

Assessment of implementation of quality management system and factors affecting implementation in public hospitals, Amhara region, Ethiopia.

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Assessment of implementation of quality management system and factors affecting implementation in public hospitals, Amhara region, Ethiopia.

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Abbreviation and acronyms

BPR	Business Process Reengineering
CASH	Clean and Safe Hospital
EHAQ	Ethiopia Hospital Alliance for Quality
EHMI	Ethiopian Hospital Management Initiative
EHRIG	Hospital Reform Implementation Guideline
FMOH	Federal Ministry of Health
HMIS	Health Management Information System
HSDP	Health Sector Development Plan
PI	Primary Investigator
QI	Quality Improvement
QM	Quality Management
QMS	Quality Management System
TQM	Total Quality Management

ABSTRACT

Introduction: Total Quality management is one of the most important changes which have taken place in the field of health care management. The federal ministry of health of Ethiopia has chosen QMS as a comprehensive and applied strategy to achieve administrative development and improve the quality of services in order to respond to the needs and expectations of the society. Since evidences are lacking, there is a needs of break thorough assessment of existing status of quality management system implementation in hospitals.

Objective: The study aims to assess current implementation status of quality management system and factors affecting its implementation in public hospital, Amhara region 2017.

Methodology: cross sectional descriptive study were conducted between January 2017-June 2017, by using both quantitative and qualitative study design to asses' quality management system implementation and factors affecting the implementation in randomly selected seven public hospitals which are found in Amhara region. Implementation status were measured by 12 standard quality management activities from EHRIG and those who report the implementation status above mean implementation score were taken as implemented and those report below the mean as not implemented. The quantitative data were collected from professionals working in these seven hospitals by using self administered questioner and those participants were selected by using proportional random sampling and the qualitative data were collected by using key informant interview from purposely selected quality committee chairs of the seven hospitals. Data was entered using EPI data software and analysis was made with SPSS 21 statistical software, descriptive statistics, bivariant and multivariate logistic regression analysis were applied.

Results: The finding of this study reveal that implementation status of quality management system of hospitals found in Amhara region was 62% and implementation was found higher in primary hospitals. six variables were found significantly associated with quality management system in the hospital.($p < 0.05$) where Availability of functional quality committee, Availability of regular and standard based monitoring system of employees QI activities ,Availability of well communicated quality mission , Providing managers with training on quality management system with value , Perceived quality significance employees with p value and Type of hospital with remained to be significantly associated with quality management system implementation in hospitals

Conclusion and Recommendation: The study concludes that QMS implementation was found 62.3% beside; its current implementation stage is dependent on the hospital size where primary hospitals implement QMS more successfully than other hospitals. And overall, the findings of the study show that there is a need that hospital management should direct their effort toward communicating the mission and the significance of QMS and, setting specified budget for QI activities, strengthening employee monitoring system, and providing support/nurture to quality committees to exceed in QMS implementation

Key words: quality management system, Amhara region, hospitals.

1. Introduction

1.1 Background

Ethiopia made great strides toward access to health care for its entire population. With that advance comes the increasing responsibility to plan, improve, and control the quality of the care being delivered and ensure that is being provided equitably. [1]

Quality in Ethiopia defined to be "Comprehensive care that is measurably safe, effective, patient centered, and uniformly delivered in a timely way that is affordable to the Ethiopian population and appropriately utilizes resources and services efficiently." [1]

In drilling deeper into quality, it is helpful to understand the concept of quality management which comprises all three pillars namely quality planning, quality improvement, and quality control in the national health care quality strategy. [1, 2]

Under the direction of the Ethiopian Minister of Health, EHMI was launched in January 2005 in partnership with the Clinton Foundation HIV/AIDS Initiative and the Yale School of Public Health. [2]

Quality management refers to the structures and processes by which an organization ensures the continuing quality of services provided (quality control), improves the quality of services provided (quality improvement) and obtains evidence to show that services meet the given requirements (quality assurance). [1, 2]

The Federal Ministry of Health (FMOH) of Ethiopia has increasingly focused on improving the quality of care over the past 20 years. This is evident in the Health Sector Development Plan (HSDP) IV, Following cross-sectoral government initiatives such as Business Process Reengineering (BPR) and Balanced Scorecard, implementation of the reformed HMIS, the FMOH now promotes Kaizen, a quality improvement methodology adopted across multiple sectors in the country, as a means of achieving better health care and health outcomes. [2]

TQM is one of the most important changes which have taken place in the field of health care management. After fields such as industry and business, it is now the turn of health field to benefit from TQM in principle. The federal ministry of health of Ethiopia has chosen TQM as a comprehensive and applied strategy to achieve administrative development and improve the quality of services in order to respond to the needs and expectations of the society. [2, 3]

It is worth mentioning that the national health care quality committee of improving quality known as Ethiopian health care alliance for quality a , direct and support the programs concerning quality improvement has started its work. [3]

The Ethiopian Hospitals Management Initiative, which started in 2006, is a pioneering initiative to introduce a standardized based quality approach. The hospital reform was supplemented by the introduction of Key Performance Indicators for hospitals through the hospital performance monitoring and improvement guideline in 2011. The Ethiopian Hospitals Alliance for Quality (EHAQ) and Clean and Safe Hospitals initiative (CASH) are based on experiences in implementing Ethiopian Hospital Reform Implementation Guidelines. [3]

Concerning health services, quality has a special place since the great mission of maintaining and taking care of community health is undertaken by this system. In addition, hospitals which offer health and care services are the inseparable part of the health system. Hospitals, although constituting a small part of the health system, considering their number, are viewed as its most important part/element, as a significant part of expenditure on health is related to them . [3, 4]

TQM is a suitable way to relatively achieve efficiency and effectiveness which in turn leads to achievements such as success in long term, meeting the workers', customers' and other interested parties' needs in the society. [4]

Hospital quality management is focused not only on the quality and safety of healthcare but also the means to achieve this. Hospital Senior Management and the Governing Board should ensure that quality management systems are in place and should monitor their effectiveness. All staff should participate in quality management activities specific to their area of work. [4, 5]

Despite the undeniable advantages of QM for an organization, there is no consensus about its framework, but there is a general consensus about the need for a systematic method or framework in order to make QM feasible. [5]

In this study, I tried to assess the implementation of QM and factors affecting from professional perspective in public hospital of Amhara region.

1.2 Statement of the problem

Adopting TQM in the health care industry is not as smooth or successful as in the manufacturing or service industries. Today hospitals are being challenged to look at their operations and find more efficient ways to do business. Many hospitals are turning towards QMS for cutting costs and overall improvement in the quality of the services provided. Further argues that the use of TQM has provided a partial cure to service quality problems in healthcare organizations. [4]

Recent 'World Health Reports' published by the World Health Organization have called for health system strengthening as paramount to the goal of improving health outcomes [4, 5], noting the critical role that hospitals play in efforts to strengthen health systems. Despite the potential role of quality improvement in health system strengthening [6–9], we have only limited evidence about its implementation and effectiveness in developing countries.

quality of care in the health system is related to the matter of social responsibility of the professional and services to the community and it is under direct influence of variants loaded with subjectivity and lack of governability, that it needs a transformational behavioral and attitude change which put the QMS implementation on each every individual in the health care system environment , and need situational managerial approaches to fit QMS in contextual environment. [6, 7]

Many reasons and factors are identified behind this apparent strategic reluctance to commit to quality management system in studies conducted in different setting hospitals from this factors organization structure, top managerial commitment , low level of employee participation and training on QMS , procedure development and employees attitude and defect and lack of effective communication system on QMS are found significantly associated with quality management system in surveyed hospitals. [8, 9,10,15]

Considerable effort has been devoted over many years by health care system including hospitals to adopt quality management practices the dilemma is not only how to implement the agenda, but how to make it work effectively and efficiently which needs a break thorough assessment of implementation of the QMS and problems encounter in the implementation . [2, 3]

Even though there are studies conducted on quality management indifferent sectors (education, manufacturing, agriculture) there is only one pilot study done on hospital in Ethiopia.

performance and quality management system in hospitals in Ethiopia Thus, it becomes important to study the implementation of quality management to uncover activities that are not still addressed and factors affecting the implementation which is critical for the success of the implementation of QMs in the health sector, that is indispensable to develop the administrative, technical and human skills of those who act, interact and react to the institutional context.

1.3 Significance of the study

This is a study on assessment of implementation of quality management system and determinant factors in public hospitals found in Amhara region Ethiopia, that the findings will sort out the current status of implementation and determinants of implementation of QMS in public hospitals found in Amhara region that is important for policy makers in the construction of knowledge in the sector and as an evidence base for the planning and designing strategies toward quality management in hospitals.

Also it helps the hospital management bodies to identify where necessary investments are needed in quality management system capacitating in order to indicate where we are good and where we need improvement in implementing the QMS that in return pave the way to incorporated the system successfully in the Ethiopian health system.

Since the pursue of excellence, efficiency and effectiveness in implementing the quality management system is essential in what regards the current complexity of processes and existing technologies in hospital institutions, allied to lack of resources and a health care demand increase this study will answer questions raised in the implementation that will helpful in effective implementation of QMS in hospitals.

1. Literature review

2.1 What is Quality Management?

Management Quality (QM), as a new management model, changed the focus of the analysis of product or service to a quality system conception, and it influences the organizational culture as attitude and behavior changes are now required towards performance commitment, self-control and processes enhancement. [4, 6]

Quality management (QM) is defined as the application of a quality management system in managing a process to achieve maximum customer satisfaction at the lowest overall cost to the organization while continuing to improve the process. Total quality management (TQM) can be defined as a management approach to long term success through customer satisfaction. TQM is based on all members of an organization participating in improving processes, products, services and the culture in which they work. [5]

QM emphasizes both process and outcome and requires a dramatic shift in many established health care management values and concepts. QM is based on the following concepts: Change must be based on needs of the customer, not the values of the provider. Lack of achievement most likely is caused by system failure rather than by individual performance; therefore, problem solving focuses on the process and joint responsibility rather than on improving individual output, decisions for improvement must come from providers of the service (product) rather than from top managerial authority, the emphasis must be on continuous improvement rather than on meeting a specific standard. [6]

QM begins with a simple idea and an assumption that everything can be continuously improved. QM is a philosophy as well as a set of guiding principles and practices .that represents the foundations of a continuously improving organization. It integrates fundamental management techniques, existing improvement efforts, futuristic quality plans, innovations and their successful implementation. [6, 7]

QMS concept was implemented first in the manufacturing sector in early 1980s ,followed by the service sector like the health care sector, and there are many reasons behind the wide acceptability of QM in health care institutions. In the recent years, many health care

institutions have applied the principles and practices of QM in order to solve most of the problems that they are currently facing. [8,9]

QM is part of what is needed to run a good organization; it is not the whole. Running a business well requires a decent strategy and some good decision making. Certainly, QM can focus the organization on strategy and mobilize resources to ensure that the strategy succeeds. [9]

2.2 Quality Management in Healthcare

In the 1860s, Florence Nightingale VI helped to lay the foundation for quality assurance programs by advocating a uniform system for collecting and evaluating hospital statistics. And In 1910, a report by Abraham Flexner revealed the poor quality of medical education in the USA One of the key pioneers in assessing quality was Dr .E.A .Codman , who in 1914, studied the end result of care . [9, 10]

