# ASSESMENT OF THE IMPLEMENTATION OF QUALITY MANAGEMENT PROCESSES WITHIN SELECTED PUBLIC HEALTH FACILITIES IN BUNGOMA COUNTY, KENYA

BY

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# A THESIS SUBMITTED IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTERS IN PUBLIC HEALTH (HEALTH SERVICES & SYSTEMS MANAGEMENT)

# SCHOOL OF PUBLIC HEALTH AND COMMUNITY DVELOPMENT

MASENO UNIVERSITY

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## DECLARATION

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# **OPERATIONAL DEFINITION OF TERMINOLOGIES**

Accreditation	-	Assessment of conformity to the prescribed standards and certification	
Customer	-	Recipients of care, service providers, Visitors and merchants.	
Health System	<b>m</b> - A combination of human resources, technolor resources in provision of health care		
Philosophy	-	Guiding principles of an organization outlining values and beliefs of the organization	
Quality	-	Provision of services that meet the expectations of customers as per the prescribed standards	
Quality assessment	&evalua	<b>ation</b> -An evaluation of services to ensure conformity to prescribed standards.	
Quality assurance to	eam-	A group of health experts tasked with implementation of quality management practices	
Quality Assurance	-	Maintenance of the desired level of quality in a service	
Service Charter	-	An outline of the services provided, cost, duration, waiting time and obligations	
Standard Operating	5		
Procedures	-Laid o	lown standards for performing specific procedures.	
Quality Management process: A set of procedures that are followed to ensure that			
		deliverables meet the expected standards. It involves quality	
		planning, Quality assurance, Quality control and continuous	

improvement.

# **ABBREVIATIONS**

AIDS	-	Acquired Immunodeficiency Syndrome
AMREF	-	African Medical Research Foundation
BCG	-	Bungoma County Government
BCH	-	Bungoma County Hospital
COC	-	Clinical Officers Council
CIC	-	Constitution Implementation committee
CGB	-	County government of Bungoma
GOK	-	Government of Kenya
HIV	-	Human Immunodeficiency Virus
ICN	-	International Council of Nurses
ISO	-	International Standards Organizations
KEBS	-	Kenya Bureau of Standards
KDHS	-	Kenya Demographic Health Survey
KDHIS	-	Kenya Demographic Health Information system
KMLTTB	-	Kenya Medical Laboratory Technologists and Technicians Board
KMPDB	-	Kenya Medical Practitioners and Dentists Board
KNAS	-	Kenya National Accreditation Services
KNBS	-	Kenya National Bureau of Statistics
KNH	-	Kenyatta National Hospital
KQMH	-	Kenya Quality Management for Health

MCH/FP	-	Maternal and Child Health/Family Planning		
МОН	-	Ministry of Health		
MTRH	-	Moi Teaching and Referral Hospital		
NASCOP	-	National AIDS, STIs Control Program		
NCK	-	Nursing Council of Kenya		
NGO	-	Non-Governmental Organizations		
PPB	-	Pharmacy and Poisons Board		
QAD	-	Quality assurance department		
SOPs	-	Standard Operating Procedures		
STIs	-	Sexually Transmitted Infections		
SPSS	-	Statistical Package for social sciences		
TQM	-	Total Quality Management		
USAID	-	United States Agency for International Development		
WHO	-	World Health Organization		

#### ABSTRACT

Quality Healthcare is the kind of care that meets the expectations of patients, financiers, and all other stakeholders. Quality management process is a set of procedures to ensure that deliverables meet the expectations of the customers. This involves the interaction between healthcare personnel, customers, procedures, equipment, modern technology, and other resources to deliver expected quality health services to customers. The study assessed the implementation of Quality Management processes within selected public Health facilities in Bungoma County Kenya. The objectives of the study are to establish the patient's perception on implementation of quality management processes, staff adherence to standard operating procedures and assess the level of the hospital management involvement in implementation of quality management process within selected public health facilities in Bungoma county. The significance of the study is to come up with findings that will be used by the county government of Bungoma to strengthen the Ouality assurance department to ensure Ouality health care. The study was conducted in Bungoma County within three sub-county hospitals that is Kanduvi, Bumula and Kabuchai. The facilities were selected based on the Volume of patients seen.364 respondents (324 patients, and 40 health workers, The response rate for patients was 95.1%. The study design used was descriptive cross-sectional survey. Data was collected using a structured questionnaire and an observation checklist for the health workers. Data was managed using SPSS V22, descriptive data was analyzed using means, frequencies, and percentages while chi-square was used to establish association between variables. Study findings indicate Most, 195(63.3%) patients perceived implementation of quality management processes to be below average. Waiting time for the services as per the service charter was long more than one hour (54.4%). The health services offered were not affordable, inadequate staff, inadequate medical supplies and equipment, delay in referral systems and attendance emergencies. Staff adherence to Sop's in implementation of quality management processes shows all, 40(100.0%) indicated adherence to SoP's, 28(70.0%) didn't have hard/soft copies of Sop's, 30 (77.5%) did not refer to the Sop's when discharging their duties, all indicated presence a service charter, 32 (80.0%) did not refer to the service charter while engaging in their daily duties, only 16 (40.0%) had been trained on Sops. All 40 (100%) reported computerization of their hospital. All 40(100%) indicated their facility had a Quality Assurance Department (QAD) where 25 (62.5%) reported that their QAD conducted audits with 14 (35.0%) observing that their Quality assurance department offered feedback reports on the audits. On average about, 55.25% of health workers were in agreement/perceived that there was implementation of quality management processes in hospitals. On average, more than a half, 58.25% indicated that hospital management does not involve fully in implementation of quality management process. From the study findings, there was inadequate staff 31(77.5); p=0.001, inadequate financial resource allocation, 34(85%), p=0.000, inadequate medical supplies, 33(82.5%) p=0.000, inadequate staff involvement in change management, 28 (70%), p=0.001, irregular customer surveys, 32(80%, p=0.335, irregular quality management staff teaching /training, 27(67.5%), p=0.001. Study will provide findings that will be crucial in improving implementation of quality management processes in Bungoma hospitals with a view of enhancing customer satisfaction.

#### **CHAPTER ONE**

#### **INTRODUCTION**

#### **1.1 Background**

Health is fundamental basic human right that is enshrined in the Kenyan Constitution. Quality Healthcare should be acceptable, accessible, and affordable to all members of the community. Quality Healthcare is a term that encompasses many aspects of patient care that is safe, effective, timely, efficient and equitable (MOH 2019).

According to Donabedian (2013), quality management process is a systems approach within an organization to meet desired standards of performance in relation to meeting customers' expectations and satisfaction. Quality management process in healthcare involves the interaction between healthcare personnel, customers, equipment, modern technology and other resources.

According to the constitution of Kenya (2010) Health is a devolved function with the county governments offering services at levels 1,2,3,4 &5. Level 1,2,3 offer primary health care services while levels 4&5 offer curative and complex medical treatments. Level 6 hospitals are under the national government offering complex medical services (MOH 2004)

To ensure quality health services, the ministry of Health adopted Quality assurance teams whose mandate is to ensure that services offered meet a specific set criterion as per the standard operating procedures (MOH 2004).

Customer satisfaction is the ultimate goal of Quality management processes, Customer satisfaction is measured through various methods to include: Exit interviews where patients are given questionnaires upon discharge from the health facility, fill it and return it for analysis, Suggestion boxes can also be used to get feedback from patients especially sensitive information, Informal feedback during interaction with patients, patient advocacy groups and Focused group discussions.(Donabedian 2013)

Quality management process is the interaction between resources to include, health information systems, health policies, leadership, functional referral system and favorable environment to ensure patient satisfaction (Donabedian, 2013).

Patient's perception of quality health care refers to patient's view of health care services offered and the outcome of the treatment (WH0, 2000). Patient satisfaction is the link between their perceptions of quality and future intentions to use the service and recommend it to others. Patient's satisfaction is the desirable outcome of quality management processes which requires patient centered care in compliance to standards and efficient protocols, patient satisfaction is a blurred term that lacks clear and agreed upon definition because it is multidimensional and based on individual patients' preferences (MOH 2004).

Adherence to quality management processes by employees ensures elimination of clinical errors and reduce wastages in health facilities. By evaluating your institutions quality management processes and improving them, it eliminates inefficient and unhelpful processes. Staff adherence to quality management processes in health facilities enhances patient satisfaction, increased, patient loyalty, deliver quality products. Factors associated with successful implementation of quality management processes include; staff training, availability of standard operating procedures, quality procedure manuals, medical supplies and equipment, relevant technology among others (WHO, 2000).

Quality service delivery has a significant relationship with customer satisfaction, customer retention, loyalty, costs reduction and profitability which guarantees the growth of the organization (Boshoff and Gray 2004). According to Namusonge (2015) the health indicators in Bungoma county are poor with HIV prevalence of 6%, Neonatal mortality rate of 22 per 10,

000 live births and maternal mortality rate of 7 per 1000 deliveries (County government of Bungoma 2020).

Management commitment and Leadership is crucial successful implementation of quality management system. Management provides resources (financial, human resources, equipment, supplies and technology) for implementation of quality management processes (Caleb, 2021). The policies and objectives that management formulates should be meaningful to the institution. Top management is responsible for ensuring the integration of the quality management processes into the institution's operational guidelines (Caleb, 2021)

In Bungoma County, the burden of communicable and non-communicable diseases remains high with malaria, diabetes, Hypertension, Diarrheal diseases, pneumonia, HIV/Aids, Road traffics accidents as the top causes of morbidity and mortality (KDHIS, 2019)

The uptake of skilled birth attendance in Bungoma County is still low at 55% of the women delivering under a skilled birth attendant, while 45% lack skilled birth attendance leading to high maternal and infant mortality rates. (Ikamari,2020)

The challenges of healthcare devolution are many to include staff shortages, inadequate supplies, poor road networks, lack of ambulances, poor infrastructure (Namusonge2015). The global shortage of health workers has created a challenge in the provision of quality health services. Kenya has an average of 19 doctors and 166 nurses per 10,000 population below the WHO recommendation of minimum staffing levels of 36 Doctors and 356 nurses per 10,000 population (USAID 2013).

