TABLE OF CONTENTS

List of Abbreviations

1) ACT - Artemisinin Base Combination Therapy

2) AEFI - Adverse Event Following Immunization

3) AFHC - Adolescent Friendly Health Centre

4) AMC - Annual Maintenance Contract

5) ANC - Ante Natal Care

6) ANM - Auxiliary Nurse Midwives

7) ARSH - Adolescent Reproductive Sexual Health

8) ART - Anti Retroviral therapy

9) ASHA - Accredited Social Health Activist

10) AYUSH - Ayurveda, Yoga, Unani, Siddha and Homeopathy

11) AWW - Anganwadi Workers

12) BLS - Basic Life Support

13) BMW - Bio Medical Waste

14) CPR - Cardio Pulmonary Resuscitation

15) ETAT - Emergency Triage Assessment & Treatment

16) FIR - First Information Report

17) GDM - Gestational Diabetes Mellitus

18) HMIS - Health Management Information System

19) HIV - Human Immunodeficiency Virus

20) IDSP - Integrated Disease Surveillance Programme

21) IEC - Information, Education & Communication

22) IFA - Iron Folic Acid

23) ILR - Ice Lined Refrigerator

24) IMNCI - Integrated Management of Neonatal & Childhood Illness

25) IUD - Intra Uterine device

26) JSSK - Janani Shishu Suraksha Karyakram

27) JSY - Janani Suraksha Yojna

28) LAM - Lactation Amenorrhea Method

29) LASA - Look Alike and Sound Alike

30) LHV - Lady Health Visitor

31) MAS - Mahila Arogya Samiti

32) MCP - Mother & Child Protection

33) MCTS - Mother & Child Tracking System

34) MDT - Multi Drug Therapy

35) MHP - Mental Health Programme

36) MLC - Medico Legal Case

37) MO - Medical officer

38) MPW - Multipurpose Health Workers

39) MTP - Medical Termination of Pregnancy

40) MVA - Manual Vacuum Aspiration

41) NACP - National AIDS Control Programme

42) NIDDCP - National Iodine Deficiency Disorders Control Programme

43) NLEP - National Leprosy Eradication Programme

44) NPCB - National Programme for Control of Blindness

45) NPCDCS - National Programme for Prevention & Control of Cancer, Diabetes, Cardiovascular Disease and Stroke

46) NSSK - Navjat Shishu Surakhsha Karyakram

47) NVBDCP - National Vector Borne Disease Control Programme

48) OPD - Out-Patient Department

49) ORT - Oral Rehydration Therapy

50) PIR - Preliminary investigation report

51) PNC - Post Natal Care

52) PPTCT - Prevention of Parent to Child Transmission

53) RBSK - Rashtriya Bal Swasthya Karyakram

54) RNTCP - Revised National TB Control Programme

55) RPR - Rapid Plasma Reagin

56) RTA - Road Traffic Accidents

57) RTI - Reproductive Tract Infection

58) SBA - Skilled Birth Attendants

59) SOP - Standard Operating Procedure

60) STI - Sexually Transmitted Infection

61) UIP - Universal Immunization Programme

62) UPHC - Urban Primary Health Centre

63) VED -Vital, Essential & Desirable

LIST OF TABLES

LIST OF FIGURES

Introduction

The National Rural Health Mission (NRHM) was launched in the year 2005 with the goal "to improve the availability of and access to quality health care for people, especially for those residing in rural areas, the poor, women and children." The Mission has led to considerable expansion of health services through rapid expansion of infrastructure, increased availability of skilled human resources and greater local level flexibility in operations, increased budgetary allocation and improved financial management. However, improvement in Quality of health services at every location has not been perceived, generally.

Perceptions of poor quality of health care may, in fact, dissuade patients from using the available services because health issues are among the most salient of human concerns. Ensuring quality of the services will result in improved patient / client level outcomes at the facility level.

Ministry of Health and Family Welfare, Government of India is committed to support and facilitate a Quality Assurance Programme, which meets needs of Public Health System in the country and is sustainable. Main focus of proposed Quality Assurance Programme would be enhancing satisfaction level among users of the Government Health Facilities and reposing trust in the Public Health System.

Quality in Health System has two components:

Technical Quality: on which, usually service providers (doctors, nurses & para-medical staff) are more concerned and has a bearing on outcome or end-result of services delivered.

Service Quality: pertains to those aspects of facility based care and services, which patients are often more concerned, and has bearing on patient satisfaction.

Quality Assurance

Working definition- WHO defines Quality of Healthcare services in following six subsets:

a. **Patient-Centred:** delivering health care, which takes into account preferences and aspirations of the service users, and is in congruent with their cultures. It implies that patients are accorded dignified and courteous behaviour. Their reasonable belief, practices and rights are respected.
b. **Equitable:** delivering health care which does not vary in quality because of personal characteristics such as gender, caste, socioeconomic status, religion, ethnicity or geographical location.
c. **Accessible:** delivering health care that is timely, geographically reasonable, and provided in a setting, where skills and resources are appropriate to the medical need.
d. **Effective:** delivering health care that is based on the needs, and is in compliance to available evidences. Therefore, observance of treatment guidelines and protocols is important for ensuring the quality of care. The delivered health care results into the improved health outcomes for the individuals in particular, and community in general.
e. **Safe:** delivering health care which minimizes risks and harm to the users.
f. **Efficient:** delivering health care in a manner which maximizes productivity out of the deployed resources. The wastes are avoided.

A quality based approach helps in identifying the gaps in service delivery and tracing its roots and linking them to organizational processes. It builds a system of taking effective actions for traversing the gaps, periodic assessment and improving the quality.

Background

National Urban Health Mission (NUHM) was launched as a separate mission in years 2013 with objective of improving health status of the urban poor particularly slum dwellers and other marginalised sections.

Government of India has launched, Quality Assurance Standards for Urban Primary Health centres, released in 2016, has followed up National Quality Assurance Standards 2013 because Urban Primary Health Centres (UPHC) are different from conventional rural PHCs in term of size, functions, focus on ambulatory care, limited staff and infrastructure. UPHC is also expected to deliver certain job-functions of Sub-centre through its outreach services.

National Quality Assurance Standards for Urban Primary Health Centres have been developed to measure the quality of services at Urban PHCs. These Standards also intend helping the states in building an in-house credible quality management system into the design of Urban PHCs. These standards offer a standardize process for monitoring and evaluation of quality of services by various stakeholders like facility staff, district health administration, and certification bodies.

First step in such efforts is to assess Urban Primary Health Centres, so that the gaps at health facilities are known, and a time-bound action plan for the gap closure is developed. Subsequent assessments by various stakeholders – facility in charges, district health administration, state and external certification body, would need to be undertaken using same tools, so that there is clarity on expectation and objectivity in assessment is maintained. This ensures in-house ownership, which is important for sustainability of Quality Assurance Initiative.

National Quality Assurance Standards for UPHCs have 35 Standards under 8 Areas of Concerns with 198 Measurable Elements (ME). The checkpoints of each ME have been arranged into Twelve Checklists: -General Clinic, Maternal Health, Immunization, Newborn and Child Health, Laboratory & Diagnostics, Communicable Diseases, Non-communicable diseases, General Administration, Outreach Programs, family Planning, Dressing room and Emergency Management. Evidence of compliance to each checkpoint would be gathered either by direct observation by the assessor or interviewing staff of the health facility or interviewing with beneficiaries or review of records available at the UPHC or a combination of all such methodologies. Compliance to each checkpoint would be decided in term of full compliance, partial compliance or no compliance and the checkpoint would be awarded two, one or zero marks respectively.

The assessment process generates scores for the UPHC, departments, and against each Area of Concern. These scores can be used as an objective parameter for assessing status and progress of Quality Assurance at the UPHC, as well as comparing two similar health facilities and inter-Block/ Inter-District/Inter-State comparison and Benchmarking.

Methods used for Assessment of the UPHCs

- Observation of the facility processes
- Documents/ Record Review at the Facility
- Data Collection from various Departments and Nodal officer
- Staff interviews: Discussion with Quality Nodal Officer, Deputy Medical Commissioner, MO I/c, Department in- charge and Process owners
- Patient Interviews

Areas of concern

i. **Service Provision:** This area of concern has five standards, which measures availability of the preventive, promotive, curative services, RMNCH+A, diagnostics services, Para-clinical & support services and also the services under National Health Programmes, services as per local needs or State Specific Health Programmes.

   This area of concern measures availability of committed services being available at the UPHC. It implies that all services, which are supposed to be available at an UPHC are available or alternative arrangements for their meaningful availability have been made. It needs to be appreciated that mere availability of human resources (who are capable of delivering the committed services), infrastructure, human resources, equipment, etc. does not necessarily ensure availability of the services.

ii. **Patients' Rights:** This area of concern has three standards. These standards measure different aspects of Patients right, so that services provided by UPHC are Accessible, Acceptable and Affordable.

   This includes many dimension of patients' interface with the Health System – the services are accessible, acceptable and affordable. Accessibility of the Services has many dimensions – User-friendly signage system, display of information pertaining to entitlements, citizen's charter & system of complaint management & grievance redressal. Under this area of concern, the facility needs to ensure service delivery with dignity without any differentiation on account of caste, economic status, religion, and gender. Confidentiality of patient related information and records are preserved. The information is assessed by the authorised personnel on 'Need to know' basis. Standards under

this area of concern also assesses, whether the services provided at UPHC are affordable to beneficiaries, without having any financial exclusion. Physical Access is equally important dimension of Patients' rights. Therefore, a ramp at entrance, disable friendly toilets & railings, appropriate siting of medicine counter, etc. would all be required at UPHC to comply with Quality Standards under this Area of Concern.

iii. **Inputs:** Area of concern 'C' Inputs have Four standards which measures availability of adequate and safe infrastructure in terms of space, amenities, layout, etc. qualified and trained staff, availability of Drugs, consumables, equipment and instruments.