His famous study emphasized the same issues that are being discussed today when examining the quality of care including: the importance of licensure or certification of providers, the accreditation of institutions, the necessity of taking into consideration the severity or stage of the disease, the issue of co morbidity (two or more illnesses present at one time), the health and illness behavior of the patient, and Economic barriers to receiving care. [10]

As in many other countries, QMS in healthcare came from industrial experience in the development of QMS concepts, theories and practices. However, to implement the same concept into the healthcare industry would be a disaster. [7]

Although anecdotal evidence suggests that the healthcare industry is not uniquely different from any other organization or industry; closer examination suggests that the healthcare industry is, in fact, uniquely different on five major counts: Its closer linkage to politics, Its complex organizational structure , Its inherent characteristics: intangibility, heterogeneity, inseparability, perish ability, labor intensive, a credence product, its objective is continually shifting, its environment is under siege from concurrent government changes , differences in the perceptions, values and work ethic of the healthcare providers . [9, 10]

Recognizing these differences is imperative to the successful implementation and development of a TQM system in healthcare. Whatever the differences and problems, TQM should not be directly transferred into the healthcare industry. It is up to the quality

professionals in healthcare to define principles, philosophies and techniques that will determine the quality standards appropriate for their own industry. [11, 12]

TQM in health care context has been defined as the satisfaction of patients, doctors, nurses, and suppliers and other interested groups, achieved by implementing effective planning, programs, policies and strategies, and human and all other assets efficiently and continually within a hospital context. Moreover, the TQM in health sector focuses on patient satisfaction, continuous improvement, teamwork, process management, systemization, organization culture and structure, and commitment from management and supportive leadership. [10, 12]

Provision of quality healthcare is one of the most complex and difficult undertakings for organizations and governments. TQM among healthcare providers is a way of managing to improve the effectiveness, flexibility and competitiveness of the health care facilities and services provided. It is also a method of removing waste, by involving everyone in improving the way things are done. [14, 16]

Over the last decades, quality assurance has been of big concern to health organizations, because, besides being a requirement of economic survival due to higher requests from consumers, it is an ethic, legal and social rights matter which goes through the full customer's satisfaction and the reduction of risks related to health care to a minimum which is acceptable. [13]

2.3 Quality Management system implementation in hospitals

Study conducted in Lithuanian support treatment and nursing hospitals report that quality management systems were found operating effectively in 39.7 percent of support treatment and nursing hospitals and currently under implementation in almost half of surveyed hospitals. [9]

Another study in France teaching hospital indicate leadership role on the QMS have been shared that quality committee and quality circles are established and meets regularly in the hospital level and in department level respectively and also different categories are represented in the quality committee and a dominance of clinician participation in the committee(12)where as in contrary Study in Malaysia reveal that poor response of physicians toward TQM issues compared to other groups. [6]

While other study report supportive finding for the study in France that in quality team approach it is reported that teams with high level of physician commitment have high rate of

success than those teams with low level of physician commitment in quality team activities and commitment of physician toward QM activities is significantly related with training intensity in QM issue. [20]

And also another study report using participative management techniques such as quality circles and autonomous work groups had more synergistic effects on TQM success. Participative management style empowers employees to take any necessary action to ensure customer satisfaction. [21]

Department level improvement action consist reviewing process , writing procedures and documentation however there is no trend to use indicators and evaluate the effectiveness of activities .and compliance with guidelines is improved. [12, 22]

Attitude of Staffs toward QMS is positive and they consider the system is use full for them and their department in respect with improving care quality and working condition that increase a commitment of staffs to take quality responsibility. [12, 23]

A similar study on employees attitude toward QMS indicate that customer focus, education and training, responsibility and teamwork and ongoing improvement problem prevention have a positive relationship with job involvement, job satisfaction , career satisfaction . [17]

Studies on employees attitude toward medical error found Administrative approach is the main explanatory variable that influence attitude of employees where employees are able to define the causes of medical error correctly and consistently and are aware of the causes of error, but cannot change its effects in practice which indicates that errors are mostly due to institutional and operational system insufficiencies, and that individuals cannot have an influence on the system even if they are aware of the causes of error. [16, 18]

Previously done studies share system insufficiency in implementing QMS that report the acceptance of QMS is highly affected by professional motivation that surveyed staffs indicate there is no way of appreciations for the staff for reporting quality problems in their department which can decrease their motivation toward identifying and reporting quality problems. [17, 21]

Study on managerial approach in service quality suggests that the quality of service operations depends upon top management's approach and orientation toward the overall quality of service delivery, and existence of a certain degree of consistency between top

management's approach and orientation with that of middle and first line managers, whether dealing with managing quality control, recovery, or processes . [18, 20]

The study suggest the more problematic are middle and first line managers that the inconsistency put the organization on a stark choice if they intend to enhance the quality of their service, With a study implicate arising there is a fundamental need for top executives to reconsider their role and adjust their approach and attitudes toward meeting the needs of both customer and organizations in a long-term horizon. [18]

Similar study done in Kenya reveals that organizational culture have significant effect on QM practice of the hospital where the top management commitment, employee empowerment and training highly influence the organization culture , management commitment has to do with the fact that the failure of most healthcare administrators to see the true nature of the relationship between quality, efficiency and the competitive advantage is partially responsible for the lack of strong TQM philosophy in healthcare. [19]

The success of QM in organic hospitals with medium organizational culture was higher than mechanistic and bureaucratic hospitals with weak organizational culture. Implementation of QM in hospitals with higher Entrepreneurship and Risk taking was more successful also; QM was more successful in collectivism hospitals rather than individualism hospitals. The differences between values were statistically significant in all of this case. [21], and quality management thrives better in small district hospitals than regional hospitals where small hospitals are less bureaucratic and more suited to employee empowerment. [20, 22]

Strategic problems were important barriers of TQM success in this survey. These barriers included lack of planning and long-term policies, lack of mechanisms for strategy formulating, non-clarity of objectives, inflexibility of organization toward environment and technologies change and lack of legal elements for providing quality services. [21]

Several studies have also emphasized that successful implementation of QMS can result in significantly superior outcomes in health care institutions, some of these outcomes are: upgraded quality of service, improved health care quality and performance, patient satisfaction, reduced operating cost of health care institutions, employee satisfaction, and patient safety. [14, 18, 21, 22]

2.3 Factors affecting quality management system implementation

Several studies on factor affecting QMS share common finding on managerial approach and managerial behavior was found to be a major factor that affect TQM implementation that inspiring managers can ensure the ongoing change of organizational culture and mindset of employees toward quality management implementation. [5, 7 ,8 10]

Similar finding on lack of support from top management for implementation of quality approaches in organizations were discuss as not only the customer satisfaction does not improve but also costs and a waste of time is imposed on organizations. Establishing QM models can help managers design an appropriate quality management system in order to achieve successes in the current situation and also help hospital officials to prioritize corrective actions and develop improvement strategies. [13]

The influence of Organizational culture is also identified and discussed in study conducted in Saudi health care setting that a positive role of organization culture in supporting QM in the hospital, and organization culture as critical factor in QM implementation which open employee's minds to acknowledge and recognize quality practice quality initiatives and quality experiences, and reducing their resistance to change, and thus facilitating a smoother QM application. [17]

Also empowering employees with quality care responsibility and participating them in quality teamwork (quality circles, quality committee) contributed the most to job involvement, job satisfaction, career satisfaction and organizational commitment which appears as a key for employees' involvement in QMS. [14]

A similar study identify providing internal or external training on quality for staffs and disclosure of new practices to workers for emerging issues regarding quality , involving employees in planning and scheduling activities and having a concern encouraging communication with clients as critical factors in success of QMS. [20]

Study on factors affecting QMS implementation identify resistance of staffs who work for long time in the hospital, lack of formalize methods and time to QM activities : Meeting, document writing) and staffs attitude toward writing documents of procedures. [12]

Another study on employees attitude toward QMS elaborate the staffs attitude toward documenting procedure that there are still criticisms in relation to the use of metrics in

nursing : waste of time when feeding systems instead of a more direct care of the patient despite the general and increasing usage . [4] Establishing and formalizing working procedures were other factors identified in implementing QMS [10, 12] However, from the constant quality perspective, investments in assessments and monitoring are fundamental for the prevention of health care mistakes. One cannot manage, effectively and efficiently, what one does not know. [14]

3. Objective

3.1 General objective

- To assess quality management system implementation and factors affecting in selected public hospitals, Amhara region, 2017.

3.2 Specific objective

- To assess current implementation status of quality management system in selected public hospital.
- To determine factors affecting implementation of quality management system in selected public hospitals.

5. Methodology of the study

5.1 Study area and setting

The study was conducted in Amhara regional state which is divided to 3 main city administration and 10 administrative zones, under which there are 167 woredas and 3463 kebeles, Bahir Dar is the city of the region which is found 565 km away from Addis Ababa. The total population of the region is 20,769,999 with ratio of male to female is 1:1.there are 836 health center, 55 hospitals, 3336 health posts and 2764 private health sectors, from the 55 hospital 36 of hospitals are new hospitals those provide service for less than one year and the study was conducted on eighteen public hospitals with a service of more than a year found in Amhara regional state.

5.2 Study design

Descriptive Cross sectional study design with both qualitative and quantitative study design was implemented in this study. The mixed method was selected to support quantitative findings and look for new emergent reasons or perspectives in quality management implementation.

5.3 Population

5.3.1 Source population

The source population for the quantitative study was all eighteen public hospitals in Amhara region which are under ministry of health and which provide service for more than a year and above. And the source population for qualitative study was all quality committee chairs of the eighteen hospital.

5.3.2 Study population

The study population for the quantitative study was seven public hospitals that one hospital : Felege Hiwot referral hospital were selected from referral hospitals , two hospitals(Debre Tabor general hospital and woldiya general hospital) were selected from general hospitals , and four hospital(Debark primary hospital, Fenote selam primary hospital, Akesta primary hospital and Gayenet primary hospital) were selected from primary hospitals by using stratified proportional sampling to represent all type of hospitals. And a study population for the qualitative study was seven quality committee chairs of the selected seven hospitals.

5.4 Inclusion and exclusion criteria

5.4.1 Inclusion criteria

- Public hospitals which serve for a year and more will be included in the study.
- Clinical staffs who serve for 6 month and more in the hospital and not have any managerial position will be included in the study.

5.4.2 Exclusion criteria

- Public hospitals which serve for less than a year will be excluded from the study.
- Clinical staff who serve less than 6 month in the hospital will be excluded from the study
- Clinical staff with managerial position (department heads, and above) will be excluded from the study.

5.5 Sampling determination

From the eighteen public hospitals in Amhara region seven hospitals were selected by stratified proportional randomly sampling that one, two and four hospital from each strata that hospital are stratified by their type (referral, general, primary). And number of clinical staff included in this study is calculated as a single population proportion and correction formula is used since the total population is less than 10,000.

The following assumptions were made: 95% confidence interval, 5% margin of error, proportion is 50% since there is no prior research conducted before in Ethiopia and 10 % non-response rate. the higher calculated sample size became 423 and after correction formula the sample size become 391,which 110,138,and 134 sample were taken from referral, general and primary hospital strata respectively. And purposive sampling was used to select participants in qualitative study by their job relation with the study objective

5.6 Sampling procedure

5.6.1 Quantitative part

From the eighteen public hospitals, a total of seven hospitals were selected by stratified proportional random sampling by stratifying hospitals by their type from each type of hospitals to keep the proportion of all type of hospitals.

