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## Meta -Analytical Review on the Adoption of ICTs in Medical Records Management as Catalyst to Better Health Care Service Delivery

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**ABSTRACT:** Health care system is faced with a lot of challenges in offering quality health care services hence the need to adopt and invest in ICT technologies to support its ease of access and consumption of information in the current informational world. This paper examines the adoption of ICTs technologies in medical records management as a catalyst to better health care service delivery using meta-analytical approach to review scientific publications, paper published journals to develop a clear insightful argument on the stated concept. The study identified several themes which showed the relevance of adopting technologies in medical records management for better health care services provision. The study advocates for any republic or organization to advance and actualize a legislative framework that will help in guiding or directing health care process which involves management of health care records and archiving in digital platform for better service delivery.

**Keywords:** *Information Communication Technologies, Medical Records, Better Health Care, Service delivery*

### 1.0 Introduction

Health care system is faced with a lot of challenges on offering quality health care services therefore most hospitals are moving towards adopting information and communication technologies to support its accessibility to information in the fourth industrialized revolution. Ouma (2008) indicates that developed countries have adopted the application of information communication technology in their hospital and health service clinics to offer services such as automated medical records, electronically scheduling appointment and enhancing communication. Kotz D et al (2009) adds that application of ICTs in health care system is engraved with vast potential in improving healthcare quality, efficacy and reduction of the organizational budgets. Adebola (2009) states that provision of E-health in most industrialized countries have increasingly progressed from the delivery of on-line medical content towards offering resolutions to the processing of health associated administrative transactions of clinical tasks. Tan (2009) alluded that health service facilities will face increasing pressure to adopt E-health model because of the changing demographic E-technology market place and health care environments where as Car et al (2008) adds that the emergency of E- health systems have the ability to minimize faults and heighten patient safety, enable shared access to health records and promote evidence –based prescription.

Countries in Europe and USA are to a large extent using an electronic medical record with the aim of improving healthcare quality; this was re –emphasized more after the fall of Hurricane Katrina in 2005 which ruined or made it difficult for accessibility of medical records belonging to untold number of people who got affected. Sound health is not only imperative to individuals but also for government, because it is a key pillar in realization of sustainable economic development and growth as well as proper use and application of resources; this concept was emphasized by Okinawa charter on the Global information society adopted by the leaders of the G8 countries summit in 2000 which re-emphasized the prominence of ICTs in the global development goals to be achieved by 2015. Kolodner et al (2008) argues that the use of ICTs in hospital setting has much to offer in terms of management of health care cost and promoting the quality of health care while Piontek et al (2010) adds that healthcare influences the quality of human lives and function in the

society. Abraham and Junglas (2011) pointed out that healthcare information systems have brought drastic changes in the healthcare industry over the last decade.

World Health Organization (WHO) (2008) outlines that the ultimate goal of ICTs in management of medical records is to provide timely and appropriate information that health systems patrons can adopt in order to make transparent and evidential based decisions for health systems interventions thus information management system output should be rated based on the evidence of the continuous use of data to progress healthcare system performance.

Studies of Musa, Meso and Mbarika (2005), shows that in developing countries the application of ICTs on health care service delivery still lags behind. Mbarika (2004) submits that healthcare is one of the most essential prerequisites for sub-Sahara Africa and there is need for application of new technologies to address problem in health care system which entails computerization of medical records; in Uganda for instance, health care service providing system is faced with a lot of challenges which has led to poor delivery of health services, ineffective use of available resources and in ability to meet the patients' health needs and expectation. In that regard therefore, the government of Uganda realized the challenges and invested heavily in ICTs as apriority policy area for national development (Scan-ICT project, 2002). Rwashana and William (2007) emphasizes that the use of information communication technologies may lead to rise in quality health services delivery by providing accurate, reliable and timely information for efficient utilization of available resources.

Studies by Harries (2008) and Kumar (2011) indicates that quality, timely, trusted and dependable information is fashioned through proper use of records management tied with operative electronic records management system. According to Alalwan and Weistroffer (2012), enterprise content management system is the finest tool to handle and manage huge surplus of information for any organization; this is an ideal resolution for any organization that generates bulky volumes of records in a short period of time like a hospital setting.