A viable Quality Assurance System requires three components – Structure, Process and Outcome. The area of concern predominantly covers structural requirement of the facility. Separate quality standards under this group look at compliance of UPHC to availability of 'Input' component. Thus, there should be availability of minimum infrastructure which is safe, staffs is available in adequate number and the staff has knowledge and skill to deliver the UPHC mandated services, adequate quantity of drugs & consumable are available, and required equipment & instruments are there. Quality standards given in this area of concern take cognizance of the requirement of facility, which are 'essential' for the delivery of mandated health care. However, the focus is on ensuring presence of minimum level of inputs, which is needed for given case-load. The words like 'adequate' and 'as per load 'has been given in the requirements for many standards & measurable elements, as it would be hard to have uniform norm for every level of the facility.

iv. **Support Services:** Area of Concern D has 5 Standards related to facility management program, maintenance and upkeep of equipment & infrastructure to

provide safe and secure environment, inventory management & dispensing of drugs in the pharmacy, community participation, procedure for Governance and work place management, and collection and reporting of information.

The expected clinical outcome cannot be envisaged in absence of sturdy support services. Support Services have an important role in ensuring that PUHC delivers all mandated services qualitatively. This area of concern includes maintenance of critical equipment and the facility having comfortable, conducive and safe environment for patients and facility staff. The available space is clutter-free. Safe & potable drinking water is available. There is a system for calibration of measurable equipment, drug storage and inventory management, security services, facility management and power back up. The Standards for Administrative processes under this area of concern look at the functioning of RKS, financial management and legal compliances. The staff deputation and contract management have also been included here, which also includes various monitoring & reporting activities of UPHC, especially with regards to the National Health Programmes.

v. **Clinical Services:** This area of concern has nine standards that measure quality of clinical services autophagy. This includes standards on the registration, consultation, primary management and continuity of care with appropriate maintenance of records, Drug administration and Standard Treatment Guidelines, Diagnostics, Maternal health services, new-born and child healthcare, Family Planning services, Adolescent, Reproductive and sexual health and National health programs.

vi. **Infection Control:** There are four standards pertaining to hand- Hygiene, Antisepsis, availability &usage of personal protection equipment (PPE),

disinfection and sterilization of instrument processing, Biomedical and hazardous waste management

Prevalence of Hospital Acquired Infections remains unacceptably high in the country. The first principle of health care is “to do no harm”. Generally, Public health facilities have high caseload and infrastructure norms are not always met. Therefore, probability of acquiring infection remains high, unless a robust system for Infection control has been put in place. This area of concern cuts across many departments and hospital practices and looks at the Infection control practices, hand-hygiene, asepsis, personal protection, processing of equipment, environment control, and management of Biomedical Waste & Hazardous waste.

vii. **Quality Management:** Quality management requires a set of interrelated activities, which are required to be undertaken at the Health facility, so that implemented Quality System is internalised and sustained. The Quality system also contributes towards building a system of ‘Continual’ improvement. Therefore, Quality Standards under this area of concerns looks at the formation of a Quality team, development of Quality Policy & Objectives, activities for internal Quality assurance, medical & prescription audits, etc. A Quality system needs to be ‘patient-centric’. Therefore, the facility needs to institutionalise patient satisfaction survey (PSS). Satisfaction of employee is also of paramount importance. Hence, the facility is expected to have institutional arrangement of conducting ‘Employee Satisfaction Survey (ESS). One of the standards under this area of concern looks at the working with SOPs and protocols, which are needed for delivery of services at the facility.

viii. **Outcome:** Conventionally, a Quality System has three important pillars – Structure, Process & Outcome. Measurement of the quality is critical to

improvement of processes and outcomes. This area of concern has two standards. first Standard measures performance of health facility in term of Productivity, Efficiency, Clinical Care and Service Quality and the second Standard pertains to performance improvement to meet the bench-marks (set by the facility or allotted externally by the State/ District/ ULB). It is realised that the facility may not be measuring all indicators pertaining to performance of UPHC. Hence, setting a process of recording of critical data elements, which are required for KPI/ Quality indicators, would be a good beginning. Subsequently, the facilities are expected to work resolutely in improving the achieved target..

Health system in Urban Areas

There has been exponential growth in number of people living in urban area across the globe, about one third of these urban dwellers live in the slums, make-shift &informal settings. India is also witnessing similar trends with increasing population residing in the urban areas of the country. In India, proportion of the urban population has increased from 10.8 per cent in the year 1901 to 31.2 per cent in the year 2011. This is expected to increase to 50 percent over the next few decades. Between 2001 and 2011, the urban population grew by 91 million to about 377 million, and is estimated to increase by more than 200 million by 2030. Mathematical modelling reveals that this population may reach 534 million by the year 2026.

Urban population growth in India can be explained by three forces: natural population growth, net migration (from rural to urban areas), and transformation and reclassification of cities and peri-urban areas.

Growth in the Housing sector in term of availability of affordable dwelling units and expansion of civic amenities to the required extent have not kept pace with the

increasing demands of Neo-migrants. It has resulted into mushrooming of slums in the cities. Nearly one-third of India's urban population lives in the slums, which are characterised by overcrowding, poor hygiene & sanitation and the absence of proper civic services.

While the characteristics of each city may vary in term of local context, common issues pertaining to health & health-determinants are given below -

1. **Multiple Health challenges:** Urban Population is faced with double whammy of Communicable and Non-communicable Diseases, such as maternal and child health problems, natural calamities, manmade calamities, threat of re-emerging diseases, alcoholism, substance abuse, etc. The disease burden of urban poor is well known; most are the same as those that affect other urbanites, but are more pronounced and more often co-occurring. The literature corroborates and expands upon this: infant mortality rates are higher by 1.8 times in slums as compared to non-slum areas. Diarrhoea deaths account for 28 per cent of all mortality, while acute respiratory infections account for 22 per cent. Nearly 50 percent of urban child mortality is the result of poor sanitation and lack of access to clean drinking water in the urban slums. Additionally immigrants also bring along the infections, which are usually not prevalent in that town. Few of such examples are Kala-azar, Acute Encephalitis Syndrome, Malaria (p.falciparum), etc.

2. **Inadequate services & poor referrals:** Inadequate availability of Primary Health Care, which is often of sub-optimal quality, is commonly responsible for the poor access to the Public Health facilities. These facilities often function in rented accommodation, which is not adequate to deliver to full range of services. Urban slum population work in un-organised sector or they are daily wager without benefit of sick leave, etc. fear losing their daily earning further impedes their access to Public Health Facilities. Absenteeism among the facility staff, inconvenient

timing, poor availability of medicines, apathy& rude behaviour of the service providers, week coordination among stakeholders, week referral linkage from community to primary health centre and higher facilities are few other issues of Urban Health System.

3. Non-Notified slums: As per NSSO (69th round), only 49 % of the slums have been notified in the country, remaining being non-notified. Besides unlisted slum settlements, urban poor also include pavement dwellers, population residing at construction sites, brick and lime kilns, fringes of the city, floating population, etc. where access to organised health remains major challenge. Often non notified slums face the problem of access to safe drinking water, absence of sanitary latrines, poor quality of air, abundance of disease transmitting vectors, etc., making them vulnerable to infections.

4. Weak demand: Low awareness about the available services and healthy behaviours, weak community organization and social cohesion, Weak negotiation capacity, Low level of trust in the public facilities owing to irregularity and low quality are the common barriers. These reasons discourage the people from availing the services at Urban Public Health Facilities.

5. Struggle for subsistence: Struggle for subsistence and weak family support, pressing need to resume wage earning, sub-optimal household behaviour, constant threat of eviction lead to poor attention toward health issues

6. Multi-dimensional Vulnerability: Urban poor are usually vulnerable for many reasons, few of which are given below –

- Irregular employment,
- Poor access to water and sanitation services, overcrowding, poor housing, and insecure land tenure
- Temporary and recent migrants often denied access to health services

- Difficult to track for follow-up health services
- High prevalence of diarrhoea, fever, and cough among children
- Lack of organized community efforts in slums

Review of Literature

Mark R. Chassin and Robert W. Galvin (1998) – This paper concludes that the quality of health care can be precisely defined and measured with a degree of scientific accuracy comparable with that of most measures used in clinical medicine. Serious and widespread quality problems exist throughout American medicine. These problems, which may be classified as underuse, overuse, or misuse, occur in small and large communities alike, in all parts of the country, and with approximately equal frequency in managed care and fee-for-service systems of care. Very large numbers of Americans are harmed as a direct result. Quality of care is the problem, not managed care. Current efforts to improve will not succeed unless we undertake a major, systematic effort to overhaul how we deliver health care services, educate and train clinicians, and assess and improve quality.

Vuori H (1987) - Systematic measurement of patient satisfaction is seldom included in routine quality assurance (QA) programs. Practical reasons have been given to explain this omission: the mental and physical state of patients, their lack of the necessary scientific and technical knowledge, the rapid pace of events of care, and methodological problems related to measuring patient satisfaction. However, a strong case can be made to include patient satisfaction in QA, including ethical considerations, philosophical changes occurring in the health care field, and a clear definition of the impact of patient satisfaction on quality care. This article concludes that patient satisfaction is part and parcel of quality health care; that patients are capable of assessing the quality of care; and that patient satisfaction can be measured.

John K. Iglehart (1996) - The quality of medical care provided by managed-care plans is an increasingly complicated and controversial topic. Traditionally, the quality of care has been measured by professional judgment, often rendered subjectively in individual

cases. Now, as health care delivery and financing are being reordered by the rapid growth of managed care, physicians and the health plans with which they contract are being called to greater account for the quality of the services they provide. The scrutiny is coming largely from corporations and governments, which are concerned that as health plans compete, they may stint on services to reduce prices.

M.A.A. Hasin**,** Roongrat Seeluangsawat, M.A. Shareef, (2001) – This paper concludes that applications of TQM tools and techniques in health care service industry are widely advocated, determination of customer satisfaction and factors of dissatisfaction in the hospitals has become enormously important as the main ingredient of TQM. This paper aims at determining the elements of customer satisfaction, by collecting information through survey, using both written questionnaire and interview, and then statistically determining correlation between factors and elements of dissatisfaction. The study is performed at the Muang Petch Thonburi Private Hospital, located in Petchaburi province of Thailand. The aim of the management is to gather information on customer satisfaction levels and factors of dissatisfaction that need to be addressed and subsequently eliminated in the near future.