A total of 6,772 professionals were currently working in seven study hospitals. A stratified random sampling procedure was employed according to the type of the hospital. After identifying the number of professionals in each three types of hospital with also identifying the number of professionals in each specific hospital. The sample for each stratum was distributed using the proportional allocation to size formula. Finally, participants were selected by simple random sampling technique from each sub-stratified population proportionally (see annex 2)

5.6.2 Qualitative part

Purposive sampling were used to select participants of the qualitative study that quality committee chairs were selected for key informant interview since they have direct work relation with the study objectives.

5.6 Study variable

5.6.1 Dependent variable

Quality management system implementation status

5.6.2 Independent variables

- Quality policy and strategy(mission, process description, hospital and departmental quality plan ,quality budget)
- Employee awareness and empowerment (awareness, training)
- Employee participation
- Monitoring system of QMS activities(departmental monitoring ,employee monitoring)

5.7 Data collection tool

5.7.1 Quantitative part

The data collection tool for the quantitative study was self administered questioner The instrument was adopted from previous published literatures (14, 17,20) The questioner was designed in English and translated to local Amharic language and then back to English by the

third person to check for consistency. and the questioner has a total of 35 questions divided into 3 parts that the first were questions assessing strategy of hospitals toward QMS, second part which comprise standard questions of QMS activities, and the third part include questions on employee empowerment and involvement.

5.7.2 Qualitative part

The qualitative data were collected by using unstructured interview guide questions prepared from previously published literatures, that the interview guide contains 3 questions, which were prepared in English and translated to Amharic language.

5.8 Data collection procedure

5.8.1 Quantitative part

The quantitative data on implementation of quality management system were collected by using self administer, structured questioner from clinical staff of selected hospitals and the data is collected by trained data collectors and supervision were conducted by the principal investigator and one trained supervisor.

5.8.2 Qualitative part

The qualitative data from all quality committee chairs of seven hospitals were collected by using key informant interview, unstructured interview guide questionnaire prepared in English and translated to Amharic was used to guide the interview. The interview were conducted by the PI , all the interviews were tape recorded and major points were noted by the PI and each interviews were last average of 40 minutes.

5.9 Data quality management

To assure data quality, the data collection tools were prepared by adopting a standardized tool for assessing quality management system from and necessary modification done on the country context and also by referencing other previously done researches on quality implementation system that the questionnaire were prepared in English version and translated to Amharic version and back to English version to ensure its consistency. Pretesting of the questionnaire and the checklist were carried out in Engebara primary hospital on 5 %(20) of

the sample hospitals that were not included in the study and the necessary modification was done based on the result obtained and the completeness of the data were checked by the principal investigator and the supervisor during and immediately after data collection.

5.10 Data analysis procedure

5.10.1 Quantitative part

After data collection, filled quantitative data was entered in EPI data software and were subjected to cleaning then; analysis was made with STATA 21 statistical software. Descriptive statics such as Frequency distribution and cross tabulation of variables were computed to describe the major variables of the study. And bi variant and multivariate logistic regression was used to identify factors affect implementation of quality management system. For all of statistical tests in this study, the significant level is set at p-value < 0.05.

5.10.2 Qualitative part

The recorded interview was translated to English and transcribed using a word processing program. Analysis was guided by content analysis. Cut and paste was used for classifying and sorting information after wards categories were coded and similar categories were used to support quantitative findings.

5.11 Operational definition

Implementation of specific standard activities

- Those rated agree and strongly agree were taken as the activities were practiced
- Those rated neutral, disagree and strongly disagree were taken as not practiced.

Quality management system implementation status

- Implemented: those with a 12 standard quality management mean score were equal to and above 0.5.
- Not implemented: those with a 12 standard quality management mean score were below 0.5.

5.12 Ethical consideration

Prior to data collection ethical approval was obtained from research ethics committee of college of Medicine and health sciences, Addis Ababa University. Permission was also obtained from Amhara regional health bureau and each respective hospital. And also Informed consent was obtained from each study participant.

Name or specific address of the study participants was coded and remain anonymous as well as the participants were informed about the risk and benefit of the study and provided with a right of refusing to respond at any time if they are not willing to respond.

5.13 Data dissemination

The result of this study will be disseminated to Amhara regional health Bureau, Federal ministry of health of Ethiopia, AAU ,School Of public health and to hospitals where the study were conducted.

6. RESEARCH FINDINGS

Findings from this research are presented in this part through three sets of interconnected aspects: in the first part, I introduce the socio demographic profile of the respondents. Second, I describe the descriptive finding of the study and the third part contains findings of bivariant regression and multivariate logistic regression of major variables with QMS implementation status.

6.1 Socio demographic information of respondents

Three hundred ninety one professionals working in seven public hospitals participated in the study as respondents ; from these 371 returned and completed self-administered questionnaire 138(37.2%) participants were from general hospital, 127(34.2%) were from primary hospitals and the rest 106(28.6%) were from referral hospital which making the response rate of 95%.

The mean age of the survey respondents was 36.7 years (SD=7.08, range 21 to 56 years). 195(52.6%) of the respondents were female, and the remaining 176 (47.4%) were male. The majority of respondents 102(27.5%) were nurses, followed by 90(24.3%) were midwifes, 55(14.8%) were physician, 44(11.9%) were health officer, 43(11.6%) were laboratory technicians and the rest 37(10%) were pharmacist.

From all respondents 256 (69%) were degree holder, where as 67(18.1%) were master/specialty level and the remaining 48(12.9 %) were diploma level.

Table one: Socio – Demographic determinants of quality management system in hospitals, Amhara region, 2017.

Socio demographic variable		Frequency	percentage
Sex	Male	176	47.4%
	Female	195	52.6%
Profession	Physician	55	14.8%
	Nurse	102	27.5%
	Midwife	90	24.3&
	Laboratory technician	43	11.6%
	Pharmacist	37	10%
	Health officer	44	11.9%
Hospital type	Referral	106	28.6%
	General	138	37.2%
	Primary	127	34.2%
Education	Diploma	48	12.9%
	Degree	256	69 %
	Msc /specialty	67	18.1%

6.2 Quality Management System implementation

Perceived Quality management system implementation according to EHRIG standard

Professionals were asked about the implementation of quality management system activities in the hospital based on 12 operational standards included in quality management chapter of EHRIG. And those who had a mean implementation score above 0.573 as QMS is implemented in the hospital and those who report mean implementation score below 0.573 were taken as the QMS is not implemented in the hospital.

Accordingly, 231 (62.3%) of the respondents reported that the quality management system is implemented and the rest 170 (37.8%) report quality management system is not implemented in the hospital.

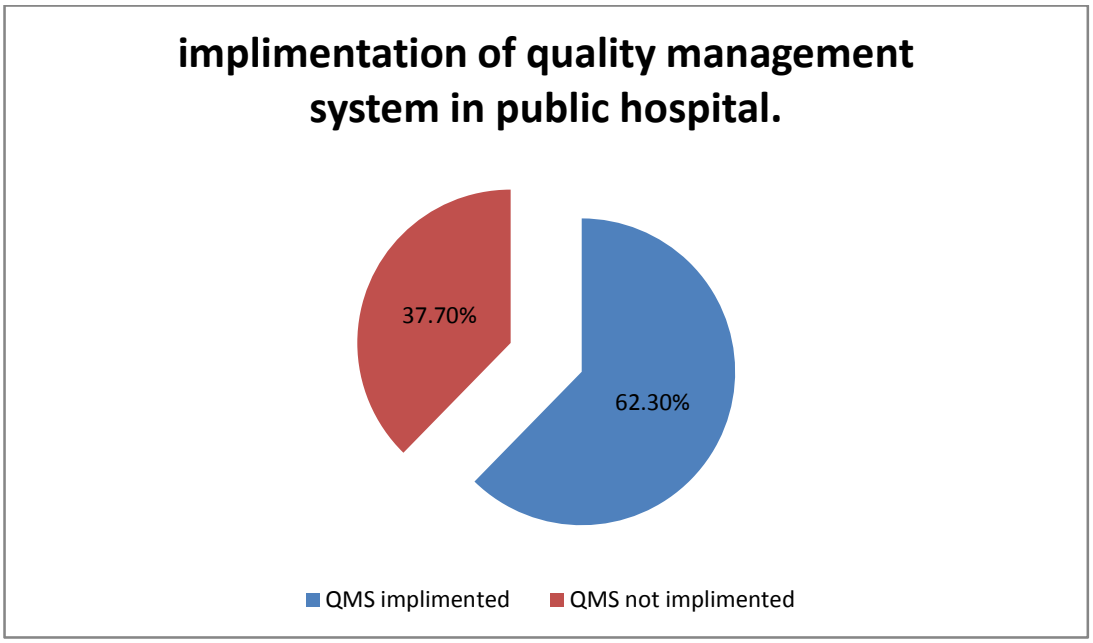


Figure one: quality management system implementation status of study hospitals in Amhara region, 2017.

The quality management system implementation was reported by 92(72.4%) respondents in primary hospital, 84(60.9%) respondent in general hospital and 55(51.9%) respondent in referral hospital.

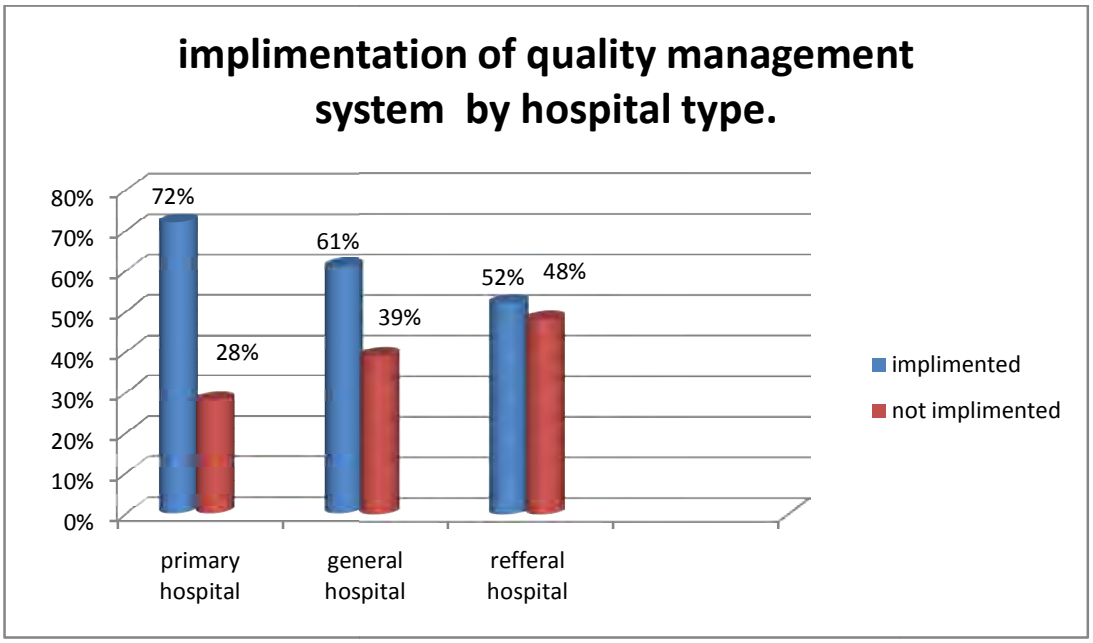


Figure two : quality management system implementation by type of hospitals, in Amhara region, 2017

From 12 standard activities of quality management system included in the standard questioner , the implementation status of most standard activities were found above 50% , except three standard activities that the implementation status were found below average(50%) where 145(39.1%) report clinical audit activities were implemented , 134(36.1%) report there were a system of analysis and feedback mechanism for compliant received and 120(32.3%) report the hospitals used clinical indicators and monitor clinical outcomes in the hospital .