Ojol et al (2009) opines that the application of ICTs in health sector hastens knowledge diffusion and increases accessibility to health related information, for instance, video conferencing tools have been applied in Tunisia for tele-diagnosing while in Botswana they have put into use extensive electronic learning for aids programs by community health workers. In Rwanda, the government is putting measures in place to link district hospitals with referral hospitals to enhance transmission of medical information which is significant particularly in the area of teleradiology (Makori, Musoke & Gilbert, 2013). Application of ICT on medical field has enabled more rapidly processing, storage and transmission of medical information between service providing facilities in developed countries. Alkins and Birika (2011) adds that in Ghana, the adoption of electronic health information technology (EHIT) has become a key concept of the national health care delivery system. The use of EHIT in hospitals has grown over the years because of its advantages in terms of creation, capture, management, preservation, retrieval and analysis of bulky volumes of secured health data from numerous sources.

Sood et al (2008) highlights the proof to show how E- medical records are being accepted in the medical sector in evolving countries for example, the OpenMRS technologies advanced by the Regienstrief Institute and partners in health is used in keeping medical information and it has been very fruitful in Kenya; the Mosoriot medical records system (MMRS) which was executed at primary care rural health center in Kenya provides patients registration and visits records, the system has the capacity to handle information of over 60,000 patients. Others include, Lilongwe

used in central hospital of Malawi, partners in health in Peru, HIV-HIS system in Haiti, Care ware in Uganda , PEPFAR project in Tanzania among others therefore this paper sought to understand the potentiality of information communication technologies on medical records management in strengthening healthcare services delivery through meta-analytical review of the literature.

### **1.1 Statement of the Problem**

Health care medical practitioner have difficulties in providing timely and effective healthcare services partially due to poor medical records management (Katuu,2015).Marutha (2011) argues that if medical records are lost or misplaced and the doctors or clinicians proceeds to examine the patients without sufficient health back ground information, they may end up offering wrong prescription which is risky to the patients' health and can also have a serious ripple effect for the health providers and hospital service delivery reputation. Print format records makes the clerks and health records managers take much time in looking for missing or misfiled files which leads to delayed service delivery; there is significant need for health facilities to invest in effective record management program by upgrading the medical records keeping systems for easy and timely retrieval of information, improve office efficacy and enhance health care service delivery. The challenge of health information system disintegration is a problem that needs to be looked into in order to realize successful patient delivery services in the country. Proper automation of health records areas is a challenge that many nations need to deal with to guarantee protection of the patient and improved health care services .The study therefore focused on the following research questions:

**RQ1:** What is the relationship between medical record management and health care service delivery?

**RQ2:** What are the record keeping technologies used in management and protection of electronic medical records in enhancing health care service delivery?

## **2.0 THEORETICAL REVIEW**

The theoretical framework supporting this paper is record continuum model advocated by Australian archival theorist Frank-upward (1990). The record continuum model was developed as a result of criticism from life cycle model which had much emphasis on paper records but not electronic records. Continuum model was developed to house both paper and electronic records (Baritin, 2008).The emergency use of technology in institution and hospital has occasioned the conception of computer generated records. IRMT (2000) highlighted that the maintenance of records should be taken care of through a consistent continuum of actions from creation, management and utilization of records. The continuum model put much emphasis on four actions that happens through the life of a record, which is identification of a record intellectual control, provision of access and physical control. This model is appropriate for the administration and management of electronic records.

According to McKemmish (1997), records continuum model is a holistic and multidimensional like a band of light that can be detached out in to layers. Medical records contain health information therefore it needs always be accessible where never is required. The author further emphasizes that records continuum model explores the continuum of responsibility that relate to keeping regime that generates, manage, preserve and present record as proof of business activities in a given institution.

The record continuum model brings together records management progressions to the conception of accountability in its broadest sense which entails corporate, social, cultural and historical processes. Upward and Mckemmish (2006) indicates that record continuum model consists of four phases: Creation, capture, organization and pluralisation. Pluralisation of elements fits well with the past usage of medical related records particularly for the purpose of this paper.

This paper adopts the continuum model due to its process which operates through time and not a time bound management type of record keeping practice. Continuum model ensures the activities designed ensure records are captured and maintained throughout the time. In a medical context, for instance, a medical related record is used to administer patient treatment and similarly it can be adopted for the advancement of medical research in the field of medicine, this agrees with continuum model which dictates records serve multiple purposes. This paper further advocate for this model because of its unfailing and comprehensible regime of management process from onset record creation to the time the records is preserved and used.

