

A STUDY ON ACCEPTANCE OF E-HEALTH CONNECTING FACILITY

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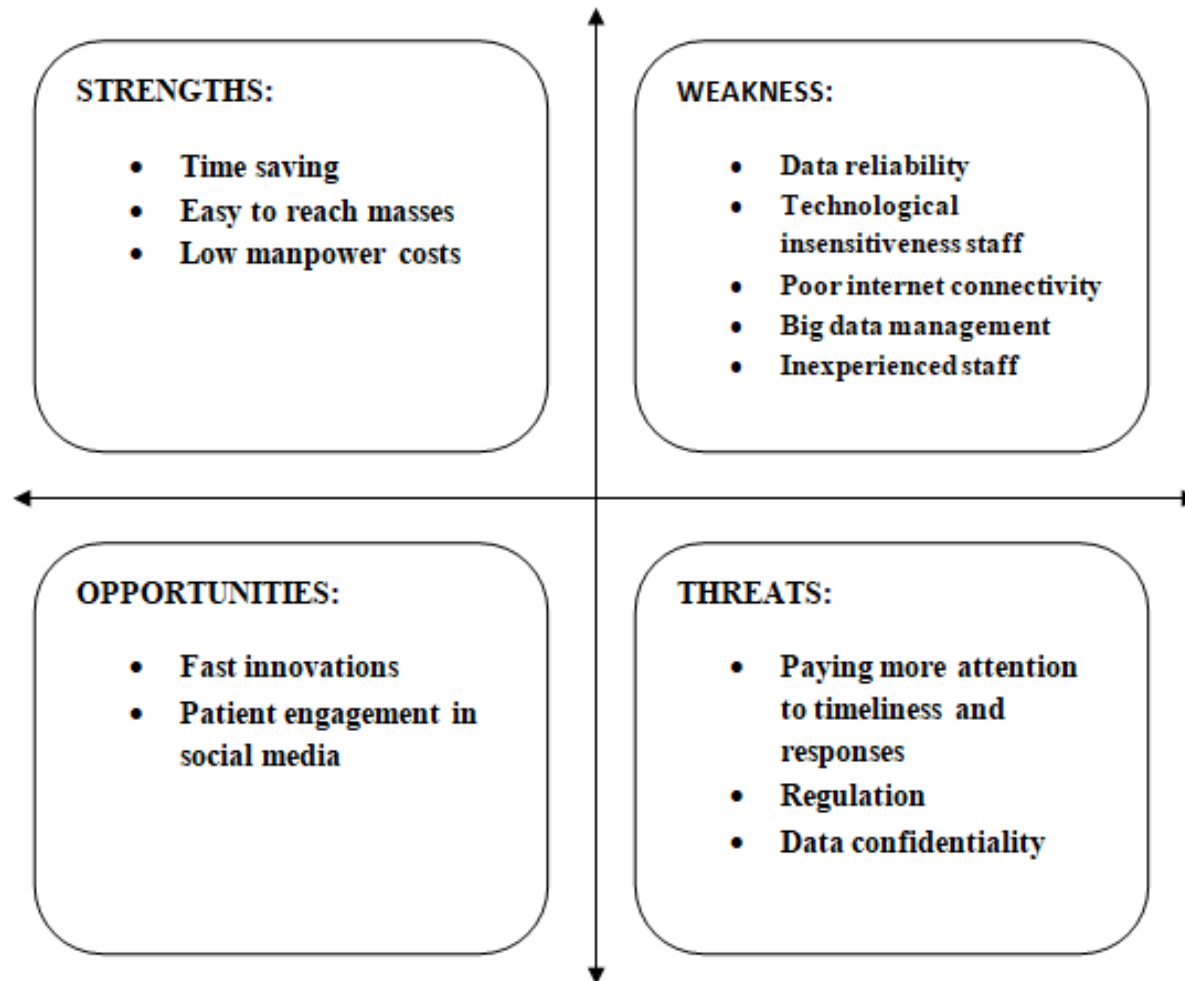
INTRODUCTION