Table two: Standard quality management activities in hospital , Amhara region 2017

Activities		**Quality management system Implemented**				**Total**
		Yes	**%**	**No**	**%**	
Quality Review meeting	Referral	51	55.4%	41	44.5%	**92(86%)**
	General	72	69.2%	32	30.8%	104(75%)
	Primary	83	80.6%	20	19.4%	103(81%)
	Total	206	68.9%	93	31.1%	**299(81%)**
Incident monitoring	referral	44	75.9%	14	24.1%	58(55%)
	General	69	80.2%	17	19.8%	86(62)
	Primary	78	94%	5	6%	**83(65%)**
	Total	191	84.2%	36	15.8%	**227(61%)**
Risk analysis	Referral	36	78.3%	10	21.7%	46(43%)
	General	60	81.1%	14	18.9%	74(54%)
	Primary	68	94.4%	4	5.6%	**72(57%)**
	Total	164	85.4%	28	14.6%	**192(52%)**
Clinical audit	Referral	29	87.9%	4	12.1%	33(31%)
	General	48	88.9%	6	11.1%	54(39%)
	Primary	54	93.1%	4	6.95	**58(46%)**
	Total	131	90.3%	14	9.7%	**145(39%)**
Clinical outcome monitoring	Referral	24	85.7%	4	14.3%	28(26%)
	General	40	93%	3	7%	43(31%)
	Primary	48	98%	1	2%	**49(39%)**
	Total	112	93.3%	8	6.7%	**120(32%)**
Patient satisfaction survey	Referral	52	72.2%	20	27.8%	72(68%)
	General	76	76%	24	24%	**100(73%)**
	Primary	79	88.8%	10	11.2%	89(70%)
	Total	207	79.3%	54	20.7%	**261(70%)**
Patient right and responsibility	Referral	34	85%	6	15%	40(38%)
	General	61	84.7%	11	14.3%	72(52%)
	Primary	78	95.1%	4	4.9%	**82(65%)**

Activities		Quality management system Implemented				Total
		Yes	%	No	%	
	Total	173	89.2%	21	10.8%	**194(52)**
Compliant receiving	Referral	46	86.8%	7	13.2%	53(50%)
	General	72	91.1%	7	8.9%	79(57%)
	Primary	74	94.9%	4	5.1%	**78(61%)**
	Total	164	78.1%	46	21.9%	**210(57%)**
Compliant analysis	Referral	31	83.8%	6	16.2%	37(35%)
	General	42	91.3%	4	8.7%	46(33%)
	Primary	51	100%	0	0%	**51(40%)**
	Total	124	100%	0	0%	**124(33%)**
Performance assessment	Referral	54	67 %	27	33%	81(76%)
	General	76	70%	32	30 %	**108(78%)**
	Primary	80	85 %	14	15%	94(74%)
	Total	210	74%	73	26%	**283(76%)**
Continuous educational program	Referral	42	69%	19	31%	61(57.5%)
	General	69	87%	10	13%	79(57%)
	Primary	73	96%	3	4%	**76(60%)**
	Total	184	85%	32	15%	**216(58%)**
Benchmarking	Referral	52	67.5%	25	32.5%	**77(73%)**
	General	73	73.7%	26	26.3%	99(72%)
	Primary	81	88%	11	12%	92(72%)
	Total	206	77%	62	23%	**268(72%)**

As shown in the above table from 12 standard quality management system activities most of the activities were found implemented highly in primary hospitals where as conducting patient satisfaction survey biannually and conducting employees performance assessment were highly implemented in general hospitals and the rest two activities (conducting regular quality review meeting and benchmarking of the hospital activities with other hospital) were found highly implemented in referral hospitals .

6.3 strategy of the hospitals toward Quality management system

222 (59.8%) of respondents report that there was well communicated mission on quality care in the hospital where as the rest were report there is no communication on quality mission in the hospitals.

237 (63.9%) of respondents report the availability of well communicated hospital quality plan where as the rest were report the quality plan is not communicated in the hospitals, and the availability of specific budget for the purpose of quality improvement activity were reported by 146 (39.4%) where as the rest report there is no specified budget for QI activities in the hospitals.

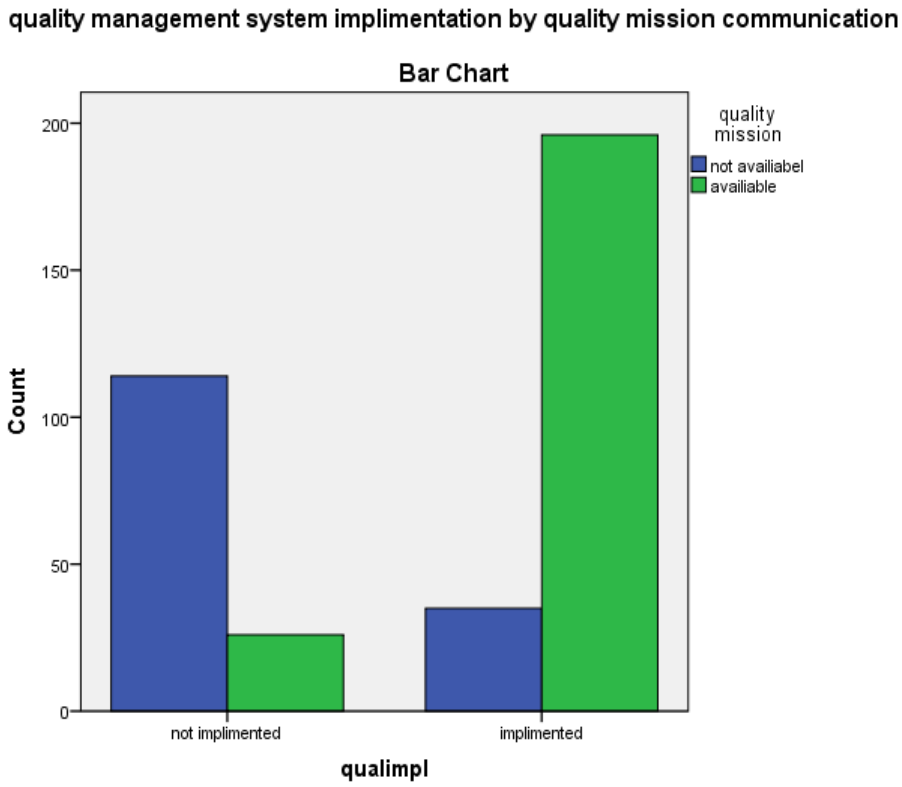


Figure three: quality management system by well communicated quality mission in hospital, Amhara region, 2017.

238(64.2%) of respondents reported the presence of functional quality committee in the hospital where as the rest 133(35.6%) reported that the hospital doesn't have functional quality committee.

As reported by respondents who report poor function of quality committees ,reasons behind poor quality committee function tend to be as follow: membership dominated by few professions 61(25.6%) , lack of acceptance from top managers(45%) ,dual or more committee membership responsibility(21%) .

205 (55.3%) of all respondent report that the presence of regular and standard based monitoring system of employee QI activities by department heads where as the rest report absence of such a system and 228(61.5%) of respondent report that a presence of regular and standard based monitoring system of departmental QI activities where as the rest report the absence of a system.

6.4 Professionals awareness and training

277 (74.4%) of all respondents report that the professionals were aware about the details of the quality management system where as the rest were reported professionals are not aware enough about the QMS.

205(55.3%) of all respondents report that professionals were provided with training on quality management system where as the rest claims professionals were not provided with training, while 252(67.9%) of all respondents reported that staffs on managerial position provided with training on quality management system.

From those report poor professional awareness , most of the respondents claims lack of training for the clinical staffs were the reason behind poor professionals awareness..

6.5 Professional participation

Participation of professionals in quality management system was reported by 239(64.4%) of respondents where as the rest reported professionals are not participated in the QMS.

From those report poor participation of professionals in QMS report communication defect on quality management system, lack of opportunity to participate and employee resistance as a reason behind poor participation of employees in QMS.

Participation of professionals on QMS was explained as low by half of key informants and employee reluctance and lack of opportunity was mostly raised reasons for poor participation of professionals in hospitals.

6.6 Perceived Significance of quality management system

237(63.9%) of respondents report that most of professionals perceive the quality management system is significant for the hospital where as the rest were report most of professionals perceive the QMS is not significant, while 138 (37.2%) of all respondents report that implementation of quality management system in the hospital had a negative effect on professionals.

From those reports the QMS pose a negative effect on professionals 78(56.5%) report the system increases work load, 107 (77.5%) report the system expose the hospital to frequent, tedious and without gain meetings, and 85 (61.6%) report time wasted for unnecessary event registration as a negative effect of quality management system on professionals.

All of respondents claims the QMS is basement and the outmost necessity of hospitals to deliver quality service, and most of the key informants bring out employees attitude toward QMS as a critical factor for success of QMS implementation.

6.7 Result of binary and multivariate regression

6.7.1 Binary logistic regression

The impacts of selected independent variables on the status of quality management system implementation were investigated using bivariant logistic regression. In the binary logistic regression with the exception of hospital quality plan with p value = 0.923, all other variables showed significant associations with quality implementation status of the hospitals, where p value were taken less than 0.2. From the variables found to be significantly associated with the QMS in the bivariant analysis, most of the variables were found significantly associated with p value less than 0.001.

Table three: variables found significantly associated with QMS in hospital.

Variables		Yes(%)	No (%)	Crude odds ratio 95% CI	P value
Budget	**yes**	**113 (48.9)**	**33(23.6)**	**COR 0.322,CI 0.202-0.514**	**<0.001**
	No	**118(51.1)**	**107(76.4%)**	**1**	
Awareness	**yes**	**206(89.2)**	**71(50.7)**	**COR 0.125(0.073-0.212)**	**<0.001**
	No	**25(10.8)**	**69(49.3)**	**1**	
Hospital's Mission on quality	**Yes**	**196(84.8)**	**26(18.6)**	**COR 0.041, CI 0.023-0.071**	**<0.001**
	No	**35(15.2)**	**114(81.4)**	**1**	
Departmental monitoring	**Yes**	**131(56.7)**	**43(30.7)**	**COR 1.722, CI 1.105-2.683**	**0.016**
	No	**100(43.3)**	**97(69.3)**	**1**	
System significance	**Yes**	**202(87.4)**	**35(25)**	**COR 0.048, CI 0.028-0.083**	**<0.001**
	No	**29(12.6)**	**105(75)**	**1**	
hospital quality plan	**Yes**	**181(78.4)**	**50(35.7)**	**COR 0.153, CI 0.096-0.245**	**<0.001**
	No	**50(21.6)**	**90(64.3)**	**1**	
Quality committee	**Yes**	**193(83.5)**	**45(32.1)**	**COR 0.093,CI 0.057-0.153**	**<0.001**
	No	**38(16.5)**	**95(67.9)**	**1**	
Employee monitoring	**yes**	**170(73.6)**	**35(25)**	**COR 0.120,CI 0.074-0,194**	**<0.001**
	No	**61(26.4)**	**105(75)**	**1**	
Employee training	**Yes**	**162(70.1)**	**43(30.7)**	**COR 0.189,CI 0.120-0.298**	**<0.001**
	No	**69(29.9)**	**97(69.3)**	**1**	
Managerial training	**Yes**	**169(73.2)**	**57(40.7)**	**COR 0.534,CI 0.342-0.834**	**0.006**

	No	**62(26.8%0**	**83(59.3%)**	**1**	
Type of hospital	**Ph**	**92(72.4%)**	**35(27.6%)**	**COR 0.410,CI 0.238-0.707**	**0.006**
	Gh	**(60.7)**	**(39.1)**	**COR 0.592,CI 0.353-0.993**	**0.047**
	Rh	**55(51.9)**	**51(48.1)**	**1**	

6.7.2 Multivariate regression

Finally the multivariate logistic regression which takes the effect of confounding variables in to account was applied. All explanatory variables which were significant in bivariant analyses were included in the logistic regression. Accordingly six explanatory variables found to be significantly associated with quality management system in the hospitals.

