤ Hand washing ➤ Uses Mask and gloves ➤ Mopping with disinfectant ➤ Conducting awareness classes ➤ Footwear not allowed 	<ul style="list-style-type: none"> ➤ Need housekeeping staff
NHM program mes	<ul style="list-style-type: none"> ➤ JSY_ women delivered in accredited private hospital ➤ NVBDCP_ Regular cleaning, source reduction, stagnant and polluted water disinfected, fogging, conduct awareness classes ➤ RNTCP_ collected sputum according to the availability of sputum cups and sent to Kollam RNTC Unit ➤ NPCDCS_ Clinic conducted every Thursday, conducted camps ➤ SWAAS clinic_ every Friday ➤ Mental Health (ASWWAS)- All days ➤ IDSP_ taken preventive measure on the sport, outreach awareness classes. Health support groups formed ➤ NIDP_ Conducted awareness classes at schools ➤ NTCP_ Conducted awareness classes at schools, This is the hospital the highest tax on tobacco products @Rs. 200/- ➤ PALLIATIVE Programmes_ Tuesday ➤ DMHP- Manasika Sampoono Arogyam-team visits the hospital 	<ul style="list-style-type: none"> ➤ Lack of space to conduct the programmes
Training	<ul style="list-style-type: none"> ➤ Given frequent institutional training ➤ EmOC, BEmOC, LSAS, NSV ➤ IUCD, MTP, FIMNC, SBA ➤ National AIDS control programme ➤ NVBDCP, RNTCP, NLEP ➤ SWAAS, ASWAAS ➤ Immunization Cold Chain ➤ HMIS, RCH, IMEP 	<ul style="list-style-type: none"> ➤ Refresher trainings required ➤ induction training is not given any of the staff in the hospital, even doctors ➤ Transfer of trained staff affected the activities ➤ As per the checklist some

	➤ E- health, Kiran survey, E-Vin	training has not been given to the staff
Others	➤ Rainwater harvesting system developed	The new building needs ➤ Intercom facility ➤ Public addressing system ➤ Better locking facility ➤ Building beautification ➤ Landscaping and gardening ➤ Open area maintenance ➤ Energy efficient lights ➤ Pending painting works

This FHC is in the process of raising the Kayakalp score. The Medical Officer in charge is very efficient and very active. Good team work is there. All the staff working in this FHC is very cooperative and supportive. Irrespective of their post they are working for the welfare of the facility.

Good support available from the panchayat. Other than plan fund and training no other support available from state side. NHM has provided fund and training for the preparation of Kayakalp. In addition to the Untitled Fund of Rs. 87500/- NHM has provided a financial assistance of Rs.100000/- for the preparation of Kayakalp. The HMC fund is mainly used for NQAS preparation.

There is a good support from the public side also. Auditorium was provided free of charge for organizing the health program by the owner. Temple donated Rs 1 lakh for palliative family reunion

8.5 Family Health Centre Kottamkulangara (Chavara)

Kottamkulangara FHC is located in Chavara block, 21 km from District headquarters and District Hospital, Kollam. It is the first FHC in Kollam district. It was started functioning as FHC on 26/ 2/ 2019. The FHC caters 34506 populations in 18 wards. The first referral hospital for this is THQH Neendakara. It is about 6 km away.



Under the FHC, there are 7 sub centers in 23 wards. This FHC has undergone external assessment of Kayakalp but they acquired only 68.3 % total score. The thematic score


of Kayakalp is 31% for PHC upkeep, 35 % for sanitation and hygiene, 31 % for waste management, 24 % for infection control, 17 % for support service, 15 % for hygiene promotion and 11 % for beyond hospital boundary.




All staff in FHC Chavara is willing to work for the developments of the facility. All staffs are very cooperative and helpful. Their intension is the welfare of the patients. But lack of fund and lack of space hinder the development of the facility. The number of patients visited this facility has doubled when compared to the post operationalization of FHC. But the problem is that lack of fund and insufficient space in the facility.

A new building is necessary for future development of the hospital. The proposal is submitted for the new building from MLA fund. But the accidental death of the MLA caused slow down in the decision of proposal. Other than Kayakalp fund of Rs.60500/- from NHM no help is available from government, NGO, Public etc. If they have to get better Kayakalp score as well as NQAS, they have to go a long way..

	Enablers	Barriers
OPD	<ul style="list-style-type: none"> ➤ 2 OP rooms_ one is spacious and other one has no sufficient space ➤ Set up Cattle trap ➤ Put table sheets and glass tops for tables ➤ Hand sanitizer is used ➤ All clinical equipment available ➤ Glucometer and strips ➤ A badminton court ➤ IEC display regarding services available at FHC, treatment protocols, communicable and non-communicable diseases ➤ Introduced token system ➤ Safe drinking water facility ➤ Set up TV as part of entertainment ➤ Mike system for announcement ➤ Clinics SWAAS clinic ASWAAS clinic Palliative Clinic Geriatric clinic Optometry AFHC  <p>FHC Chavara_ OP Counters</p>	<ul style="list-style-type: none"> ➤ Need new building ➤ The old buildings modifications are only done. It has no space for running the FHC activities smoothly ➤ One spacious OP room is needed otherwise privacy at the time examination is difficult ➤ Need power back up facility. Because the inverter is damaged ➤ Need hanging board ➤ No citizen Charter ➤ No separate space for nebulization and dressing ➤ Need a spacious waiting area ➤ Need Yoga centre ➤ Toilets are there but not categorized ➤ No bus route ➤ Want to install AC ➤ Spacious OP counter ➤ Need special OP counter for aged people ➤ Need a spacious observation room  <p>FHC Chavara OP Room</p>
Wards	Not Applicable	
Pharmacy	<ul style="list-style-type: none"> ➤ Good store room with A/C ➤ Kept medicine tray ➤ Ardrum prescribed rack ➤ Introduced Token system 	<ul style="list-style-type: none"> ➤ Need spacious Pharmacy ➤ No space for putting E-health computer




