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MODULE CODE: BMSW4003
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Research Title: The impact of technology in hospitals and healthcare during the Pandemic.

Introduction:

In this report, I will be explaining the impact technology had in both hospitals and healthcare systems. I will firstly be describing the reason why I am doing this study and why it is important. I will then move on to clarify my objectives for conducting this study and will clarify the level of knowledge required to achieve this goal. I will then use articles to obtain opinions and research on this topic and then cross reference this with my own findings. I will then outline the mythology behind the research, highlighting the procedures used to analyse information on technology during the pandemic. Moreover, I will be using secondary data for further analysis and then draw a conclusion on my findings and make recommendations on improvements.

Rationale:

I am doing this study because first I want to highlight the impact the technology had in hospital and healthcare. The pandemic has seen a huge growth of digital technologies which has allowed doctors and nurses to work remotely while also providing health service to patients. Using virtual methods is not appropriate for every specialty or patient group. The opportunities for remote working are more limited for areas such as dentistry, for example, where face-to-face contact is needed. Many services that support people with long-term conditions in the community are conducted in groups. While some aspects of these are amenable to remote alternatives such as remote supervision or apps often the benefit from these services is derived from the social side of the interactions, and the opportunity for people to meet others who have the same condition as they do. The availability of remote alternatives to services such as cardiac rehabilitation, which often takes place in a face-to-face group class is variable across the country. Skilful communication enables healthcare providers to establish rapport with their patients, solicit crucial health information, and work effectively with all members of a care team and the public. I will list below the technology hospitals use.

Electronic Health Records, Robotics Diagnostic, Technologies.

Objectives:

In this study, I aim to show the advantages of technology overall in health care and how the healthcare system can further benefit from more investment in digital technology. the role of technology in promoting better patient outcomes Technology helps contribute to patient centered care by fostering communication between providers and patients via online portals, text messaging, and email. It also increases access to information such as online medical records, which can improve self-monitoring and patient convenience. Many hospitals and healthcare facilities have

already begun using tablets to update charts, order tests, and write prescriptions. Patients are increasingly turning to mobile devices for medical needs as well.

Literature Review:

As hospitals have sought to reduce the radio-frequency identification technology has emerged as a solution. This study reviews existing literature to gauge the recent and potential impact and direction of the implementation in the hospital supply chain to determine current benefits and barriers of adoption. Findings show that the application to medical equipment and supplies tracking has resulted in efficiency increases in hospitals with lower costs and increased service quality. technology, improve patient safety, and improve management effectiveness by increasing the ability to track and locate equipment, as well as monitoring prevention, distribution management. Hospitals have begun to incorporate products to control and evaluate equipment that moves in and out of the organization using radio-frequency identification, a wireless system utilizing radio-frequency electromagnetic fields to obtain data for tracking and identifying items. tags enable scanning of an item or device so that its contents, location, manufacture date, order numbers, and shipping data

Methodology:

I'm trying to find out how technology impacted in healthcare during the pandemic. The methods used to conduct this research was firstly using google scholar to find out opinions on the topic. In March 2020, guidance was issued to primary care providers, stating that all patients should be triaged before an appointment, ideally through an online consultation, and that remote appointment options should be used where clinically appropriate to reduce the risk of infection from Covid19 As a result, the majority of general practices have switched to a system of total triage, with 99% of hospital using remote consultation platforms to triage patients before offering them an appointment according to their particular needs. This was an ambition of The NHS Long Term Plan, which stated that all patients would have a right to online hospital consultations and access to a digital first primary care offer. Prior to the pandemic, around 80% of hospital appointments took place face-to-face. As of June 2020, this had fallen to just under half, with around the same amount taking place over the telephone. Technology is also being offered to support patients recovering from coronavirus. In July, COVID19 Recovery, an online portal providing information and personalised support programmes, was launched to help people recovering from the long-term effects of the virus. Some trusts have also been trialling virtual wards to continue to support people outside of hospital.

Primary Data Analysis:

The Health Foundation has a track record in using data analytics to tackle real world problems in health and social care, for tangible public benefit. The technology are working to create a future where everyone's health and care benefits from these developments in analytics and data-driven technology. Primary data information is gathered by the healthcare and used to help improve hospital research, looking at

patient that already exist and talking to patient to collect the information on what is successful, and what needs developing to ensure that the technology is viable. Primary data can be collected in several ways. However, the most common techniques are

- Interviews
- Surveys & Questionnaires
- Observation
- Focus Groups
- Experiments
- Study of cases
- Autobiographies and memoirs.
- Diaries, personal letters, and correspondence.
- fieldwork.
- Internet communications on email, blogs, listservs, and newsgroups.
- Photographs, drawings, and posters.
- Works of art and literature.
- Experiments

Secondary Data Analysis:

Secondary data are collected by another entity or for another purpose. Indicators are secondary data that have been analysed and can be used to compare rates or trends of priority community health outcomes and determinants.

And also the use of secondary data refers to applying data to research for purposes different to which it was initially collected using secondary data can save time and costs. information collected through censuses or government departments like housing.

- social security, electoral statistics, tax records.
- internet searches or libraries.
- GPS, remote sensing.
- km progress reports.
- journal paper and magazines.
- Books
- Records
- Articles
- Websites

Conclusion/Recommendation:

Reference:

Alexander, K., Ogle, T., Hoberg, H., Linley, L. and Bradford, N., 2022. *Patient preferences for using technology in communication about symptoms post hospital discharge.*

Indeed, Career Guide. 2022. *Example of Methodology in a Research Paper (With Definition)*. [online] Available at: <<https://www.indeed.com/career-advice/career-development/example-of-methodology-in-research-paper>> [Accessed 2 May 2022].

The Health Foundation. 2022. *Data analytics for better health*. [online] Available at: <<https://www.health.org.uk/what-we-do/data-analytics>> [Accessed 2 May 2022].

Alberto Coustasse, C., 2022. *Impact of Radio-Frequency Identification (RFID) Technologies on the Hospital Supply Chain: A Literature Review*. [online] PubMed Central (PMC). Available at: <<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3797551/>> [Accessed 2 May 2022].

Ting, D., Carin, L., Dzau, V. and Wong, T., 2022. *Digital technology and COVID-19*.

Hutchings, R., 2022. [online] Nuffieldtrust.org.uk. Available at: <<https://www.nuffieldtrust.org.uk/files/2020-08/the-impact-of-covid-19-on-the-use-of-digital-technology-in-the-nhs-web-2.pdf>> [Accessed 2 May 2022].

Mindtools.com. 2022. *Better Public Speaking: Becoming a Confident, Compelling Speaker*. [online] Available at: <<https://www.mindtools.com/CommSkill/PublicSpeaking.htm>> [Accessed 27 April 2022].

Prgomet, M., Georgiou, A. and Westbrook, J., 2022. *The Impact of Mobile Handheld Technology on Hospital Physicians' Work Practices and Patient Care: A Systematic Review*.

Bryan, S., Buxton, M. and Brenna, E., 2022. *ESTIMATING THE IMPACT OF A DIFFUSE TECHNOLOGY ON THE RUNNING COSTS OF A HOSPITAL A Case Study of Picture Archiving and Communication System*.

Appendix:

Why is communication important in a hospital?

How does communication impact healthcare?

How is technology used in hospitals?

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Module Name: Digital Skills and Research Methods Term 2 Group: 2