Among those who report quality management system is implemented in the hospital 196 (52.8%) were reporting the availability of well communicated quality mission in the hospital. A hospital with well communicated quality mission is 6.8 times more likely to implement quality management system than hospital without well communicated mission on quality. **[AOR 6.810, CI (3.293-14.083)]** .

From those who report quality management system is implemented in the hospital, 92(72.4%) were primary hospitals. Being a primary hospital was found 3 times more likely to implement quality management system than referral/general hospital**. [AOR3.132, CI (1.323-7.410)]**

Among those who report quality management system is implemented in the hospital 202 (85.2%) were reporting most of professionals perceive the quality management system is significant for the hospital. Hospitals with professionals who perceive the quality management system is significant were found 5.8 times more likely to implement quality management system than hospitals lacking professionals perceive the QMS is significant for the hospital. **[AOR 5.839, CI (2.812-12.123)]** .

Among those who report quality management system is implemented in the hospital, 193 (83.5%) were reporting the presence of functioning quality committee in the hospital.

A hospital which has a functioning quality committee was found 2.9 times more likely to implement quality management system than hospital without a functioning quality committee. **[AOR 2.989, CI (1.372-6.512)].**

Among those who report quality management system is implemented in the hospital 113 (48.9%) were reporting the availability of specified budget for quality improvement activities in the hospital. Hospitals which set specified budget for quality improvement activities were found 2 times more likely to implement quality management system than hospitals not set specified budget**. [AOR 2.071, CI (1.022-4.195)].**

Among those who report quality management system is implemented in the hospital 169 (73.2%) were reporting managers are providing with training on quality and QMS issues. Being a hospital providing training for managers on quality and QMS issues were 2 times more likely to implement quality management system than hospitals which doesn't provide training for managers. **[AOR 2. 134, CI (1.029-4.427)].**

Among those who report quality management system is implemented in the hospital 169 (73.2%) were reporting the monitoring system of employees activities in the hospital were regular and standard. Hospitals which have regular and standard based employee monitoring system were 2.7 times more likely to implement quality management system than hospitals which doesn't have regular and standard employee monitoring system. **[AOR 2.791, CI (1.263-6. 165)] .**

Table four: variables associated with quality management system in multivariate logistic regression

Variable		QMS implemented		Crude odds ratio 95% CI	Adjusted odds ratio 95% CI	P value
		Yes	No			
Hospital's Mission on quality	Yes	196(84.8%0	26(18.6%)	0.041(0.023-0.07)	AOR 6.810,CI 3.293-14.083	<0.001
	No	35(15.2%)	114(81.4%)			
Mgr training	Yes	169(73.2%)	57(40.7%)	0.534(0.342-0.834)	AOR 2.134 ,CI 1.029-4.427)	0.042
	No	62(26.8%0	83(59.3%)			
Quality committee	Yes	238	64.2%	0.093(0.057-0.153)	AOR 2.989, CI 1.372-6.512	0.006
	No	133	35.8%			
QMS significance	Yes	202(87.4%0	35(25%)	0.048(0.028-0.083)	AOR 5.839, CI 2.812-12.123	<0.001
	No	29(12.6%)	105(75%)			
Type hospital	Primary	92(72.4%)	35(27.6%)	0.041(0.023-0.071)	AOR 3.132, CI 1.323-7.410	0.009
	General	(60.7%)	(39.1%)	0.592(0.353-0.993)		0.047
	referral	55(51.9%)	51(48.1%)	1		
Budget	Yes	113(48.9%0	33(23.6%)	0.322(0.202-0.514)	(AOR 2.072, 1.022-4.195)	0.043
	No	118(51.1%)	107(76.4%)			
Employee monitoring	Yes	170(73.6%)	35(25%)		2.791,1.263-6.165	0.011
	No	61(26.4%)	105(75%)			

6.8 Result of the key informant interview

Date were gathered from quality committee chairs of the seven hospitals with n= 7. Interviews were open-ended in nature and primarily focused implementation of quality management system, , involvement of professionals in QMS implementation , responsibility for QMS system, factors determine implementation. To analyze the collected data, content analysis was then conducted on the interview transcripts. As a result of content analysis, the following three categories and six sub-categories were identified.

Categories		
1. QMS implementation	1.1 implementation level	1.2 responsibility for QMS
2. Professional involvement	2.1proffesional participation	2.2 factor determine participation
3. Factor determine implementation	3.1 factors determine implementation	3.2 recommended solutions

6.8.1 QMS implementation

In the primary Hospital case, part of the argument that quality management system is implemented in the hospital that the implementation were explained by the improvement of standard quality indicators in the hospital,.

R1 from primary hospital said *" I can say that the quality management system is implemented in all departments of the hospital which is evidenced by progressive improvement of quality indicators in the hospital like MMR,IMR,HAI ."*

In the general hospital case both of the respondents clear that the quality management system implementation status in the hospital is above 50% where as the implementation of QMS were explained as under implementation by informants from referral hospital.

The quality committee were the top influential/the main player of the QMS in all hospitals and managers in the top level and departmental heads were reported as the second and the third main players of QMS in both referral and general hospital while professionals and department heads were the second and the third main players of the system in primary hospital.

6.8.2 Professional involvement

Most of the respondents clams the participation of professionals in the quality management system is low and from the professionals most of the informants argue that nurses had better participation than other professionals. That the participation of nurses in QMS were explained by document registration/event registration and reporting by all key informants.

R2 said that *" I wouldn't say that professionals are participated in the QMS of the hospital, because the only way professionals involved in QMS is document registration and reporting, which is difficult to say professionals are participated in QMS implementation "*

All of the respondents raised poor monitoring system of employees and departmental activities for the low participation of professionals in QMS and lack of opportunity and employee resistance were the other mostly raised reasons behind poor participation of professionals in QMS. The employee resistance toward QMS was explained by employee's attitude toward QMS significance and lack of trainings on QMS and related issues.

6.8.3 Factors determine quality management system

All of quality committee chairs (key informants) of the hospital mentioned that budget had always been a problem in implementing quality management system in the hospitals and Second, the communication of QMS across the hospital were the other factor determine the implementation and the third mostly mentioned factors to implementing QMS in the hospital were the commitment of top managers in managing quality effectively.

R4 said that *"there are many factors which can determine the implementation of QMS in this hospital, but above all .the main factor which determine QMS implementation is budget, even if all other necessities are accessible without a budget specified for QI program, it is impossible to implement it."*

7. Discussion

This study attempted to give the full picture of quality management system of government hospitals found in Amhara region. In doing so it measured the implementation status of quality management system and identifying factor affecting the implementation.

7.1 Quality management system implementation status

In this study findings showed that given the employee perception the QMS implementation in hospitals found in Amhara region is 62.3 %, which is lower than a study conducted in Kenya health care setting that the QMS implementation was found 86%. [19]

Whereas the quality management system implementation status in this study found to be higher when compared to other Prior research on the QMS implementation the system where the implementation status were 39.7% in Lithuanian support hospital.[9] and 4 per cent in Dutch hospitals, 0 per cent in Hungary, and 3 per cent in Finland [5]. However this comparison does not allow making any far-reaching conclusions, as the two studies used different QMS implementation assessment measures.

The study reveals that the QMS implementation status is higher among primary hospitals (72%) than general (61%) and referral hospitals (51%). And also From 12 standard quality management system activities included in the checklist: most of the activities were highly implemented in primary hospitals which is similar with the qualitative finding that respondent from primary hospital explain the quality management system is implemented where informants in the other type of hospital report it is under implementation.

Most of the standard QM activities were found implemented above 50% in the hospitals except three standard activities conducting clinical audit , compliant analysis and clinical outcome monitoring which were found implemented below average, (39%,33%,and 32%) respectively.

From 12 standard QM activities : Conducting quality review meeting (81%) , Bench marking hospital activities with other hospital (72%) and conducting patient satisfaction survey biannually (70%) were the top three highly implemented standard QM activities in the study hospitals .

Even though the presence of compliant receiving system were reported by 57% of respondents , the analysis and feedback mechanism of received complaints were implemented 33% which reveal that hospitals are just receiving the complaints of patients without a system of analyzing and feedback which makes receiving compliant a non sense job.

7.2 Factors affecting quality management system implementation

The study found significant association between hospital type and quality management system implementation status **(P, 0.009)** , that primary hospitals were found 3 times more likely to implement QMS and similarly study done in Malaysia also shows that quality management practice is higher among employees of the smaller district hospitals than the larger state hospitals.[7]

The above result may be explained as quality management thrives better in smaller hospitals, which are less bureaucratic and more suited to the employee empowerment approach to quality management and also QMS-related work is typically narrower in small organizations in comparison to large ones.

Whereas different result were reported in a study done in Lithuanian support hospitals report that implementation were found higher in large hospitals and the result was explained smaller organizations usually suffer a bigger shortage of resources, especially human resources. **[9]**

In this study being a hospital having functioning quality committee is 3 times more likely to implement quality management system **(P<0.006)** and This research findings are congruent to a study done in Jordan hospital ,which also point out Statistically significant correlations between QMS implementation and the availability of quality department [10]. Where as in contrary another study report there is no significant association between quality committee presence and quality implementation. [7]

This study found a significant association between communicating quality mission through the hospital and QMS implementation **(p <0.001)** and also result of qualitative finding shows communication on QMS in the hospital is a critical factor for implementation of QMS in the hospital**.**

The above result were shared by other three previously done studies that communicating the organization's mission for quality were reported as critical factor influencing the adoption of QMS which helps professionals to re conceptualize the boundaries of their jobs, maximizing employees' understanding of the vision, values and quality goals of the organization. [4, 21]

From the above result it is logical to say it is important that QM should be seen as a new paradigm a departure from the past. It is essential that senior management provide a vision that provides new direction to the organization that is compatible with the new paradigm for the program to be successfully implemented. It is important that it not be treated as an extension of existing quality systems, and the strategic role of the program be clearly communicated.

Whereas another study reported a lowly significant relationship between communicating mission and QMS implementation status [15] and these results may be explained as though a well-developed and communicated mission does have a positive influence on the momentum of the system process, it does not ensure that the implementation process will be able to sustain itself on its own, there are other pieces of the puzzle that need to be in place to ensure that the QMS process achieves and sustains momentum.

