## Questionnaire

Introduction

This study aims to explore the challenges faced during the implementation of Electronic Medical Records (EMR) at Y12HMC. To achieve this, we will gather insights through a combination of questionnaires and interviews. The following sections outline the tools used in this process. It is important to ensure that the relevant staff members, those with the necessary knowledge and experience are available to participate and provide accurate responses.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Part-I. Demographic Profile:** | | | | | | | |
|  | Sex | | Male \_\_\_\_\_\_\_ Female \_\_\_\_\_\_\_\_\_\_\_ | | | | |
|  | Age | | \_\_\_\_\_\_\_\_\_Years | | | | |
|  | Professional category | | GP \_\_\_\_\_\_\_  Specialist \_\_\_\_\_\_\_  Nurse \_\_\_\_\_\_\_\_\_\_  Lab technologist \_\_\_\_\_\_\_\_\_  Pharmacist \_\_\_\_\_\_\_\_\_\_\_\_\_\_  Others \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | | | | |
|  | Working years | | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ years. | | | | |
|  | Experience on EMR | | Yes \_\_\_\_\_\_  No \_\_\_\_\_\_\_ | | | | |
|  | Training on EMR | | Yes  No | | | | |
| **Part-II: Knowledge of EMR systems.** | | | | | | | |
|  | | How much do you know about electronic medical record (EMR) systems? (circle your choice) | 1. Almost nothing 2. A few things 3. A great deal | | | | |
|  | | What are your expectations of the EMR system? (circle your choices) | 1. The EMR system will improve productivity and office efficiency starting on day one. 2. The EMR system will improve productivity and office efficiency over time as the practice becomes accustomed to using it. 3. The EMR system is just a replacement for traditional paper-based patient folders. 4. The EMR system is unlikely to improve productivity and office efficiency. 5. Other\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | | | | |
|  | | What should be the staff’s role in ensuring successful EMR implementation? (circle your choices) | 1. The practicing physicians have a major role in successful implementation. 2. The nurses and Physicians will drive usage and successful implementation. 3. All staff should work cooperatively for success | | | | |
|  | | What are the areas of application of EMR? (Chose all appropriate) | 1. Patient’s record 2. To send Investigation and get results 3. Treatment/drug management 4. Data management and repository | | | | |
|  | | What do you think of success factors of EMR implementation? (Choose all appropriate). | 1. Commitment and involvement of all stakeholders 2. Clear long term perspective, endurance and patience 3. Commitment and involvement of medical staff 4. Good organizational change management, interdisciplinary team with IT experience & training, and clear incentives 5. Commitment at the highest level of management | | | | |
|  | | Do you think the EMR system is complete to capture all patient encounters at the hospital outpatient clinic? | 1. Yes 2. No 3. I do not know | | | | |
| **Part III. Perceived Benefits of EMR systems** | | | | | | | |
|  | | To what extent do you think EMR will change the process of patient care? | 1. Significantly 2. Small degree 3. Not at all | | | | |
|  | | The extent to which EMR will change the quality of care? | 1. Will Improve 2. Decrease 3. No change | | | | |
|  | | EMR has a benefit of increasing practice productivity (Patients per day). | 1. Yes 2. No | | | | |
|  | | EMR has a benefit of decreasing the work load and enhancing efficiency of providers. | 1. Yes 2. No | | | | |
|  | | EMR system is safe and secured as compared to a paper based medical record system | 1. Yes 2. No | | | | |
| **Part IV. EMR system contributions to Service improvement.** | | | | | | | |
|  | | Do you think service turnaround time (time from test request, sample collection, report generation and receipt of report by clinician) would be improved/decreased by using EMR system? | 1. Yes 2. No | | | | |
|  | | Do you think system down time (periods of time during which an EMR system, server or network is shut off or unavailable for use) affect your clinical practice? | 1. very minimum effect 2. high effect 3. serious effect 4. no effect at all | | | | |
|  | | How do you think the EMR system effect on patients waiting time? | 1. Expect reduction of patient waiting time 2. Increased patient waiting time 3. No change | | | | |
| **Part-V: Electronic medical record implementation challenges** | | | | | | | |
|  | What are the challenges for the health institutes in implementing the electronic health record system? (choose all appropriate) | | 1. Low user’s acceptance 2. Poor management support 3. Lack of training and follow up 4. Poor ICT infrastructures 5. Risk of data loss 6. Risk of privacy loss 7. High cost 8. poor project management, 9. Others \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | | | | |
|  | What are the challenges for the health workers in implementing the electronic health record system? (choose all appropriate). | | 1. Slow EMR system 2. Taking long time to enter information to the computer due to slow typing skill 3. Unfamiliar with the system 4. Limited information 5. Lack of training 6. Lack of training and follow up 7. Others | | | | |
|  | What are the challenges for the patients in implementing the electronic health record system? (choose all appropriate). | | 1. Loss of privacy 2. Long waiting time for consultation 3. Loss of patient information 4. High cost for wrong or repeated lab requests 5. Less eye contact and face-to face communication by physicians as he/she is preoccupied in entering information to the computer. 6. Other\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | | | | |
|  | What are the benefits of implementing the electronic health record system for the health institutes? (choose all appropriate) | | 1. Allows systematic recording of patient information 2. Improves efficiency at work 3. Saves space as it does not involve keeping paper documents. 4. It accumulates enough data for future researches 5. Others | | | | |
| **Part VI. Perception towards an EMR System and Willingness to use (Select the number that represents how you feel about EMR)** | | | | | | | |
|  | Item | | Strongly disagree | Disagree | Do not know/neutral | Agree | Strongly agree |
|  | It would be easy for me to become skillful at using EMRs | | 1 | 2 | 3 | 4 | 5 |
|  | I prefer EMR over paper charting | | 1 | 2 | 3 | 4 | 5 |
|  | Patient information obtained from EMR system is more complete as compared to Paper medical record | | 1 | 2 | 3 | 4 | 5 |
|  | My involvement at the system design and during the EMR implementation phase will make the EMR more useful to me | | 1 | 2 | 3 | 4 | 5 |
|  | I would like to use EMRs in my work in future | | 1 | 2 | 3 | 4 | 5 |