- **E-Health literacy is defined as “the ability to seek, find, understand and appraise health information from electronic sources and apply knowledge gained to addressing or solving a health problem.**
- **E-health connecting facility seeks to bring high-end intellectual capital of pathologists and radiologists, and other medical professionals to people at different places virtually, through exclusively developed software systems, platforms and dedicated middleware to diagnostic equipments placed in such terrains.**

Current Scenario of E-health in India :

- **The booming Indian healthcare sector is facing enormous challenges, particularly in the area of healthcare delivery. Inadequate infrastructure and qualified medical practitioners are considered the main reasons for the poor state of healthcare. Task-shifting, with paramedics taking a greater responsibility of care, is growing but this often needs to be supplemented with doctors' opinions.**
- **Technology solutions can serve to support monitoring and data management which also are major challenges in today's healthcare systems.**

SWOT ANALYSIS OF e-HEALTH MARKET IN INDIAN SCENARIO





AIM :

The study aims to assess the acceptance of e-health connecting facility amongst the stakeholders .

OBJECTIVES:

- **To study the acceptance of e-health connecting facility amongst the stakeholders.**
- **To analyze barriers perceived by doctors and nurses to the adoption of e-health connecting facility.**

NEED OF STUDY:

India has less than one doctor for every 1000 population which is less than the World Health Organization standard. The population residing in rural areas are facing the major problem as doctors not available for consultation.

“E-health will be a boon to India and can be a means to make Government of India’s Universal Health Program a reality, where we can reduce the doctors to Patient gap and make “doctor-reach” a reality for the common and underserved population, thereby aiding in the process of making doctor accessible and available to the underserved population.” Since E-health will improve communication, reduce medical error, help to store and access data, but still doctors and nurses are reluctant to use such connecting facility.”



RESEARCH METHODOLOGY

RESEARCH QUESTIONS :

- **What is the acceptance level of the of e-health connecting facility amongst the stakeholders?**
- **What are the barriers perceived by doctors and nurses to the adoption of e-health connecting facility?**

STUDY DESIGN

It is a cross sectional descriptive study. Primary data was collected in the form of closed ended set of questionnaire that was filled by face to face interaction with the stakeholders (doctors and nurses) at 1 hospital and 2 wellness centers in South Delhi over a period of 3 months.

STUDY SETTING

1 tertiary care hospital and 2 wellness centres were chosen for the study undertaken.

DURATION OF STUDY:

Three months (5 feb, 2018 to 4 May, 2018)

SAMPLE SIZE:

100 sample

SAMPLING TECHNIQUE

The sampling technique used in the study will be Purposive Sampling, non-probability sampling

SAMPLE SELECTION

- **Samples will consist of 100 medical professionals (60 doctors and 40 nurses) from South Delhi.**
- **These two stakeholders are chosen because they are the people responsible for uploading, consulting and prescribing through doctor.e web portal.**



DATA COLLECTION PROCEDURE

- **The research focuses on primary data collection.**
- **For quantitative data collection, structured close ended questionnaire where the study subject's responses will be recorded in the form of a questionnaire.**