The poor state of customer services in some public hospitals has resulted in a high patient morbidity, mortality, increased operation costs, low morale among staff leading to searching for alternative services. This study therefore seeks to assess implementation of quality management processes within public health facilities in Bungoma County, Kenya.

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#### **1.2 Statement of the problem**

Delivery of quality health services that meet the customer expectations in Bungoma County is one of the main concerns of the residents, However the quality of health services offered remains poor despite the efforts by the county government to offer quality services. One of the areas of practice identified as a challenge is the implementation of quality management processes to ensure proper service delivery to the public. Kinoti & Owino (2015) identified several in efficiencies in public health systems including underutilization or malfunctioning facilities, Inefficient utilization of staff, lack of expenditure containment measures, and lack of modern medical equipment and technology. Mwamuye&Nyamu (2015) Observed that Bungoma county has challenges associated with devolution of health services including inadequate commitment by the hospital leadership to quality assurance. Weak policies on quality assurance, staff shortages and inadequate medical supplies,

#### **1.2 Study Objectives**

#### 1.2.1 Broad objective

To assess implementation of the quality management processes within selected public health facilities in Bungoma County, Kenya.

#### **1.2.2 Specific objectives**

- 1. To determine patients' perceptions on implementation of quality management processes within selected public health facilities in Bungoma County, Kenya
- To determine staff adherence to standard operating procedures in the implementation of quality management processes within selected public health facilities in Bungoma County Kenya
- 3. To determine hospital management involvement in implementation of quality management processes within selected public Health facilities in Bungoma County, Kenya

#### **1.3 Research Questions**

- 1. What Are the patient's perceptions on the implementation of quality management processes within selected public health facilities in Bungoma County, Kenya?
- 2. Are the staffs adhering to standard operating procedures in the implementation of quality management processes within selected public Health facilities in Bungoma County, Kenya?
- 3. Is the hospital management involved in implementation of Quality management processes within selected public Health facilities in Bungoma County, Kenya?

#### **1.4 Significance of the study**

Quality management processes in healthcare is a key component in quality assurance whose ultimate goal is to ensure quality health care services to the patients. The findings of the study will be utilized by the county government of Bungoma to ensure provision of quality healthcare services to the residents by addressing the inefficiencies identified and strengthening the quality assurance department. The findings of the study will also help the county government of Bungoma in looking at the strengths of its quality management processes for the possibility of seeking accreditation with the standards organizations like KEBS&ISO. The study findings will also be utilised by other researchers to enhance the concept of quality management in healthcare.

#### **1.5 Limitations**

- 1. The main challenge encountered was inadequate financial resources to carry out the study
- 2. Language barrier

# **1.6 Delimitations**

- 1. Borrowing of funds to finance the research activity
- 2. Use of interpreters and translation into local languages

#### **CHAPTER TWO**

#### LITERATURE REVIEW

#### **2.1 Introduction**

Quality as defined by the international standards organization in 2004 is the care that meets the expectations of the customers (Reinartz,2004) Quality health care should be safe, effective, Patient centred, Timely and equitable (Institute of Medicine 2001). Quality healthcare should have a positive impact on morbidity, Mortality, disability and malnutrition (WHO 2006).

The quality of health services offered in public hospitals in Kenya are rated as poor due to Staff shortages, drug shortages, poor infrastructure, delayed referrals and Lack of modern medical technology (Namusonge 2015) According to the Kenya demographic health survey 2019 Bungoma is one of the counties with a high disease burden to include high maternal mortality rate, malnutrition, HIV prevalence, Malaria and low uptake of skilled birth attendance.

Analysis of the global burden of disease and health disparities across counties outlined Baringo, Biomet, Bungoma, Elgeyo Marakwet, Embu, and Garissa as having poor quality of health services leading to high Mortality rates (Global Burden of Disease 2016)

#### 2.2 Patients' perception implementation of quality management process

Patients are the customers of the healthcare system consuming the services directly or indirectly, the patients' perceptions initially focused on the application of the generic models in quality management the most common being the service quality model (Parasuraman and Berry 1988) Outlined the four dimensions in quality of the services, responsiveness to the customer needs, empathy by the service providers, assurance of quality services and tangible outcomes.

The patients are the most important part of the healthcare system just like customers in the production system. Quality should be aimed at the needs of the customer both present and

future (Delvin 2009). Ahire et. al., (2021) outlined that customer complaints should be constantly considered and` feedback provided in good time with the aim of improving the quality management practices.

According to the Kenyan constitution patients have a right to highest attainable standard quality healthcare (GOK 2010), the care offered should meet the expected standards of care, Ministry of Health (2012) outlined the need to explain to the patients the services offered through the service charters and possibly translated in mother tongue and the sign language for those with challenges. The County government of Bungoma has managed to translate the service charters into the local language (County government of Bungoma 2020). Clients as the customers who are recipients of care as the most important component in measurement of the quality of health services provided (KEBS, 2018).

In a study conducted by (Kelly, 2009) on ISO certification in Nairobi University, the main focus was on the systems and the processes in teaching hospitals but the staffing factor overwhelmingly came out as a key determinant to the attainment of quality outcomes.

#### 2.3 Staff adherence to standard operating procedures

Rawlings (2008) defined standard operating procedures as guidelines written down in order to guide the carrying out of procedures in the country. The SOPS are developed by MOH, team of experts, standards organizations like KEBS /ISO /Regulatory bodies, professional organizations or adopted from the WHO. In healthcare Sops are available in every section including; infection control, laboratory practice, specimen collection, testing and safety. Pharmaceutical practice, drug safety, dispensation and pharmocol vigilance, immunizations, HIV/ testing and management family planning, Human resource guidelines (WHO 2014).

The standard operating procedures should be available at the facility, well displayed and even translated in the local language to enable the patients follow (Constitution implementation commission 2015). Staff training and orientation to SOPS ensures that they understand and are able to adhere them throughout the performance of the procedures (WHO, 1999). Developments and availing of procedure manuals and other Quality guidelines is key in Quality management processes each department requires at least a copy of Quality procedure manual. The SOPs provides framework through which quality standards are met and the right of patients are upheld in service delivery (Wanjau, etal. 2013). Implementation of standard operating procedure guidelines in immunizations in Kenya has greatly increased immunization coverage which has reduced the incidence of vaccine preventable diseases, early reporting of adverse events in under 5 and reduced mortality rate (Molt, 2009)

Adherence to SOPS in Pharmaceutical practice is well outlined, the pharmacy and poisons act cap 244 of the laws of Kenya provides guidelines on drug dispensation, procurement, drug and patient's safety (GOK 2010). Standard operating procedure guidelines in procurement and logistics Supply has greatly improved efficiency, transparency timely acquisition of medical supplies that is pharmaceuticals and non- pharmaceuticals.

#### Examples of Standard operating procedure guidelines available in hospitals

The common tools for quality assurance available in the health facilities include:

- 1. Patient service charter which has been customized and adopted by Countries and even adopted for translation in local languages GOK/MOH (2012).
- 2. The hospital strategic plans which outline the philosophy, mission, vision and strategies of the hospitals which have been customized and made known to all the staff who strive to achieve them and all of them are quality oriented (MOH, 2009)

- 3. Quality management manuals which have been developed by regulatory bodies both locally and internationally, to include NCK, ICN, KMLTB, KMPDU, PPB, KEBS, KNAS, and the who, which are the standard reference tools and used for training purposes.
- 4. Patients records available at the health facility including patients' files, cardexes, partographs, patient registers, monitor charts.
- 5. National patients' rights and charter 2013 which was developed by the MOH in conjunction with the Civil society in which chapter 1 describes the rights of patients to access of quality Healthcare as a basic human right.
- 6. Suggestion boxes which are strategically placed in areas where the patients and clients can be able to access and place their views on the quality of services delivered.
- 7. The exit interviews where the patients are provided by a standard questionnaire by the health workers which is then analysed and findings presented to the quality assurance team.
- 8. In all the above implementation lies with the staffs.

#### **Importance of Standard Operating Procedures (SOP)**

Standard operating procedure is a set of written guidelines on carrying out medical procedures in health facilities within the Country (Rawlings 2008). The standard operating procedures are developed by a team of experts, regulatory bodies or adopted from the World Health Organisation

The importance of standard operating procedures in medical practice cannot be over emphasized and this includes the following (Singh, 2019)

- 1. Used as a set of performance standards which are important in enforcing work standards
- 2. Ensure standardization, Uniformity and quality of healthcare services across various levels of healthcare institutions.

- 3. Used in monitoring and evaluation of quality in healthcare for purposes of quality certification for example by KEBS and ISO.
- 4. Used as a reference, providing detailed steps on performance of particular procedures
- 5. Used as training guidelines for health workers on services provision and quality assurance in healthcare.
- 6. Used for medical legal purposes where clients as seeking legal redress for negligence to establish whether there was a breach in laid down procedures.

According to AMREF (2012), the challenges in implementation of Sops in health facilities include ignorance among staffs, clients, inadequate Human resources for health, infrastructure, support supervision, and lack of equipment to perform procedures as prescribed. According to the Nursing Council of Kenya (NCK 2016) strict adherence to the Nursing code of practice and Sops in nursing the quality of training and nursing practice in Kenyan public health facilities has improved. Studies on implementation of SOPs by HIV/AIDS care found improved health outcomes, compliance to treatment and standardization of services for the ease of referral and continuity of care (MOH/NASCOP 2009).

Poor compliance to health system guidelines is associated with dismal performance and contributes to deaths, injury, medical errors and patients harm (Omoit 2020). A study in Bungoma hospital on compliance to SOPS in documentation of medical records found out that health workers don't fully comply with the proper documentation which led to poor quality of care to the patient (Omoit 2020). According to Stanback (2007) adherence to standards operating procedures by staffs in family planning had greatly increased uptake of family planning services, reduction in unwanted pregnancies, abortions and the overall maternal health of women in Kenya.