**Thank you**

**Interview Guides**

These are important for in-depth interview

**Interview Guide for EMR system representatives.**

Name/Code: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Age: \_\_\_\_\_\_years Sex: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. When did EMR project start? \_\_\_\_\_\_\_\_\_
2. How many staff members have been trained to manage the EMR system? \_\_\_\_\_\_\_\_\_
3. How do you evaluate the current state of the ICT infrastructure in the hospital?
4. What is the current status of the EMR system?
5. In which departments or areas is the EMR system primarily used in your hospital?
6. How would you describe the level of awareness among healthcare providers regarding the EMR system?
7. Have you encountered any resistance to the RMR system from healthcare providers or other users?
8. What challenges have you faced in implementing the EMR system?
9. What do you consider to be the key factors for the success or failure of the EMR implementation?
10. Do you find the EMR system to be user-friendly?
11. Do you believe the EMR system is fully capable of capturing all required patient encounters?
12. How would you evaluate the service turnaround time with the EMR system in place?
13. What are the impacts of system downtime on both patients and healthcare providers?
14. Have you received any complaints from users or patients about the EMR system?
15. Do you think the EMR system is cost-effective for the hospital?
16. Do you have any suggestions for improving the EMR system?

**Interview Guide for lower level, middle level and higher level managers**

Name/Code: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Age: \_\_\_\_\_\_years Sex: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. What were the primary objectives behind implementing the EMR system? Have these objectives been met so far?
2. How would you assess the staff’s awareness and knowledge of the EMR system?
3. What is the general attitude and perception of staff towards the EMR system?
4. Do you think the hospital has adequate ICT infrastructure to support the EMR system? If not, do you expect any improvements in the near future?
5. Do you consider the EMR system to be cost-effective for the hospital?
6. Do you think the EMR system is user-friendly and easy to navigate?
7. Have you received any complaints from patients or users about the system?
8. What do you think contributed to the successes or challenges faced during the implementation of the EMR system?
9. Do you have enough trained staff available to effectively run and manage the EMR system?
10. Do you have any suggestions for improving the current EMR system, or are there alternative systems that you believe would be more effective?

**Interview Guide for IT and HIT support staffs**

Name/Code: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Age: \_\_\_\_\_\_years Sex: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. What types of issues or problems have you encountered with the EMR system?
2. What kind of support have you provided or received in relation to the EMR system?
3. Do you think the software is easy to adopt and manage within the hospital?
4. Have you experienced any hardware issues, such as problems with the server or other equipment?
5. Are you aware of any alternative EMR systems that might be more suitable than the one currently in use?
6. How would you rate the ICT infrastructure setup in your hospital?
7. Do you have any suggestions for improving the EMR system or its integration with other hospital systems?