



Contribution ID: 37

Type: **Talk**

Health Records Data Management Role of Security

In today's digital era, health records management has evolved from traditional paper-based systems to advanced electronic health records (EHR) systems. This progress has ushered in several advantages, including improved accessibility, enhanced precision, and heightened efficiency in healthcare delivery. Nevertheless, it has also introduced substantial risks related to data security due to the sensitive nature of health records, which contain personal, medical, and financial information, making them a prime target for cyberattacks.

This study aims to investigate various techniques and practises required to improve data management and security for online patient record management. Health records are of paramount significance in ensuring seamless and well-coordinated care by providing comprehensive accounts of patients' medical histories, including their conditions, treatments, medications, and other personal information. The unauthorized access to this data can lead to severe consequences, such as identity theft, financial fraud, and invasion of privacy, which can have severe personal and professional repercussions.

Quantitative data was gathered through questionnaires with healthcare professionals, patients, and IT professionals to uncover nuanced perspectives, challenges faced, and lessons learned from their experiences. Participants from the Eastern Cape Province were selected. The researcher used purposive sampling whereby participants were randomly selected particularly from the healthcare professionals, IT specialists, patients, and administrators. Healthcare professionals, patients and IT administrators who agreed to take part were sent surveys by email and or WhatsApp to fill out information regarding their understanding. The research scope was limited to the healthcare sector in the Eastern Cape,

Findings have shown that the management of health records in the digital age offers immense benefits for healthcare delivery but also brings substantial security challenges. Ensuring the security of these records is critical to protecting patients' privacy, maintaining trust, and ensuring the quality of care. It was also evident from the results that healthcare organisations generate vast and store vast amounts of data, including patients' records, medical images, and research data. Traditional on-premises infrastructure may not provide sufficient storage capacity or scalability to handle this growing volume of data effectively. Finally, the study concluded that emerging technologies such as artificial intelligence (AI), machine learning, and blockchain have the potential to further enhance the management and security of health records.

Key words: Health Records Management, Electronic Health, Data Security.

Primary authors: Ms MAVUSO, Nosipho (Walter Sisulu University); Mr BANTWINI, A.

Presenter: Ms MAVUSO, Nosipho (Walter Sisulu University)

Session Classification: Session