Hospital medical records are kept to give information to the health care professional at the same time ensure efficacy in health care services delivery; these records are unique and unique source of information therefore continuum model management provides avenues that guides on how these delicate records are always available in patients' medical file .Availability and accessibility of medical record is of critical prominence since it helps the healthcare professional to provide the best health care treatment services. The continuum model offers a holistic approach to the study and concurs with the role of medical records in strengthening health care service delivery.

Mckemmish (2004) adds that these model links the records management process to the conception of responsibility and service delivery in a wider viewpoint: Through the coherent and consistent of management process of the model ,hospital facilities are able to shield themselves against any possible lawsuit that might be posed to them. The author further adds that records are sources of value and assets to the institution; continuum records management model allows exploitation of records as assets of organization and enables new records to be generated in the processes and activities of the institution.

## **2.1 Empirical Review**

Many countries globally are concerned with proficient and operative delivery of health care services in public sector in order to be in line with health related millennium development goals which puts much emphasis on improved access to affordable health care services. The millennium development goals require sequence of interventions that can positively contribute to the realization of health related MDGs targets. All Nations are urged to improve access to affordable services In the United States of America, the availability and affordability of health care services has been a priority for the state, and the only way to attain this has been thorough knowledge management of patients' health information that is recorded and stored in medical records. Ting et al. (2011) emphasized that the healthcare professional's decision is highly dependent on the knowledge and availability of the patient's medical history obtained from medical records

Proper delivery of health care services largely depends on the accessibility of comprehensive, precise and complete patient health information. A medical record is recorded information showing the patient past medical history where services like diagnosis treatment and procedures are clearly spelt. Wong and Bradley (2009) indicated that a medical record can be defined as multifunctional document needed to capture critical and important health information

about patient's health conditions which is significant to the health care professional in administering patient treatment. Steward (2005) emphasized that health records play a central role in healthcare system as it holds important data about the patients.

According to Ting et al (2011) in Hong Kong, most of the institutions providing healthcare services make use of print format medical records which poses a lot of challenges in medical practices. The author further asserts that, the major test in taking care of medical records is the massive collection of the records which makes it problematic to arrange, store and retrieve when needed while some records go missing or get misplaced; paper based medical records makes it impossible for the sharing of medical information. It is public knowledge that persons visit more than one medical facility and hence difficult to recollect all the preceding medical history upon visiting each medical facility (Ting et al, 2011).

The rapid shift of embracing electronic medical records has increasingly led to a decrease of various challenges such as lost medical records, delay in service provision and misdiagnoses among other factors which can happen due to poor medical records management. Dynamism in technology in the health care industry like other public sector has started embracing information and communication technologies in recording, generating, capturing, maintaining, using and storage of health care data. In a digital setting for instance, medical records are electronically stored and shared with doctors in their offices when needed. Electronically stored medical records have several benefits in the health sector which entails: Easy retrieval and access of medical records, it occupies minimal space compared to print format documents, enables sharing of health information amongst health care providers among other benefits.

The adoption of technologies in health sector permits real time access to medical records notwithstanding of the customer's physical location. Integration of information and communication in health care service providers enables them to have quick access to patient's medical history inform of information. The author further asserted that ICT enables sharing of information amongst health professional therefore easy coordination of health care service delivery in health care facilities.

According to Wibe et al (2011), Norway is among the developed nations which have lawfully given patients freedom of the right to obtain their health medical records using information technology which was projected to minimize power disparity between the patient and healthcare professionals. The author further argued that patients also have the freedom to request prints of their medical records to safeguard a horizontal transmission of information between health personnel inside the hospital and between dissimilar hospitals.

Traditionally, print medical records are rapidly undergoing a major revolution (Mogli, 2009) but most countries in developing world this exercise remain stumpy owing to inadequate resources which are necessary. Studies done in Kuwait Qatar, Bahrain, Oman, Saudi Arabia and United Arab Emirates found out that there were major challenges concerning medical records management programme. The findings showed that most records in these countries hospitals had their medical records poorly arranged hence difficulties in retrieval. Studies by Wong and Bradley (2009) in Ethiopia showed that they were reports of numerous missing and imperfect medical records hence the need for electronic medical records.