Laboratory	<ul style="list-style-type: none"> ➤ Installed Hematology machine, ➤ Installed Bio chemistry semi analyzer ➤ Displayed the details of lab tests along with time required and cost involved  <p>FHC Chavara_ Laboratory</p>	<ul style="list-style-type: none"> ➤ One old building is set up as lab. it is so congested ➤ Need 1 more Lab technician ➤ Want to start RNTCP but no space for sputum collection ➤ Modification need for blood collection area ➤ Need waiting area
Diagnostic services	<ul style="list-style-type: none"> ➤ ECG is made available ➤ Optometrist is made available from CHC 	<ul style="list-style-type: none"> ➤ Need X-ray machine
Maternity Department	<ul style="list-style-type: none"> ➤ Examination table available ➤ TT inj. , IFA tabs and Calcium tabs given to pregnant women ➤ Maintain ANC register ➤ Counseling given to pregnant women 	<ul style="list-style-type: none"> ➤ Need a special ANC room for offering privacy ➤ with waiting area ➤ Breast feeding cabin is needed. Now a small space is arranged for it ➤ Need an IUD insertion room
Child care	<ul style="list-style-type: none"> ➤ Immunization on all Wednesdays ➤ Displayed IEC related to immunization ➤ Medicines available ➤ House visits for promoting immunization by JPHN and ASHA ➤ Upkeep of Immunization register 	<ul style="list-style-type: none"> ➤ Need separate immunization room. Presently the immunization and NCD clinic function in the same room ➤ Need a playing area for kids
General administration	<ul style="list-style-type: none"> ➤ 3 Medical Officer ➤ 3 Staff Nurse, 1 vacant ➤ 1 Lab technician ➤ 2 Pharmacist ➤ 1Clerk, 1 Office Assistant ➤ 1 Nursing Assistant ➤ 1 HA Grade II ➤ 1PTS, 7 JPHN ➤ 6 JHI, 2 LHI_VACANT ➤ 2 HI, 1 Palliative Nurse ➤ 1School Health Nurse ➤ 1Hosp. Attendant _ VACANT 	<ul style="list-style-type: none"> ➤ Need Lab technician _ case load is more ➤ Housekeeping staff needed
O T Service	<ul style="list-style-type: none"> ➤ A small Minor OT set up 	<ul style="list-style-type: none"> ➤ Lack of space to arrange the instruments properly
Auxiliary services	<ul style="list-style-type: none"> ➤ Laundry_ hiring dhoby 	<ul style="list-style-type: none"> ➤ Need security service

Infection Control	<ul style="list-style-type: none"> ➤ Wastes are segregated in four colour coded bins ➤ Biomedical waste is out sourced to the IMAGE (alternate 3 days). ➤ HarithaSena from Panchayat collects plastic waste @ Rs. 30/- ➤ General waste put in compost pit 	<ul style="list-style-type: none"> ➤ Need water treatment plant ➤ Need more awareness classes
NHM Programmes	<ul style="list-style-type: none"> ➤ JSY is given ➤ NVBDCP_Regular cleaning, source reduction, stagnant and polluted water disinfected, fogging, Conduct awareness classes ➤ IDSP-Appropriate action in timely Manner ➤ Palliative programme ➤ NPCDCS_ On Thursday ➤ NLEP_ screening ➤ Mental Health_DMHP team visits at Block CHC, Displayed IEC ➤ SHP- One JPHN is working under RBSKNTCP- at block level. According to the act, fine is levied. People will be charged Rs. 400/- if they smoke in public places ➤ ASWAAS clinic_ on Friday ➤ SWAAS clinic_ on Tuesday ➤ Geriatric clinic _ on Thursday ➤ Palliative Clinic and services- Best palliative service_382 patients ➤ Optometry_2nd and 4th Thursday from block CHC 	<ul style="list-style-type: none"> ➤ RNTCP- Referral only. Want to start RNTCP but no space for sputum collection and need Lab technician ➤ More NHM staff is needed for the proper functioning of national programmes  <p>FHC Chavara _ Palliative Care</p>
Training	<p>Given training on</p> <ul style="list-style-type: none"> ➤ ASWAAS ➤ NTCP ➤ Nat. AIDS cont. prog ➤ NVBDCP, NLEP, IDSP, RNTCP ➤ SWAAS, ASWAAS ➤ NIKSHY portal ➤ Imm. Cold Chain ➤ HMIS, RCH, E- health ➤ Kiran survey, E-Vin ➤ Biomedical waste management ➤ Infection Control 	<ul style="list-style-type: none"> ➤ Refresher trainings required ➤ Induction trainings to be organized for the newly appointed staff also

8.6 Family Health Centre Chadayamangalam

FHC Chadayamangalam is located in the Velinalloor health block and Chadayamangalam revenue block which is 40 km away from the district headquarters and from the district hospital and it is a 10 bedded hospital. PHC Chadayamangalam started to function as FHC from July 2018. The linked first referral hospital is TH Kadakkal which is 10 km away from FHC. This facility has undergone assessment for Kayakalp. Self assessment score is 50% and peer assessment score is 59.7%. Cleanliness and documentation is good but constraint is regarding space. Now construction is going on. This FHC is not qualified for NQAS as Kayakalp is not upto the level. Infrastructure is insufficient. Team support is good as all are involved in activities of getting NQAS. LSGD support is there but due to their financial constraints, they could not do much work. All work is done by Panchayat. Committee is formed for the support of NQAS. According to the MO there is no option for building constructions so that they are able to move to NQAS.

	Enablers	Barriers
IPD	<ul style="list-style-type: none"> ➤ Has 10 beds ➤ As MC road is near more accidents have to address 	<ul style="list-style-type: none"> ➤ Bedside locker is not usable. ➤ Toilet facility is not good ➤ Ventilation problem ➤ Building is old ➤ Staff's toilet is very old one. ➤ Electric wiring is very old ➤ Lack of sufficient SNs
OPD	<ul style="list-style-type: none"> ➤ OPD time of FHC has increased to evening time ➤ Introduced token system ➤ Waiting area and registration counter is available ➤ Provided drinking water facility (Purifier available) ➤ Set up TV as part of entertainment ➤ Pre check room ➤ Separate OPD rooms ➤ Observation room ➤ Installed fire extinguisher for safety ➤ Mike system for announcement ➤ No queue for elderly persons 	<ul style="list-style-type: none"> ➤ Token system is not working. ➤ Three rooms are needed for OP for three MOs ➤ Conference hall ➤ No privacy is offered in OP ➤ Need separate OP block ➤ Waiting area is not covered and it is not sufficient ➤ E health is not started in the FHC