Kasper JF , Mulley AG Jr and Wennberg JE (1992) - We strongly believe in the importance of patient involvement in a medical decision. The interactive SDPs appear to be an effective way to facilitate this involvement. One key to the acceptance of these programs by patients and physicians is that they be--and be perceived as--fair, accurate, and balanced. Herein we have described the well-defined protocol for developing, evaluating, and updating SDPs. The first of the foundation's programs dealing with benign prostatic hyperplasia has been well received by patients and clinicians and has been demonstrated to have an impact on practice patterns. Efforts are under way to evaluate four additional programs, leading to widespread availability of the first five

SDPs by fall of 1992.

Robert Henry Brook (1980) - We review here the definition, history, and current findings of quality assessment. Difficulties with quality assessment centre principally on methods, problems, including using the medical record as a source of information, using process versus outcome criteria, and ignoring decision analysis methods in establishing quality criteria. One overriding issue is placing a value on health and, by extension, on quality assurance and assessment efforts; another is the degree to which improvements in the quality of care can be achieved through changes in physician practices. Several sets of recommendations address these topics. With the assumption that such recommendations could be acted on in a transition period, a hypothetical quality assurance system is described for the 1980s and beyond. This system is based on preservation of the fee-for-service system, adoption of a national health insurance plan, and minimal federal involvement in quality of care decisions at the regional level.

Hampson S, Hart. J, et al (2003) – This paper concludes that the areas identified where further research may be warranted are - review of the effects of satisfaction on health behaviours and health outcomes is needed in order to establish the importance to health services, and to individuals, of fostering satisfaction. With respect to methodological issues, research is needed on the effect of timing of surveys on reported satisfaction, the extent of bias introduced by interviewers, cross-cultural issues and adaptations, how consumer feedback can be incorporated into healthcare decision making, including the development of measures of relative preference. With respect to the role of expectations, research is needed to classify different types of expectations and explore how consumers operationalize these in evaluations, identify influences on expectations, examine the relationship between socio demographic factors and expectations. There is a need to explore how different types of illnesses and health outcomes affect

evaluations. Research is needed to explore the effect of different incentive structures on physician behaviour and patient satisfaction.

O'Leary MR (1992) - The transition from quality assurance to quality improvement is at an early stage, but it clearly has begun. The progressive anticipated changes in the tone and content of JCAHO standards will place the JCAHO in a different posture in relation to accredited hospitals. Standards are of course a set of requirements that must be met as a condition of accreditation. But the JCAHO's bottom line expectation will be a meaningful and demonstrated improvement in hospital performance. How hospitals reach this objective is their business. This shifts the onus of responsibility to where it belongs and suggests a more facilitative role for the JCAHO. Although the JCAHO is introducing standards requirements that are minimally essential to the achievement of improved performance, full-fledged adoption of CQI concepts will not be mandated. Management structures and styles in health care organizations vary considerably, and CQI is but one means to the desired end of improved performance. We believe, however, that it is the best means and that most organizations will discover this for themselves. Notwithstanding the magnitude of needed internal behavioural change, excellence in performance is what most health care organizations want for themselves and their patients. CQI offers them the opportunity to reach this lofty goal.

David Nevalainen, et al (2000) - The medical audit is an important component of a comprehensive mammography quality assurance program. It provides a direct assessment of one's ability to detect otherwise occult breast cancer, the ultimate indicator of mammography performance. Audits must be properly planned, executed, interpreted, and used. The audit that shows successful clinical results can be used to build and maintain a high state of morale among mammography personnel as well as to encourage new and repeat referrals to a mammography practice. The audit that uncovers a deficiency in clinical performance can be instrumental in helping to plan remedial

measures that correct the problem.

Lucia Berte, et al (1999) - Historical quality assurance programs do not appear to be significantly improving the total testing process. Manufacturing and service industries are using quality systems strategies, such as ISO 9000 and the Baldridge Award Criteria, to effect improvements in both productivity and cost. Quality system solutions for performance improvement may provide a systematic approach to improving laboratory performance.

Troyen A. Brennan, et al (1990) - The overwhelming majority of adverse events and episodes of negligent care are discoverable with the methods we used to evaluate medical records. Quality assurance efforts using similar record review methods should be further evaluated.

John Ovretveit (2001) - By 2005 all healthcare organizations in Europe will be required to take part in a quality evaluation scheme and to collect data about the quality of their service. Hospitals and doctors will need to prove they are safe—quality is no longer assumed. These were the predictions of a recent workshop of Nordic quality experts. The pressures to assess quality are increasing, and there are many assessment, certification, accreditation and measurement schemes in use. Which is best? What evidence is there that any have been effective? How should a hospital or region introduce such a scheme? There are many proponents for different schemes, and an increasing amount of experience to help answer these questions, but little research.

This paper provides an overview for non-specialists of the different quality evaluation and indicator schemes for inspection and improvement. It draws on the experiences of quality specialists and leaders in each Nordic country who have applied the schemes in public hospitals and healthcare services.

How a scheme is introduced and used may be more important than which particular scheme is chosen. This is one conclusion of the Nordic workshop. Other conclusions are that there is a need for clinicians to be involved, a need to balance simplicity and low cost with scientific validity and credibility with clinicians, and a need for research into different schemes to discover their costs and benefits in healthcare

Mohsin Muhammad Butt, Ernest Cyril de Run (2010) - This paper seeks to develop and test the SERVQUAL model scale for measuring Malaysian private health service quality. The study consists of 340 randomly selected participants visiting a private healthcare facility during a three-month data collection period. Data were analyzed using means, correlations, principal component and confirmatory factor analysis to establish the modified SERVQUAL scale's reliability, underlying dimensionality and convergent, discriminant validity. Results indicate a moderate negative quality gap for overall Malaysian private healthcare service quality. Results also indicate a moderate negative quality gap on each service quality scale dimension. However, scale development analysis yielded excellent results, which can be used in wider healthcare policy and practice. Respondents were skewed towards a younger population, causing concern that the results might not represent all Malaysian age groups. The study's major contribution is that it offers a way to assess private healthcare service quality. Second, it successfully develops a scale that can be used to measure health service quality in Malaysian contexts.

Elizabeth A. McGlynn, et al (2003) – The paper concludes that the deficits they have identified in adherence to recommended processes for basic care pose serious threats to the health of the American public. Strategies to reduce these deficits in care are warranted.

John Storey (2012) - In the light of public concern and of strong policy emphasis on quality and safety in the nursing care of patients in hospital settings, this paper aims to focus on the factors affecting the adoption of innovative quality assurance technologies.Two sets of complementary literature were mined for key themes. Next, new empirical insights were sought. Data gathering was conducted in three phases. The first involved contact with NHS Technology Hubs and other institutions which had insights into leading centres in quality assurance technologies. The second phase was a series of telephone interviews with lead nurses in those hospitals which were identified in the first phase as comprising the leading centres. The third phase comprised a series of face to face interviews with innovators and adopters of healthcare quality assurance technologies in five hospital trusts. There were three main sets of findings. First, despite the strong policy push and the templates established at national level, there were significant variations in the nature and robustness of the quality assurance toolkits that were developed, adapted and adopted. Second, in most of the adopting cases there were important obstacles to the full adoption of the toolkits that were designed. Third, the extent and nature of the ambition of the developers varied dramatically – some wished to see their work impacting widely across the health service; others had a number of different reasons for wanting to restrict the impact of their work. The general concerns about front-line care and the various inquiries into care quality failures emphasise the need for improved and consistent care quality assurance methodologies and practice. The technology adoption literature gives only partial insight into the nature of the challenges; this paper offers specific insights into the factors inhibiting the full adoption of quality assurance technologies in ward-based care.

Krishna Dipankar Rao (2004) - Improving health care quality is an important means of increasing the effectiveness of health systems in developing countries. Patient

perceptions of quality influences demand for health services, a longstanding concern for many developing countries like India. Patient quality perceptions can also complement traditional methods of quality evaluation in important ways and make health systems more responsive to patient needs. This study has two broad objectives. First, to develop an instrument for measuring patient perceptions of quality and satisfaction in India. Second, to evaluate the effect of quality improvement on patient perceptions of quality, patient satisfaction and new outpatient visits. This study reports on a project in the state of Uttar Pradesh in north India which introduced basic quality improvements at district hospitals (DH), female district hospitals (FDH), community health centres (CHC) and primary health centres (PHC). The quality improvements included building renovation, ensuring adequate staff, medical supplies, drugs, equipment and providing management and motivational training to staff. It is hypothesized that the project would have a positive effect on all three outcomes. The project was initiated in 2000 and data for this study comes from an evaluation survey conducted in 2003.

Seth W. Glickman (2007) - Although agreement about the need for quality improvement in health care is almost universal, the means of achieving effective improvement in overall care is not well understood. Avedis Donabedian developed the structure–process– outcome framework in which to think about quality-improvement efforts. There is now a robust evidence-base in the quality-improvement literature on process and outcomes, but structure has received considerably less attention. The health-care field would benefit from expanding the current interpretation of structure to include broader perspectives on organizational attributes as primary determinants of process change and quality improvement. We highlight and discuss the following key elements of organizational attributes from a management perspective: (i) executive management, including senior leadership and board responsibilities (ii) culture, (iii)

organizational design, (iv) incentive structures and (v) information management and technology. We discuss the relevant contributions from the business and medical literature for each element, and provide this framework as a roadmap for future research in an effort to develop the optimal definition of ‘structure’ for transforming quality-improvement-initiatives.

Mark Myatt, et al (2003) - Lot quality assurance sampling provides a method of classifying communities according to the prevalence of active trachoma. It merits serious consideration as a replacement for the assessment of the prevalence of active trachoma with the currently used trachoma rapid assessment method. It may be extended to provide a multi-class classification method.

Objectives

To identify the gaps and comparative analysis in the UPHCs according to the 8 areas of concern using National Quality Standards.