Record management governance is ordinarily made known through legal and regulatory infrastructure, organizational standards and procedure, and record keeping responsibility and accountability. These governance tools were mandated to authorize a definite group of workers

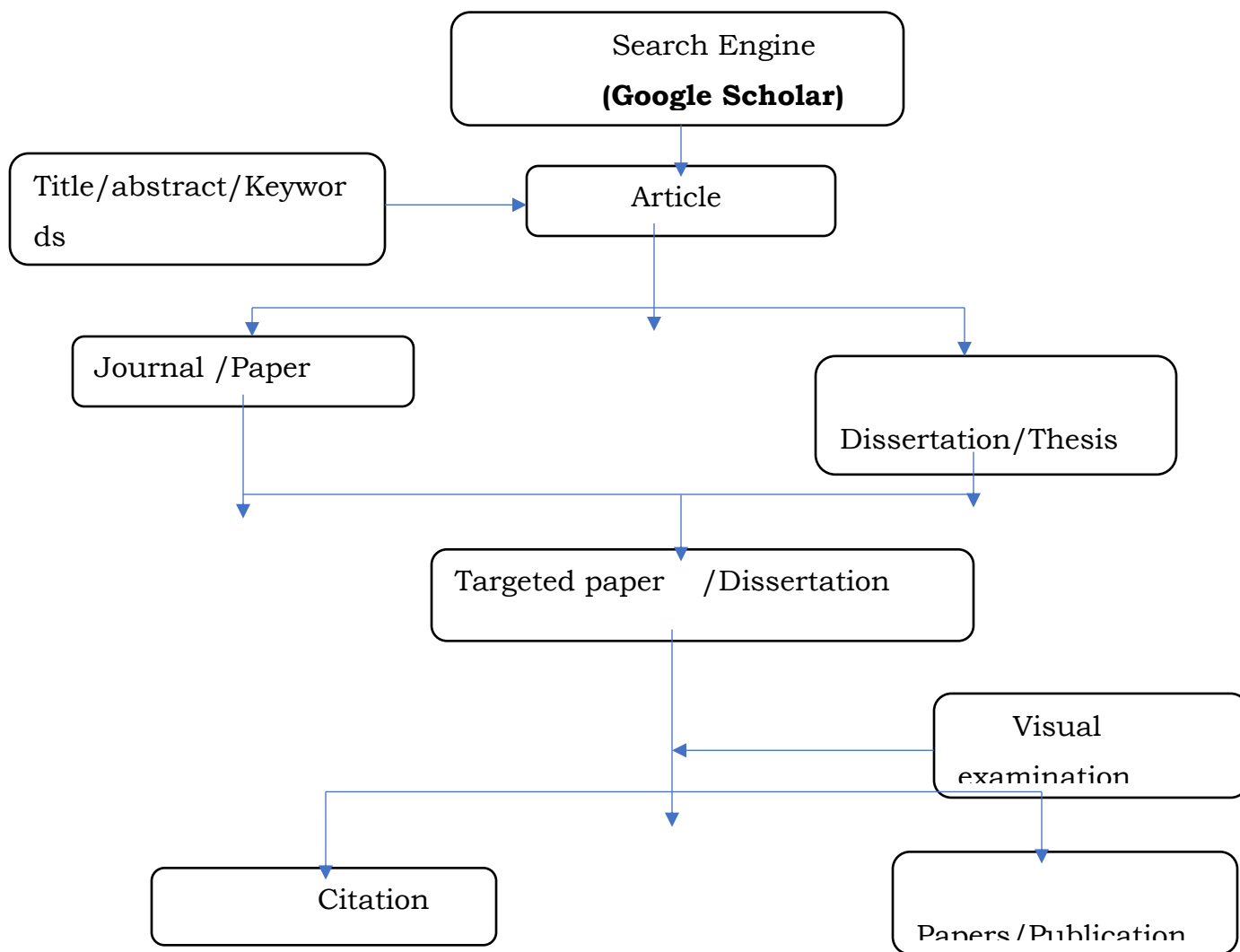
to conduct a certain record management activities in a given institution (Ismail & Jamaludin, 2009); which ought to be the case with medical records and management of health care service delivery. Asongwa (2012) pointed out that most countries in sub-Saharan Africa have cases of grave weakness in management of records in-terms of legislation, policies and institutional framework. Decman and Vinter (2013) insist that the government should step in and have policies fixated on the stages of generation, digitization and capturing including E-documents and record management system.