		
Wards	<ul style="list-style-type: none"> ➤ New building from MLA fund ➤ There is a general ward in the FHC with 10 beds 	<ul style="list-style-type: none"> ➤ No separate male female ward ➤ No child ward ➤ Lack of human resources
Laboratory	<ul style="list-style-type: none"> ➤ Laboratory equipments microscope and spectrometer are available, ➤ Two lab technicians are available ➤ Four rooms are available 	<ul style="list-style-type: none"> ➤ When doing sputum examination, fumes are coming in patient waiting area ➤ Modification need for collection area ➤ Need waiting area for lab ➤ Lab store room and toilet are necessary
Pharmacy	<ul style="list-style-type: none"> ➤ Store airconditioned ➤ Kept medicine tray ➤ Made modular pharmacy ➤ Introduced Token system ➤ Palliative medicines stored Separately ➤ EDL displayed 	<ul style="list-style-type: none"> ➤ Waiting area is needed and token system should be introduced 
Diagnostic services	<ul style="list-style-type: none"> ➤ In lab all equipments are sufficient ➤ ECG is made available ➤ Optometrist made available ➤ Implemented Nayanamithram programme - Nonmydriatic Handheld Retinal camera available 	<ul style="list-style-type: none"> ➤ Need X-ray machine ➤ Trop T test card is needed
Maternity Department	<ul style="list-style-type: none"> ➤ ANC clinic is conducting in every Monday ➤ Setup separate breast feeding room 	<ul style="list-style-type: none"> ➤ No specialty doctor and foetal Doppler in the FHC
Child care	<ul style="list-style-type: none"> ➤ Set up separate immunization room ➤ Immunization services and primary child care are providing ➤ Ensured availability of all medicines at any point of time 	<ul style="list-style-type: none"> ➤ There is no change observed after FHC regarding child care ➤ One vehicle is needed for conducting outreach programme



General administration	<ul style="list-style-type: none"> ➤ 1MO in-charge ➤ 3 Medical Officers ➤ 1Head Nurse ➤ 7 Staff Nurse ➤ 2 Lab technician ➤ 2 Pharmacist ➤ 1 Optometrist ➤ 1 PHN, 1HI, 3JHIs, 5JPHNs, 1 PTS ➤ 1Hospital attender G 1 ➤ 2Hospital attender G 11 ➤ 1 Clerk, 1 Office Assistant 	<ul style="list-style-type: none"> ➤ Need more Staff Nurse, Pharmacist , Lab technician, Cleaning staff and Data entry operator ➤ IPD has two SNs only and it is not sufficient ➤ Shortage of SN affects the pre-check service ➤ OP time increased to 4 hours but supporting staff is not increased. ➤ Laboratory Assistant is needed
Operation Theatre	<ul style="list-style-type: none"> ➤ Minor procedures are doing ➤ Procedure room and sterilization room made available 	<ul style="list-style-type: none"> ➤ No major procedures
Auxiliary services	<ul style="list-style-type: none"> ➤ Washing machine is available for laundry services 	<ul style="list-style-type: none"> ➤ Need security and laundry service ➤ There is no dietary services ➤ There is no compound wall ➤ Conference hall is needed
Infection Control	<ul style="list-style-type: none"> ➤ Outsourced to “IMAGE” for collecting the biomedical wastes. ➤ Infection control committee formed ➤ Colour coded bins are available ➤ Three bucket system is followed ➤ Autoclave and sterilizer is using for infection control and a separate room for it is available 	<ul style="list-style-type: none"> ➤ Biogas plant is needed
NHM Programmes	<ul style="list-style-type: none"> ➤ RNTCP-Sputum collection and testing, DOT available ➤ Mental Health Programme-Mental Health project ➤ NPHCE(elderly)- Conduct Elderly camp ➤ SHP- One JPHN is working under RBSK ➤ NTCP- School awareness classes. A board was placed at all schools showing that smoking is injurious to health. ➤ People will be charged Rs400/- if they smoke in public places 	<ul style="list-style-type: none"> ➤ Small tabs of seven needed ➤ Mobile app needed
Training	<p>Doctors are trained on</p> <ul style="list-style-type: none"> ➤ NVCDPCP, RNTCP, NLEP, NAIDS, SWAAS,ASWAS, NPCDCS, IDSP, Immunization and cold chain, <p>SNs are trained on</p> <ul style="list-style-type: none"> ➤ NAIDS, SWAAS,ASWAS, NHCPE, HMIS,RCH portal <p>JPHNs are trained on</p> <ul style="list-style-type: none"> ➤ RNTCP,NLEP, NAIDS,SWAAS, ASWAS, IDSP and Immunization and cold chain 	<ul style="list-style-type: none"> ➤ Refresher trainings required ➤ Sufficient training is needed for all staff when introducing new programme

- PHN(LHI) trained on
- RNTCP,NLEP,NTCP
- JHIs are Trained on
- NVCDPC,RNTCP,NLEP,NAIDS,SWAAS ASWAAS, IDSP, Nikshay portal
- HIs are trained on
- Nikshay portal, NVCDPC, RNTCP, NLEP, NAIDS, SWAAS, ASWAS and IDSP
- ASHAs are trained in
- NTCP, Immunization, NVCDPC, RNTCP, NLEP, NAIDS
- Lab Technicians are trained on
- SWAAS and ASWAS, RNTCP
- Other trainings received by doctors and SNs are
- Fire and rescue, CPR-First Aid
 - Spill Management
 - Biomedical waste management
 - Infection Control
 - Maintenance of equipments
 - Ante Natal Care, Emergency Patients Care
 - Also taking classes on relevant topics

8.7 Family Health Centre Kulasekharapuram

FHC Kulasekharapuram (K.S Puram) is in Ochira block. It is 5km away from Karunagappally THQH and 30km away from DH Kollam. THQH Karunagappally is the first referral centre. The latest Kayakalp score is 70.4 percent. Peer assessment has been done by PHC Aziyikkal team. Cleanliness and documentation is good but space constraint is the problem. This FHC is not qualified for NQAS neither has it completed baseline assessment using NQAS checklist.

FHC Kulasekharapuram has a good team all are engaged in the team work with a good spirit. A new building according to the guidelines is needed. There are three buildings in the same compound, but all are congested. Now lab is functioning in a separate small congested building, PP unit functions in another old building and the OPD, Pharmacy etc in the main building which is also very old one. Very less support from NHM, no NGO support, good public support is available for implementing Programmes.