Specific Objective

- To identify the areas of concern for the quality of care for the UPHC
- To identify the best practices that are followed in the UPHC

Methodology

- Study Design- Descriptive Cross sectional study
- Study Area- Patiala and Bathinda District, Punjab.
- Duration of study- 17th March'17 to 10th May'17.
- Study Population- Patients, Patient attendants, Staff Nurses, Nodal Officers, Medical Officers, Pharmacist, Lab Technician, ANM, ASHA workers,
- Sample frame – Urban slum population of UPHC Paras Ram Nagar, Janta Nagar, Bathinda, Punjab, UPHC Anand Nagar B, New Yadwindra Colony, Arya Samaj, Patiala, Punjab
- Sample Size-

  UPHC Paras Ram Nagar, Bathinda, Punjab

  UPHC Janta Nagar, Bathinda, Punjab

  UPHC Anand Nagar B, Patiala, Punjab

  UPHC New Yadwindra Colony, Patiala, Punjab

  UPHC Arya Samaj, Patiala, Punjab
- Sampling Technique- Convenient Sampling.
- Data Collection Method- Checklist

- Data Type Collected

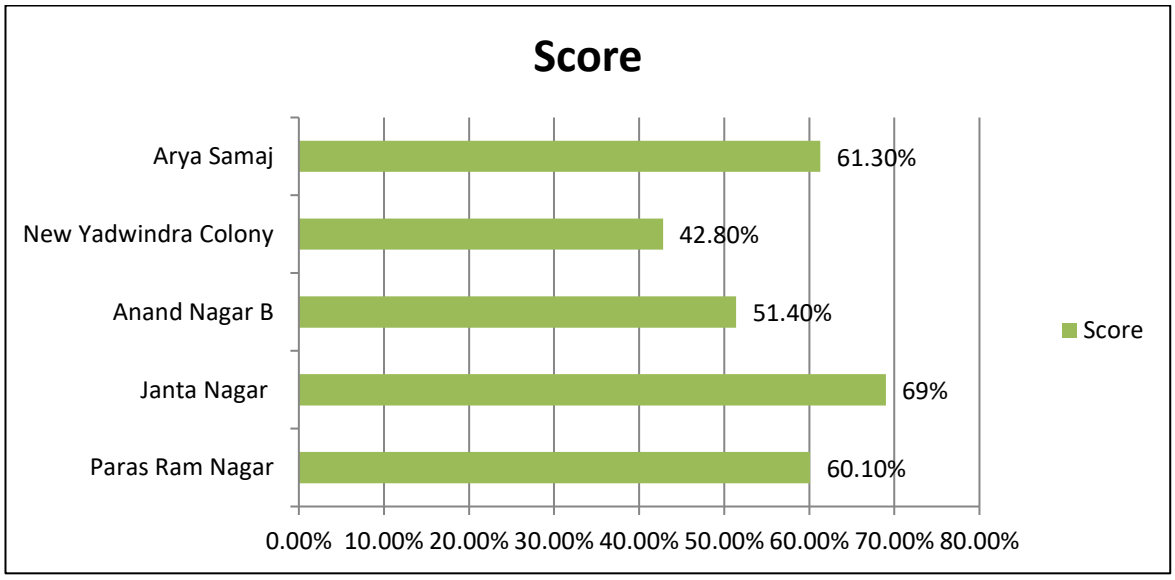
  Primary source – Patient Interview, Staff Interview, Observation and Record Review as per the checklist parameters.

- Data Analysis- Pareto Analysis using Microsoft Office Excel Worksheet.

Research Findings

Score of all UPHCs evaluated

Name of UPHC	Score
Paras Ram Nagar, Bathinda, Punjab	**60.1%**
Janta Nagar, Bathinda, Punjab	**69%**
Anand Nagar B, Patiala, Punjab	**51.4%**
New Yadwindra Colony, Patiala, Punjab	**42.8%**
Arya Samaj, Patiala, Punjab	**61.3%**



Janta Nagar has scored highest amongst the UPHCs followed by Arya Samaj, Paras Ram Nagar. Anand Nagar B and New Yadwindra colony has scored low .

Table1 Thematic wise score card for UPHC Anand Nagar B

UPHC Quality Score Card			
Dressing Room & Emergency	**General Clinic**	**Maternity Health**	**New Born & Child Health**
51.6	**71.2**	**74.4**	**62.6**
Immunization	**UPHC Score**		**Family Planning**
62.7			**45.3**
Communicable Disease	**51.4**		**Non Communicable Disease**
36.5			**28.9**
Outreach	**Pharmacy**	**Laboratory**	**General Administration**
71.3	**61.0**	**0.0**	**54.1**

Table 2 Area of Concern wise score card for UPHC Anand Nagar B

HOSPITAL QUALITY SCORE CARD			
AREA OF CONCERN WISE			
Service Provision 53.5%	**Patient Rights** 70.0%	**Inputs** 52.8%	**Support Services** 57.6%
HOSPITAL SCORE 51.4%			
Clinical Services 53.7%	**Infection Control** 67.9%	**Quality Management** 13.4%	**Outcome** 15.6%

Table 3 Thematic wise score card for UPHC New Yadwindra Colony

UPHC Quality Score Card			
Dressing Room & Emergency	**General Clinic**	**Maternity Health**	**New Born & Child Health**
0.0	**60.1**	**68.3**	**48.9**
Immunization	**UPHC Score**		**Family Planning**
60.1			**43.5**
Communicable Disease	**42.8**		**Non Communicable Disease**
37.3			**25.9**
Outreach	**Pharmacy**	**Laboratory**	**General Administration**
68	**51.8**	**0.0**	**44.8**

Table 4Area of Concern wise score card for UPHC New Yadwindra Colony

HOSPITAL QUALITY SCORE CARD			
AREA OF CONCERN WISE			
Service Provision 45.3%	**Patient Rights** 56.5%	**Inputs** 42.9%	**Support Services** 50.7%
HOSPITAL SCORE 42.8%			
Clinical Services 48.8%	**Infection Control** 51.9%	**Quality Management** 5.7%	**Outcome** 12.2%

Table 5 Thematic wise score card for UPHC Arya Samaj

UPHC Quality Score Card			
Dressing Room & Emergency	**General Clinic**	**Maternity Health**	**New Born & Child Health**
53.6	**73.6**	**78.5**	**60.9**
Immunization	**UPHC Score**		**Family Planning**
70.9			**49.4**
Communicable Disease	**61.3**		**Non Communicable Disease**
42.9			**28.3**
Outreach	**Pharmacy**	**Laboratory**	**General Administration**
73.5	**72.0**	**69.0**	**55.2**

Table 6 Area of Concern wise score card for UPHC Arya Samaj

HOSPITAL QUALITY SCORE CARD			
AREA OF CONCERN WISE			
Service Provision 64.9%	**Patient Rights** 72.7%	**Inputs** 67.5%	**Support Services** 67.2%
HOSPITAL SCORE 61.3%			
Clinical Services 62.5%	**Infection Control** 87.5%	**Quality Management** 14.2%	**Outcome** 21.1%

Table 7 Thematic wise score card for UPHC Janta Nagar

UPHC Quality Score Card			
Dressing Room & Emergency	**General Clinic**	**Maternity Health**	**New Born & Child Health**
63.7	**80.3**	**78.9**	**66.1**
Immunization	**UPHC Score**		**Family Planning**
76.6			**71.8**
Communicable Disease	**69.0**		**Non Communicable Disease**
57.1			**34.9**
Outreach	**Pharmacy**	**Laboratory**	**General Administration**
75.3	**83.9**	**71.1**	**64.7**

Table 8 Area of Concern wise score card for UPHC Janta Nagar

HOSPITAL QUALITY SCORE CARD			
AREA OF CONCERN WISE			
Service Provision 66.8%	**Patient Rights** 75.8%	**Inputs** 81.3%	**Support Services** 82.5%
HOSPITAL SCORE 69.0%			
Clinical Services 76.6%	**Infection Control** 93.3%	**Quality Management** 7.7%	**Outcome** 7.9%

Table 9 Thematic wise score card for UPHC Paras Ram Nagar

UPHC Quality Score Card			
Dressing Room & Emergency	**General Clinic**	**Maternity Health**	**New Born & Child Health**
61.6	**72.1**	**74.8**	**62.1**
Immunization	**UPHC Score**		**Family Planning**
62.7			**58.2**
Communicable Disease	**60.1**		**Non Communicable Disease**
49.6			**28.3**
Outreach	**Pharmacy**	**Laboratory**	**General Administration**
64.9	**70.2**	**56.1**	**57.2**

Table 10 Area of Concern wise score card for UPHC Paras Ram Nagar

HOSPITAL QUALITY SCORE CARD			
AREA OF CONCERN WISE			
Service Provision 54.4%	**Patient Rights** 75.8%	**Inputs** 70.4%	**Support Services** 66.8%
HOSPITAL SCORE 60.1%			
Clinical Services 67.3%	**Infection Control** 89.1%	**Quality Management** 4.9%	**Outcome** 0.0%

Observation and Thematic Gaps in Departments for all UPHCs

1. **General Clinic**

General Clinic is operational from 09:00 am to 03:00 pm in the morning and 3:00 pm to 6:00 pm in the evening hours for 6 days a week. The Medical Officer I/C was available in the clinic hours and was attending the patients in a serial order. The behaviour of the staff was also courteous. 5 Rupees are charged for the OPD slip from the patients excluding children below 1 year, girl child, pregnant women and government employees (State guidelines).

The space in the clinic is inadequate as per the patient load. The OPD Room is shared with Staff Nurse where she does the counselling of patients during OPD hours.