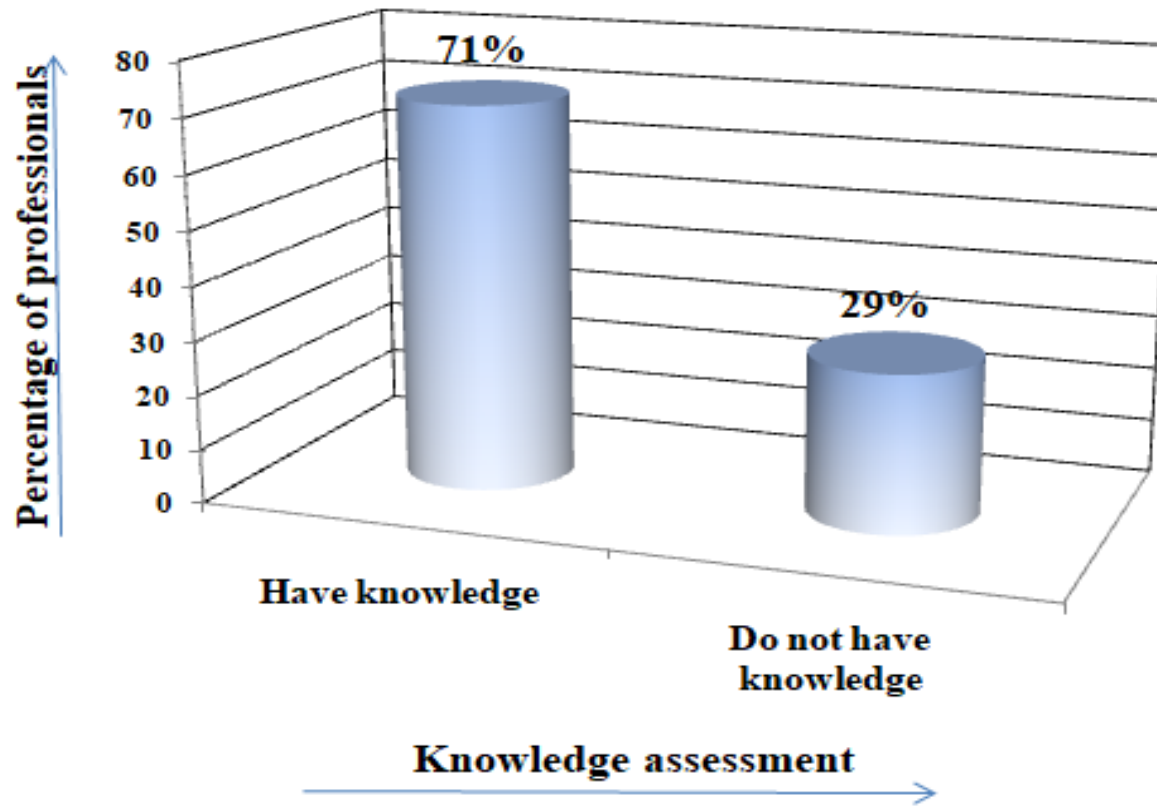
DATA ANALYSIS: MS Excel

DATA COLLECTION TOOL: structured questionnaire



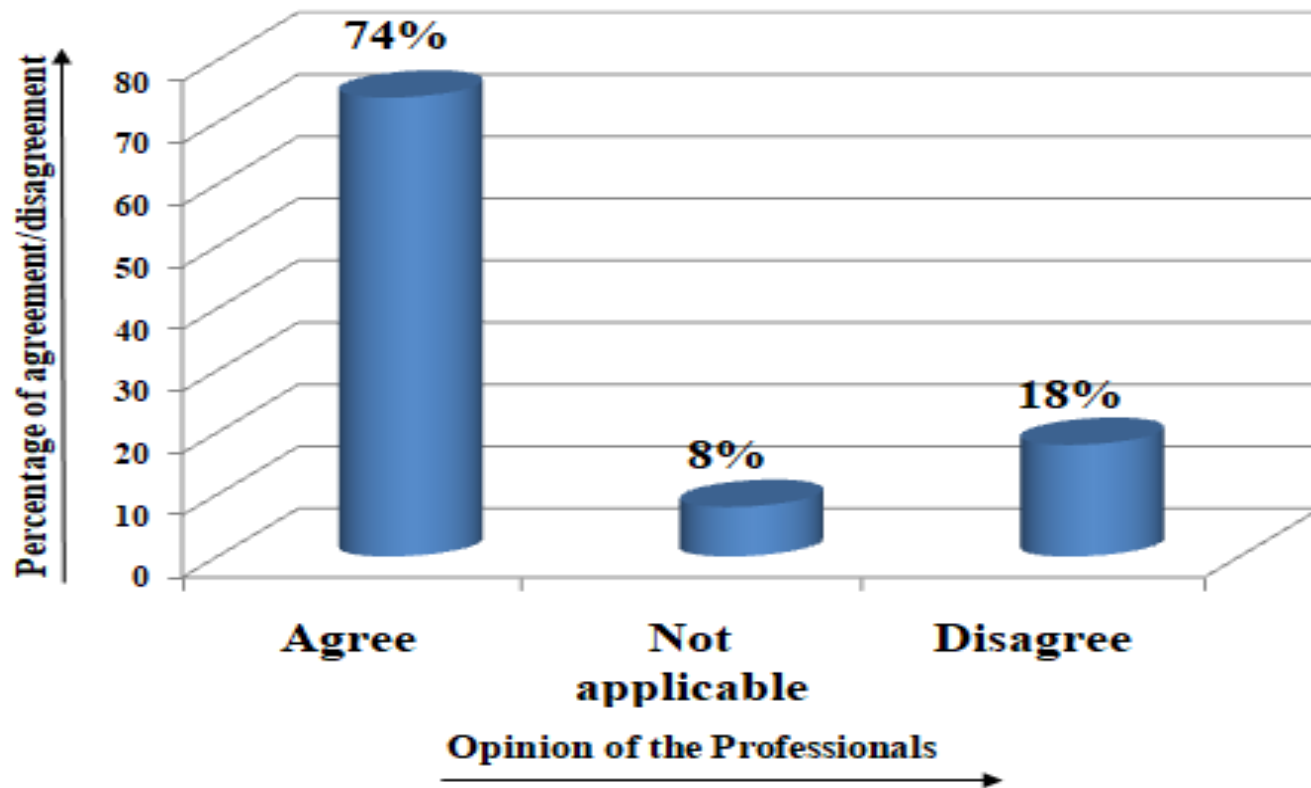
RESULTS AND INTERPRETATION