Application of SOPs in laboratory diagnosis of HIV opportunistic infections (Kumari 2001) has increased case management of patients with HIV/AIDS across the world, patience referral has been made easier as in continuity of care (Kumari, 2001). The citizen's service charter is one of the standard operating tools that has been advocated for by the government (GOK 2006). A study done at Thika level 5 Hospital by Mwaura, Muiruriand Onyambu (2016) found out that staffs didn't adhere to the service charter especially waiting time for services. The time taken, availability and costing of the services. The study further found long waiting time for services that patients sought. Availability of standard operating procedures and guidelines on hand washing and waste management has greatly reduced hospital Acquired Infection (MOH 2010).

Translation of SOPS in local languages has greatly helped patients to follow the steps and procedures, Bungoma county government has translated the same SOPs in the local language which is spoken by the dominant inhabitants of Bungoma County (County government of Bungoma 2020).

# 2.4 Hospital management involvement in implementations of quality management processes

Top management plays a key role in organization decision making which subsequently impact on the decisions made by the organization which are manifested in the results (Zakeainei et. al.2012). The inclusion of employees in quality management processes gives them an opportunity to improve personal competency in performance of health procedures SOPs and patients' expectation (Yassamis et. al., 2002). Laibuta (2013) outlined the role of the county health management team in quality management processes as resource provision support supervision which are the back bone of quality health care. The management is responsible for human, material, drugs, non-pharmaceuticals and financial resources which are major determinant of quality management processes. Namusonge (2015) found out the county government of Bungoma had been committed on quality management processes through making strategic decisions to ensure that customers receive quality care.

In order to improve performance of health care systems policy makers adopted total quality management initiative (Talib, Rahman, and Azam 2010) the ministry of health adopted the Quality assurance teams / departments which have been devolved to the counties, the CHMT has a primary role in the implementation of quality assurance through support supervision, training of health workers on Quality management processes, provision of procedure manuals and Quality internal audits

Kuria (2017), studied how participation of employees influence performance of government healthcare organizations and found out that government employees are the backbone of the healthcare system. Management communication to both staff and customers on quality management process is key to success. Manoo and Kasongo (2021) outlined that breakdown in communication within an organization leads to failure in achievement of organizational goals both internal and external communication is critical in the implementation of quality programs as it makes stakeholders have a deeper understanding of quality and how it can be managed. The top management must avail resources, institute quality policy that is well articulated to the stakeholders across the organization, setting up quality management plans and monitoring and evaluation system (Sharp, Shariff and Davie 2000).

According to Deming (1986), the organizations managements need to establish leadership that will lead the quality management process and the leadership can either be transformational or transactional. The transformational leadership is one whose ideologies are anchored on a vision while the transactional leadership is anchored on rewards. According to Arshuda and Agil (2012), the commitment of the top leadership is crucial from the onset so that the staff can

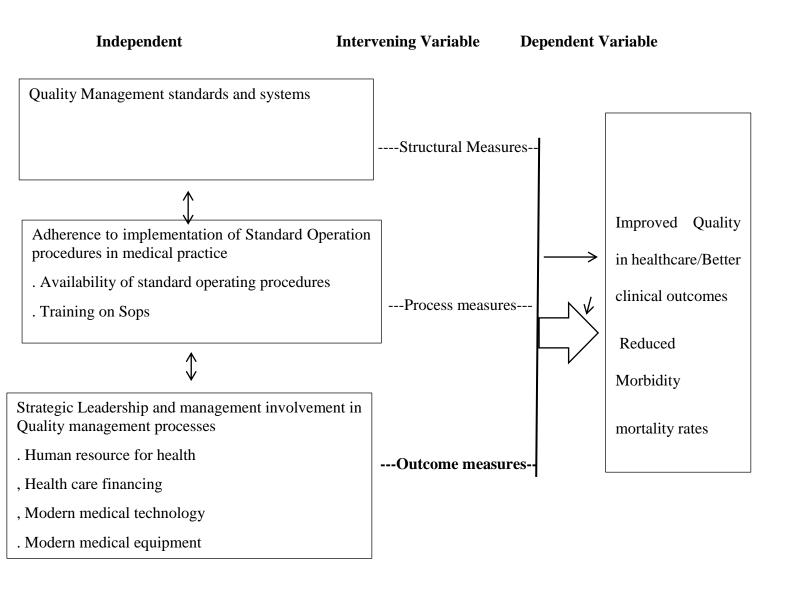
master and identify with the processes. Letting & Kirwa (2014) outlined that the senior management must come up with clear goals, quality mission, quality objectives with which the organizations will implement quality management process.

Training of employees on quality management process is the basic foundation in the achievement of quality management Omware (2012). The employee training should be structured to cover knowledge, attitude and skills to practice the quality management procedures, introduction to the quality procedure guidelines/ manuals and the standard operating procedures. The use of the health information management systems as emphasized by top management has increased efficiency in the Healthcare delivery, the use of ICT services has improved the speed of patient registrations, discharge and interlinkage between different service providers thus enhancing quality of healthcare (Omoit 2020) Procurements of the computerized accounting packages, internet and telecommunication structure has greatly increased accountability, referral system and reduced the waiting time for services which has increased customer satisfaction (Taylor and Zod 1998).

#### 2.5 Conceptual framework

The conceptual framework adopted for the research is the Donabedian model (Donabedian 1985) which outlines quality healthcare from 3 dimensions, the structure to include inputs, materials, staff, finances, organizational structures, leadership and Health information management systems. The process which examines how the care is provided, adherence to standard operating procedure guidelines and the outcomes which are the end results as per patient expectations (quality health service: quick recovery, reduced incidence of disease, timely payment to suppliers, response to customer complaints and reduced customer complaints). The Donabedian model is a conceptual model that provides a framework for

examining health services and evaluating quality of care (McDonald et al 2007). The dimensions of care according to Donabedian (1990).



Source: Donabedian Model (Avedis Donabedian 1985)

#### **CHAPTER THREE**

#### **RESEARCH METHODOLOGY**

#### 3.1 Study area

The study was conducted in public health facilities within Bungoma County. Administratively the county borders Kakamega, Busia on the south western side, kakamega on the southwestern and eastern side, Uganda on the Northwestern side and Transnzoia on the Northwestern side. The county covers an area of 3,0023km<sup>2</sup>, and located on latitude 10.29°N and longitude of 34.33°E. The population was projected to be 1,871,000, of which 817,146 male and 858,889 females by 2022 (Kenya National Bureau of Statistics 2019). The main economic activities in Bungoma County are agriculture, Industrial activities are also practiced with investment in Sugar milling and paper manufacturing. Trading activities both small- and large-scale businesses are done at retail and wholesale levels.

The County has 245 health facilities with 9 sub county hospitals, 27 health centres,131 dispensaries,67 clinics as at 2020. Doctor population ratio 0.2 per 10,000 population, nurses' ratio 3.2 per 10,000 population (County government of Bungoma 2020)

#### 3.2 Study design

A descriptive cross-sectional Survey study design was adopted in which quantitative data collection tools including questionnaires and observation checklists were used.

#### 3.3 Study Variables

The independent variables were patient's perception, staff adherence to SOPs and hospital management involvement in implementation of quality management process while dependent variable was implementation of quality management processes in public health facilities.

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#### **3.4 Study population**

The study population were health workers and patients seeking health services in public health facilities within Bungoma County. Total number of health workers, 1300 and the population size is 1,871,000. The information on volume of patients served in public health facilities was missing (KDHIS, 2022).

#### **3.5 Sampling Design**

#### **3.5.1 Sample Size Determination**

Based on Fisher et. al. (1998) a sample of 364 respondents. 324 patients and 40 health workers.

$$n = \underline{Z^2 pq}$$
$$d^2$$

n =	Sample size [where population> 10,000]
Z =	Normal deviation at the desired confidence interval (taken at 95%, $Z = 1.96$ )
P =	Proportion of the population with the desired characteristic
q =	Proportion of the population without the desired characteristic
$d^2 =$	Degree of precision; will be taken to be 5%. (0.05)

= (1.96) (1.96) (0.5) (0.5)(0.05) (0.05)= 0.9604 = 3840.0025

$$nf = \frac{n}{1+n/N}$$

$$n = 384$$
$$N = 6840$$

nf = 
$$\frac{384}{1+384/6840}$$
  
=  $\frac{384}{1.056}$   
=  $363.6 = 364$ 

 Table 3. 1: Sample Size distribution

Facility	Patients	Health workers	Total	Proportion (%)
Kanduyi s/county Hospital	160	14	174	48%
Bumula s/county Hospital	106	15	121	33%
Kabuchai S/county Hospital	58	11	69	19%
Total	324	40	364	100%

3.5.2 Sampling procedure

Three sub counties were selected based on the volume patients seen at the facilities and the disease burden at the various facilities as per the reports .at (Kanduyi, Bumula and Kabuchai Sub Counties). The three sub-county hospitals of Kanduyi, Kabuchai and Bumula were used for the study. The health workers targeted included doctors, nurses, clinical officers, pharmacist and public health officers. The health workers were stratified based on their cadre and systematically selected. Patients were purposely selected per sub-county based on the

#### 3.6 Pre testing of data collection tools

The questionnaire was pre-tested at Webuye Sub- County Hospital because of convenience to the researcher. which was not included in the study. A total of 10% (36) questionnaire were used of sample. The results were used to improve the reliability of data collection tools by identifying errors both typing and grammatical for correction on the final questionnaire.

#### 3.7 Inclusion and Exclusion criteria

#### 3.7.1 Inclusion criteria

- 1. The patients & staffs that consented to the study
- 2. Health workers who had worked in the facility for at least 6 months
- 3. Stable patients aged 18 years and above who had come for treatment at the health facilities in which the study was conducted.

#### 3.7.2 Exclusion criteria

- 1. Health workers that had worked for less than 6months at the facilities
- 2. Patients who were very sick and required emergency care or admission
- 3. Patients of unsound mind or suffering from psychiatric conditions

#### **3.8 Data Collection tools and procedure**

**Structured questionnaire**-Was used to collect data from patients and health workers. The questionnaire was written in English and structured based on specific objectives.

**Observation checklist** was used to collect data adherence to the standard operating procedures, and other quality management protocols.

#### 3.9 Validity and reliability of data collection tools

#### **3.9.1** Validity of data collection tools

Research assistants were trained for three days on the data collection procedure. The questionnaires were sent to quality management experts in the quality assurance team at Bungoma county headquarters department of health.