Quality and Outcome indicators needs to be worked out for better results. Gaps observed as per the checklist are:

- Non- functional AYUSH clinic
- Non availability of Adolescent friendly clinic.
- Clinic is shared by the morning doctor and Staff nurse
- Non availability of Warmers.
- Snellen's Chart, Otoscope, tongue depressor and X- Ray view box were not available in the OPD
- Footstep was not available at the facility.
- Medical certificates are not being issued at the facility
- Facility does not ensure follow up of patients
- Prescription is not updated for follow up visits
- Standard treatment guideline were not available at point of use
- Except for the MO no other staff member was aware of the drug regime and doses as per STG

- Non availability of emergency contraceptive pills.
- No Information and advice on sexual and reproductive health related issues was being provided at the facility
- No MVA procedure for pregnancy up to 8 week Post abortion counselling was being done at the facility.
- Non availability of IEC Corner.
- Haemoglobin estimation and treatment for worm infestation was not being done at the facility.
- No Treatment and counselling for sexual concern for male and female adolescents
- No Management of sexual abuse amongst Girls
- No Referral Linkages to ICTC and PPTCT
- Non Availability of Alcohol based Hand rub
- Standard Operating procedures are not prepared , distributed and implemented for all key processes
- ARSH OPD per month not recorded.
- AYUSH OPD per month not recorded.
- Percentage of follow up patients was not recorded.
- Facility does not measure Clinical Care & Safety Indicators on monthly basis
- Facility does not measure Service Quality Indicators on monthly basis
- No Trends analysis of Indicators is done at Periodic Intervals
- Quality and Outcome Indicators needs to be followed as per the thematic checklist

2. Maternal Health

Fixed days in a week (Every Wednesday) is dedicated for ANC checkups, patients are entertained on other days also. As per the National guidelines, the facility also organizes regular Pradhan Mantri Surakshit Matritva Yojana on 9th day of every month. Regular outreach activities (4 per month) are conducted by the ANM's. In addition, every Wednesday has been dedicated for UHND's in which the beneficiaries are provided with the Counselling services like Breastfeeding, Nutrition, National and State Schemes, New born care etc.

The facility has 3 ANMs, and under each ANM there are 2 ASHA workers that cover a population of approx. 30,000. The ANMs cover almost 16 private schools for various school health programs and 10 Anganwadi centers. MCTS and HMIS reporting are done by the Data Entry Operator available at Mata Kaushalya Civil Hospital on a regular basis.

Gaps identified as per the thematic checklist are as follows:

- No IEC corner available at the facility
- Non availability of warmer
- No Training of Doctor for IMNCI
- Non Availability of Instruments and Equipment for ANC Check up
- There is no system of follow up of the patients referred to higher facilities
- There is no system of keeping copy of ANC information like LMP, EDD, Lab Investigation Findings , Examination findings etc. with them
- Staff does not have knowledge of calculating expected pregnancies in the area
- No measurement of fundal height is done
- No Auscultation for foetal heart sound

- No Breast examination is done
- Haemoglobin test is not done on every ANC visit, the patient is sent to higher facility.
- Urine test for Sugar and Protein is not done on every ANC visit, the patient is sent to higher facility.
- Blood Grouping and RH Typing is not done for every pregnant woman
- Testing of PW for Gestational Diabetes Mellitus (GDM) is not done as per protocols
- Pregnant women is not counselled for Family planning
- There is no established procedures for Postnatal visits & counselling of Mother and Child
- Non Availability of functional needle cutters
- Staff is not aware of contact time for disinfection of sharps
- Internal Assessment of the Maternity Health services was done 8 months ago.
- Standard Operating procedures are not prepared , distributed and implemented for all key processes
- Work Instruction for Abdominal Examination is not displayed at point of work
- Percentage of Anaemia cases treated successfully at PHC is not recorded
- Facility does not measure Clinical Care & Safety Indicators on monthly basis
- No Trends analysis of Indicators is done at Periodic Intervals
- Quality and outcome indicators needs to be worked out for better results

3. Newborn and child Health

The newborn and child health services at the facility are performed at the General Clinic by the team of Doctor and ANM's. The ASHA's maintain updated the records of newborns in their respective areas and provide the beneficiaries with the relevant health care & counselling services. The facility has provision of immediate transfer of the severe cases to the nearby Civil Hospital in case of any emergency.

Following gaps were observed as per the thematic checklist:

- Emergency care of anaemic, Pneumonia, Diarrhoeal Children is not done at the facility.
- No Management of fever & seizures cases among children
- No Primary Management of paediatric RTA cases
- Non availability of IEC Corner.
- Evening doctor is not available.
- No Training of Doctor for IMNCI /FIMNCI
- Training of staff nurse/ ANM SBA, DAKSHTA, BLS/CPR and Skill lab was not done
- Except for the MO no other Staff member was trained for BLS/CPR
- Non availability of oral drugs
- Non availability of emergency drugs
- Non-availability of Infantometer, Stadiometer, Otoscope, View box, Ambu-bag, Laryngoscope and ET tube
- Non Availability of resuscitation equipment
- Advance communication is not done with higher centre
- Referral out register was not maintained

- Facility does not ensure the follow up of referred patients
- No Primary management of emergency signs newborns
- Non Availability of ORT corner
- Staff is not aware & does not Practice ETAT
- Standard Operating procedures are not prepared , distributed and implemented for all key processes
- No Display of method for preparation of ORS
- Facility does not measure Productivity Indicators on monthly basis
- Facility does not measure efficiency Indicators on monthly basis
- Facility does not measure Clinical Care & Safety Indicators on monthly basis
- No Trends analysis of Indicators is done at Periodic Intervals
- Quality & Outcome indicators need attention

4. Immunization

Immunization services are provided in the ANC room and staff at the facility was well verse with guidelines of Universal Immunization Program. There is provision of Immunization Day cum ANC checkups on every Wednesday on a regular basis. Outreach sessions also cover Immunization services.

Gaps identified are

- Except for the fixed day for immunization the facility does not provide immunization services
- HBV and JE vaccine are not available.
- No adequate space for carrying out immunization activities
- No Training of Cold chain handlers on immunization
- Non Availability of Vaccines at Immunization Clinic
- Emergency Drug Tray is not maintained at Immunization Room
- Ice packs not available
- Non-availability of formats for First Information Report & Preliminary Investigation at the facility
- Staff was not aware of Cycle time for reporting FIR or PIR
- Non Availability of diluents for Reconstitution of measles vaccine
- Recommended temperature of diluents is not ensured before reconstitution
- Staff is not aware of how to check freeze damage for T-Series vaccines
- AD syringes are not available as per requirement
- Vaccine recipient is not asked to stay for half an hour after vaccination to observer any adverse effect following immunization
- Except for the MO no other Staff member has knowledge & skills to recognize minor and serious adverse events (AEFI)

- Non Availability of functional needle cutters
- Staff is not aware of contact time for disinfection of sharps
- Non Availability of post exposure prophylaxis
- Except for the MO no other Staff member know what to do in condition of needle stick injury
- Standard Operating procedures are not prepared , distributed and implemented for all key processes
- Work instructions are not displayed at Point of work
- Facility does not measure Clinical Care & Safety Indicators on monthly basis
- No Trends analysis of Indicators is done at Periodic Intervals
- Quality management & Outcome indicators were not followed

5. Family Planning

The facility does not provide services for IUCD insertion under Family planning, non-availability of functional instruments. The patients are referred to the Civil Hospital for IUCD insertion and MTP services.

Identified gaps as per the thematic checklist are:

- Emergency contraceptive pills were not available at the facility.
- Non-availability of interval IUD services
- No Primary Management of spontaneous cases of abortion
- Models and specimens of contraceptives not available.
- Non Availability of screens/Curtains at IUD insertion area
- No demarcated room for IUD insertion services was available
- Staff was not trained for IUD insertion, MVA / Medical Abortion
- Mifepristone & Misoprostol were not available.

- Non-availability of adequate furniture for IUD insertion
- Non Availability of functional equipment and instruments for support & outreach services
- Non Availability of Records for Family Planning services and abortion
- Facility does not provide abortion services for 1st trimester as per guideline
- Patient Satisfaction surveys are not conducted at periodic intervals
- Standard Operating procedures are not prepared , distributed and implemented for all key processes
- Staff is not trained as per SOPs
- Work instructions are not displayed at Point of work
- Facility does not measure Productivity Indicators on monthly basis
- Facility does not measure efficiency Indicators on monthly basis
- Facility does not measure Clinical Care & Safety Indicators on monthly basis
- No Trends analysis of Indicators is done at Periodic Intervals
- Quality & Outcome Indicators need immediate attention

6. Communicable disease

Sputum smears are prepared by the ASHA workers at outreach services and sent to higher facilities for diagnosis and treatment for DOTS is provided at the facility.

Following gaps are identified as per the thematic checklist:

- Facility does not provide services under NVBDCP
- No Case detection & Early diagnosis of TB
- The facility does not provide services under National Leprosy Eradication Programme as per guidelines

- The facility does not provide services under National AIDS Control Programme as per guidelines
- The facility does not Provide services under Integrated Disease Surveillance Programme as per Guidelines
- Non Availability &display of IEC material for RNTCP
- Non Availability &display of IEC material for NVBDCP
- Non availability of doctor during evening OPD
- Non availability of Public Health Manager
- No training of staff under RNTCP, NACP and Leprosy
- Non Availability of drugs under NVBDCP
- Non Availability of Drugs for National Leprosy Eradication Program
- The facility does not provide monitoring and reporting services under National Vector Borne Disease Control Programme as per guidelines
- The facility does not provide services monitoring and reporting services under Revised National TB Control Programme, as per guidelines
- The facility does not provide monitoring and reporting services under National Leprosy Eradication Programme as per guidelines
- The facility does not provide services under National AIDS Control Programme, as per guidelines
- The facility does not provide monitoring and reporting service for Integrated Disease Surveillance Programme, as per guidelines
- Non Availability of Form / Format for testing and Diagnosis of TB under RNTCP
- Standard Operating procedures are not prepared , distributed and implemented for all key processes
- Work instructions are not displayed at Point of work

- Facility does not measure Productivity Indicators on monthly basis
- Facility does not measure efficiency Indicators on monthly basis
- Facility does not measure Clinical Care & Safety Indicators on monthly basis
- No Trends analysis of Indicators is done at Periodic Intervals
- Quality and outcome indicators also needs attention

7. Non Communicable Diseases

The staff does counselling of the population for making them aware of the NCD's in the facility and at the outreach sessions as well.