This study found that employees perceived significance of quality management system have statistically significant association with quality management system implementation status. (P, < 0.001) and the finding were consistent with the finding of key informant interview t that employees attitude toward QMS significance were a reason behind poor professional participation in QMS that which can be explained since professional participation has a paramount importance in QMS implementation which implies that employees attitude toward quality management system significance may affect the QMS implementation.

Similarly a study on Algeria public hospital brings out perceived significance of QMS is a critical factor for implementing the system effectively. [14]

Both of the above results suggest that management should be more committed to create a good picture of the system in professionals mind through intensive training and awareness creation program in order to promote employee involvement, providing a culture that allows interaction and responsibility for improvement of processes, intensifying their sense of commitment to progress and development in the organization.

In this study the quality management system was found significantly associated with managerial training on quality management system, which can be stated as managers who take trainings on QMS will have better understanding of the system and how to implement the system effectively by considering the context and culture of the hospital and also qualitative study indicated top managerial commitment toward QMS is a main determinant factor for QMS implementation in the hospital. **(P, 0.042)**

Another study conducted on managerial approach to QMS show similar finding with the present study that the study report training of top managers and senior medical officials on quality care in the hospitals were paramount important for implementing QMS in the hospital. [8] Thus both of the result can be explained by in-depth understanding of managers about quality in the health care make top management to employ approaches which nurture involvement of all medical employees and pay a maximum attention in creating, adopting and managing changes flexibly.

Finding of the present study shows regular and standard based monitoring system of professionals activities on quality improvement were found significantly associated with quality management system implementation and also employee monitoring system was indicated as a factor determine professional participation in the qualitative study ,that the result may be explained by the presence of such a system may enhance the involvement of professionals in QI activities which is a main drive for the implementation of QMS**(P,0.011).**

And also both of the quantitative and qualitative findings shows the presence of budget specified to quality improvement activities is a determinant factor for QMS implementation that the quantitative study were found a significant association of budget with quality management system implementation **(P, 0.043)**, that the result may be explained by the presence of a specified budget for QI activities will facilitate implementation of the system. **(See table four)**

7.3 Strength of the study

- The study used standardized tool which was prepared by the Federal Ministry of Health of Ethiopia (EHRIG).
- The study was conducted in different hospitals which makes the study representative of hospitals in Amhara region.
- The study used mixed study design to support and strengthen the quantitative finding.

7.4 Limitation of the study

- The paper did not attempt to determine the detailed activity specific QMS implementation, assessment of which would have necessitated such means as quality audit, benchmarking, etc. The above issue could serve as a research object for further studies in the area.
- This paper is built on the professional perceptions of the QMS implementation, which may bear a certain level of subjectivity.

8. Conclusion

The study was conducted to assess current implementation status of QMS and factor affecting its implementation in Amhara region. And quality management system implementation of hospitals found in Amhara region was reported the quality management system implementation status is sexiest two percent (62%) which were found higher than other previously done studies.

Implementation of the 12 operational standards included in QM chapter of EHRIG was found to be in range 32% – 81% and Conducting regular quality review meeting, patient satisfaction survey and bench marking of the hospital activities were the top three highly implemented standard quality management activities respectively.

Whereas conducting clinical audit, monitoring clinical outcomes and compliant analysis and feedback mechanisms were found poorly implemented standard quality management activities.

Overall, the quality management system implementation status in the study hospitals were found significantly associated with presence of well functioning and influential quality committee, presence of regular and indicator based employee activity monitoring system, professional's perceived quality management system significance, providing managers with training on quality and presence of specified budget for quality improvement supportive, and with a type of hospitals.

The findings of this survey on the implementation of QMS urges there is a need to have ,well functioning and influential quality committee ,regular and indicator based monitoring system of employees activities , create /build awareness of the staff on the significance of QMS for the hospital , system of regular training for employees regarding quality and setting specified budget for quality improvement activities .

9. Recommendation

- **To hospitals found in Amhara region**

- It is imperative for the hospital management to open ways/provide opportunities for employee participation which can garner their involvement in its quality endeavor.

- The hospital management should give emphasize to communicating the mission of the hospital toward quality across the entire hospital.

- Investing on improving the clinical outcome monitoring and compliant analysis system.

- The hospital management should focus on intensifying training opportunities for managers on Quality and quality related issues..

- The hospital should place special emphasis on creating acceptance/recognizing the activities of the quality committee which inspire quality committee members to excel in performance.
- Establishing a quality committee comprise of different professional which furnish the activities of the committee with multi versed idea and opinion in nurturing the quality management

- Another practical recommendation from this study is the suggestion for taking care of the activities related to the monitoring system of professional QI activities, which implies hospital management should be more committed to these activities since knowing measurement of performance leads to orient the practice of professionals toward the desired standards which will promote employee involvement, intensifying their sense of commitment.

➢ To Amhara regional health bureau

- There should be external technical support to hospitals through building leadership capacity to scaling up the status of implementation.

- Facilitating and arranging training schedules for managers on quality and quality management to ensure that all facets of the organization, the organizational structure, management style, training, communications, compensation and promotion systems, and systems, procedures, and processes reflect QM values and principles.

Strategic implication

- There should be improved government attention to the QMS implementation in hospitals that the ministry of health should implement regular and standardized monitoring programmers on QMS implementation of hospitals besides measuring the hospital performance annually.

Future research

- This study may serve as a foundation for future studies in different regions. So, it is recommended that this study be repeated in different regions and contexts. The results of such studies can be very helpful for developing a model of QMS that can be implemented easily and successfully in a cross-cultural and through all type of hospitals.
- This study also suggest for further research can be done on challenges of QMS implementation in hospitals by using qualitative study design that will helps to get in-depth and reach information about the implementation of QMS in hospitals.
- It is also help full if studies conducted on the association of QMS implementation and service outcomes.
- Also suggest a study on clinical outcome monitoring practice of hospitals.

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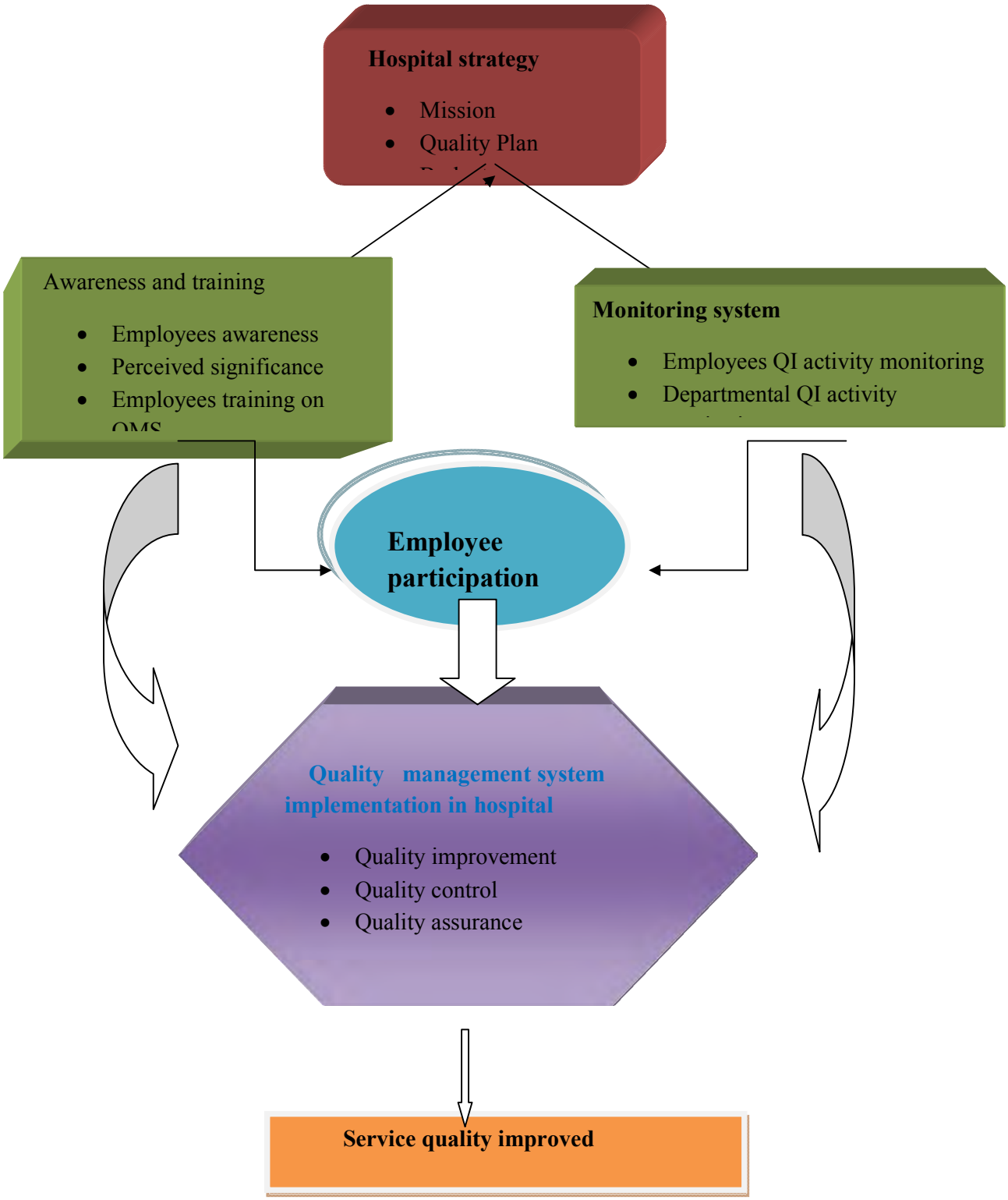
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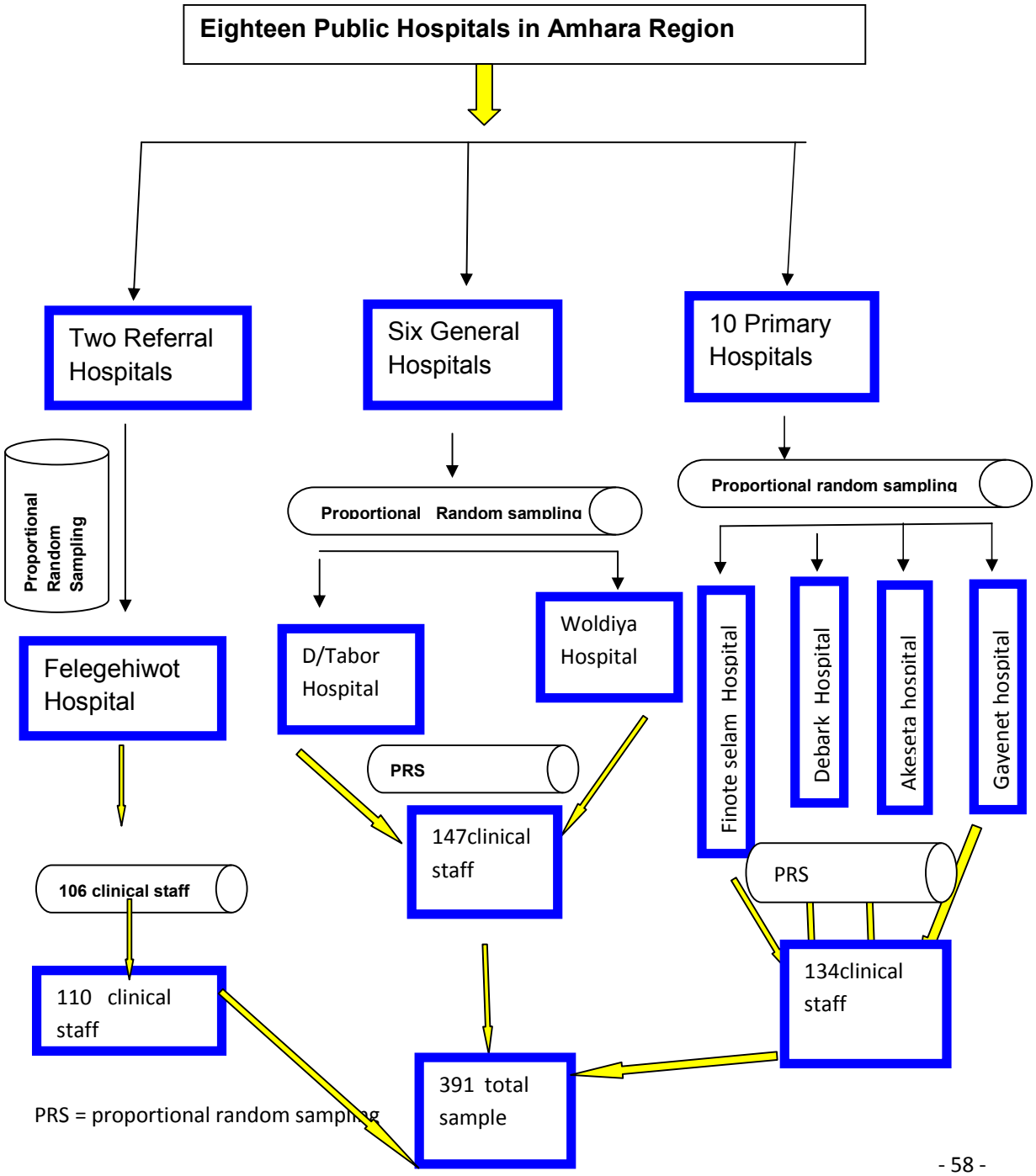
Annex one: conceptual framework of quality management system in hospital.