#### 3.9.2 Reliability of the data collection tools

Test-retest methods was utilized to establish reliability of the study instruments. The pretest involved 10% (36) of the sample population recruited. Webuye Sub-County hospital, which

was not included in the study. The questionnaire was administered twice to the same group of participants at an interval of two weeks. A test-retest correlation between the two sets of scores was computed by graphing the data in a scatterplot and computing Pearson's r. A correlation of +.60 or greater was considered to indicate good reliability for the study instruments (Price et al., 2013).

#### 3.10 Data Analysis and presentation

Descriptive statistics were analysed using measures of central tendency to include: mean, mode, median while standard deviation and Inferential statistics will be analysed using the chi-square. Chi-square was used to establish association between independent and dependent variables. The confidence interval was set at 95% while research findings were presented using tables, graphs and charts.

#### 3.11 Ethical consideration

The proposal was approved by School of Graduate studies Maseno, Ethical approval was granted by Jaramogi Oginga Odinga teaching and referral hospital. Permission to collect data was granted by the National commission for science, technology and Innovation. Permission was granted by the county government of Bungoma. Confidentiality was maintained by ensuring that names are not used but coded numbers on questionnaires participants were free to withdraw from the study at will.

#### **CHAPTER FOUR**

### **RESEARCH FINDINGS**

## 4.1 Socio-Demographic Characteristics of the respondents

### 4.1.1 Socio-demographic characteristics of patient's

A total of 118 (36.6%) were aged 18 to 25 years (Table 4.1). A high proportion of patients, 221 (68.3%) were female (Table 4.1). Almost half; 159 (49.1%) of the patients formally employed. 126 (38.8%) were single (Table 4.1) 99 (30.4%) of respondents had annual income of KES31,000 to 50,000(See table 4.1)

# Table 4. 1: Socio-Demographic Characteristics of the Patients

Variable and Categories		Frequency	Percentage (%)
	18-25	112	36.5
	26-35	94	30.4
Age	36-45	30	9.4
	46-55	30	9.4
	56-65	44	14.3
Gender	Male	98	31.7
	Female	210	68.3
	Formally Employed	151	49.1
Occupation	Self-Employed	88	28.6
	Not Employed	69	22.3
	Married	117	37.9
	Single	120	38.8
Marital Status	Separated	39	12.5
	Widowed	32	10.3
Income	<10000	89	29.00
	11,000-30,000	51	16.50
	31,000-50,0000	94	30.40
	51,0000-100,000	52	17.00
	>100,000	22	7.10

The response rate was **95.1%** for the patients translating to **308** of the **324** respondents

# **4.1.2 Demographic features of the health care workers**

There were more males; 26 (65.0%) health worker with slightly half 21(52.5%) age category of 18-35. A high number of the health care workers; 16 (40.0%) were nurses as shown in table 4.2.

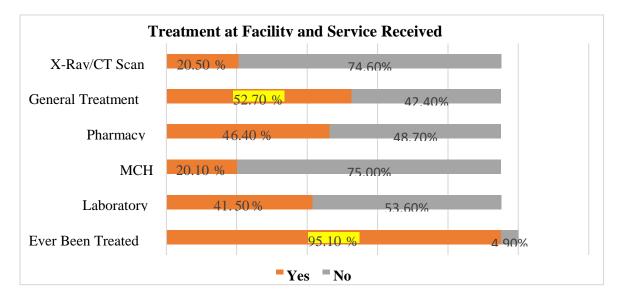
Variable and Categories		Frequency	Percentage (%)
	18-35	21	52.5
	36-45	9	22.5
Age	46-60	6	15.0
	>60	4	10.0
Gender	Male	26	65.0
	Female	14	35.0
	Nursing	16	40.0
	Pharmacy	6	15.0
	Laboratory	2	5.0
	Clinical	1	2.5
	Public Health	3	7.5
Department	Administrator	6	15.0
	Medical Officer	2	5.0
	Nutrition	2	5.0
	Radiology	2	5.0

# Table 4. 2: Socio-demographic features of health care workers

# 4.2 Patients' perceptions on implementation of quality management processes within public Health facilities

#### 4.2.1 Patients services sought and received in the health facility

Majority 308 (95.1%) of the participants observed to have ever received treatment from a public health facility. The most service sought by the participants was general treatment as reported by 171 (55.5%). See figure 4.1.



#### Figure 4. 1: Health services received

The nature of service accorded to a high number of the participants; 187 (60.7%) was outpatient type of service (Figure 4.2), whereby for most; 201 (65.3%), the service sought was available (See figure 4.3), and 155 (50.3%) were satisfied with the service they were given at health facility (Figure 4.3). The commonly cited reason for unavailability of service was absence of medical supplies (Table 4.2).

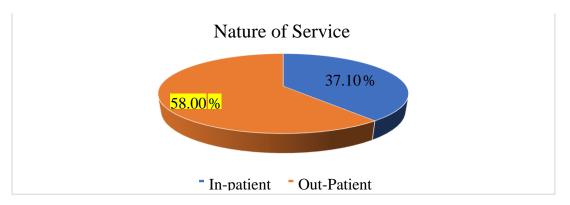


Figure 4. 2: Nature of service sought by the participants



Figure 4. 3: Service availability and satisfaction

 Table 4. 3: Reason for unavailability of service sought

	N=107	n	Percentage (%)
Reason for Unavailability of Service			
No CT scan		12	11.3
No Medical Supplies		54	50.4
No MRI		7	6.4
No Specialist		24	22.4
No X-Ray		10	9.5
		107	100

## 4.2.2 Patients waiting and perceptions on health services offered in public health facility

As shown in table 4.3, waiting time for services found out that 90 (29.0%) was more than one hour. Slightly more than half; 174 (56.5%) of the participants reported that health workers in the health facility where they sought service was adequate. However, a high number of the participants; 165 (53.7%) reported that drug and medical supplies were not enough.

More than average; 187 (60.7%) of the participants observed that health workers were friendly, professional, and committed. Regarding payment for service received, a high proportion of the participants; 208 (67.5%) indicated that they paid for service received with most of this; 133 (43.1%) reporting that the payment was not affordable.

N=308 (9					
Waiting time		n		percentage (%)	
< 5 Minutes		3		0.9	
6-15 Minutes		38		12.3	
16-30 Minutes		91		29.5	
<b>30-60</b> Minutes		82		26.6	
>60 Minutes		94		30.5	

## Table 4. 4: Patient's waiting time

## **4.2.3** Patient's rating of Health services

On average, close to half 146(47.4%) of the respondents rated health services to be poor (Table 4.4). There was no significant association between gender and rating of service offered ( $x^2=0.314$ ). The study established the existence of a significant association between age (18-

25) and rating of service offered ( $x^2=0.005$ ). There was also a significant association between type of occupation and rating of service received ( $x^2=0.001$ ). However, there was no significant association between marital status and rating of service received ( $x^2=0.162$ ).

Variable				
	Excellent =4	Good=3	Average=2	Poor=1
	Frequency/%	Frequency/%	Frequency/%	Frequency/%
Environmental Health Sanitation	23(7.4%)	38 (12.3%)	112(36.2%)	136(44.1%)
General facility organization	19(6.1%)	34(11.0%)	110(35.7%)	145 (47.2%)
Service delivery organization	10(3.2%)	39(12.7%)	125 (40.6%)	134(43.5%)
Service received	14(4.5%)	60(19.4%)	96 (31.3%)	138(44.8%)
Average totals	16(5.3%)	43(13.9%)	111(35.9%)	138(44.9%)

Table 4. 5: Patients' perception on public health facilities

## **4.2.4** Patients perception on quality management processes in hospital facilities Table 4. 6: Patients perception on quality management processes in hospital facilities

Most, 195(63.3%) perceived quality of management to be below average (Table 4.5).

Perception Aspect	Strongly Agree	Agree	Disagree	Strongly Disagree
Customer Care	59(18.8%)	245(79.5%)	0.0%	6(1.8%)
Health workers always available at customer care desk	51(16.5%)	135(43.8%)	45(14.7%)	77(25.0%)
Time taken to serve for registration is satisfactory	44(14.3%)	60(19.6%)	43(13.8%)	161(52.3%)
Service Charter Available	32(10.7%)	77(25.0%)	52(17.0%)	146(47.3%)
Hospital clean and well kept	36(11.6%)	85(27.7%)	51(16.5%)	136(44.2%)
Health workers polite and approachable	50(16.1%)	71(23.2%)	40(12.9%)	147(47.8%)
Hospital infrastructure appealing	38(12.4%)	112(36.2%)	37(12.1%)	121(39.3%)
Punctual Staff	32(10.5%)	65(21.0%)	127(41.3%)	84(27.2%)
Hospital computerized	44(14.3%)	184(59.8%)	51(16.5%)	29(9.4%)
Bill affordable	32(10.3%)	54(17.4%)	59(19.2%)	164(53.1%)
Timely attendance of emergency cases	40(12.9%)	44(14.3%)	67(21.9%)	157(50.9%)
Acceptable waiting time	37(12.0%)	47(15.2%)	54(17.4%)	171(55.4%)
Satisfactory referral system	32(10.3%)	54(17.4%)	65(21.0%)	158(51.3%)
Drugs always available	43(13.8%)	50(16.1%)	40(12.9%)	176(57.2%)
Staff motivated and well groomed	36(11.2%)	81(25.0%)	88(27.2%)	119(36.6%)
Complaints resolved and feedback given	59(19.2%)	43(13.8%)	51(16.5%)	156(50.5%)
Has modern diagnostic equipment's	30(9.8%)	55(17.9%)	21(20.5%)	160(51.8%)
Customer complaints register available	41(12.9%)	51(15.6%)	106(32.6%)	126(38.9%)
Feedback given to customers in person	50(16.1%)	48(15.6%)	91(29.5%)	120(38.8%)
Average total	41(13.4%)	82(26.5%)	59(19.1%)	126 (41.0%)

## 4.2.5 Staff adherence to standard operating procedures (SoP's) in the implementation of quality management processes

## 4.4.1 Staff adherence to Sop's in implementation of quality management processes

The study probed staff adherence on implementation of quality management procedures by the health care workers. All, 40(100.0%) of the interviewed health care workers indicated that there were Standard Operating Procedures (SoP's) adhered to while engaging in assigned duties (Table 4.6). However, upon requesting respondents to produce hard /electronic copies of SoP's, it was observed that 28(70.0%) didn't have hard/soft copies of SoP's (Table 4.7). Moreover, majority, 30 (77.5%) did not refer to the SoP's when discharging their duties.