The identified gaps are as follows:

- The facility does not provide services under Mental Health Programme as per guidelines
- The facility does not provide services under National Programme for the health care of the elderly as per guidelines
- The facility does not provide services under National Programme for Prevention and control of Cancer, Diabetes, Cardiovascular diseases & Stroke (NPCDCS) as per guidelines
- The facility does not provide services under National health Programme for deafness
- The facility does not provide services under National Oral Health Care Program
- Non Availability & display of IEC material under National blindness control program, mental health program, National deafness control program and NPCDCS
- No Training of MO for mental health program

- No Training of Health Worker for Mental health Program
- No training of staff under National deafness control program, NPCDCS and national program for elderly
- Non-availability of Snellen's Chart
- Non Availability of Glucometer
- Facility does not monitor & submit the report under NBCP, MHP, NPHCE, NPCDCS, iodine deficiency program
- Non availability of referral slip, and no information about the specialist doctors and there timings and day was available
- There is no system of follow up of the patients referred to higher facilities
- Standard Operating procedures are not prepared , distributed and implemented for all key processes
- Work instructions are not displayed at Point of work
- Facility does not measure Productivity Indicators on monthly basis
- Facility does not measure efficiency Indicators on monthly basis
- No Trends analysis of Indicators is done at Periodic Intervals

8. Dressing room and emergency

The facility does not have any demarcated area for dressing and Emergency care services. The services are provided at General admin and records department by the staff under the supervision of the Medical Officer.

Gaps identified as per the checklist are:

- Incision & Drainage, Stitching Services were not available at the facility
- No Primary Management of trauma & bone injuries
- No Emergency Management of Life threatening conditions

- No First Aid and Referral of Burn and Injury cases
- Non Availability of Medico legal Services, as per state's guidelines. Cases were referred to the Civil hospital
- Services for Primary Management & stabilization of Poisoning / Snake Bite or Dog bite cases were not available
- Except for the MO no other Staff member was not trained for BLS/CPR, Primary Management & stabilization of life threatening conditions like snake poisoning
- Dressing cum emergency area has inadequate space
- No Training of staff for handling Emergencies
- Non Availability of injectables
- Emergency Drug Tray is not maintained
- Non Availability of disposables in dressing area/ Injection room and clinics
- Non Availability of splints for bone injury cases
- Tongue depressor, footstep not available
- No Referral out register is maintained
- Emergency protocols are not available at point of use
- Staff is not trained for Blood spill management
- Updated SOP are not available at point of use
- Facility does not measure Productivity Indicators on monthly basis
- Facility does not measure Clinical Care & Safety Indicators on monthly basis
- Facility does not measure Service Quality Indicators on monthly basis
- No Trends analysis of Indicators is done at Periodic Intervals
- Service provision, Quality and Outcome Indicators were non- adherent

9. Pharmacy

The facility has dedicated room for Pharmacy cum Dispensing counter which is manned by a skilled and experienced Pharmacist.. The pharmacist is skilled for drug dispensing and inventory management and is responsible for the upkeep of the records of the Pharmacy. Gaps found as per the thematic checklist are as follows:

- No Cold chain management services
- Vaccine for Japanese Encephalitis was not available
- No Provision of shaded area in front of Drug Dispensing Counter
- Pharmacist is not skilled for Cold Chain Management
- Following drugs were not available in pharmacy / facility store – Antidotes and other substances used in Poisoning, antiepileptics, Antihelmenthics, antianginal, hormones, Plasma Substitutes, Laxatives, Immunologicals and Oxytocics
- Non Availability of ILR & Deep freezer for cold chain
- Bin card system was not in use
- VED Checklist was not available
- Drugs are not arranged in demarcated boxes /containers /trays
- No Periodic and random sampling of drugs for monitoring and quality control
- SOP's were not available at the point of use
- Facility does not measure Productivity Indicators on monthly basis
- Facility does not measure Clinical Care & Safety Indicators on monthly basis
- Facility does not measure Service Quality Indicators on monthly basis
- No Trends analysis of Indicators is done at Periodic Intervals
- Quality and Outcome indicators were non-adherent

10. Laboratory

The facility does not have a Laboratory and a Lab Technician.

Patients are referred to the Civil Hospital for the tests.

11. Outreach Services

Outreach services are carried out by the facility in the form of camps organised quarterly in a month. The sessions include the services like ANC, Identification of high risk pregnancies, sick infants, RTI/STI cases , lab investigations, Immunization, Counselling, Condom promotion and distribution among high risk groups, Preparation of sputum smears by the ASHA workers.

Gaps identified as per the thematic checklist include the following:

- No Organization of Adolescent Health Day
- The facility does not provide services under National Leprosy Eradication Programme as per guidelines
- The facility does not provide services under National AIDS Control Programme as per guidelines
- No Identification and referral of common mental illness
- No Detection and referral of cases of hearing impairment
- No Testing of salt for presence of Iodine through salt testing kits
- No Health education on oral health and Hygiene
- No Mapping of vulnerable section has been carried out in all areas served by UPHC
- Facility does not prepare micro plan for covering the vulnerable population
- Facility does not monitor adherence to the micro plan
- Facility does not update the list of vulnerable population on regular interval

- There is no system of receiving grievances if services are not being provided during outreach sessions
- There is no system of taking feedback from ASHAs to improve the services
- The facility does not have an established procedure for supporting and monitoring activities of Mahila Arogya Samiti
- The facility does not provide monitoring and reporting service for Integrated Disease Surveillance Programme, as per guidelines
- The facility does not provide monitoring and reporting services under Universal Immunization Programme, as per guidelines
- ANM/ASHA has no defined format for referring patients to UPHC
- No Follow up of referred patients by ASHA & ANM
- ANM & ASHA do not prepare micro plan for home visits for follow up of discharged patients
- There is no system of monitoring so that drugs are not irrationally prescribed by ASHA/ANM
- Staff is not skilled of calculating expected pregnancies in the area
- Hemoglobin and Urine test is not done on every ANC visit , patient referred to civil hospital
- No History Taking and Examination is done during the postnatal visits
- No Distribution of Chloroquine in endemic area
- Staff is not skilled to fill form S
- No Specific Quality Objectives are set for Outreach services
- Quality of outreach services are not reviewed during Monthly quality team meeting
- Patient Satisfaction surveys are not conducted at periodic intervals
- Employee satisfaction Surveys are not conducted at periodic intervals

- Standard Operating procedures are not prepared , distributed and implemented for all key processes
- Staff is not trained as per SOPs
- Trends analysis of Indicators is not done at Periodic Intervals

12. **General Administration**

Following are the identified gaps as per the checklist which would be helpful for further improvement of quality standards at the facility for better health delivery to the vulnerable groups:

- The facility provides services for minor injury cases and is not able to handle emergencies
- UPHC is functional in evening hours but no doctor is available during evening
- Medical certificates are provided at the facility but with no format and records were also not available.
- Facility lay out with Directions to different departments are not displayed
- Non-availability of Citizen Charter
- Non Availability of IEC corner
- There is no defined frequency of collecting complaints from complaint box
- Records of patient complaints suggestion are not maintained
- There is no system of periodic review of patient complaints
- There is no evidence of action taken on complaints
- Non Availability of Ramp at the entrance of UPHC Building
- Non-availability of at least one Disable friendly toilet
- Non Availability of Staff Duty room
- No Dedicated Room for Examination/IUCD Insertion
- No Dedicated Dressing room / Injection room

- No Dedicated room for Laboratory
- No Dedicated Pharmacy with demarcated dispensing counter, the room is shared by Staff nurse for counselling.
- Non-availability of Telephone connection
- Danger sign is not displayed at High voltage electrical installation
- Power audit of facility has not been done
- Fire exit signs are not displayed at critical areas
- There is no system to track the expiry dates and periodic refilling of the extinguishers
- Periodic Training is not provided for using fire extinguishers
- Periodic mock drills for fire safety are not organized at the UPHC
- Non Availability of Lab Technician
- Only two staff nurses are available
- Non Availability of Lady Health Visitor (LHV)
- Non Availability of Public Health Manager/ Community Mobilize
- Non Availability of secretarial Staff
- Non Availability of Data Entry operator
- No ILR, deep freezer , Lab equipments etc.
- PHC do not periodically tests the quality of water from the source (municipal supply, bore well etc) for bacterial and chemical content
- The facility has no established procedures for community based monitoring of its services
- There is no system to track and ensure that funds are received on time
- No Contract document has provision for deduction of payment if quality of services is not good
- Facility has no defined criteria for assessment of quality of outsourced services

- Regular monitoring and evaluation of staff is not done against defined criteria
- The facility does not ensure the adherence to dress code as mandated by the department
- The facility has no defined protocol for the issue of medical certificates
- Medical Check-up staff is not done at periodic Intervals
- The facility has no defined quality policy and it has been disseminated
- Quality objectives have not been defined, and the objectives are reviewed and monitored
- The facility do not review quality of its services at periodic intervals
- The facility has no established external assurance programmes
- The facility do not ensure that non compliances are enumerated and recorded adequately
- Action plan is not made on gaps found in the assessment/audit process
- Patient Satisfaction surveys are not conducted at periodic intervals
- Employee satisfaction Surveys are not conducted at periodic intervals
- Facility do not prepare the action plans for the areas of low satisfaction
- Standard Operating procedures are not prepared , distributed and implemented for all key processes
- Staff is not trained as per SOPs
- Work instructions are not displayed at Point of work
- The facility do not use methods and tools for Quality Improvement
- Facility does not measure Productivity Indicators on monthly basis
- Facility does not measure Clinical Care & Safety Indicators on monthly basis
- Facility does not measure Service Quality Indicators on monthly basis
- The facility do not strive to improve indicators from its current performance
- Quality and Outcome Indicators needs attention

PARETO ANALYSIS

A Pareto chart, also called a Pareto distribution diagram, is a vertical bar graph in which values are plotted in decreasing order of relative frequency from left to right. Pareto charts are extremely useful for analysing what problems need attention first because the taller bars on the chart, which represent frequency, clearly illustrate which variables have the greatest cumulative effect on a given system, like in Pareto graph found 2 main causes, if we try to solve those (20%) 2 causes, the remaining (80%) will be solved because these causes are inter related.

The Pareto chart provides a graphic depiction of the Pareto principle, a theory maintaining that 80% of the output in a given situation or system is produced by 20% of the input.

