



Prifysgol Cymru
Y Drindod Dewi Sant
University of Wales
Trinity Saint David

Title: The Use of Technology in a modern workplace

Name: FLAVIA APIO

Student Number: 2023550

Module Code: BMSW4003_LON

Lecturer's Name: KOUSHIK MODAK

Abstract

In this report am going to conduct a secondary report the use of Technology in a Modern healthcare workplace (Imperial Collage NHS Hospital). Am going to explore the technology and communications systems that are used within Imperial Collage NHS Trust. My report will include the Rationale, Objectives, Methodology, Literature review Methodology, Secondary Data Analysis, Conclusion/Recommendation and References.

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Introduction

This study is about the usefulness of technology in healthcare (Imperial Collage NHS Trust. I have chosen to do this research using a secondary method. It is a very interesting report as I have chosen the organisation I already work for.

Rationale

This Research is focusing on the use of Technology at Imperial Collage NHS Trust because it is has now become the norm that Technology is rapidly taking over the health care industry. I am conducting this research to see how much Technology is being used in health care and see how things was before Technology.

Research Objectives

My intension is to get involve learning about Imperial NHS Trust and their use of Technology in health care. I also work for this organisation so I will explore it more while conducting this secondary research.

Literature Review

Orchard, (2018/19) urges that Imperia College is one of 17 NHS acute worldwide digital perfect example and carry on with their programme of digital growth made achievable by our electronic patient administration system, in place across all our hospitals. In 2018/19 this included, the establishment of the Streams app, it let specialist to see the lab results while monitoring on a digital phone by the bedside. The introduction of Cerner FetaLink to help

observation of remote indicators for new-born's well-being in maternity services and the development of the Care Information Exchange. The safe patient portal was developed with the assistance of Imperial Health Charity and now helping many patient pathways across north west London.

New scanners: That helped the spotting of sick Trust patients were one of the first in the world to benefit from a pair of new state-of-the-art SPECT CT scanners situated at Hammersmith Hospital previous year. The new scanner is extra sensitive allowing it to confine illnesses and find lesions more precisely. The brand-new robotics means patients need fewer diagnostic examinations. It is also more pleasant for patients as pictures are created much faster and consultations are brief. The scanners are located in a stylish unit at Hammersmith Hospital which has been renovated as part of the broad construction of Trust outpatient department.

Safety through technology

Allowing patient details accessible to clinical staff when they require it to treat patients is very important to patient welfare and is the core of the task of electronic patient records. During 2017/18 we effectively piloted a new way to notify physicians before patients at risk of getting sepsis. Acting prompt to provide patients with the best treatment plan has been demonstrated to expand patient safety. Likewise, they are joining the devices that detect foetal heart rate to our Cerner electronic patient record system. This permits the physician to effortlessly observe mother and baby's heart rate. Sponsoring from the global digital model programme, see page 71, has assisted them to develop further and faster with establishing the innovations. (Imperial, 2017/18)

Technology is improving lives in many ways and we believe patients could receive better care and have a better experience as a result. At Imperial Trust, they have already introduced a single electronic patient record (EPR) system which gives employees faster and trouble-free entry to up-to-date data of a patient's care through a computer.

Research Methods

Research methods are course of action for gathering and analysing information. Expanding the study system is an essential role of a design. When drafting a procedure, there is a pair of crucial choices to make.

Research methods mentions the devices that one utilizes to do a study. It can be either qualitative or quantitative or both. Quantitative technique looks into statistical figures and

frequently needs the use of numerical tools to look over facts gathered. It permits the quantification of variables and connection joining them to be established. This type of statistics can be represented employed on charts. Qualitative data is not numeric and centred in demonstrating styles. Mixed methods are a collection of both qualitative and quantitative research techniques. It allows implication of unpredicted outcome. (Library, 2021).

For this research I will be using a combined approach as it seems more suitable.

Secondary Data Analysis

Secondary data analysis touch on the study of existing information gathered by researchers. Secondary analysis gives analysts the chance to explore study inquiry making use of extensive facts sets that are always full of understated category while economizing time and money. (Donnellan and Lucas, 2013)

In this report I am using a secondary Data. I am Imperial and other websites to collect my data.

Electronic Medical Records

Imperial College Healthcare NHS Trust use A system called Cerner. Cerner is an electronic medical record system that joins database and provide a full range of accomplishment. It was manufactured to let healthcare workers to digitally keep records and gain patient health details in also the critical and ambulatory care environment. It lets you to give immediate entry to patient results and clinical data beyond care disciplines. It enables that healthcare companies to meet The Joint Commission conditions for patient privacy and acquire their details securely from each time and when it is suitable for the care team. Crucial advantages are better patient treatments as physicians can concentrate on the patient's general health and not the experience, increased regulation by putting immediate details in time to make fast and effective decisions and increased entry to data on Cerner EMR software solutions for Imperial College Healthcare NHS Trust has specialties, such as: Patient information, Ward View Graphing, Appointments, Overview, Obs & Assessments, Allergies, Problems & Diagnoses, Procedures & Diagnoses, Histories, Orders, Results, Structured Notes, Record View, From Browser, Multimedia Manager, Activities, Medications, Drug Administrations, Drug Admin Summary, PGD, Growth Chart, Med Request, Medi Viewer Portal and Plan of Care Summary.