All, 40 (100.0%) further reported that their institution had a service charter, however, 32 (80.0%) did not refer to the service charter while engaging in their daily duties (Table 4.6). It was observed that the service charter was well displayed in majority, 33(82.5%) of the health facilities (Table 4.7). Further, it was observed that only 22(55%), had hard/soft copies of quality procedure manuals (Table 4.7).

In regards to training on SoP's, only 16 (40.0%) had been trained with shortage of staff being the commonly cited reason for not having been trained as reported by 11 (27.5%) of the health care workers (Table 4.6).

Majority, 38 (95.0) of the interviewed health care workers reported that their facility conducted Continuous Medical Education (CME), with frequency of CME's being weekly for most; 33 (82.5%) of them (Table 4.6). From observation, most 31(77.5%) provided evidence for CME weekly training.

All, 40 (100.0%) reported that their facilities were computerized and 37 (92.5%) of the interviewed health care workers reported knowing how to use a computer (Table 4.6). However, from observation, about 16(40%) were not operational (Table 4.7).

Half; 20 (50.0%) reported that they conduct review meetings on Quality Management (QM). All participants reported that their facility had a Quality Assurance Department (QAD) where 25 (62.5%) reported that their QAD conducted audits with 14 (35.0%) observing that their QAD offered feedback reports on the audits they did (Table 4.6). However, upon checking, it was established that only 9(22.5%) provided evidence of quality audit reports and feedback (Table 4.7).

Variable and Catego	Frequency	Percentage (%)	
SOP's Present	Yes	40	100.0
Refer to Sop's	Yes	9	22.5
	No	31	77.5
Service Charter Present	Yes	40	100.0
	Yes	8	20.0
<b>Refer to Service Charter</b>	No	32	80.0
Sop Training	Yes	16	40.0
	No	24	60.0
	Biased Selection	4	10.0
Why not trained on Sop's	No Funds	6	15.0
	No Training Opportunity	3	7.5
	Shortage of Staff	11	27.5
Facility conduct CME	Yes	38	95.0
	No	2	5.0
Frequency of CME's	Daily	1	2.5
	Weekly	33	82.5
	Monthly	4	10.0
Facility computerized	Yes	40	100.0
Know how to use computer	Yes	37	92.5
	No	3	7.5
<b>Review Meetings on Quality Management</b>	Yes	20	50.0
	No	18	45.0
Quality Assurance Department Present	Yes	40	100.0
QAD does Audits	Yes	25	62.5
	No	15	37.5
QAD give feedback	Yes	14	35.0
	No	26	65.0

## Table 4. 7: Staff adherence to Sop's in implementing quality management processes

Observation Checklist	Yes	No
Hard copy Sop manual available for each staff	30.0%	70.0%
Service charter well displayed	82.5%	17.5%
Check for quality procedure manuals	55.0%	45.0%
Check for quality audit reports and feedback	22.5%	77.5%
Check for CME	77.5%	22.5%
Computer use/operational in Facility	24(60%)	16(40%)
Adequacy of medical supplies and equipment	0%	100%
Adequacy of health workers	0%	00
Adequacy of Financial resource Allocation	0%	100%
Staff training on QM processes	20.0%	75.0%
Evidence on customer survey reports	12.5%	87.5%

## Table 4. 8: Observation checklist on staff adherence to quality implementation process

## Table 4. 9: Perceptions on Quality Management (QM)

Perception Aspect	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
Hospital has QM Policy	3(7.5%)	37(92.5%)	0.0%	0.0%	0.0%
Departmental QM Objectives Available	0.0%	40(100.0%)	0.0%	0.0%	0.0%
Departmental Charter in Place	2(5.0%)	38(95.0%)	0.0%	0.0%	0.0%
Adherence to Service Charter Time	0.0%	10(25.0%)	0.0%	24(60.0%)	6(15.0%)
SoP Manual Available	2(5.0%)	23(57.5%)	9(22.5%)	6(15.0%)	0.0%
	2(5.0%)		0.0%		0.0%
SoP Well Displayed		25(62.5%)		13(32.5%)	
SoP Translated to Local Language	2(5.0%)	6(15.0%)	4(10.0%)	25(62.5%)	3(7.5%)
SoP Implementation Logistics	0.0%	5(12.5%)	2(5.0%)	23(57.5%)	10(25.0%)
Management Review on Emerging Issues	2(5.0%)	14(35.0%)	2(5.0%)	18(45.0%)	4(10.0%)
Benchmarking on Best QM Practices	0.0%	7(17.5%)	4(10.0%)	27(67.5%)	2(5.0%)
Average Total	1.75%	53.5%	5.25%	34%	6.25%

# 4.4 Hospital management involvement in implementation of Quality management processes

On average, more than a half, 58.25% indicated that hospital management does not involve fully in implementation of quality management process (Table 4.8).From the study findings, there was inadequate staff 31(77.5); p=0.001, inadequate financial resource allocation, 34(85%), p=0.000, inadequate medical supplies, 33(82.5%) p=0.000, inadequate staff involvement in change management,28 (70%),p=0.001, irregular customer surveys, 32(80%, p=0.335, irregular quality management staff teaching /training, 27(67.5%), p=0.001 (Table 4.8).

## Table 4. 10: Hospital management involvement in implementation of Quality management processes

Variable	Strongly agree	Agree	Not sure	Disagree	Strongly disagree
Staff Adequacy in departments	6(15.0%)	3(7.5%)	0.0%	25(62.5%)	6(15.0%)
Adequate Financial Resource Allocation	4(10.0%)	2(5.0%)	0.0%	28(70.0%)	6(15.0%)
Adequate Medical Supplies and Equipment	6(15.0%)	1(2.5%)	0.0%	30(75.0%)	3(7.5%)
Quality Assurance team available	5(12.5%)	30(75.0%)	2(5.0%)	3(7.5%)	0.0%
Quality Assurance Manuals Available	4(10.0%)	22(55.0%)	8(20.0%)	6(15.0%)	0.0%
Quality internal audits done and feedback given	4(10.0%)	10(25.0%)	5(12.5%)	20(50.0%)	1(2.5%)
QM teachings done regularly	8(20.0%)	4(10.0%	1(2.5%)	23(57.5%)	4(10.0%)
Staff involved in change management	2(5.0%)	6(15.0%)	4(10.0%)	22(55.0%)	6(15.0%)
Regular customer satisfaction surveys	6(15.0%)	0.0%	2(5.0%)	31(77.5%)	1(2.5%)
Staff Rewarded for Quality Improvement	2(5.0%)	16(40.0%)	4(10.0%)	18(45.0%)	0.0%
Total average	11.75%	23.5%	6.5%	51.5%	6.75%

## **CHAPTER FIVE**

## DISCUSSION, CONCLUSION AND RECOMMENDATIONS

## **5.1 Discussion**

## 5.1.1 Patients Perceptions on Implementation of Quality Management Processes

Majority of the participants interviewed were aged between 18-45 years at (76.4%) and majority were female at 68.3% this means the disease burden is higher among women of reproductive age seeking Maternal child health and family planning services, maternity, gynecology, medical and other related health services, this is in agreement with the KNBS (2019) where the rural population of women is higher than men in Bungoma county, as well as the population of women and children.

On the occupation status of the respondents (50.9%) were either not employed or selfemployed, which is an indicator of poverty levels in Bungoma County making payment for health services a challenge. Quality health services are costly. This is in agreement with the UNDP report (2018) which put the poverty index and unemployment rate at 46.6% in Bungoma County.

On the income levels of the participants the large proportion live in poverty 29% and have an income of below 10,000, 46.9% have an income between 11-50,000, the above indicators make it hard for the patients to afford health insurance, pay for health services, and suffer from malnutrition, communicable diseases, and birth related complications. The world Bank report (2019) puts maternal mortality rate in Bungoma county at 31 per 1000 live births. The Abuja declaration 2001 requires that governments allocate at least 15% of their total budget on health, in Kenya about 6% is allocated to health, with devolution many counties allocate even smaller amounts (CRA 2014)

Health is a devolved function (GOK 2010), health services are offered in levels 1, 2and 3 which provides primary health care to include Maternal child health and family planning, Health education, HIV/AIDS care, basic laboratory services, treatment of minor ailments and referral levels 4 and 5 provide curative services to include outpatient, impatient care, surgical operations, blood transfusion, maternity care, laboratory services, pharmacy, physiotherapy, X rays, CT scans and referral for specialized care.

According to the study (95.1%) of the participants had received treatment previously and (52.7%) had sought general treatment. The revisits indicate a high disease burden of diseases seen at both inpatient and outpatient in Bungoma County hospitals. The common services sought were x-ray/CT scans at 74.6%, pharmacy at 48.7%, Maternal child health and family planning at 75%, and laboratory at 53,6% (KDHS 2019). The common Nature of services sought according to was inpatient at (58.0%) and outpatient at (37.10%) given that the study was conducted in sub county hospitals may indicate failure in the primary health care facilities, the community, dispensary and Health centers where preventive and promotive services like immunization, health education are done. This leads to increase in disease burden and high rate of admission. This is in agreement with the WHO (2017) primary healthcare systems case study from Kenya report highlighting on the challenges of primary healthcare facilities. Maternal child health and family planning services are government services which are offered free and readily available services are donor supported. When the services offered are free and readily available, the recipients will be satisfied and improve quality rating for the services.

One of the quality service indicators is waiting time that patients take before receiving health services. About 29% of the patients waited for more than one hour to get the services. It is recommended that patients should be seen within 30 minutes of the appointed time (Fletcher

.1983). In most developing countries studies have shown that patients spend between 2-4 hours before they are seen. This is in agreement with the study findings where 81% of the patients spent more than half an hour before being attended. (Singh 1999).

Patients attended at the health facilities paid for the services (67%) and (25.9%) said that the payments were not affordable. About 41.1% observed that the payments were not affordable to them, and this meant that about 41.1% could not access the health services for which they could not pay for and this interferes with the quality of health services received.