KNOWLEDGE OF PROFESSIONALS FOR e-HEALTH SERVICES



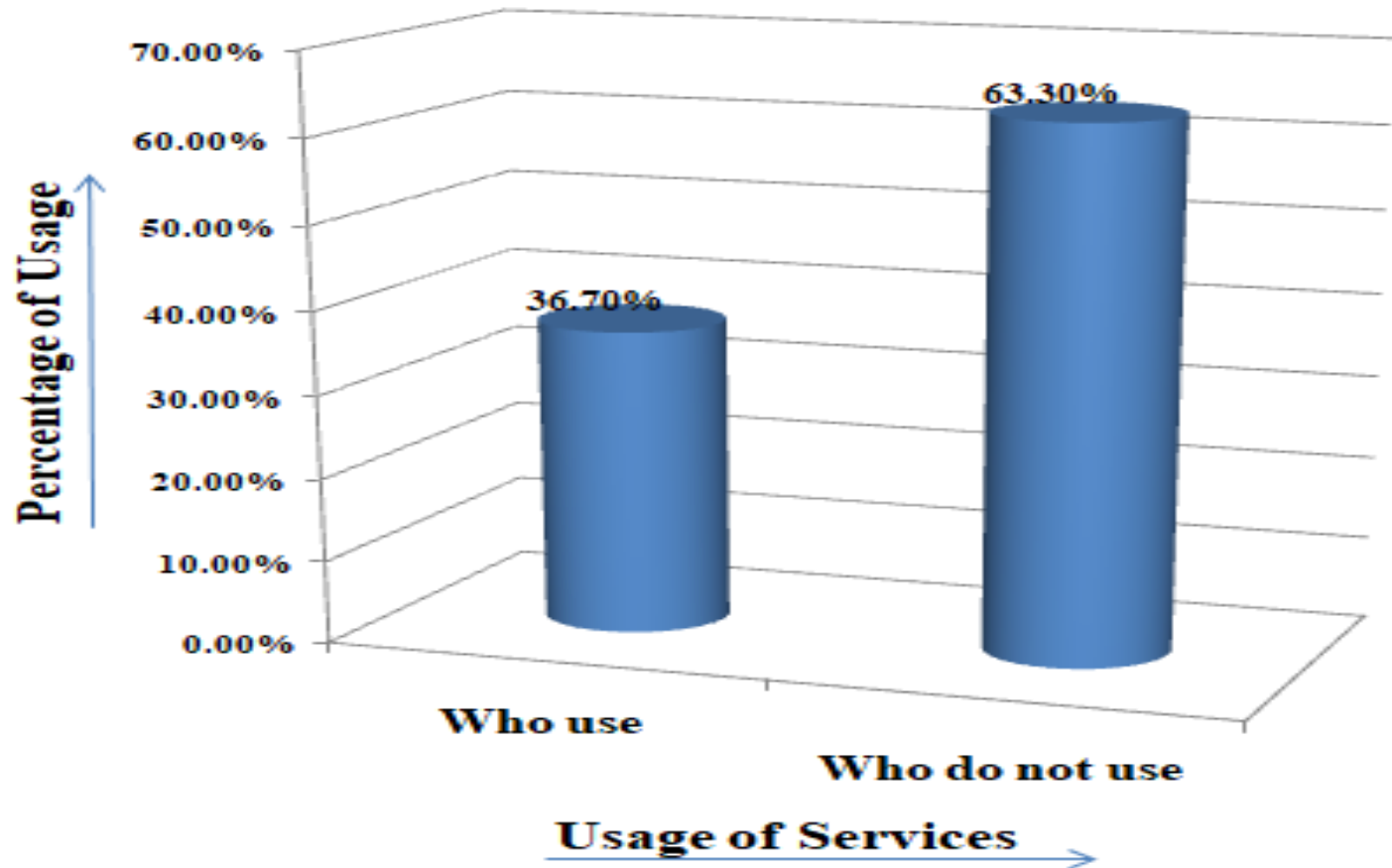
Graph.. Knowledge assessment of professionals for any health related applications : 71% of medical professionals have knowledge of web application availability for healthcare services like online ordering of the medicines, booking appointments etc.