Imperial has been collaborating with DeepMind and Google Health on the style and use of new AI technologies in healthcare, such as experimentation that we are performing with the Cancer Research UK Imperial Centre to find out whether AI could better breast screening and to eminent diagnostic accuracy.

We also assisted advance Streams, a digital alerting and decision aid smartphone app that is presently being tested in some NHS hospitals. In these partnerships, we have also been concentrating on growing the standards for digital and AI evidence reporting. (Imperial 2021)

Steam App

In January 2019, we began using a secure mobile application (app) called Streams that allows healthcare professionals to view a patient's latest test results (such as laboratory and radiology results) from their smartphone or tablet device. This allows staff to make quick decisions if test results show changes to a patient's condition, without leaving patients to get onto a machine. The universal surgery group at St Mary's Hospital were the first to start making use of the Streams and we now have several healthcare professionals across our five hospitals able to use the secure app with plans to roll out on a wider basis over the coming + No data is stored on the device itself.

Healthcare professionals want to be able to spend more time with their patients and accessing clinical information securely from a mobile device app will help make this possible. Initial feedback from another NHS Trust already using the Streams app has shown that it saves computer time which healthcare staff can instead spend with the patient.

As with paper medical records or the EPR system, there are strict rules in place so that only healthcare professionals who have been enrolled by the Trust will be able to log into Streams. They will have to go through two levels of security checks to be able to access your records.

The Streams app has been designed and built to the highest security standards and both the Trust and the company who provide the app, called Google Health, take data security extremely seriously. The data used to provide Streams is stored in accredited data centres in UK and EU and all access is restricted, logged and strictly governed by the Trust. The app is encrypted, which means it becomes a 'code' that cannot be read without a specific 'key'. The security of the app has passed all NHS audit and review processes.

We

+ want to make the use of the app as easy as possible for our healthcare professionals and so they can download the app on their personal mobile phone. All access via the app is

strictly governed and logged, so only healthcare professionals who have been enrolled by the Trust will be able to log into Streams.

For most staff, the app will only work when at one of our hospital sites. Only clinicians with out-of-hours on-call responsibilities will be able to use the app when they are not at one of our hospitals. Special security permissions will need to be authorised before this function is available to them. This will be a small number of consultants (senior doctors).

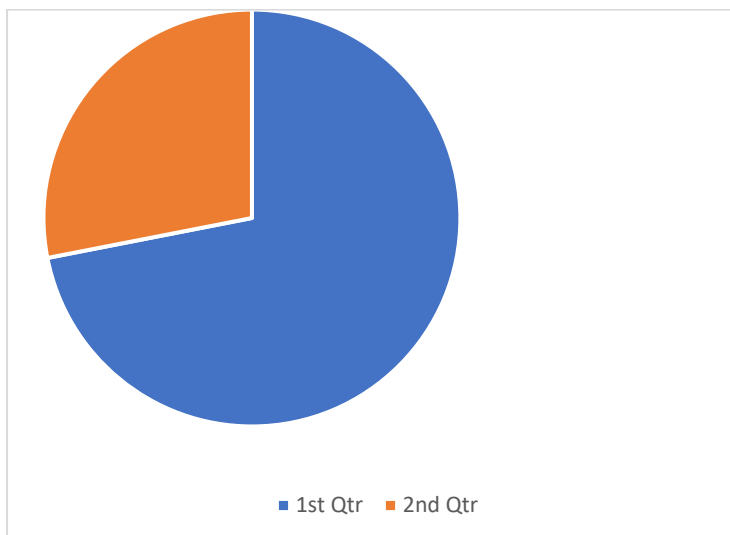
Healthcare professionals using the Streams app must have set a passcode on their device—this adds a layer of protection and ensures the data on it is kept safe in case of theft or loss. No data is stored on the phone itself. Like many banking and medical apps, Streams requires you to enter your passcode or use your fingerprint to gain access to the app.

The company that designed and built the Streams app, DeepMind, was acquired by Google in 2014, but remained operationally independent. It was announced in November 2018 that the Streams app and the team behind it would be joining Google's new health unit, Google Health. This would allow Streams to grow and improve the service it provides. Streams was rolled out under the Trust's contractual agreement with DeepMind and there has been a full review of any impacts of the move to Google Health before the contract was transferred in September 2019.

Results/Finding of the analysis

Electronics has set at the disposal of the healthcare section with numerous powerful gadgets to better patient care. Since EHRs are effortlessly accessible to clinicians, they can get all medical histories of patients and make the most well-considered medical decisions. Physicians can quickly recognise possible medication errors. They can do this by using apps such as barcode scanners and patient safety improves as a result.

Cerner also helps enhance patient care by providing information about the patient's vital signs, and temperature. It facilitates real-time tracking of location, communication, and identification.



As indicated in the pie chart you can see the use of technology making health care much better by over 70%.

Conclusion

Technological developments are better adopted across imperial all sides. Imperial Collage NHS Trust has been able to harness technology more efficiently for improved patient care; however, other hospitals around the country are catching up quickly. Healthcare providers who have not yet adopted the tools technology places at their disposal are realizing their vast untapped potential and are making the changes and the investments required to streamline processes, lower costs, increase efficiency and most importantly, to improve quality of care. (Mala, 2018)

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