The patients observed that the health workers were inadequate (53.60%) as well as drugs and equipment (50.90%). Bungoma County just like other countries faces many challenges in health care, the main challenge ranges from inadequate recruitment and retention of quality human resources for health, delayed salary payments leading to persistent strikes and industrial action, retirement without replacement of health workers, transfers, deaths and out migration to seek greener pastures. The above findings agree with Williamson & Malaki (2014) on the challenge affecting quality provision of healthcare in Bungoma County.

The findings on inadequate drugs and medical equipment (50.9%) were also highlighted by Mwamuye & Nyamu (2014:18) that centralization in procurement of medical equipment and reliance to KEMSA had introduced delays and corruption. Letting & Kirwa (2014) highlighted inadequate financial allocation to healthcare in Bungoma County as a major factor. Inadequate health workers (53.60%) as well as drugs and equipment (50.40%) as indicators that quality of health services offered in Bungoma County as low.

In order to offer quality health care services, the hospital requires to have a customer care desk, where the customers can get direction and assistance. The sampled health facilities had a customer care desk, 52.2% disagreed on the availability of customer care staff shortages or poor deployment. Time taken for registration of services 52.2% found it was long, however

this may not have significance as the patients are filtered with emergency cases given first or instant priority which may not be explained to other patients. The service charter is a standard operation tool that spells out the health services we commit to offer according to GOK (2006). Services charters should be formulated and implemented by government agencies at all levels. It should also be prominently displayed within the facility premises. In a study done at Thika level 5 Hospital (Mwaura, et. al.,2016) found out service charter as critical tools in evaluating quality of health services. 74% agreed that the hospitals have been computerized, this is an indicator of good quality health services. Computerization and use of electronic technology ensures efficiency in record keeping and retrieval

In order to ensure delivery of quality health services there is need to have an effective referral system of patients across all levels. Table 4.4 (51.3%) of the respondents observed the referral system as unsatisfactory while 50.9% observed failure to attend to emergencies on time, the above could be attributed to inadequate ambulances, fuel, maintenance, man power, poor roads infrastructure and road network, (Macharia 2017)

The delays in referral are a major cause of increased morbidity and mortality from preventable causes. The handling of customer complaints and feedback is a major indicator of quality management of healthcare. About (50.4%) of the respondents reported lack of timely feedback and resolution of complaints from customers while 38.8% reported that customer feedback is not given in person. Kelly & Holfman (1997) positive feedback from customers increases service providers morale.

## 5.1.2 Staff adherence to standard operating procedures in implementation of Quality management processes

Among the health workers, all indicated availability of SOPS in their departments which is in line with the MOH guidelines as recommended by the government of Kenya (GOK 2006 80% of the health workers interviewed said that they did not refer to the SOPS while carrying out their duties and this may have been attributed to staff shortages as reported by 27.5% of the health workers or lack of training at 60% of the respondents on standard operating procedures.

Translation of standard operating procedures in mother tongue has been done (62.5%) had been done, the available SOPS are translated in Kiswahili and Bukusu the dominant local language spoken in Bungoma county. The county government of Bungoma (2019) found out that translation of SOPS especially the service charter has greatly helped patients to follow the services offered

In the study about 95% of the health facilities conduct CMEs and (82.5%) reported they are conducted weekly. Internationally CME is a key component of health systems in relation to strengthening and improving professional competencies of the current work force. (WHO 2014). CME improves health workers competence in provision of quality health care. Health workers perceptions on quality management components.

The hospitals have a Quality management policy Table 4.9 (42.5%) and all the departments (100%) had formulated Quality management objectives which is a requirement by KEBS/ISO standards.

In order to ensure adherence to SOPS quality internal audits are conducted quarterly as per Kebs & iso 9001:2015 standards. About 35% agreed that quality audits are carried out in some facilities while 67.5% disagreed that quality audits are conducted and feedback given. Lai, et.al., (2002) observed that many organizations are striving to achieve customer satisfaction through a feedback mechanism using the exit interviews and customer surveys. Ryan Sharmah, and Johnson (1996) customer ratings through feedback on the services offered have an impact on the service providers.

## 5.1.3 The hospital management involvement in quality management processes within Bungoma County.

The primary role of hospital management of the County Health system (CHMT) in quality management processes is resource provision, financial resources which are the key determinants of all quality activities. The county government of Bungoma is committed to provision of financial resources, human resources, Hospital infrastructure, medical equipment and modern medical technology provides financial. The findings agree with a study by Letting and Kirwa (2017) in Bungoma county on impact of devolution on health care. 77.5% of the respondents agreed that despite the efforts of the county government in resource provision there is inadequate staff worsened by frequent strikes, drug shortages and lack of modern medical equipment.

The hospital management ensured human resource development through training and Continuous medical education to improve their skills (77.5%). Laibuta (2013) identified training as a major component in achievement of quality health services in counties.

The hospitals management supposed to measure the quality of health services offered by getting customer feedback through customer satisfaction surveys and feedback given from the study 80% of the respondents agreed that customer satisfaction surveys and feedback are not done in Bungoma county. Namusonge (2015) agrees that customer feedback is key to both patient and service providers in ensuring continuous improvement in healthcare.

The hospital management has provided standard operating procedures including the service charter. Wanjau, Muiruri and Ayodo (2013) outlined the importance of service charters as a government policy (GOK 2006). That in all government institutions a service charter must be provided and well displayed.

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## **5.2 CONCLUSION**

The patient's perception is that the implementation of quality management process in public hospitals within Bungoma county is poor based on indicators like long waiting time for services, inadequate drug supply, poor referral system, lack of modern medical equipment and technology and delayed attendance to referrals and emergency

There is good staff adherence to standard operating procedures in performance of medical procedures that has led to uniformity of care, minimized clinical errors and improved quality of services offered to patients.

The hospital management is adequately involved in implementation of quality management processes within Bungoma County through resource provision, strategic Leadership, Infrastructural development and through support supervision by the quality assurance department.

## **5.3 Recommendations**

- The county government of Bungoma to improve the quality of health services offered in the public health facilities through adequate resource provision.
- 2) The staffs to maintain adherence to Standard operating procedures for better Quality outcomes in health care.
- 3) The hospital management to ensure continued involvement in implementation of quality management processes by ensuring adequate resource allocation and provision by the county government of Bungoma.

## **5.4 Recommendation for Further Research**

1. Research on implementation of quality management processes within Faith Based health facilities in Bungoma County as they are the second major Health care providers.

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## **APPENDICES**

## **APPENDIX I: QUESTIONNAIRE FOR PATIENTS**

## **CONSENT Letter**

Dear participants,

**Ref**: Study on Implementation of Quality management processes in selected public health facilities in Bungoma County.

My name is Bruce Kabole Olindi a master in public Health Student at Maseno University admission number **PG/MPH/6010/2012**, I am conducting a study on quality management practices in public hospitals within Bungoma County.

I promise the following:

- 1. Your participation in this research is voluntary and you have a right to withdraw at any point of the interview.
- 2. Your real name and identity will not be used at any stage.

If you agree to participate in the study, please sign

Sign.....

Thank you for agreeing to participate.

## Instructions

- 1. Do not indicate your name
- 2. Participation is Voluntary
- 3. Tick as appropriate  $(\sqrt{)}$

Socio-demographic details

1. Gender: Male () Female ()

2. Age: 18-25 Yrs. ( ) 26- 35 Yrs ( ) 36-45 Yrs ( ) 46- 55 Yrs ( ) 56-65 Yrs ( )

Over 65 Yrs ()

- 3. Occupation: Formally employed () Self-employed () Not employed ()
- 4. Level of Income KES per annum: Less than 10,000 ( ) 11,000-30,000 ( ) 31,000-50,000 (
- ) 51,000-100000 ( ) Over 101,000

6. Marital status: Married () Single () Separated/Divorced () Widowed ()

## PATIENT'S PERCEPTION ON QUALITY MANAGEMENT PROCESSES IN HEALTH CARE

- Have you ever attended treatment in this facility before? Yes ( ) No ( )
   If yes, what services did you access? Laboratory ( ) MCH ( ) Pharmacy ( ) General treatment ( ) X-ray/ CT scan/ MRI ( ) others, specify.....
- 8. Did you access services as inpatient or outpatient services? Inpatient ( ) Outpatient ( )
- Were the services requested for available? Yes ( ) No ( ) If No, what was the reason given by the officer ......
- 10. Were you satisfied with the services of the health workers? Yes ( ) No ( )
- 11. How long did they take to serve you? Less than 5 minutes ( ) 6-15 minutes ( ) 16-30 min

30-60 mins ( ) Over 60 mins

- 12. In your opinion, does the health facility have adequate health workers? Yes ( ) No ( )
- 13. In your opinion, are there enough drugs and equipment for treatment? Yes ( ) No ( )
- 14. Are the health workers friendly, professional and committed to patients? Yes ( ) No( )
- 15. Did you pay for the services you accessed in the facility? Yes ( ) No ( )If yes, was it affordable to you? Yes ( ) No ( )
- 16. Rate the services offered at the facility. Excellent ( ) Good ( ) Average ( ) Poor ( )

- 17. Rate the organization of the service delivery. Excellent ( ) Good ( ) Average ( )
  Poor ( )
- 18. Rate the general organization of the facility. Excellent ( ) Good ( ) Average ( ) Poor ( )
- 19. Rate the Environmental health sanitation and hygiene. Excellent ( ) Good ( ) Average( ) Poor ( )

	Patients' perception on quality management processes in health care				ee
		Strongly agree	Agree	Disagree	Strongly disagree
20	The Hospital has customer care desk				
21	The health worker always available at customer care desk serving patients				
22	The time taken to serve for registration of patients satisfactory				
23	Service charter is available and well displayed in local languages				
24	The Hospital is clean and well kept				
25	Health workers are polite and approachable				
26	Hospital infrastructure is appealing				
27	Staff report on duty on time				
28	The hospital is computerised.				
29	The hospital bills are affordable				
30	Emergency cases are attended on time				
31	The waiting time for services is acceptable				
32	The referral system is satisfactory.				
33	Drugs are always provided as prescribed in pharmacy and wards				
34	Staff are motivated and well groomed				
35	Customer complaints are attended to and feedback given				
36	The hospital has adequate, modern equipment for diagnosis and treatment				
37	Customer complaint register is available.				
38	Hospital gives feedback to patient's complaints in person				