	Enablers	Barriers
OPD	<ul style="list-style-type: none"> ➤ Introduced token system ➤ Provided drinking water facility ➤ Installed air cooler ➤ Set up TV as part of entertainment ➤ Installed fire extinguisher for safety ➤ Mike system for announcement ➤ OPD time of FHC has increased to evening time ➤ Reference to nearby hospitals are easy ➤ Patricians of different OP rooms ➤ Sufficient waiting area and chairs  <p>Waiting area</p>	<ul style="list-style-type: none"> ➤ Special counter for Aged people ➤ Pre-check room is very small ➤ OP rooms are not adjacent to the waiting area, one is outside the waiting area ➤ Functions in the old building, so space constraint in very where. ➤ New OP block needed ➤ Planning for a garden in front of the building. ➤ Granted vision centre but there is no room for Optometrist to sit and check 
Wards	No ward but there is one observation room	<ul style="list-style-type: none"> ➤ No building ➤ Lacking human resources ➤ Space not available in the existing building
Laboratory	<ul style="list-style-type: none"> ➤ More lab equipments like Auto analyzer and Hematology Analyzer are available now. ➤ HbA1C test included ➤ Separate waiting area ➤ Displayed the details of lab tests along with time required and cost involved ➤ Lab time is extended upto OPD time. 	<ul style="list-style-type: none"> ➤ Modification need for collection area ➤ Sputum testing is not done here, patients referred to Puthiyakavu TB Centre ➤ Testing of Uric Acid not available ➤ Cards needed for HIV, HCV and HBV ➤ Blood grouping not available ➤ Need waiting area ➤ Area needed for sputum collection and examination ➤ One more lab technician needed
Pharmacy	<ul style="list-style-type: none"> ➤ Made modular pharmacy ➤ Utilization is more as people shifted from THQH and DH to FHC ➤ 63 medicines available in the EDL ➤ DDMS done and computerized 	<ul style="list-style-type: none"> ➤ To make store A/c ➤ Infrastructure not sufficient to keep medicine ➤ More staff needed ➤ Medicine shortage and stock was not sufficient, KMSCL supply not sufficient, Amount of Rs. 16 lakh is not sufficient

Diagnostic services	<ul style="list-style-type: none"> ➤ All test kits and equipments are made available ➤ ECG is made available ➤ Optometrist is made available 	<ul style="list-style-type: none"> ➤ Need X-ray machine ➤ HBsAg diagnosis needed
Maternity Department	<ul style="list-style-type: none"> ➤ ANC clinic on Mondays ➤ Average 10 to 12 ANC per day 	<ul style="list-style-type: none"> ➤ To cater to better ANC services, Bed needed for AN check up ➤ Separate room needed
Child care	<ul style="list-style-type: none"> ➤ Ensured availability of all vaccines and medicines at any point of time ➤ Immunization room betterment with paintings, pictures, boards, charts etc ➤ Three bucket system for cleaning ➤ Immunization programmes at SC level, outreach and at schools are good, each SC has three programmes in a month. 	<ul style="list-style-type: none"> ➤ Space constraint, new building needed ➤ Vehicle needed ➤ Child friendly atmosphere like park, play area, toys, and garden etc needed ➤ Breast feeding room needed ➤ One sub center is put in shop. A Separate building needed ➤ Vehicle is needed for conducting outreach programme
Operation Theatre	<ul style="list-style-type: none"> ➤ Dressing only ➤ Nebulization available 	<ul style="list-style-type: none"> ➤ No OT
General administration	<ul style="list-style-type: none"> ➤ 3 Medical Officer ➤ 4 Staff Nurse ➤ 1 Lab technician ➤ 2 Pharmacists ➤ Cleaning staff ➤ 1 PHN, 1 HI, 5 JHIs, 8 JPHNs ➤ 42 ASHAs 	<ul style="list-style-type: none"> ➤ Need for one lab Technician and one Pharmacist ,
Auxiliary services	<ul style="list-style-type: none"> ➤ IPD not available 	<ul style="list-style-type: none"> ➤ Need security and laundry service ➤ Need equipment for wellness centre
Infection Control	<ul style="list-style-type: none"> ➤ Biomedical waste outsourced to an IMAGE ➤ Autoclave and electric sterilization ➤ Colour coded bins are available 	<ul style="list-style-type: none"> ➤ No barriers, proper management
NHM Programmes	<ul style="list-style-type: none"> ➤ AN clinic only, not a delivery point ➤ RNTCP medicine available ➤ NLEP Screening available ➤ MHP- ASWAAS programme is there, provides good services ➤ Palliative care programme functions in 16 days in a month and a vehicle is allotted for it ➤ SHP- One School Health Nurse is working under RBSK ➤ NTCP- School awareness classes. A 	<ul style="list-style-type: none"> ➤ For controlling NCD there is no provision for space and equipments for regular exercise. Yoga not started ➤ Public spaces and parks can utilize for regular exercise ➤ No counsellor is available for AIDS control programme ➤ Visit of mental health team the FHC in monthly once is needed

	<p>board was placed at all schools showing that smoking is injurious to health. Inspection in shops is conducting, IEC is doing</p> <ul style="list-style-type: none"> ➤ Pre check and screening available for NCD for all patients > 18 years ➤ People will be charged Rs400/- if they smoke in public places 	
<p>Training</p>	<p>Given training to doctors on</p> <ul style="list-style-type: none"> ➤ Orientation(3days) ➤ In-service (5 days) ➤ Curriculum skills (2 days) ➤ Geriatric, Gender based Violence Immunization (3 days) ➤ Leprosy, TB control, NCD, Cancer care, Diabetic care, BLS, Ardrum(3 days) ➤ Disaster management ➤ Biomedical waste management ➤ Training on the programmes of ASWAAS and SWAAS ➤ Clinical updates ➤ Ante Natal Care ➤ Emergency Patients Care ➤ MCTS, HMIS, IHIP Ardrum ➤ Also taking classes on relevant topics <p>Training given to SNs on</p> <ul style="list-style-type: none"> ➤ Ardrum, HIV, GVB, RNTCP, Disaster Management , IHIP, Kayakalp, In-service training, SWAAS, AASWAS, <p>Training given to LT on</p> <ul style="list-style-type: none"> ➤ Ardrum, Malaria, Computer training and IHIP <p>Training given to Pharmacist s on</p> <ul style="list-style-type: none"> ➤ Skill development(3 days) <p>Training given to PHN,HI and JPHN on</p> <ul style="list-style-type: none"> ➤ Ardrum, Supervision and Management, HMIS, RCH portal, MCTS, Immunization, ILR, CUT, EVIN(Vaccine training), NLEP, TB, MCP card, RCH, RTI/STI <p>Training given to JHI</p> <ul style="list-style-type: none"> ➤ Malaria, VBDC <p>Training given to all staff Mental Health, e Health, HMIS, Corona training</p>	<ul style="list-style-type: none"> ➤ Refresher trainings required to all ➤ Needed training in Infection Control ➤ Needed training in quality management ➤ Needed training in national programmes to all

FHC Chadayamangalam is 10 bedded PHC. Since it is near MC road, accident cases are coming in the FHC. Toilet facility is not good as drainage is not working. Ventilation problem is there. Building is old. Staff's toilet is very old one. Electric wiring is very old.