Hospital strategy
Mission
Quality Plan
Awareness and training
Employees awareness
Perceived significance
Employees training on
Monitoring system
Employees QI activity monitoring
Departmental QI activity
Employee participation
Quality management system implementation in hospital
Quality improvement
Quality control
Quality assurance
Service quality improved

Note: Framework prepared by reviewing different literatures on quality management system in hospitals.

Annex Two: schematic presentation of sampling procedure

Schematic Sampling Procedure



Annex three: information consent sheet and self administered questioner form in English.

Appendix Three: Information Sheet

Addis Ababa University

College of medicine and health science

School of public health

A questioner prepared to asses current implementation status of quality management system and factor affecting its implementation in public hospitals found in Amhara region, Ethiopia, 2017.

Consent form

My name is Tsiyon Adebabay, a final year master of public health student at Addis Ababa University. I brought this questioner to you to assess implementation of quality management system public hospital in Amhara region. From professional perspective. The purpose of this study is to get information on the implementation of quality management system of hospital in Amhara region to design appropriate intervention to address quality management implementation gaps of hospital . Therefore your honest and genuine participation by responding the questions is highly appreciated and helpful to attain the study objective. You may have your own contribution to the success of this study. Your name will not be written on this form and no individual response will be reported to anybody. Hence, your answers are completely confidential. You don't have to answer any question that you don't want to answer and you may refuse to answer all of the questions.

Name of the interviewer _____ sign _____ date _____

Address of PI

Tell; 0925456597 Email adebabaytsion@gmail.com

Part one : Background information

1.	Profession of the participant? 1. Physician 2. Health officer 3. Nurse 4. Midwife 5. Laboratory technician 6. Pharmacist 7. Other…….
2.	Sex A. Male B. Female
3.	Age ……
4.	. Educational background? 1. Diploma 2. Degree 3. Msc and above Other…….
5.	Type of hospital that you serve? 1. Referral 2. General 3. Primary

Part two: Hospital Strategy

- **For question 6-9 :** use 1= Not available 2= Available but not communicated throughout the hospital

  3=Available and communicated throughout the hospital 4 = don't know

- **For question 10 uses** : 1. Not available 2 = available but not separated for quality

  3 = there is specified budget for quality improvement 4 = don't know

Activities	1	2	3	4
6.Mission regarding quality care delivery				
7.Quality plan of the hospital				
8. Departmental quality plan				
9.Budget for quality improvement				

Part three: Quality management system implementation

- Use the following 1= strongly disagree 2= disagree 3 = neutral 4 = agree 5= strongly agree

Activities	**1**	**2**	**3**	**4**	**5**
10. Quality review meeting conducted in each case team					
11. Incident reporting and analysis system in each case team					
12. Risk analysis and management system in each case team					
13. Clinical audit in each case team					
14. Monitoring clinical outcome in each case team					
15.Patient right and responsibility posted in service areas					
16. Patient satisfaction survey conducted(in/out patient)					
17.Patient compliant receiving system(suggestion box,)					
18.Compliants received analyzed and discussed with the staff					
19.Employee performance evaluation					
20. Continuous educational program for employees					
21.Benchmarking hospital activity with other hospital					

Part four: Employee empowerment and participation

22.	How do you explain the quality management system in your hospital? A. The system had no significance at all. B. The negative effect of the system overrides the significance of the system. C. The system is significant but it can't be practicaly implemented in hospitals. D. The system create improved environment in different aspects of the service. E. The system is a necessity question for the well being of the hospital.	
23.	Who is/are the main player in the quality management system in the hospital? (2 or more choices possible) □ No one □ Quality committee □ Professionals □ Staff on managerial position Other……	
24.	How do you explain the quality committee in your hospital? A. Not established B. established but there is no movement at all. C. Established but not fully functioning D. Established and fully functioning E. Don't know Others ……	
25.	If your answer for question 24 is choice "1" or "2" or "3"what are the reason for poor quality committee functions? (2 or more choices possible) □ Budget scarcity	

	□ Loss of influence on quality matter □ Managerial dominance □ Dual and more committee membership Other……..	
26.	How do you explain the awareness of the staff about quality management system? A. Not aware at all B. Only less than 50% of the staff has general information about the system concept C. 50 % and more of the staff have general information but not clear with the necessity of the system and what expected from them. D. 50 % and more of the staff have detailed information on the necessity, expectation from them. Others …….	
27.	How do you explain the participation of professionals in quality management system? A. Not participated at all. B. Less than 50 % of the staff participated C. 50 % and more of the staff participated D. Don't know Other…….	
28.	If your answer for question 27 is choice "3" what are the activities that professionals participated in? □ Quality plan and evaluation □ Membership in quality circles /groups/projects □ Registration and reporting of procedures / HMIS data □ Influencing the fulfillment of community needs □ Others…….	

29.	If your answer for question 27 is choice “1” or “2” what are the reason for poor participation of employees?(2 or more choice possible) □ Communication on quality management not include employees □ No opportunity available for employees to participate □ Employee resistance □ Others ……	
30.	How do you explain the training of employees on quality management system? A. Not provided B. Only for case team leader C. Less than 50% of the staff provided D. 50% and more of the staff provided E. Don’t know Other……	
31.	How do you explain the training of managers on quality management system? A. Not provided B. Less than 50% of the staff provided C. 50% and more of the staff provided D. Don’t know Other……	
32.	How do you see the system of monitoring employee quality improvement activities by department heads/case team leaders? A. Not available at all. B. the system is available but not regular and standard based C. Regular but not based on standard indicators D. Regular and standard based monitoring system D. Don’t know	

	Other……	
33.	How do you see the overall monitoring of departmental performance by the top level managers? A. Not available B. Available but not regular and standard based C. Regular but not standard based D. Regular and standard based monitoring system E. Don't know Other……	
34.	Do you think the quality management system has negative effect in the hospital? A. Yes B. No Others……..	**Skip to 35 if"yes"**
35.	. If your answer for question 47 is yes what are the negative effects of the system? (2 or more choice possible)? □ Work load increase □ Time wasted for unnecessary registration □ Tedious meeting without gain □ Other…….	

Annex four: Informed consent form and self administered questioner in Amharic.

በተሳታፊ የሚሞላ ቃለ መጠይቅ

አዲስ አበባ ዩንቨርስቲ

ህክምና እና ጤና ሳይንስ ኮሌጅ

የህብረተሰብ ጤና አጠባበቅ ትምህርት ክፍል

ይህ ቃለ መጠይቅ የተዘጋጀው የመንግስት ሆስፒታል የአገልግሎት ጥራት አስተዳደር ስርዐት አፈፃጸም እና ተሳትፎውን ሚወስኑ ምክንያቶችን ለማጥናት ነው።

<u>ፈቃድ መጠየቂያ</u>

ጽዮን አደባባይ እባላለሁ በአዲስ አበባ ዩንቨርስቲ በህብረተሰብ ጤና አጠባበቅ ሁለተኛ ዲግር ተማሪ ነኝ። ይህን ቃለ መጠይቅ ለእርስዎ ያቀረብኩት የሆስፒታል የአገልግሎት ጥራት አስተዳደር ስርዐት አፈፃጸም እና ተሳትፎውን የሚወስኑ ምክንያቶችን ለማጥናት ነው። በሆኑም የእርስዎ ግልጽና እውነተኛ ተሳትፎ የጥናቱን አላማ ለማሳካት ጉልህ ድርሻ አለው። የተሳታፊው ስም ባለመጻፉ ሚስጥራዊነቱ የተጠበቀ ነው። መመለስ የማይፈልጉትን ጥያቄ ያለመመለስ እንዲሁም ጥናቱ ላይ ያለመሳተፍ መብተዎ በማንኛው ሰዓት የተጠበቀ ነው።

ለመመለስ ፍቃደኛ ነዎት

- ☐ አዎ
- ☐ የለም

ለመመለስ ፍቃደኛ ከሆኑ ብቻ ወደሚቀትለው ገጽ ይቀጥሉ

እናመሰግናለን!

ክፍል አንድ ፡አጠቃላይ መረጃ

1.	የ ሞያ አይነት? □ ሀኪም □ ጤና መኮንን □ ነርስ □ አዋላጅ ነርስ □ የላብራቶሪ ባለሞያ □ የፋርማሲ ባለሞያ ሌላ……..	
2.	.ያታ □ ወንድ □ ሴት	
3.	እድሜ……..?	
4.	የትምህርት ደረጃ □ ዲፕሎማ □ ዲግሪ □ ማስተርስ/ስፔሻሊስት ሌላ……..	
5.	. የሚያገለግሉበት ሆስፒታል አይነት? 1. ሪፈራል ሆስፒታል 2. አጠቃላይ ሆስፒታል 3. ፕራይመሪ ሆስፒታል	

ክፍል ሁለት ፡ ፖሊሲ እና ስትራቴጂ

የሚከተሉት ዶክመንቶች እና ተግባራት በምን ደረጃ ይገኛሉ ?

1. የለም
2. አለ፣ግን ከሆስፒታሉ ተግባራት ጋር የተዋሀደ አደለም
3. አለ፤ እንዲሁም በሆስፒታሉ የስራ ሂድት ውስጥም የተዋሀደ ነው

➢ የ ተስማሙበት ነጥብ ላይ ምልክት ያድርጉ ?