The Pareto chart is one of the seven basic tools of quality control. The variables on the chart are shown on the horizontal axis and the dependent variables are portrayed as the heights of bars. A point-to-point graph, which shows the cumulative relative frequency, may be superimposed on the bar graph. Because the values of the statistical variables are placed in order of relative frequency, the graph clearly reveals which factors have the greatest impact and where attention is likely to yield the greatest benefit.

Fig.1 Pareto Analysis of UPHC Anand Nagar B

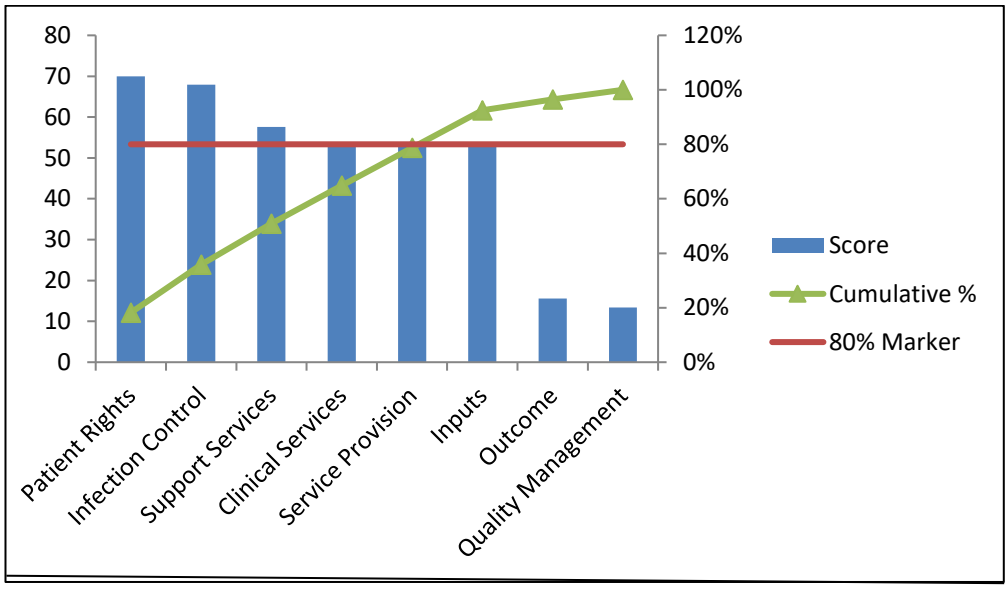


Fig.2 Pareto Analysis of UPHC New Yadwindra Colony

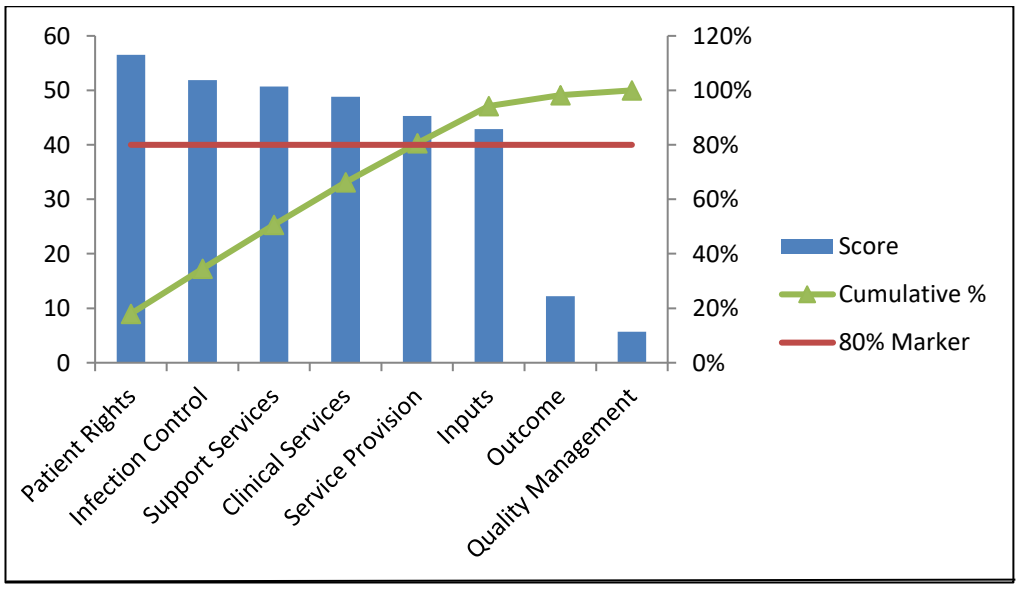


Fig.3 Pareto Analysis of UPHC Arya Samaj

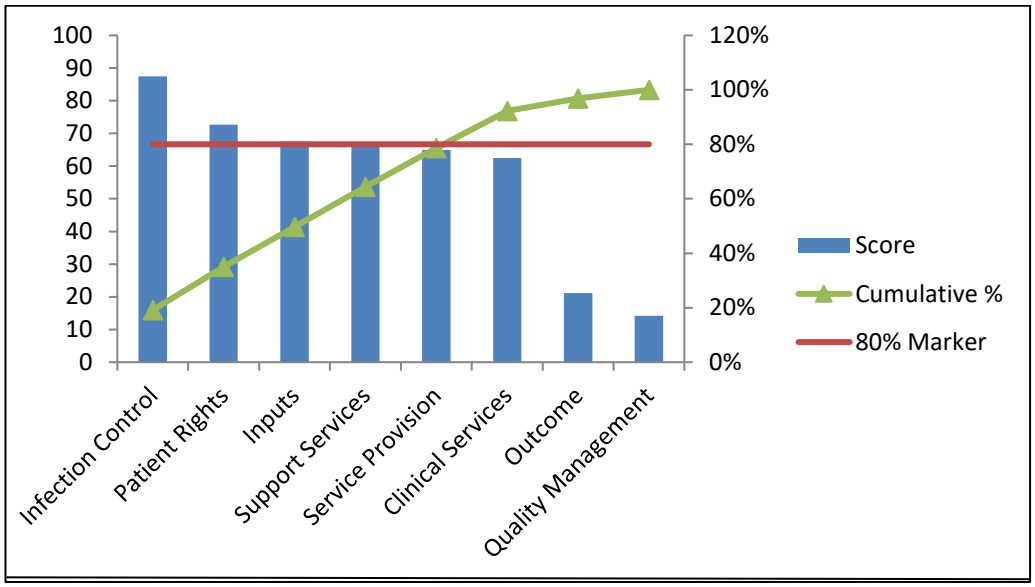


Fig.4 Pareto Analysis of UPHC Janta Nagar

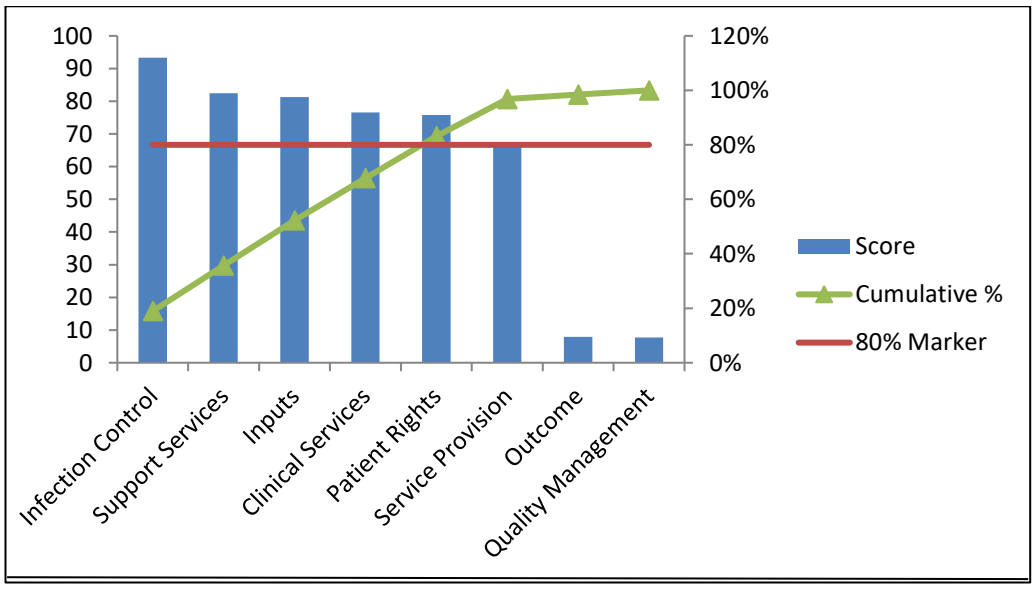
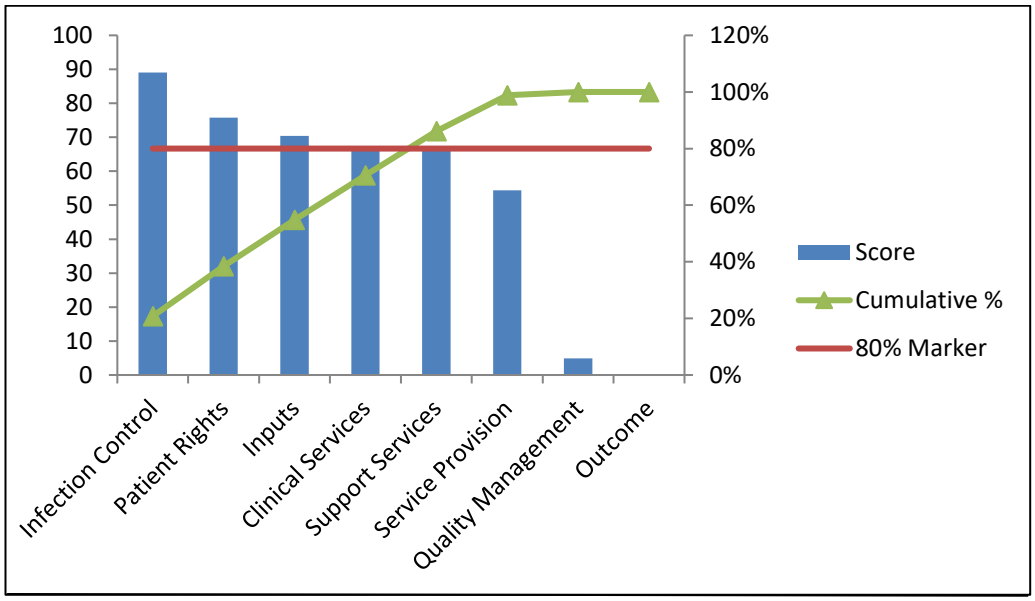