There is IP facility in the FHC. OPD time of FHC has increased until 6pm. There are two rooms allotted for OP. Waiting area and registration counter is available. Token system is not working. Separate OP room is not there for three MOs. Three rooms are needed. One conference hall is needed. Waiting area is not covered and it is not sufficient. Parking area is not available. E-health is not started in the FHC. Now there is no privacy in OP because of no door and roofing in the OP room. There is a general ward in the FHC with 10 beds. After construction of new building, male and female ward will be separated and children will be separated. Three storied building is proposed from MLA fund of 75 lakh.

Laboratory equipments microscope and spectrometer are available. Two lab technicians are available. Four rooms are available. One room for collection work area and one room for AC instruments. One room for sputum test is available. But sputum fumes are coming in waiting area. Collection area and result receiving area are in one room. Waiting area for lab is needed. Lab store room and toilet are necessary.

AC storage room is there for pharmacy. Dispensing room is small. One room is separated as two rooms for storage. Panchayat is providing 4 lakh. Waiting area is needed and token system should be introduced. In lab all equipments are sufficient. ECG facility is in the FHC. X-ray facility is needed. Trop T test card is needed.

ANC clinic is conducted on every Mondays. No specialty doctor and feotal Doppler is required in the FHC. Gynaecologist is available in TH Kadakkal.

There is no change observed after conversion to FHC in child care. Immunization services and primary child care are provided from FHC. Very small room is available for registration. One vehicle is needed for conducting outreach programme.

There are four sanctioned posts. Two MOs are ENT specialists and two MBBS are available. Two are on leave now. Apart from six Staff Nurses and one Head nurse, IPD has two SNs only and it is not sufficient. It affects the pre-check service. One more SN is needed. Out of the two regular Pharmacists, one is maternity leave. So one has to do duty from 9am to 6pm. In lab, Laboratory Assistant is needed. OP time increased by 4 hours but supporting staff is not increased.

Minor procedures are done. Procedure room and sterilization room are available. Support services are not available. There is no dietary services. Washing machine is available for laundry services. Nursing Assistant is doing it now. IP services are there but security staff is not appointed and it is needed. There is no compound wall. Conference hall is needed.

There is a tie up with IMAGE for disposal of biomedical waste. Infection control committee consists of MO, head nurse, pharmacy, lab technician, HI, LHI meetings are conducting. Three bucket system is following. Auto clave and sterilizer is used for infection control and a separate room is available. There is no facility for food waste disposal except in pit. Biogas plant is needed.

There is a separate room for RNTCP sputum collection and examination. Patients reduced in this programme. Under NLEP screening camp was conducted for migrants but Aadhar could not be linked with it. So it is not so effective. Mental health programme doctor got SWAAS and basic training but he was transferred. Under this programme, women above 45 years are screened and within 3 months 4 cases are found. The MHP team from Nilamel visits here monthly once and these cases are referred. NVBDCP is controlled by source reduction activities. Since rules are not strong so health providers could give advice only. IDSP meetings are conducted weekly. Register is available. SHP programme is very good one. First Aid Team and hands on training are needed. NTCP SASWAS is providing training. There is no case under NPCDCS. For NCD daily 50-60 patients are screened and so separate room is needed. Small tabs and mobile app are needed. Sufficient training should be imparted to all staff when introducing new programme. There should be continuous training for the programme so that it will be effective.

9. Impact of NQAS Certification.

The impact of NQAS accreditation is most conspicuous in the OPD attendance and consequently in the performance of the laboratory among other visible achievements. The Kayakalp assessment initiative first offered better infection control and NQAS assessment followed. Conversion of FHCs also happened during 2017. The assessment on increase in OPD attendance as discernible from HMIS data during the period 2017-18 to 2019-20 shows substantial increase in OPD. The number of lab tests (data for which is available in HMIS) too has increased substantially.

FHC Poozhanad in Thiruvananthapuram district shows a 136 percent increase and FHC Chemmaruthy too in the district depicts 126 percent increase in OP. The lab tests done is proportional to the OP in most of the facilities. An increase of 124 percent in number of lab tests in FHC Poozhanad and 85 percent in FHC Chemmaruthy during 2018-19 to 2019-20. In FHC Noolpuzha and FHC Poothady of Wayanad district too there has been increase in OPD of 10 to 20 percent. Since these facilities had good OPD attendance during the past 10 years due to its location in a tribal dominated district the utilization has been almost hovering around 5500 per month and has been steady. Conversion to an FHC has definitely enabled better quality service in these FHCs. FHC Sreekrishnapuram with OPD around 7000 per month in Palakkad district too has seen a 50 percent increase in OPD during the past 2 years. FHC Peruvemba in Palakkad district too had increased its OP by 10 percent. THQH Punalur, at the Taluk level serves about 60000 patients on an average every month (2019-20). Over 73000 lab tests are performed every month in the lab of this hospital. This has been a steady increase over the years. NQAS accreditation reflects the quality of services provided.

If the facilities in group 2 are considered, the OP has increased considerably in the FHCs under study although it is on its path for NQAS assessment. CHC Poonthura too improved its OP (by 17 percent) with conversion to an FHC due to its location in a coastal area and excelled in Kayakalp assessment score. W&C Palakkad, a winner in Kayakalp assessment had improved its OP by 12 percent in one year. In Kollam district, FHC Elampallor witnessed a 130 percent increase while FHC Chathannoor

shoed only around 10 percent increase. Similar performance is witnessed in PHC Thirumittacode in Palakkad district (12 percent increase in OP).

Among the facilities that fall in group 3 or those which have not achieved desired quality standards in Kayakalp, conversion to FHC has improved service delivery considerably. Among the FHCs under study in Thiruvananthapuram district, FHC Thonakkal tripled its OPD attendance per month in 2 years 2017-18 to 2019-20 whereas FHC Kottukal and FHC Kilimanoor saw its OPD doubling in 2 years and FHC Aruvikkara showed 50 percent increase in OP during the period of 2 years. DH Nedumangad has an OPD attendance of about 47000 every month and the OP has increased by 30 percent with improvements in infrastructure and Kayakalp initiative. In Kollam district, FHC Perumon and FHC Chathannoor showed less than 50 percent increase in OP whereas FHC Kottamkulangara and FHC Kulasekharapuram doubled its OP during the past 2 years. So conversion to FHC has itself been a change for the better in the State. But FHC Chadayamangalam is yet to improve its OP during the period. CHC Koduvayur in Palakkad district with IP facility has around 10000 OP attendance on an average every month during the current year and witnessed over 10 percent increase in OP attendance since last year. DH Mananthavady in Wayanad district had a steady OP attendance during the past few years of over 46000 every month on an average with 10 percent increase during the last year.