Nengomasha (2013) reckons that health care organization and legislative are responsible for regulating healthcare records management, this will help in ensuring that records are continuously accessible anytime, individuals need information about health care services and at the same time this will give records significance in health institutions which will aid against unnecessary delays in offering health care services; for instance Boonstra and Broekhuis (2010) emphasized that health care guidelines and jurisdictional framework needs to guide proper management of medical records in terms of medical records security, confidentiality, accessibility and disposal. Asogwa (2012) argued that after development of medical records governance policies and framework, healthcare facilities regulatory documents needs to be appraised and restructured oftenly as technology keeps changing hence changing the working environment.

### **3.0 METHODOLOGY**

According to Depoy and Gitlin (2011), a meta-analysis is a logical technique of information amassed from more than one source or vastly organized methodical review of literature. The focus of this meta-analytical review was to seek proof from the literature on issues to do with ICTs, medical records management and health care services delivery which answers the research questions: What is the relationship between medical record management and health care service delivery? What are the record keeping technologies used in management and protection of electronic medical records in enhancing health care service delivery?

In order to formulate the synthesis, the author used Google scholar to search for relevant publication. Onyacha and Ocholla (2009) in their study indicated that Google scholar is a suitable academic based search engine that covers more publications and citation than other sources including institute for scientific information and Scopus database. The analysis was restricted to the visibly available peer reviewed sources so that any individual or public could also examine the findings. The analysis was grounded on the following schematic diagram illustrated in Figure 1.



**Figure 1: Schematic illustration of the literature review**

#### **IV: DISCUSSIONS**

The following discussion elaborates the relationship between medical record keeping and health care service delivery and the record keeping technologies used in management and protection of electronic medical records.

##### **4.1 Relationship between Medical Records Keeping Systems and Health Care Service Delivery**

Record keeping system is the whole happenings that are undertaken by the institution when handling and governing records (Horsman, 2001). Ngoepe (2014) points out that it is of great significance to use the records management system that is customized and interrelated to manage records in different medium for smooth management of records. Ismail and Jamaludin (2009) adds that record keeping focusses on preserving records that are reliable ,accurate and complete to provide critical evidence that informs organizational decisions processes. Boonstra and Broekhuis



(2010) points out that medical record need to be managed using the technological system to enable better access to information for keeping patients, and health professionals' workers informed. NARSSA (2006) underscores that electronic document and record management system is an absolute solution for simultaneously sharing of patient's records with different health care institution despite of the geographical location or distance.

Medical record management practices are significant in ensuring quality service delivery in health sector. Akinboade, Kinfack and Mokwena (2012) indicates that the main role of medical records administration is to help in ensuring quality, accuracy, accessibility, security and authenticity of information in both electronic and paper format. Effective health care service delivery does not only depend on the competency of the medical doctor but also the effectiveness of records keeping processes.

Chodzaza and Gombachika (2013) reports that most hospitals are integrating information communication technologies into medical records administration owing to the tall level of challenges linked up with the management of health records manually such as misfiling, movement of medical records from one section to another which needs participation of more than one person hence the need for simplification. Management of records is a long process; where records have to be kept for a specific period of time in harmony with ratified statutory and jurisdictional requirement hence integration of information and communication technologies comes with other obligations. According to Ajayi and Tokon (2009), staff training on applications of ICTs in record administration is critical if the system is projected to bring affirmative revolution in record management package.

Medical records in any healthcare system are kept in two forms: Paper based and electronic health care record keeping systems. Abuya (2016) indicates that healthcare service delivery organizations have widely made use of paper based record systems as a way of managing patients' health records for the past two hundred decades. Kilonzo and Ikomara (2015) retreated that paper based records pose informational challenges that makes it quite problematic for it to be managed hence delayed health care service delivery. Saxena and Sharma (2012) emphasized that automated health record system should be seen as comprising of concurrent, retrospective information that is critical in supporting continuous, efficient and quality integrated health care service delivery while Hassan (2015) agreed that electronic health records has many roles in delivering quality health care information than just being a computer system.