Fig.5 Pareto Analysis of UPHC Paras Ram Nagar



	Area of Concern - G Quality Management				
Standard G.1	**Facility has established quality Assurance Program as per state/National guidelines**				
ME G1.5	The facility has established internal quality assurance programme	Internal Assessment of the General Clinic is done at periodic interval	0	SI/RR	
Standard G3	**Facility has established ,documented &implemented standard operating procedure system for its all key processes .**				
ME G3.1	Standard Operating procedures are prepared , distributed and implemented for all key processes	Updated SOP are available at point of use	0	RR	
		SOP adequately cover all relevant processes of the department	0	RR	

	Area of Concern - H: Outcomes				
Standard H1	**The facility measures its productivity, efficiency, clinical care & service Quality indicators**				
ME H1.1	Facility measures Productivity Indicators on monthly basis	OPD Per day	2	RR	
		ARSH OPD per month	0	RR	
		AYUSH OPD per month	0	RR	
ME H1.2	Facility measures efficiency Indicators on monthly basis	OPD per doctor	2	RR	
		Percentage of follow up patients	0	RR	
ME H1.3	Facility measures Clinical Care & Safety Indicators on monthly basis	Consultation time in OPD	0	RR	
		Percentage of OPD cases treated with Antibiotic	0	RR	
ME H1.4	Facility measures Service Quality Indicators on monthly basis	Waiting time for Consultation at OPD	0	RR	
Standard H2	**Facility endeavours to improve its performance to meet bench marks**				
ME H2.2	The facility strives to improve indicators from its current performance	Trends analysis of Indicators is done at Periodic Intervals	0	RR	

Gap Analysis

- Some of the UPHCs did not have Laboratory services like Hb, Blood Grouping, BT & CT, and Blood Sugar etc. (Anand Nagar B, New Yadwindra Colony)
- Non availability of MO during evening OPD (Anand Nagar B)
- The UPHCs were not updated with the latest BMW rules, 2016.
- UPHCs did not have IUCD insertion instruments under family planning services
- ILR and Deep freezer were not available (Anand Nagar B, New Yadwindra Colony)
- No Quality team at the UPHCs was formed
- UPHCs did not have Autoclave or Boiler for decontamination (Anand Nagar B, New Yadwindra Colony)
- No training of staff for services like RBSK, NSSK, DAKSHTA emergency management of snake poisoning etc
- No Patient & Employee satisfaction survey at defined interval was being done.
- No SOP's were available for the concerned departments
- No regular meeting by the MO I/c with higher authorities regarding the essential requirements and concerned issues of the facility was being done.

Recommendations

The suggestions can be divided into three groups:-

1. One where the gaps will be covered by the support from concerned State level authorities
2. Secondly gaps will be covered by the interventions at the facility level only
3. Best practices that can be implemented in other UPHCs for improvement of Quality & services

1. State Level
    - All the departments should be there at the facility according to the National Quality Assurance Standards for UPHCs.
    - Appointment of a dedicated HR for UPHC
    - Legal compliance to utmost priority like Fire NOC.
    - Regularly and timely supplies of vaccines, inventory, ILR , Deep Freezer, Autoclave/ Boiler, drugs, instruments as per requirement.
    - The facility needs to be provided with IUCD insertion instruments under family planning to start with the family planning services
    - Ensure regular meeting by the MO I/c with higher authorities regarding the essential requirements and concerned issues of the facility
2. Facility level
    - Establishment of Quality Assurance Team.
    - Conduct Patient & Employee Satisfaction Surveys.
    - Development and distribution of the SOPs/ Protocols / Work instructions for critical processes of the facility

- Measurement of productivity, efficiency, clinical care and service quality indicators periodically.
- The facility should initiate basic Laboratory services like Hb, Blood Grouping, BT & CT, and Blood Sugar etc.
- Ensure availability of MO during evening OPD.
- The facility needs to be updated with the latest BMW rules, 2016.
- Orientation of the facility staff for Quality Standards for Urban Primary health centre, Infection control and Biomedical Waste 2016 guidelines
- Training of staff for services like RBSK, NSSK, DAKSHTA emergency management of snake poisoning etc
- Referral linkage should be strengthened.
- Roles and responsibilities of the staff should be defined.

3. The practices that can be applied to other UPHCs are organizing a fixed day for adolescent friendly clinic, availability of breast feeding corner, availability of complaint box for grievance redressal, establishment of an IEC corner.

Bibliography

1. An introduction to Quality Assurance in Healthcare, Avedis Donabedian
2. District Health Facility Guidelines for Development and Operations, WHO Regional Publication, Western Pacific Series 22, World Health Organization Regional Office for Western Pacific, 1998
3. Evaluation and Quality Improvement Program (EQuIP) standards, 4th Edition, Australian Council on Healthcare Standards
4. Facility based New born care Operational Guide, Guideline for Planning and implementation, Ministry of Health and Family Welfare, Govt. of India
5. Guideline for enhancing optima Infant and Young Child Feeding practices, Ministry of Health and Family Welfare, Govt. of India
6. Guideline for implementing Sevottam, Dept. of Administration reform and Public Grievance, Ministry of Personal and Public Grievance and Pension, Govt of India.
7. Guideline for Janani Shishu Suraksha Karyakaram (JSSK), Maternal Health Division, Ministry of Health and Family Welfare, Govt. of India
8. Implementation Guide on RCH-II, Adolescent and Reproductive Sexual heath Strategy, for State and District Program Manager, Ministry of Health and Family Welfare, Govt. of India
9. Indian Public Health Standards (IPHS), Guidelines for District Hospitals (101 to 500 Bedded), Revised 2011, Directorate General of Health Services, Ministry of Health and Family Welfare, Govt. of India
10. International Covenant on Social, Economic and Cultural Rights (ICESCR), 1976
11. ISO 9001, Quality Management System requirement, Fourth Edition

12. Janani Suraksha Yojana, Govt. of India, Ministry of Health and Family Welfare, Maternal Health Division.
13. National Accreditation Board for Hospital and Healthcare Provider, 3rd Edition.
14. Operational Guidelines on Maternal and Newborn Health, Ministry of Health and Family Welfare, Govt. of India
15. Crossing the quality chasm: new health system for the 21st century, institute on medicine, U.S.A.
16. Framework for implementation – National Urban Health Mission, Ministry of Health and Family Welfare, Govt. of India, May 2013
17. Biomedical Waste Management Rules, 2016
18. Quality Standards for Urban Primary Health Centres, Jan 2016 edition, Ministry of Health and Family Welfare, Govt. of India,

Annexure

(a) Time Schedule

S. No	Name of the UPHC	Date(s) of Assessment
1.	Paras Ram Nagar (District Bathinda)	17/3/17
2.	Janta Nagar (District Bathinda)	18/3/17
3.	Arya Samaj (District Patiala)	30/3/17
4.	Anand Nagar B (District Patiala)	30/3/17
5.	New Yadwindra Colony (District Patiala)	31/3/17

b) Data collection format/ Checklist

National Quality Assurance Standards for U - PHC					1
Checklist for General Clinic					
Reference No.	Measurable Element	Checkpoint	Compliance	Assessment Method	Means of Verification
	Area of Concern - A Service Provision				
Standard A1	**Facility provides Promotive, preventive and curative services**				
ME A1.1	The facility provides treatment of common ailments	Availability of Consultation services for common illnesses	1	RR/SI	Common Cold, Fever, Diarrhoea, Respiratory tract infections, Bronchial Asthma, conjunctivitis, foreign body in conjunctival sac, etc.
ME A1.3	The facility provides AYUSH Services	Functional & dedicated AYUSH clinic	1	RR/SI	Ayurveda, Unani, Siddha, Homeopathy, Naturopathy as per State Guidelines
ME A1.4	Services are available for the time period as mandated	OPD Services are available for at least 8 Hours in a day	1	RR/SI	It may be 12 noon to 8 PM/ it may be morning & evening OPD. Give full compliance if evening OPD is there
Standard A2	**The facility provides RMNCHA Services**				
ME A2.5	The facility provides Adolescent health Services	Availability of Adolescent friendly Clinic	1	RR/SI	At least for 2 hours on fixed day in week
Standard A5	**The facility provides services as per local needs / State specific health programmes as per guidelines**				

ME A5.2	Facility provides services as per local needs/ state specific health programmes as per guidelines	Availability of OPD services for diseases, specifically prevalent locally	1	RR/SI	
	Area of Concern B - Patients' Rights				
Standard B1	**The service provided at facility are accessible**				
ME B1.7	Information about the treatment is shared with patients or attendants and consent is taken wherever required	Patient is informed about the diagnosis & Treatment Plan	1	PI/RR	
		A copy of OPD Slip/ Prescription containing Diagnosis & treatment plan, is given to patient	1	RR	
		Method of Administration /taking of the medicines is informed to patient/ their relative as per prescription	1	PI/RR	
ME B1.8	Access to facility is provided without any physical barrier	There is no overcrowding in general Clinic	1	OB	
Standard B2	**The service provided at facility are acceptable**				
ME B2.1	Services are provided in manner that are sensitive to gender	Availability of female staff / attendant, if a male doctor examines a female patients	1	SI/OB	
		Availability of Breast Feeding Corner	1	OB	
	Adequate visual privacy is provided at every	Availability of screen/ curtains			Check examination area & also

General Clinic Score Card

	General Clinic	50
	Area of Concern wise Score	
A	Service Provision	50.0
B	Patient Rights	50.0
C	Inputs	50.0
D	Support Services	50.0
E	Clinical Services	50.0
F	Infection Control	50.0
G	Quality Manangement	50.0
H	Outcome	50.0