- Increase in OP in the FHCs for primary care reduces the load in the tertiary level hospitals
- All the hospitals developed a patient friendly attitude. Attitudinal change in the Staff through trainings is a great achievement.
- Quality of service improved tremendously with NQAS accreditation. Patient Satisfaction Score is reflective of it.
- Availability of doctors throughout the day and services rendered are being appreciated by the public
- The population of FHCs now own the hospitals and feel proud for having the centre in their Panchayat
- Bonding between the Panchayat and the FHC was strengthened.

- LSGD involvement in the functioning of the hospitals increased substantially. Documentation of services improved tremendously and data quality management has now become a group initiative.
- Community level activities increased and formation of self help groups , Arogyasena etc brought the people of the community closer to each other.

10. Conclusion

The focus of the study has been to identify the enablers and barriers to NQAS certification of hospitals in Kerala. The sampling was a kind of purposive sampling as the districts were those allotted by MoHFW, Government of India for NHM PIP Monitoring. But from the districts Thiruvananthapuram, Kollam, Palakkad and Wayanad, 7 health facilities that have been NQAS accredited are included to understand the factors that enabled the facilities to be certified. The facilities that have applied for NQAS and received Kayakalp awards at the State level formed the second group of 5 facilities which revealed the enablers of excellence in Kayakalp assessment and also the barriers to NQAS accreditation. The third group included 13 facilities which have to attempt NQAS accreditation reflecting the barriers. An understanding of the factors that facilitated the DH/FHC to achieve its goal of NQAS certification was observed to be both intrinsic and extrinsic factors as reviewed in studies that focused on quality aspects in different realms be it health, management, business or others.

The '*Intrinsic Factors*' have been *Services, Team work and Leadership, Staff attitude and Staff Satisfaction, Staff competency and trainings, Functional coordination with field staff, Documentation and Resource availability.*

Services: Conversion of PHCs to FHCs ensured provision of primary care to address the challenges of the current epidemiological situation. NCD Screening, SWAAS programme for early screening of asthma and COPD, Mental Health screening under AASWAS programme, early detection of Retinopathy, Geriatric clinic and Palliative care programme etc. were implemented through FHCs. The labs and pharmacies developed, tie up with agencies like RGC, CMC Vellore, DDRC ensured all lab tests

as per demand. Innovative practices at community level helped the FHCs bond well with the people. Where these initiatives have not happened they are eventually classified as barriers. Taluk Hospitals improved considerably providing services like General medicine, Gynecology, Surgery, Pediatrics, Psychiatry, Dentistry, ENT, Ophthalmology, Orthopaedics and physical medicine units. Taluk hospitals were equipped with dialysis unit, three stage labour rooms and new born stabilization units. Laboratory facilities like Hematology, Biochemistry and Serology were made available. District hospitals improved with additional services with Cardiology, Nephrology and Neurology Units. Infrastructure support under Ar dram made the hospitals patient friendly.

Team work and Leadership: A key enabler has been the strong leadership focusing on building a strong team supporting positive staff relations. Communicating the clear guidelines through trainings with maximum participation of staff of all cadre has been an important practice that created a sense of readiness. Distribution of responsibilities with each staff being assigned appropriate tasks built a collective effort. *Staff satisfaction* has been a notable precursor for working as a team. The leader always facilitated this satisfaction element and ‘Everybody in the team and everybody in decision making process’ eased the process. Setting simple but clear targets visualizing the goals and staying focused all through the process helped the team achieve what they wanted.

Staff Attitude: Attitude of staff towards the patients is a much valued aspect in the provider perspective. The simple gesture like ‘What can I do for you’ (quoted from one of the interviews) attracted more patients to the service provider and made them feel better. This has been a characteristic feature in the primary level care rendered in the FHCs, a quality imbibed from the basic level trainings provided by the State. As NCDs have been on the rise, it has been the elderly population being affected more and hence their representation increased in the FHCs. They were extended care they expected especially in the attitude of the staff. The same observations were observed in THQH Punalur which is also a winner in this category.

Staff Competency: Competency of the staff from a Medical Officer to a Grade IV staff contributed to the goal in a great way in the health facilities which have been accredited under NQAS. Medical Officers with Specialized training had received trainings on new initiative/programmes being implemented under NHM. A Paediatrician serving an FHC (FHC Chemmaruthy) enabled better child care, a Gynaecologist as Medical Officer ensured better maternity care, a Medical Officer (Asst. Surgeon) facilitated extended specialist services (FHC Poozhanad) are a few observations. Trained Staff Nurses in the FHCs in the State are assets to the institution. They had better role to play in the implementation of programmes like SWAAS, ASWAAS, Diabetic Retinopathy, NCD screening, Palliative care etc which are the services specific to FHCs in the State. Intensive training had been a corner stone of their competency. Competent Lab Technicians increased the range of services extended in the laboratory wherever infrastructure support had supported well (FHC Noolpuzha). Competency of Pharmacists smoothens the Pharmacy functions as e-health is enabled in the hospitals in Kerala and procurement of drugs are online and distribution and stock are mostly computerized. Competency of these staff are more valuable in Tertiary level institutions that undergoes NQAS assessment as service provision in various Specialties is more focused. The role of field level staff and their credibility had added to the points more in Primary Level institutions especially the FHCs where excellence in community level activities fetched more points. All the NQAS certified FHCs considered in the study exhibits this aspect. Quality control rested heavily on the skill the Grade IV staff had acquired through repeated in-house trainings on infection control in the primary, secondary and tertiary level institutions under study.

Building the competency of the staff has been a great responsibility of the team leader as numerous trainings had to be managed without disturbing the service delivery. Those who attended ToTs did their part in training their own staff. The trainings in these institutions that were nationally certified had been quite systematically coordinated.

Functional coordination with field staff: There is functional coordination between Medical Officers with the public health team members JPHNs, JHIs and ASHA workers

in most of the FHCs. There are several periodic meeting at FHC and sub centre level. On all first working day, there is one meeting at FHC, all staff of FHC and all field staff (JPHN, LHI, HJI, HI, RBSK Nurse, Palliative nurse) where all national programmes and specific programmes under the FHC are review of the monthly action plan of the previous month and discussion on the action plan of the current month. IDSP meeting is usually conducted on every Monday afternoon session. Medical Officer and all field staff attend the meeting and follow up the field level activities. Formation of Arogyasena, a voluntary group for monitoring health activities in the FHC area has benefitted the FHCs to carry out various types of community level programmes. Every ward has formed Arogyasena.

Documentation: No achievement is possible without proper documentation of the work done. All the NQAS certified institutions in the present study had excelled in the documentation process with some of the institutions being specially appreciated. Documentation was done as per guidelines of NQAS to showcase every minute procedure or service rendered. Division of work between the staff in respective service departments helped in overall documentation of work as the process is not one person's responsibility. Here again the quality of team work surfaced.

