Ict application case study examples

Application of ICT in Health Care

Provision of quality health services is the key agenda for health care through usage of innovative technologies. However, the most significant one would be the use of (Information and Communication Technologies) ICT in healthcare services. ICT can be described as tools that ease communication, the dispensation, broadcasting of information, and electronic distribution of data. This involves the use of electronic digital as well as analog ICTs. The use of ICT can be divided into two areas; basic ledger system and patient health care. The ledger system deals with the day to day purchases and payments made to the health center. In addition, it manages the payroll of the care center (institute of medicine, 2003).

Provision of ICT to the healthcare workers and their patients has the possibility of improving the quality, safety, and effectiveness of health care. The health care provision has at all times relied on technologies. Technologies form the backbone of the health care services to avert, make a diagnosis, and also treat illness as well as diseases. Currently, particularly in this medical center, health care providers make use of paper-based documents to record receipt of health care services. Sadly, this has a result in poor delivery of health services to the patients. Use of such records amounts to insufficient documentation of the health care provision course. This is clearly seen in the case with the loss of lab results and errors in the administering of patient's medication. Such errors have proven to be fatal; some and have led to the passing away of many patients.

Recommendations

The use of ICTs can be very effective in reducing the number of the critical incidences as well as improve the health care services provided by the medical center. In general, ICTs provide health care providers with a channel to gather, store, retrieve, and send information electronically. They have proven to be more efficient than the manual ways since for instance, to reduce the errors made during the recording of the patient's prescription a computerized provider entry (CPOE) can be used. A CPOE is quite effective in that it lessens handwriting and other communication errors since physicians and other health care personnel enter orders and information into the computer system. This only applies to prescription drugs and additional physician orders for instance; consultations, X-rays, and any other images (Valdes, 2003). CPOE has been in use in Stanford hospital in Stanford, CA and has been very useful in issuing of prescriptions. As for the health records on the patients electronic health records (EHRs), well known as electronic medical records or automated medical records, can play a vital role in improving the health care services. They are quite useful in preventing mix up of different patient's records, loss or errors in patient records. In addition, they can be used in maintaining the health progress of the patients; the diagnosis made, the lab tests and result obtained in addition to the drugs administered to a patient. EHRs have been significantly used in several hospitals, for example Brigham and Women's Hospital in Boston and Emory University Hospital in Atlanta (National Health Service, 2004).

ICT can also assist physicians and nurses in making decisions diagnosis and treatment of a patient. Clinical decision support system (CDSS) can help in

averting incorrect diagnosis by providing physicians and nurses with real time diagnostics and treatment recommendations. Not forgetting, bar coding, a very effective system. Like in other environments, bar-code scanning in health care is the same. It involves use of an optical scanner to electronically get information that is encoded on merchandise. This is effective in issuing of medication by matching the drugs bar code to the bar code on the patients arm bracelet. As a result, patients can be able to obtain accurate drugs and their dosages.

The use of ICT is taking root in many major hospitals. More so, organizations such as the world health organization (WHO) are advocating for the use of ICT. The reason being, the technologies are facilitating health centers in providing quality and reliable health services. Studies have revealed that hospitals using ICT recorded a vast decrease in numbers of error related critical incidences. As for the management of finances, there will accountability of the funds acquired and used and in whole improve the health care management. Therefore, it would be in the best interest for the patients and health care center to implement the use of ICT applications and software.

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