## **Questionnaire for Health Care Workers**

## A. Socio-Demographic details

1.	Sex	Male ( ) Female ( )
2.	Age	18-35 Yrs ( ) 36-45 Yrs ( ) 46-60 Yrs ( ) Above 60 Yrs ( )
3.	Department	Nursing ( ) Pharmacy ( ) Laboratory ( ) Clinical ( ) MCH ( )
	Public	Health () Others, Specify
4.	Designation	Nurse ( ) Doctor/Pharmacist ( ) Clinical officer ( ) Laboratory
		technologist/officer ( ) Administrator ( ) Medical
	superintenden	ıt
		() others, specify

## B. Staff adherence to standard operating procedures

5. Do you know/have standard operating procedures (Sops) of your work? Yes ( ) No (

If Yes, do you use/refer to them regularly in your daily work? Yes ( ) No ( )

6. Do you know/have facility service charter? Yes ( ) No ( )

If Yes, do you use it when discharging your duties Yes (  $% A_{\rm e}$  ) No (  $A_{\rm e}$  )

- Have you ever been trained on Standard operating procedures? Yes () No () If No, Why haven't you been trained, Specify.....
- 8. Does your health facility conduct continuous medical education (CME)? Yes ( ) No (

If Yes, how often? Daily () Weekly () Monthly () Quarterly () Yearly () If No, Why? Specify.....

- 9. Is your health facility computerized? Yes () No ()
- 10. Do you know how to operate a computer? Yes () No ()

- 11. Do you have review meetings on quality management? Yes ( ) No ( )
- 12. Does the facility have a quality assurance committee/department? Yes ( ) No ( ) If yes, do they conduct quality assurance audits? Yes ( ) No ( )

If yes, do they give feedback reports? Yes ( ) No ( )

	Staff adherence to standard operating procedures	Strongly agree	Agree	Not sure	Disagree	Strongly disagree
13	The hospital has a quality management policy					
14	Departmental quality management objectives are available					
15	Departmental service charter in place					
16	Adherence to the service charter waiting time					
17	Standard operating procedures manual/guidelines are available					
18	Standard operating procedures are well displayed					
19	Standard operating procedures translated in local language					
20	Logistics for implementation of sops available					
21	Management review meetings on emerging issues addressed					
22	Benchmarking on the best quality management practices					

## C. Hospital management involvement in implementation of quality management processes

23	Staffing is adequate for the departments			
24	Financial resource allocation to hospitals is adequate			
25	Medical supplies and equipment is adequate			
26	Quality assurance team is in place			
27	Quality procedure manuals are available			
28	Quality internal audits are conducted and feedback given			
29	Quality management teachings are conducted regularly			
30	Staffs are involved in change management on a regular basis			
31	Customer satisfaction surveys are conducted and feedback given			
32	Staffs are rewarded for quality improvement			

## APPENDIX II: OBSERVATION CHECKLIST FOR HEALTH WORKERS

- 1. Check for availability of Standard Operating Procedures in hard/soft copy at the department and for each staff member. Yes ( ) No ( )
- Check for display of service charter for the department and organization. Yes ( ) No
   ( )
- 3. Check for quality procedure manuals. Yes ( ) No ( )
- 4. Check for evidence of Quality audit reports and feedback. Yes ( ) No ( )
- 5. Check for Continuous Medical Education (Check minutes). Yes ( ) No ( )
- 6. Check for presence and Use/operational of computer in the facility. Yes () No ()
- 7. Check for adequacy of Medical equipment and drugs. Yes () No ()
- 8. Check for adequacy of health workers. Yes ( ) No ( )
- 9. Check for allocation of financial resources by management. Yes ( ) No ( )
- 10. Check for staff training on quality management processes. Yes ( ) No ( )
- 11. Check for evidence of customer survey reports. Yes ( ) No ( )

## **APPENDIX III: SCHOOL OF GRADUATE STUDIES APPROVAL LETTER**



## MASENO UNIVERSITY SCHOOL OF GRADUATE STUDIES

### Office of the Dean

Our Ref: PG/MPH/06010/012

Private Bag, MASENO, KENYA Tel:(057)351 22/351008/351011 FAX: 254-057-351153/351221 Email: <u>sgs@maseno.ac.ke</u>

> WASENO IVERSITY

Date: 12th March, 2020

### TO WHOM IT MAY CONCERN

## RE: PROPOSAL APPROVAL FOR BRUCE K.OLINDI -PG/MPH/06010/012

The above named is registered in the Master of Public Health degree programme in the School of Public Health and Community Development, Maseno University. This is to confirm that his research proposal titled "Assessment of Quality Management Processes in Public Health Facilities in Selected Public Hospitals within Bungoma County" has been approved for conduct of research subject to obtaining all other permissions/clearances that may be required beforehand.



### DEAN, SCHOOL OF GRADUATE STUDIES

Maseno University

ISO 9001:2008 Certified

## **APPENDIX IV: ETHICS CLEARANCE LETTER**







#### COUNTY GOVERNMENT OF KISUMU DEPARTMENT OF HEALTH

Telephone: 057-2020801/2020803/2020321 Fax: 057-2024337 E-mail: <u>medsuptnpgh@yahoo.com</u> <u>ceo@jaramogireferral.go.ke</u> Website: www.jaramogireferral.go.ke

When replying please quote IERC/JOOTRH /255-/20

Ref: .....

JARAMOGI OGINGA ODINGA TEACHING & REFERRAL HOSPITAL P.O. BOX 849 <u>KISUMU</u>

13<sup>th</sup> July, 2020

Date.....

Dear Bruce,

### RE: STUDY TITLE: AN ASSESSMENT OF THE IMPLEMENTATION OF QUALITY MANAGEMENT PROCESSES IN PUBLIC HEALTH FACILITIES: <u>A CASE OF SELECTED PUBLIC HOSPITALS WITHIN BUNGOMA COUNTY</u>

This is to inform you that **JOOTRH IERC** has reviewed and approved your above research proposal. Your application approval number is **IERC/JOOTR/255/20**. The approval period is  $13^{th}$  July,  $2020 - 13^{th}$  July, 2021.

This approval is subject to compliance with the following requirements;

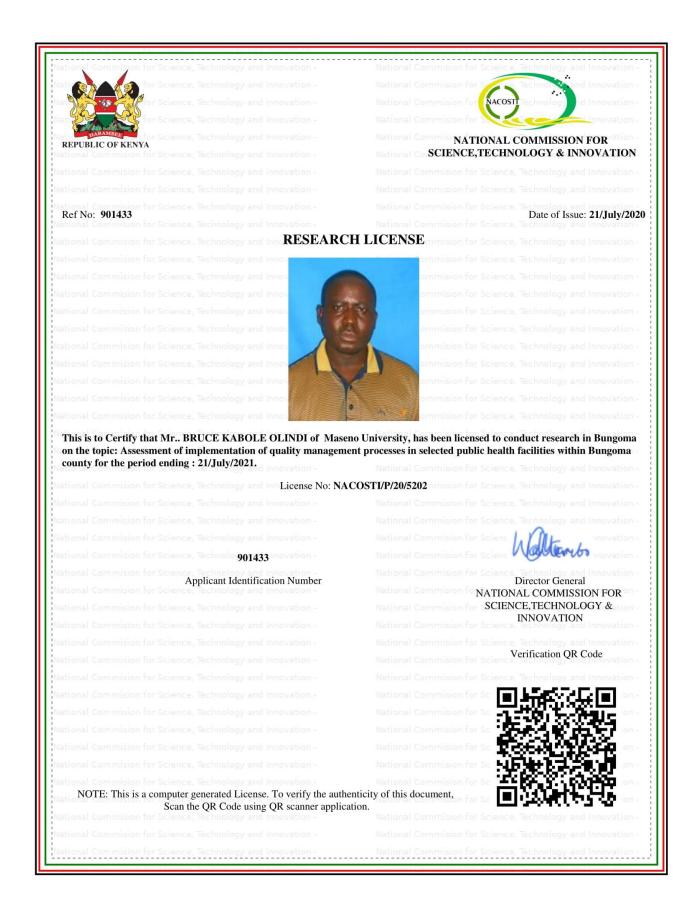
- i. Only approved documents including (informed consents, study instruments, MTA) will be used
- ii. All changes including (amendments, deviations, and violations) are submitted for review and approval by *JOOTRH IERC*.
- iii. Death and life threatening problems and serious adverse events or unexpected adverse events whether related or unrelated to the study must be reported to *JOOTRH IERC* within 72 hours of notification
- iv. Any changes, anticipated or otherwise that may increase the risks or affected safety or welfare of study participants and others or affect the integrity of the research must be reported to JOOTRH -IERC within 72 hours
- v. Clearance for export of biological specimens must be obtained from relevant institutions.
- vi. Submission of a request for renewal of approval at least 60 days prior to expiry of the approval period. Attach a comprehensive progress report to support the renewal.
- vii. Submission of an executive summary report within 90 days upon completion of the study to JOOTRH *IERC*.

Prior to commencing your study, you will be expected to obtain a research license from National Commission for Science, Technology and Innovation (NACOSTI) <u>https://oris.nacosti.go.ke</u> and also obtain other clearances needed.

In case the case of study site is JOOTRH, kindly report to Chief Executive Officer before commencement of data collection.