Resource availability: The teams cannot work unless they have sufficient resources at their disposal. The team leader showed responsibility in fetching the staff what they wanted through constant deliberations with the local, district and State authorities concerned. The institutions showed that simple but big things can be achieved by building a perfect rapport with the Panchayat level governing bodies in matters where decision making mattered. Yet other resources like that of beautification process and basic necessities like a TV display or providing drinking water facility etc for the welfare of the patients were achieved through sponsorships. LSGD support mattered a lot in bigger things like building a conference hall or a cafeteria within the premises of an FHC or setting up a children's park etc. Still bigger requirements like modification of the facility or new buildings had been possible with Government support under Ar dram, LSGD MLA funds and NHM support.

Most of these intrinsic factors are modifiable ones and whichever facility had been able to modify them to suit to their conditions for the achievement of their ultimate goal, certification has been possible. Here we have shown the examples of 11 FHCs in their path to accreditation and some of them have imbibed the good practices of those facilities that have been successful. Ultimately all the facilities have to develop a strong team within the facility to take them to NQAS accreditation. At the tertiary hospitals like that of THQH Punalur included in the study, the intrinsic factors played an enormous role as there were numerous Specialty departments, support services and auxiliary services and each and every department proved its excellence in one way or the other.

The *Extrinsic factors* that enabled NQAS accreditation had been *LSGD participation, Involvement of NGOs, Community support, Geographical location of the FHC*

LSGD participation: LSGD support both financial and in facilitating administrative matters because finally it is the Panchayat that owns the FHC. The maternity home stay for tribal mothers and the electric auto service to transport patients to and from the FHC where transportation is difficult in FHC Noolpuzha, the conference hall at FHC Chemmaruthy, the cafeteria at FHC Kilimanoor for NCD patients are only a few examples of LSGD support among many others. The support rendered by NHM is vital in this regard: both financial and organizational. Thirdly the support from the State under the Ardran Mission of the 'Navakerala' initiative kicked off the concept of FHCs in the State to suit the needs of Kerala's population encompassing the criteria of the Ayushman Bharat HWC concept within the FHCs. Huge amount of fund flowed into development of FHCs from the Government and till date about 170 FHCs are functional in the State. In the FHCs where the master plan had been implemented with the active involvement of the FHC team and wherever the LSGD has worked together with the service providers, there has never been any shortfall in implementation as per national guidelines and certification process was easier (FHC Noolpuzha, FHC Poozhanad, FHC Chemmaruthy). But there has been problems in construction activities as per guidelines both due to lack of space and also due to the lack of coordination

between the Panchayat and the health facility. In such cases the certification process is much slower.

Involvement of NGOs: NGOs have played a good role in the functioning of the FHCs. Their role is visible in both at the FHC and the community. At the FHCs their contribution has been more towards small financial components like donating Fans in waiting area, supporting visual display, providing drinking water facility, contributing the development of garden etc. But at the community level they had a direct role to play in implementation of community level programmes organized by the Field level staff of the FHCs. FHC Chemmaruthy and FHC Noolpuzha considered here for the study are good examples to follow in this regard. The tertiary level hospitals have only a minor or no involvement of NGOs.

Community support: FHCs are primary health care providers and community support is essential. Here in all the FHCs that have been certified under NQAS, community support played a good role. ASHAs, AWWs, JPHNs formed the link between the people and the FHC whose involvement brought more confidence among people in the health care the FHCs rendered. The conversion to FHCs brought about many changes compared to what the PHCs have been. Awareness on these changes among the population was brought about by these field level work force. Parents who used to take their children to private health facilities for immunization or for treatment of minor illnesses started depending on the FHCs as reflected in the OPD attendance. The JHIs and HIs involvement in implementation of community level programmes like source reduction for communicable diseases, spreading awareness on recent COVID-19 pandemic for instance and the new initiatives implemented was successful only because of active community support. The FHCs in Kerala has been assigned additional responsibilities focusing NCD screening which enabled more community participation in FHCs activities. The Staff Nurses are assigned target of NCD screening activities of staff in Government schools and Government Offices every month in their respective areas. They record basic demographic details along with screening hypertension, diabetes and BMI as a result of which the population in the workforce got an opportunity to know about their own health which they other would not have realized

until symptoms are experienced. This preventive aspect has fetched great community support uniformly in all the FHCs with degree of achievement varying between FHCs depending on the commitment of the staff. The outcome of community support has ended up in the people accepting the FHCs as their own and even turning up before the service providers for seeking their personal problems, the elderly visiting the FHCs for spending time in the recreation spaces developed (FHC Poozhanad). The maternity home stay initiative for mothers from remote tribal areas to have safe institutional delivery at FHC Noolpuzha earned great acceptance among the tribal community.

Geographic location of the health facility (FHC): The geographic location of the FHC mattered a lot in the development of the FHC. Support from various fronts had to reach the FHC and those FHCs located in the main roads and within the habitation developed in a better way in short time. Others had to put a lot of effort to reach the people. FHC Poozhanad and FHC Noolpuzha deserves much appreciation among the facilities selected here because they were neglected PHCs once to the population and their transformation to FHCs contributed in a big way but with enormous hard work from the team. But the concept of PHCs had always been providing primary care to its catchment population and conversion to FHCs attracted more people to them. Some FHCs excelled in their efforts and attracted more people beyond their boundaries. Others who failed had many barriers before them the most important being lack of will to achieve the goal.

A third set of factors that enabled the NQAS accreditation can be derived, the lack of which stood as barriers to development. These are the contextual factors but linked mostly to those explained as intrinsic and extrinsic factors. These are the '*Contextual factors*' like the *Type of hospital, General Administration and Work load*

Type of hospital: The criteria for certification varied between a PHC and a District level hospital and hence the interplay of enabling factors and barriers varied considerably. The focus of FHCs in Kerala is basically on primary health care and none cater to delivery services in the maternity care aspects unlike those in other States in India. Their focus was more on managing the current epidemiological situation in the State

and hence preventive and promotive care is valued. Among the FHCs the type of existing buildings mattered a lot in their path to accreditation. Space constraints and old buildings are reported to be the barriers in FHCs like Kulashekarapuram, Kottamkulangara and Chadayamangalam in Kollam district and overcoming these barriers need huge effort. The tertiary level hospitals are valued on the type of Specialty services, support services among other aspects. Huge effort was put on every department in a hospital like THQH Punalur included in the study. DH Nedumangad, W & C Palakkad and DH Mananthavady are also observed to be in the process. DH Nedumangad too has to overcome the barriers posed by the old building where many service departments are still functional. W&C Palakkad has been a Kayakalp winner and changes underway for NQAS assessment.