An effective and efficient electronic health record system should be in a position to store patient health information and the results obtained from the systems is properly managed (Ahmad, 2014). United States of America adopted the use of automated health records in all their hospital by the year 2014 with the aim of increasing health information exchange and enhancing health care service delivery. Lobel, Paulowitsh and Schuppan (2016) also indicates that electronic health records can be used in documentation of clinical information to enable doctors, nurses and other medical professional to better handle progress notes for their patients and to effectively use for collating diagnostic tests and medication in a homogeneous, and formalized way. The aptitude to assimilate health records with other services is significant in regards to the future of health care system reforms.

In Africa with explicit reference to South Africa, record management is a practiced concept although it has not met the criterion standards. Liu and Yean (2015) indicates, there's high need for all healthcare authorities to appreciate and recognize the importance of managing records

accurately and avoid disposing off records hastily. A study by institute of safe mediation (2000) report showed 39% of error done in medication is as a result of admissibility of handwritten prescriptions. The findings by Acquash –Swanzy (2015) in Effia Nkwrita regional hospital in Ghana emphasizes that the adoption of automated health recording reduced the following in greater extend: Errors and missing files, time taken to retrieve and store files and expenditure spend on paper logistics. Another study by DesRoches et al (2015), from the findings, 97% of the respondent argued that automated health records add positively on opportune access to health records while 82% emphasized that automated records were significant of eminence to the clinical decisions. It is evident therefore, application of ICTs in management of medical records leads to efficacy, safety ,authenticity and improved health care service delivery ; these sentiments were echoed by Yagos et al (2017) who argued that, the use of ICTs in medical industries resulted to benefits such as proper management of health records and other related health information as well as easing access to information related to patients.

According to public archives and documentation service laws in Kenya, chapter 19, the government recognizes the significance of managing records for public utilization which includes health related records however health management system faces challenges such as nonexistence of transcribed health information policy to guarantee compliance and enforcement in information reporting which makes data unrepresentative for management, inadequate health records and information personnel among others (Chepkonga,2015).Verbeke, Karara and Nyssen (2013), application of ICTs in the right environments is in capable of boosting development in terms of healthcare ,better-quality education ,employment among others. Harries (2004) adds that, for the adoption of ICTs to be successful ,they is need for knowledge on the part of the promoters of technologies as well as the consumers therefore improving and enhancing service delivery in hospitals.

#### **4.2 Record Keeping Technologies used in Management and Protection of Electronic Medical Records**

Record keeping is the act of taking charge of records that are complete, reliable and accurate as evidence for proper decision making. The record keeping technology is therefore used to create and capture organizational records which is critical in providing information on transactions that were done by whom, when, where, how and for what. Ismail and Jamal din (2009) indicates that record keeping technology covers functionalities relating to record management operations, record keeping functionality requirement and metadata requirements. Boonstra and Broekhus (2010) emphasizes that records need to be managed using the health care technologies in order to warrant proper and quick access to information by both the patients and doctors; this is important because informed patients can easily realize the necessity for certain services and at the same time seek alternative services from the relevant people to their satisfaction. The author further outlined that, the management of healthcare records in most hospitals are decentralized therefore technology is vital for easier organization and integration of patient's information.

Ngoepe (2014) alluded that record management is a collective responsibility in an organization therefore all officials need to be involved in ensuring permanent authenticity of the record, its security, protection and filing for easy access and usability. Record keeping technology is absolute solution for patients' records especially electronic records which requires simultaneous sharing with different healthcare institution. Ngoepe further attested that in health institution

medical records are managed when it comes to handling, organizing, safety and security measures hence operative records management system framework needs to be established and structured during the record management process. Some of the proposed record keeping technologies in medical field includes:

#### **4.3 Electronic Health Records Systems (EHRs)**

Electronic health records offers a continuous medical history of a patient who has been attended even by more than one medical profession in any healthcare providing system (King, Jamoon & Furukawa, 2014). Latha, Murthy and sunitha (2012) adds that electronic health records system keeps all the patients information related to his or her health. The introduction of electronic health records (EHRs) has critically changed the health care industry in upward trajectory by providing more services, enhancing patients information accessibility, improving the quality of patient care thus creating a diverse set of health data management systems. The cohesive and summarized patient's information entails past and current diagnosis and treatment progress notes, immunization details, demographic and personal information among other relevant data. Biondich et al, (2011) argues that the adoption of electronic health standards and strategies in private hospitals has enabled national development plans in developing proper policies in regard to health care workers and patients.