ተግባራት	1	2	3
6. የ ሆስፒታሉ ስራ ተልዕኮ መግለጫ			
7. የሆስፒታሉ የአገልግሎት ጥራት ዕቅድ አመታዊ የ አገልግሎት ጥራት ዕቅድ (በሆስፒታሉ ጠቅላላ አመታዊ ሪፖርት ውስጥ ጥራትን የሚመልከት ክፍል			
8. የሆስፒታሉ የአገልግሎት ስራ ክፍሎች የጥራት ዕቅድ			
9.ለሆስፒታሉ ጥራት ማሻሻል የሚውል የውስጥ በጀት			

ክፍል ሶስት ፡ የጥራት አስተዳደር ትግበራ

በሆስፒታሉ የጥራት አስተዳደር ስርዐት ትግበራ በሚከተሉት ነጥቦች ምን ያክል ይስማማሉ?

1 = በፍፁም አልስማማም 2 = አልስማማም 3 = ምንም ማለት አልችልም 4 = እስማማለው

5= በጣም እስማማለው

ተግባራት	1	2	3	4	5
የሆስፒታሉ ክሊኒካል ኬዝ ቲሞች የጥራት መገምገሚያ ስብሰባ ያደርጋሉ					
ሆስፒታሉ ያልተጠበቁ ኩነቶችን /ስህተቶችን የሚለይበት እና የሚፈተሸበት(incident reporting system) መንገድ እና የተመደበ ባለሞያ አለ.					
የሆስፒታሉ ክሊኒካል ኬዝ ቲሞች የድንገተኛ አደጋወች ቅድሚያየመለየትስራ/ጥናትያካሂዳል(risk assessment/analysis)					
የሆስፒታሉ ክሊኒካል ኬዝ ቲሞች (clinical audit)					
ሁሉም የሆስፒታሉ ኬዝቲም የአገልግሎት ውጤቶችን የሚለኩበት አመላካቾች ይጠቀማሉ(clinical indicators)					
ሆስፒታሉ የተጠቃሚወችን መብቶች በሚታዩ ቦታወች /በየ ዋርዱ ለጥፉአል					
ሆስፒታሉ የተጠቃሚወችን እርካታ መደበኛ ሁኔታ ይለካል					
ሆስፒታሉ ተጠቃሚውች ቅሬታቸውን እና አስተያየታቸውን የሚቀበልበት መንገድ አመቻችቱአል(compliant receiving system					
ተጠቃሚውች ቅሬታቸውን እና አስተያየታቸውን የሚመዝንብትና አስፈላጊውን መፍትሄ የሚሰጥበት ሁኔታ አመቻችቱአል					
ሆስፒታሉ መደበኛ የሰራተኞችን ብቃት ምዘና ያካሂዳል(performance assessment					
ሆስፒታሉ መደበኛ የሰራተኞችን ሞያ ማሻሻያ የትምህርት ዕና ስልጥና ዕድል አመቻችቱአል					
ሆስፒታሉ ክ ሌሎች ሆስፒታሎች ጋር የመማማሪያ እና የልምድ ልውውጥ መንገድ ይጠቀማል (benchmarking)					

ክፍል አራት ፡ የ ሰራተኞች ተሳትፎ

22.	በሆስፒታሉ ውስጥ ያልውን የጥራት አስተዳድር ስርዐት እንዴት ይገልፁታል? 1. ምንም ጠቁሜታ የሌለው ስርዐት ነው 2. ስርዐቱ ለሆስፒታሉ ካለው ጠቀሜታ የፈጠረው ችግር ይበልጣል 3. ስርዐቱ ጠቁሜታ ቢኖረውም በሆስፒታሎች ውስጥ መተግበር አይችልም 4. ስርዐቱ በሆስፒታሉ የአገልግሎት ጥራት ላይ መሻሻል የሚያመጣ ነው 5. ስርዐቱ ለሆስፒታሉ ሁለንተናዊ ለውጥ መሰረት ነው
23.	በሆስፒታሉ የጥራት ማሻሻያ ፕሮግራም ውስጥ ዋነኛ ሚና ተጫዋች ማን ነው? □ ማንም ግለሰብ ሆነ ክፍል በተለየ መልኩ አስትዋፅኦ አያደርግም □ የጥራት ኮሚቴው □ ባለሞያው □ የአስተዳደር ቦታ ላይ ያሉ ስራተኞች □ የስራ ክፍል መሪወች

	ሌላ\ካለ ይገለፅ.....
24.	በሆስፒታሉ ውስጥ ያለውን የጥራት ኮሚቴ ስራወች እንዴት ይገልፁታል? 1. አልተቋቁመም 2. ቢቋቁምም ምንም የሚስራው ስራ የለም 3. ተግባር ላይ ቢሆንም ሙሉ በሙሉ እየሰራ አደለም 4. ሙሉ በሙሉ እየሰራ ያለ ኮሚቴ ነው 5. ምንም ማለት አልችልም 6. ሌላ ካለ.....
25.	ለጥያቄ ቁጥር 24 መልስዎ ከ ምርጫ "4" ውጭ ከሆነ ተግባራዊ ላለመሆኑ ምክንያቱ ምንድን ነው? □ የበጀት እጥረት □ ተቀባይነት ማጣት □ የ ሀላፊዎች የ በላይነት □ በተለያዩ ኮሚቴወች ስራ መጠመድ ሌላ ካለ.....
26.	የሆስፒታሉ ክሊኒካል ስታፍ በጥራት አስተዳደር ስርዐቱ ዙሪያ ያላቸውን ግንዛቤ እንዴት ይገልፁታል 1. ምንም የሚያውቁት ነገር የለም? 2. ከ 50 በታች የ ሆነው ሰራተኛ ጠቅላላ መረጃ አለው 3. ከ 50 በላይ የ ሆነው ሰራተኛ ጠቅላላ መረጃ አለው 4. ከ 50 በላይ የ ሆነው ሰራተኛ ዝርዝር መረጃ ያለው እና ምን እንደሚጠበቅበት በደንብ የሚያውቅ ነው 5. ምንም ማለት አልችልም 6.ሌላ ካለ.....
27.	የሆስፒታሉ ክሊኒካል ስታፍ በ ጥራት ማሻሻል ስርዐቱ ውስጥ ተሳታፊ ነው ብለው ያስባሉ 1. ተሳታፊ አይደለም 2. ከ 50 በታች የ ሆነው ሰራተኛ ተሳታፊ ነው 3. ከ 50 በላይ የ ሆነው ሰራተኛ ተሳታፊ ነው 4. ምንም ማለት አልችልም 5. ሌላ ካለ.....
28.	ለጥያቄ ቁጥር 27 መልስዎ ከ ምርጫ "3 "ወይም "4 " ከሆነ ሰራተኞች ምን ምን ተግባራት ላይ ተሳትፎ ያደርጋሉ ? □ የጥራት ዕቅድ ዝግጅት እና ምዘና ላይ □ በተለያዩ የጥራት ቡድኖች እና ፕሮጀክቶች ላይ □ በ መረጃ ምዝገባ እና ሪፖርት ላይ ሌላ ካለ.....
29.	ለጥያቄ ቁጥር 27 መልስዎ ከ ምርጫ "4" ውጭ ከሆነ ላለመሳተፋቸው ምክንያቱ ምንድን ነው ብለው ያስባሉ ? □ የጥራት አስተዳደር ሰርዐቱ የግንኙነት መረብ ሰረራተኞችን ያካተተ አለመሆን □ ሰራተኛው በስርዐቱ እንዲሳተፍ የተመቻቸ ሁኔታ አለመኖር □ የሰራተኛው እንቢተኝነት ሌላ ካለ .....
30.	ሆስፒታሉ የጥራት አስተዳደር ስርአቱ ዙሪያ ለሰራተኞች የ ሚሰጠውን ስልጠና እንዴት ይገልፁታል ?

	1. ምንም ስልጠና የለም 2. ለ ኬዝ ቲም /ስራ ክፍል መሪዎች ብቻ ይሰጣል 3. ከ 50 በታች የሆነው ሰራተኛ ስልጠናውን አግኝቱል 4. ከ 50 በላይ የሆነው ሰራተኛ ስልጠናውን አግኝቱል 5. ምንም ማለት አልችልም 6. ሌላ ካለ……..
31.	ሆስፒታሉ የጥራት አስተዳደር ስርአቱ ዙሪያ በ ተለያዩ የ ሀላፊነት ቦታ ለሚገኙ ሀላፊዎች የ ሚሰጠውን ስልጠና እንዴት ይገልፁታል ? 1. ምንም ስልጠና የለም 2. ለ ኬዝ ቲም /ስራ ክፍል መሪዎች ብቻ ይሰጣል 3. ከ 50 በታች የሆነው ሰራተኛ ስልጠናውን አግኝቱል 4. ከ 50 በላይ የሆነው ሰራተኛ ስልጠናውን አግኝቱል 5. ምንም ማለት አልችልም 6. ሌላ ካለ……..
32.	.በሆስፒታሉ ውስጥ የ ስራ ክፍል ሀላፊዎች የሰራተኞችን ተግባራት የሚከታተሉበትና የ ሚቆጣጠሩበትን ስርዐት እንዴት ይገልፁታል ? 1. ምንም ስርዐት የለም 2. ስርአቱ መደበኛ ያልሆነ እና በ ስታንዳርድ መሰረት የማይተገበር ነው 3. ስርአቱ መደበኛ ቢሆንም በ ስታንዳርድ መሰረት የማይተገበር ነው 4. ስርአቱ መደበኛ እና በ ስታንዳርድ መሰረት የሚተገበር ነው 5. ምንም ማለት አልችልም 6. ሌላ ካለ……
33.	በሆስፒታሉ ውስጥ የበላይ አለቆች የየስራ ክፍሎችን የስራ አፈፃፀም የሚከታተሉበትና የ ሚቆጣጠሩበትን ስርዐት እንዴት ይገልፁታል ? 1. ምንም ስርዐት የለም 2. ስርአቱ መደበኛ ያልሆነ እና በ ስታንዳርድ መሰረት የማይተገበር ነው 3. ስርአቱ መደበኛ ቢሆንም በ ስታንዳርድ መሰረት የማይተገበር ነው 4. ስርአቱ መደበኛ እና በ ስታንዳርድ መሰረት የሚተገበር ነው 5. ምንም ማለት አልችልም 6. ሌላ ካለ……
34.	የጥራት አስተዳደር ስርዐቱ በሆስፒታሉ ላይ ያመጣው አሉታዊ ተዐዕዕኖ አለ? □ አወ፣ያመጣው አሉታዊ ተዕዕኖ አለ □ .ምንም አሉታዊ ተዐዕዕኖ የለም
35.	ለ ተራ ቁጥር 34 መልስዎ አዎ ከሆነ ያመጣው አሉታዊ ተዕዕኖ ምንድን ነው? □ ወጭ ጨምሩአል □ አላስፈላጊ እና አሰልች ምዝገባወች □ አድካሚ እና ውጤት አልባ ስብሰባወች □ ሌላ ካለ ይገለፅ…….

Annex five: Key informant Interview guide questioners

1.	How do you see the implementation of QMS in the hospital?	
3.	How do you see the participation of professionals in QMS in the hospital?	
2.	What are the factor/s determine QMS implementation in the hospital	