In the type of hospital we included the existing infrastructure availability also as many of them continue to exist in the traditional and heritage buildings that existed in the early 1990s. Maintenance of such buildings as per current guidelines for NQAS posed as major barriers as infection control is valued greatly. DH Nedumangad, in the present sample of facilities selected, is an example where scattered nature of old buildings limits its chances of meeting every criteria.

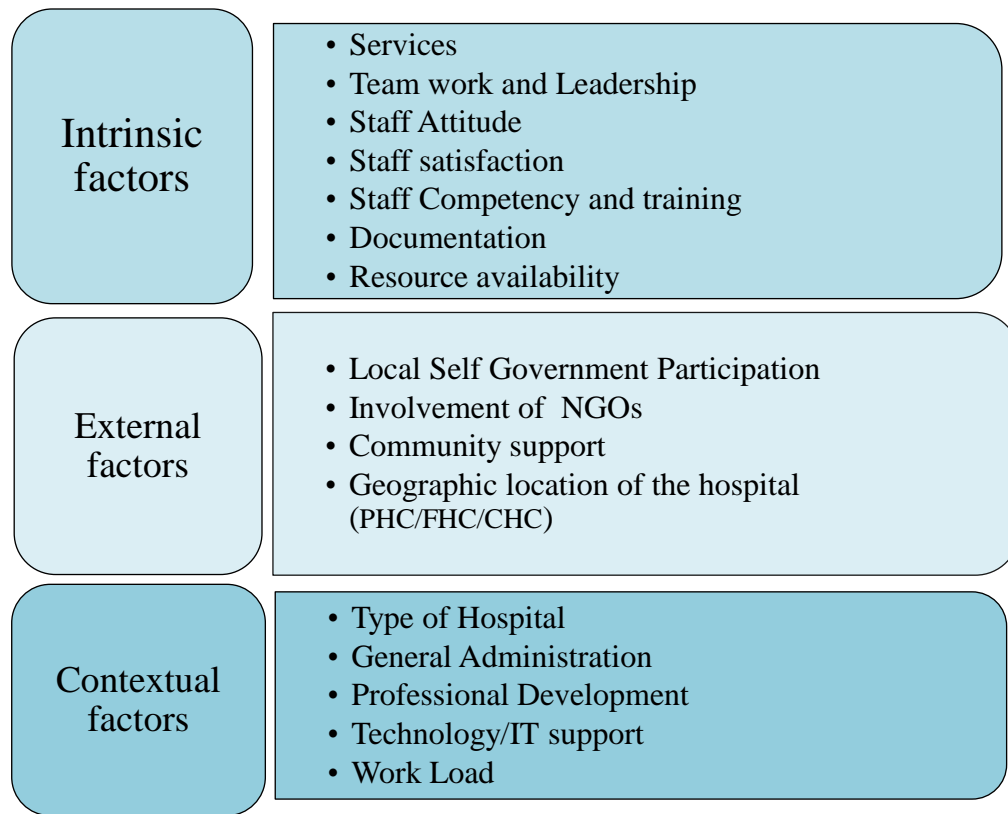
General Administration: General administration was smoothened in most of the FHCs that were accredited due to the presence of staff as per requirement. LSGD support in appointing an extra MO as FHC OP time extended till 6pm in the evening is worth highlighting. In those FHCs where a Lab Technician or a Pharmacist was necessary due to higher OPD attendance and consequent demand for lab tests, there has been LSGD support. Lack of staff has been one of the barriers in the FHCs that are yet to be certified. Equivalent to the availability of staff the competency and the attitude to work together helped the 7 institutions considered here in the first group of selected facilities to ease the process of certification. Outstanding in this regard is the system in THQH Punalur where the Administrative capacity of the Medical Superintendent kept all his staff together. Apart from this there has been focus on the *Professional development* of staff who excelled in their respective specialties. For instance the Palliative Care Nurses were rewarded by the State for their excellence in performance which added to

the institutions reputation. Internal level appreciations and excellence in trainings were well appreciated.

Technology/IT Support: In the hospitals in Kerala, the introduction of e-health enabled service delivery to be more professional. PHCs in Kerala have now indexed individual electronic health record linked to their Aadhar number which contains all relevant health and demographic details enabling the health care provider to utilize the information for treatment and referral. The Pharmacies are computerized and linked to this. Tele-consultation has been enabled in the health facilities for diabetic retinopathy treatment in the FHCs. These factors contributed to a great deal in the achievements.

Work load: Distribution of work among all the staff was an important factor that enabled NQAS certification. The team leaders capability in assigning equal work to all enabled sharing of responsibilities and satisfaction of work. No one complained that they had to work more. But there were very committed Medical Officers and Staff Nurses who took up the additional responsibilities working round the clock, especially those involved in the documentation process. They worked and continue to do so even after the certification process is complete with a view to identify the shortfalls and improve their institution.

The study was initiated based on a background review of studies that deal with the positive and negative factors that enable or disable any institution from achieving quality standards. So based on the review of 25 health facilities, a more refined model is developed for identifying the enablers of NQAS accreditation and the barriers although the basic domains remains the same. In health service delivery that leads to better quality standards, we derive the following model of implementation from experience of a small sample of hospitals in Kerala.



These are identified as the enablers of NQAS certification of hospitals. Lack of any of these factors in the 3 domains were found to be the potential barriers. To put it more specifically the barriers to achieving standards are identified as limitations in infrastructure development due to lack of space, lack of adequate support from LSGD, lack of leadership and team effort, financial constraints in development, trainings with lesser participation of staff, lack of internal expertise within healthcare facilities, inadequate resource availability, limitations in enabling Technology/IT support, poor community level activities.

So the enablers of NQAS certification in Kerala highlighted here are just not a few but an interplay of many internal and external factors. But the key enabler has been the leadership factor highlighted specifically by the staff. When there is external support and internal resources, leadership focus enabled certification. Enormous effort has gone into the process both at the primary, secondary and tertiary care hospitals. But the whole process is unique to the State as implementation of programmes demand approach different from that seen elsewhere. Infact the process of certification of each

hospital is a story unique to each be it an FHC/PHC or a District Hospital. Some had to overcome the difficulty in geographic location others had to work hard for community support, those that had LSGD behind them found it easy but the overall support from the State was the deciding factor. But every story is a replicable one. Kerala has the will to excel due to which all the barriers to NQAS accreditation are overcome. So it is not surprising that Kerala has occupied the top positions in the list of certified hospitals in India. The commitment of the State and the huge health workforce is indeed a laudable asset to the country.

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