The study by Brenne (2016) shows that many countries are trying to familiarize the whole process of interaction between people, process and environment, and technologies whose benefit have indicated that the adoption of health information technologies creates new safety issues in hospital. The monitoring and optimizing of technology enables to identify measure and improve the quality and safety of the care provided in the hospital thus improving the health care system. Adelman et al., (2012) agrees that hospital management must work towards improving electronic health records (EHRs) so as to facilitate rapid detection on common errors such as electronic health records related error so as to monitor the occurrence of high priority safety vents and track trends over time.

#### **4.4 Electronic medical Records Systems (EMRS)**

According to Boonstra and Broekhuis (2010), electronic medical records is a computerized medical information systems that collects, keeps and displays patients information to the medical providers. Electronic medical records (EMR) provides efficient access to the patient information and it entails such as computerized prescribers order entry, computerized clinical decision support, electronic medication administration record, electronic medication alerts which leads to medication safety, reduction in prescription errors (Holtz & Krein, 2011). The widespread adoption of EMRS has transformed the practice the practice of medicine from paper based cottage industry into intergrated health care delivery system (Carter, 2015). Effective change management is critical to the successful implementation of electronic medical records system in any hospital therefore the process needs to be initiated to all hospital by engaging, maximizing abilities, and achieving results, identifying and anticipating barriers and creating strategic solutions where applicable (Mccarthy & Eastman, 2010)

#### **4.5 Chart logic**

This is an electronic health records system that captures the clinical encounter electronically without making any changes in the work flow. This is achieved through the integration of easy to use technology with a toll that users have been using all along their voices ;in this platforms, all the details of medical history to diagnosis code to referral reply letters can be easily accessed,

and the users can complete a comprehensive note without getting lost in forms and files (Electronic Health Records Software,2019)

#### **4.6 Open MRS**

This a common platform upon which medical informatics efforts in developing countries can be built ; the system is founded on a conceptual database structure which is not dependent on the actual types of medical information required to be collected where data collection forms can be customized for different users. OpenMRS is grounded on the principle that information should be stored in a way which makes it easy to summarize and analyze , for instance minimal use of free text and maximum use of coded information. It keeps all diagnosis tests, procedures, drugs and other general questions and potential answers. OPenMRS is a client server application which means it is designed to work in an environment where many client computers access the same information on a server.

#### **4.7 Med book**

Med book is universal health platform that allows a user to securely store, access and share their medical records at the touch of the button. According to Forgionner and Kohli (1995),Medbook as form of technological record keeping offers its users a variety of other services such as connecting users to other medical insurance plans .It further proposes an interactive medium to allow various stakeholders to access the patient data securely utilizing the latest technologies in data encryption and access authentication. Medbook can predict, prevent or at the least, minimize the physical and financial burden that epidemics and outbreaks causes countrywide.

## **V: CONCLUSION**

### **5.1 Conclusion**

The application of information communication technologies within healthcare can make important changes in the normal operation of hospital especially in the developing world. In Kenya for instance, studies have been carried to assess whether there was adoption of ICT in the health facilities. In Kisumu County, a technology assessment of five hospitals was conducted to find out how hospitals are embracing the use of ICT and establishing the current structure in place in terms of equipment and technologies available within the rural areas. The study findings indicates that the major challenges were: Inaccessibility of ICT technologies to most of the staff in the hospitals, lack of basic computer operational skills and lack of enough technologies in the hospitals to support e-health in rural areas therefore poor medical record management

It is imperative therefore for any country or organization to develop and actualize a legislative framework that will help in guiding or directing health care process which involves management of health care records and archiving. The importance of records management and archives in any nation cannot be taken for granted; these rules and regulation ensures mandatory establishment of the sound institutional record management framework for any institutional business transaction. Records management and archive law should provide the direction on how records, in this case medical records are supposed to be created, kept and maintained for future institutional accountability

The process in which records are captured, created, transmitted, used, stored, retrieved, retained and preserved requires to be conducted in agreement with the legislation and standards. The records management system should comply with the current organizational business

requirements, community expectations and regulatory environment. Records system should be reviewed regularly if it only complies with the entire requirement.

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