Yours sincerely, SECRETARY, IERC

## APPENDIX V: NACOSTI APPROVAL



#### THE SCIENCE, TECHNOLOGY AND INNOVATION ACT, 2013

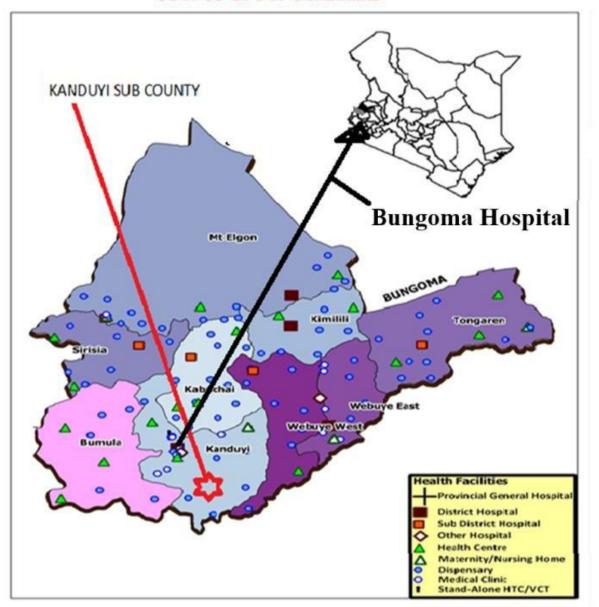
The Grant of Research Licenses is Guided by the Science, Technology and Innovation (Research Licensing) Regulations, 2014

CONDITIONS

- 1. The License is valid for the proposed research, location and specified period
- 2. The License any rights thereunder are non-transferable
- 3. The Licensee shall inform the relevant County Director of Education, County Commissioner and County Governor before commencement of the research
- 4. Excavation, filming and collection of specimens are subject to further necessary clearence from relevant Government Agencies
- 5. The License does not give authority to tranfer research materials
- 6. NACOSTI may monitor and evaluate the licensed research project
- The Licensee shall submit one hard copy and upload a soft copy of their final report (thesis) within one of completion of the research
   NACOSTI reserves the right to modify the conditions of the License including cancellation without prior notice

National Commission for Science, Technology and Innovation off Waiyaki Way, Upper Kabete, P. O. Box 30623, 00100 Nairobi, KENYA Land line: 020 4007000, 020 2241349, 020 3310571, 020 8001077 Mobile: 0713 788 787 / 0735 404 245 E-mail: dg@nacosti.go.ke / registry@nacosti.go.ke Website: www.nacosti.go.ke

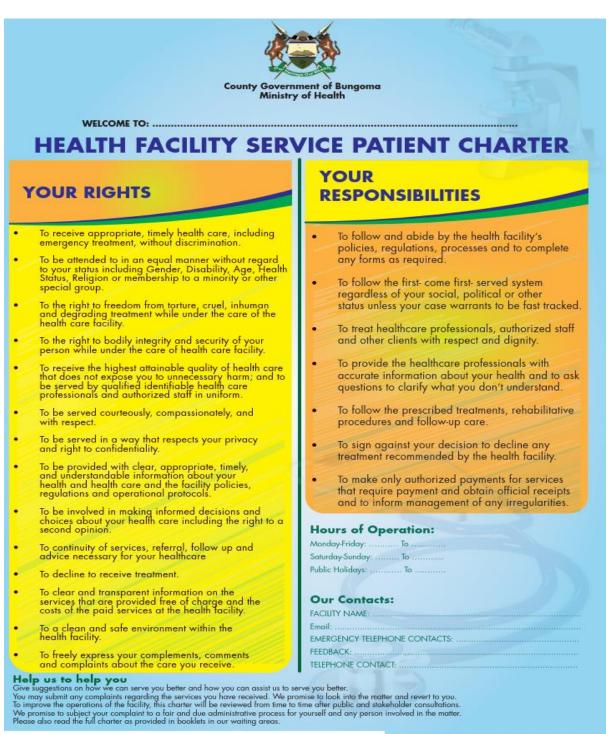
## APPENDIX IV: MAP OF STUDY AREA



## COUNTY OF BUNGOMA MAP

SOURCE: SARAM Kenya 2013: Health Facility Distribution by Type across Constituencies:

## **APPENDIX VI: SERVICE CHARTER**



EMBASSY OF DENMARK



thtt



Serekali ye Kaunti ya Bungoma Bubwimelesi bwe Bulamu

## KHUKHWAKAANILA MU [Lisina lie osibitali]: ..... NGA BUKHALAABANI BUKHOYA KHUAANWA KHU MULWALE O MUOSIBITALI MUNO

## **BUNG'ALI NIBWO EWE OMUL-**WALE OKHOYA ONYOOLE

- Khunyoola busilikhi bulayi mu ngila ekhali ne lulwakha tawe mu sise sisienyekhaane, hungila yenyekhaane, alala ne khunyoala buyeeti bwa bwangu bwangu mu bulwale butundubikha
- Khukhalabanilwa mungila efwaanane ekhalolelesia bukhongo bwowo, namwe npli omuseecha namwe omukhasi tawe, mu ngila ekhaukhasip omuleme namwe pokhali omuleme tawe, ekhalolelesia bukhulu bwowo, bulwale bwowo, edini yowo, namwe ekholo yowo neli embootu namwe editi nawe, namwe kumukaanda kwosi kwosi nikwo olimo tawe.
- Khukhalabanilwa mu osibitali mu ngila ekhakhura ewe omulwaqle mu sinyasio tawe, engila ekhali ye bukuluumi tawe, eekhua buriani nga omundu.
- Khukhalaabanilwa muosibitali mu ngila eana buriani ne buliindi khu bulamu bwowo.
- Khuyoola busilikhi bwe angaaki po, khulondekhana nende punyali bwe osibitali, busilikhi buukhakhurerera bulinyu bwasi bukheenyekhaane tawe. Basilikhi bakhusilikha ne khukhuyeeta bakbaya khuuba basilikhi bamanyikhaane mbo bali basilikhi khuwe busomi bwabwe mala babe mu ngubo che kimilimo ekio.
- Khukhalabanilwa mu ngila ye buolu, siisa ne buriani
- Khukhalabanilwa mu ngila ye buriani eekhanyala khubakala kamakhuwa kowo khu mundu okundi yesi yesi tawe.
- Khunyopla buwaanga mu sise sisienyekhaane khulondekhana ne bulwale bwowo rende chingila choosi nicho onyala wasilikhilwamo, alala nende kamalaka ke osibitali ke bibiindu biosi nibio okhoya okhole nio onyoole busilikhi.
- Onyoole buwaanga khulondekhana nende bulwale bwowo mala wesi, pyeete khurusia bukhalaki khulwe busilikhi pubwenyekhana, Khutasa khwako, buli bung'ali bwowo khuyima omusilikhi okundi akhuyeete kaaba bali obona oli sebakhuyetile bulayi tawe.
- Khuchiililila khunyoola busilikhi, alala ne khukhulaka khucha my chiosibilali che angaaki ne khuloanda niko basilikhi bakhuboolela kanyala kayeeta bulamu bwowo.
- Khuloba khufukiilila busilikhi
- Khumanya bulayi bukhalaabani buukhali ne kumuruungo ta hende sikelo nisip okhoya khuruunga mu osibitali khu bukhalabani bubwenyekha kumuruungo.
- Khunyoola eosibitali neli emiliyu ekhanyala yareera busiku bwosi bwosi tawe
- Khurusia buloli bwowo mu bulekhuule alala ne kamebaasio kowo ne kamelaocho kowo khulondekhana nende bukhalabani nibwo onyoolile muosibitali.

Khuyeete Efwe Khukhuyeete Ewe Aana kamebaasia kawa kamalayi kanyala kayeeta bukhalabani bwefwe bwaba bulayi nia khukhukhalabanile ewe mungila eli endayi lukali. Onyala wareera kamelaacha kawa khulandekhana ne bukhalabani nibwo onyoolile. Khukhusubisia khuli khulalaleelela mu melaacha kano mala khukhukbassie. Nia khukhai bukhalabani bwe muasibitali muna bube bulayi lukali, khukheluule munalaka kano enyuma we khureeberesia abuwanga bulai bwe balwaala, bakhalaa Khukhasubisia khuli khulalabelesia mumelaacha kano mu ngila ye khukhala bung'ali khwive nende amundu akuudi yesi yesi khu likhuwa liosi liosi. Nosiima soma kamaandika kakaandi ke bukhalaababi bwefwe mu bwichufu. Kamaandiko kano kali mu bitabu bitiiti abundu niio balindiililanga busilikhi.

## EMBASSY OF DENMARK

DANIDA INTERNATIONAL DEVELOPMENT COOPERATION





## NIKO EWE OMULWALE OKHOYA OKHOLE

- Khuloonda bulayi bwene kamalaka nengila niyo eosibitali ekholelangamo kimilimo kiayo ne khukhwichusia chikaratasi chosi chosi kaaba bali wenyebwa okhole orio. .
- Okhoya omanye oli omulwale onyoile khwola niye onyoa khusilikhwa. Se khulekha babaandu babaandi banyoile khwola khukhuyeete ewe khulwe bukhongo bwowo, namwe khulwe khumanyikhana khwowo mu siasa, namwe khusifuno sisiindi siosi siosi tawe.
- Khunyala khwanyoa khukhuyeeta busa kaaba bali mumébaasio ko musilikhi wényebwa buyeeti bwa khangu nebusa okhola orio wakhilwa.
- Khuaana buriani khu basilikhi babaasomela kimilimo ekio, bakholi be osibitali boosi alala ne balwale bosi
- Khuboolela omusilikhi bung'ali bwoosi khulondekhana ne bulwale bwowo ne khureeba kamareeba akhwinoosele bulayi sisiindu nisio okhamanyile tawe. .
- Khuloonda busilikhi nibwo bakhuandikiile, ne khumenya nga ne bakhulakiliisie alala ne khukobola muosibitali nga ne bakhulakile
- Khura mu buandike, mala oreo lulwala lwowo kaaba bali walobile busilikhi nibwo eosibitali ekhuandikiile.
- Khuruunga kumuruungo kukwenyekha kwong'ene khu bukhalabani buuli ne kumuruungo mala onyole erisiti yowo. Yelochela omwimeelesi we osibitali kaaba bali bukhalukha buli abundu.

#### Bijse bie khukhola kimilimo:

Jumatatu - Ijuma: Saa	Saa
Jumamosi:: Saa	Saa
Jumapili: Saa	
Chindaalo Che Khuuluukha: Saa	Saa

#### Ngo onyala wakhunyoola:

Lisina lie osipitali: .....

Imeili:

Enamba ye lusimu noli mu butinyu butundubikha:

Enamba ye lusimu newenya khugana kamebaasia kawa: