



INNOVATIONS IN HEALTHCARE

Electronic Health Records In Nigeria

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ABOUT US



Versa Research

Versa Research is a data, research, and consulting company based in Lagos & Toronto providing insights and foresight to build scalable, and sustainable processes.

We provide full-service research and consulting, a DIY research panel, growth strategy workshops, training, and lectures to Startups, and SMEs.

With these services we gather insights on growth drivers, differentiation points, and innovations, to add value to your processes.

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SOURCES

Secondary

- **Journals:** African Health Sciences Journal, Medical Journal of Australia
- **Media Outlets:** National Accord Newspaper
- **Websites:** Medismart, Helium Health, World Bank

Primary

Our primary data was collated through interviews with

- Medical Doctors
- Health Record Custodians

Disclaimer

Although analyzed and compared with various secondary sources to check authenticity and provide the context of the figures within this report, Versa Research does not claim 100% accuracy and granularity since some of the information either remains in constant review, undisclosed, confidential, or not updated. This report aims to educate potential investors and individuals on the challenges and offers solutions to the Electronic Health Record in Nigeria. The report is not aimed at providing criticism to the industry but rather to give general information on the impact the challenges have on individuals, businesses, and the economy.

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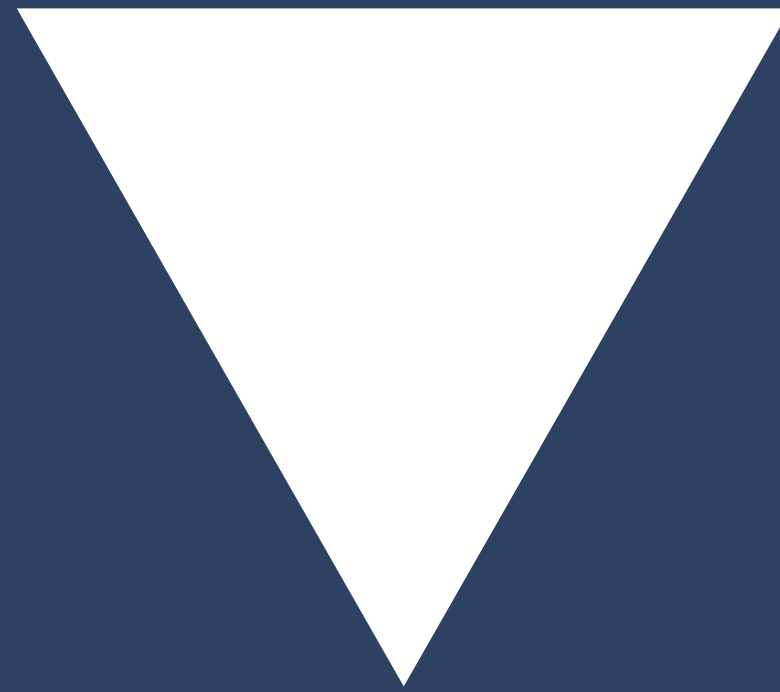
Overview



Benefits
Challenges



Case Study Suggestions



Overview

Electronic Health Record & Electronic Medical Record

INTRODUCTION

Background

The history of healthcare records in Nigeria dates back to the 80s, during a collaborative research project between the Computing Centre of the University of Kuopio, Finland; the Obafemi Awolowo University; and the Obafemi Awolowo University Teaching Hospital. The project created a basic hospital information software for Veterans' health records; it included information about their admission, discharge and transfer. This Electronic Medical Records system was used in Obafemi Awolowo University Teaching Hospital in 1991.

By the late 90s, the research team decided to expand their system by ensuring all teaching hospitals would have health information units which would use this basic standardized software they have developed. Due to its high costs and lack of advancement, the software was used by just 5 teaching hospitals in the country by 2007.

INTRODUCTION

Background

Electronic Medical Records (EMR) is an electronic collection of patients' health information, medical history, and key administrative & clinical data maintained by a provider over time accessible only by provider that maintains the system.

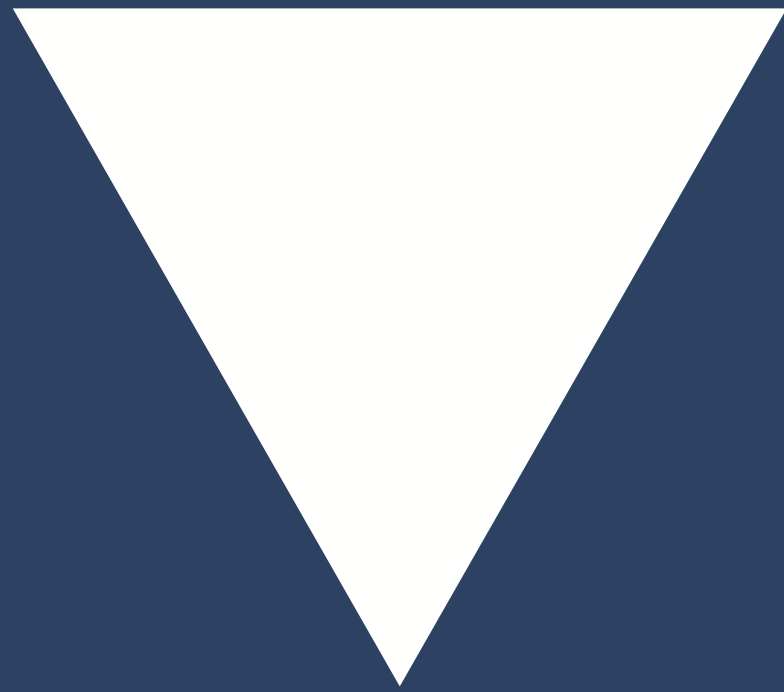
Electronic Health Record (EHR) is an electronic collection of patients' health information, medical history, and key administrative & clinical data maintained by a provider over time but accessible by multiple providers. This data and information includes but is not limited to; demographics, progress notes, problems, medications, vital signs, past medical history, immunizations, laboratory data and radiology reports.

In simpler terms, EMR is information and data individual healthcare providers own while EHR is the information and data accessibly by all healthcare providers a patient visits.

INTRODUCTION

EMR vs EHR

Electronic Medical Records (EMR)	Electronic Health Records (EHR)
<p>EMR is not designed to be shared outside an individual health facility</p>	<p>EHR is designed to share a patient's information with more than one health facility</p>
<p>EMR is a narrow view of a patient's medical history</p>	<p>EHR gives a comprehensive view of a patient's medical history</p>
<p>EMR is a digital version of a chart</p>	<p>EHR is a digital record of a patient's entire medical information</p>
<p>EMR is mainly used by healthcare providers for diagnosis and treatment</p>	<p>EHR provides tools that healthcare providers can use for preventive care</p>



Benefits & Challenges
Lack, Adoption & Challenges

BENEFITS

Lack of EHR, Current Process Data from Interviews

Currently, in many hospitals, records are kept electronically (EMR) or using paper files. In other for healthcare providers outside of the health facility keeping the record, to access these records, patients have to reach out to the health facility keeping the records and request the information. The information and data is either given to the patient or sent directly to the healthcare provider.

"In terms of sending to another hospital, the only way we transfer records to another hospital is of course with the patient's permission and through email correspondence, other than that, I am not aware of any other electronic means. And if the hospital does not have email correspondence, what we do is print out all the patients records and hand it over to the patient... They only have access to the results of tests that we have done for them, maybe because they want to seek a second opinion elsewhere. The another scenario could be that maybe we want to transfer the patient to another hospital. So we would print out all the documents and we will handle the transfer of the record to the hospital so the patient has no access to the document."

"So in a case where a patient is asking for his/her medical record, we print out a summary which is a medical report for them to take to where they want to take it to. It consists of both lab report and diagnosis, but it would be a summary of their report."

"We are working on it but for now we don't do that. If you need anything records, we go back to writing it out for the patient (on request); the patient will make a request and we will send to wherever the patient wants the record to be sent to."

BENEFITS

Electronic Health Records (EHR)

Medical record-keeping is essential to understand patients' illnesses and provide proper treatment. Having access to all medical records of a patient is essential because it removes the silos health care providers work operate in, within their teams, and between other health facilities.

The level of care provided is also top-notch, as the complete records allow health care professionals to understand diseases, prescribe more reliably, make predictions and ultimately increase the quality and in some cases quantity of life of their patients.

EHR is an accurate and complete record of a patient's medical history. It's access aids in reducing medical errors by allowing for informed diagnosis, helps physicians be more efficient as well as effective, and ensures patients' safety.

Although the cost of implementation is high, EHRs actually reduce costs that arise from duplication of testing and poor health.

BENEFITS

Adoption EHR

For EHR to be adopted in Nigeria, the Ministry of Health (or other Government parastatal responsible for Public Health) needs to drive the adoption. The first step is to employ a unique personal identifying number for each resident. National Identity Number (NIN) can be used as such. Every healthcare professional providing services must request this number from each resident before services are provided. There should be a universal system such as the Electronic Medical Record (EMR) systems currently used by some health care providers where medical records are recorded and stored. This platform should be accessible by every healthcare professional providing services in the country. Each resident's record is added or updated on this platform when they receive a service from a health care provider. Their NIN is what is used to identify them.

Data from Interviews

"Another problem with implementation is a government who is not ready to look into the use of electronic record systems, maybe because they think they are very expensive; purchasing the software and training staff on how to use it. In private hospitals, only the hospitals that can afford EMR use it."

"I don't think we are ready for that type of system because of patient confidentiality. Besides from confidentiality, the issue of power supply and network challenges are huge problem as well."

"Some people don't believe in adopting new methods of doing things. Also, some of the users do not know how to operate computers so they don't want to adopt it."

CHALLENGES

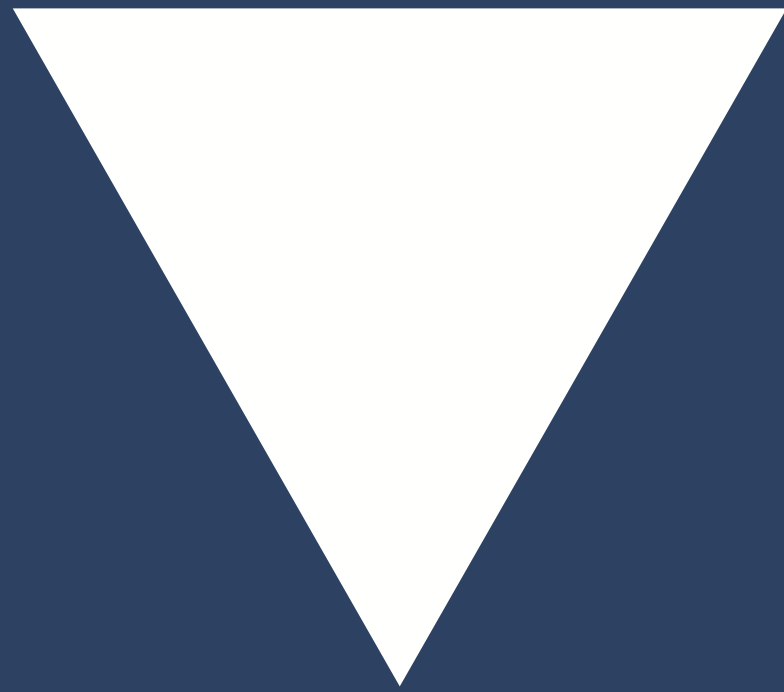
EHR in Nigeria

Some of the biggest structural challenges facing the implementation of EHR include:

- Lack of unique personal identifying number for all resident
- Poor data privacy standards and compliance
- State control and surveillance
- Internet infrastructure deficit
- Corruption
- High capital investment to purchase software and to train staff

Then there are challenges posed by healthcare providers as well as patients, which include:

- Incomplete or incorrect information provided by patients
- Distrust of the Government and systems in place
- Rigid administrative process
- Healthcare provider compliance and willingness to use



Case Study

Austria, South Korea, Australia

CASE STUDY

Austria

Austria, a Central European country with a population of roughly 9 million, has mandatory health insurance which is revered across Europe for its quality and universality. Healthcare in Austria is primarily public and overseen by the Ministry of Social Affairs, Health, Care, and Consumer Protection. Mid & High-income earners contribute a percentage of their earnings to the health insurance fund which they access when the need arises; while low-income and non-income earners, do not contribute to this fund but have access when the need arises.

Austria uses a National Electronic Health Record called ELGA. ELGA was introduced as a joint project between the Federal Government, State Government, and Social Insurance Institutions. ELGA allows Austrians to view their medical records (e-Results) and pharmacology records (e-Medication-List) using a mobile phone. In addition, doctors, hospitals, and healthcare providers can access previous diagnoses and therapies of patients via ELGA.

Although ELGA is not mandated in Austria, 97% of the population currently use ELGA. The biggest concern is the privacy threat ELGA poses.

CASE STUDY

South Korea

South Korea, an Eastern Asian country with a population of about 52 million people, has a history of war, which led to the detriment of its health system in the 50's. Today, the country is known for its progressive and universal health insurance coverage; which is managed by the mandatory National Health Insurance Program funded by contributions, government subsidies, and tobacco surcharges.

South Korea's Ministry of Health and Welfare has launched an Integrated Health Record App, My HealthWay, which gives access and full ownership of health data to individuals. Medical check-up data, prescription data, and vaccination history is integrated into this App. Data from wearable medical devices are also integrated into this App. South Korea also has 90% adoption rate of electronic health records systems in medical institutions.

The advantage of My HealthWay is that it provides patients with an integrated record of their health history and gives them full ownership of this data. It also integrates personal financial and administrative information of individuals. Although this App is great to ensure optimal preventative care and proper treatment, it however poses privacy threats if the App is breached and state control and surveillance from the Government which is affecting its uptake.

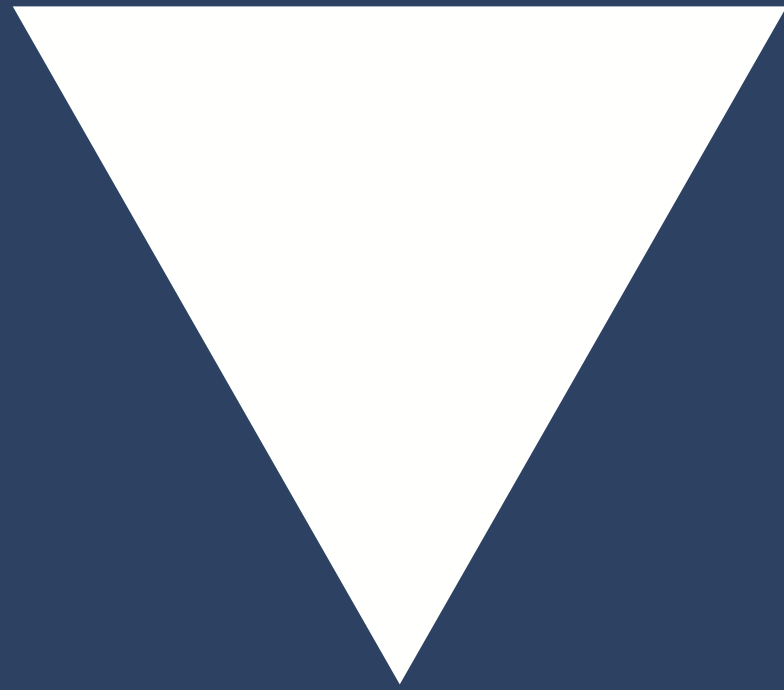
CASE STUDY

Australia

Australia, a transcontinental country in Oceania with a population of about 26 million people, provides its citizens with a mix of private and public health care. The public care is owned and governed by the Government while the private care is owned by private institutions. Public healthcare is either free or subsidized by MedCare (funded by tax) depending on the type of treatment. As for the private care, it is funded by a combination of Government incentives and Private entities, such as Private Health Insurance, Private Health Organizations, and out of pocket payments.

Australia uses a National Electronic Health Record system called My Health Record. This system is being managed by the Australian Digital Health Agency (ADHA), in conjunction with the Australian Commission on Safety and Quality in Health Care (ACSQHC) to ensure the availability of accurate data on patients medical history for clinicians and other healthcare workers. Data on patients recorded on the system include patients prescription and dispense information, medical history, patients allergies, pathology and diagnostic imaging test results, immunizations, and summaries of patients hospital discharge.

My Health Records has been activated by over 22 million people with about 62% using the system, and over 1.81 billion documents recorded on the system. However, the system is lagging behind on accessibility and user-friendliness.



Suggestions
Conclusion

CONCLUSION

Adoption EHR

For this adoption and implementation of Electronic Health Records (EHR) to be successful in Nigeria, the following must happen

- 1) All residents must have a NIN
- 2) Creation of a platform strong enough to collect and store data that is easy and fast to use. A platform that works both offline and online, is battery and electronically operated
- 3) Each health care provider needs to be trained on the use of the platform
- 4) Sensitization programs must be conducted in communities for residents to understand the importance of this system
- 5) Data protection policies and legislation must be in place
- 6) Compliance and accountability policies and legislation must be in place.

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