**OPINION OF THE PROFESSIONALS WHO HAVE
KNOWLEDGE OF e-HEALTH THAT IT WILL ADD
VALUE TO THE SERVICE**



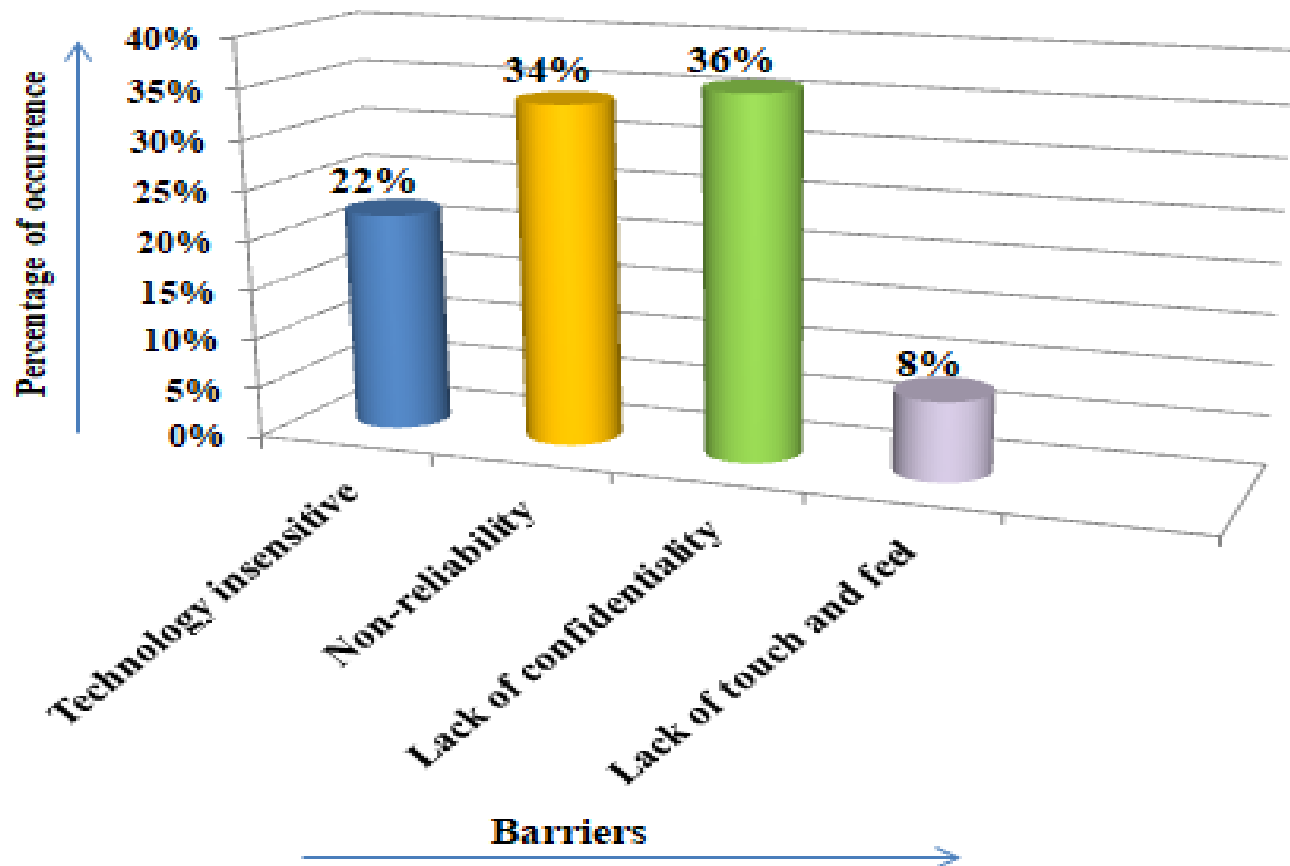
Graph. Opinion of the professionals who have knowledge of e-health that it will add value to the service : 74% of the medical professionals believe that e-health will add value to the organization, while only 18% disagree.

USAGE OF e-HEALTH SERVICES BY THE PROFESSIONALS WHO HAVE KNOWLEDGE ABOUT e-HEALTH AND BELIEVE THAT IT WILL ADD VALUE TO THE SERVICE



Graph.. Usage of e-health services by the professionals who have knowledge about e-health and believe that it will add value to the service : Only 36.7% of the professionals use any kind of e-health services for activities like uploading prescriptions, online consultations etc. This gap between having knowledge of the e-health services and still not using it, comes out to be a gap during the study.

Barriers perceived by the professionals in the adoption of the e-health services



Graph. Reasons for the gap (of not using e-health services):

- Technology insensitivity: Most of the professionals are technologically insensitive.
- Non-reliability : e-Health is not reliable because all saved medical records could be lost because of backup issues and what if there is no internet access when needed to share some important data with patients online.
- Lack of confidentiality: data is not confidential and may be used by anyone.
- Lack of touch and feel.

CONCLUSION:

The acceptance of e-health connecting facility amongst the stakeholders:

- **71% of medical professionals have knowledge of web application availability for healthcare services like online ordering of the medicines, booking appointments etc.**
- **Out of these 71%, 74% of the medical professionals believe that e-health will add value to the organization, while only 18% disagree.**
- **Only 36.7% of the professionals use any kind of e-health services for activities like uploading prescriptions, online consultations etc. This gap between having knowledge of the e-health services and still not using it, comes out to be a gap during the study.**



The main reasons/barriers why these professionals were reluctant to use the E-health even after admitting that it will enhance their work and make them available globally is:-

- **Technology insensitivity: Most of the professionals are technologically insensitive.**
- **Non-reliability : e-Health is not reliable because all saved medical records could be lost because of backup issues and what if there is no internet access when needed to share some important data with patients online.**
- **Lack of confidentiality: data is not confidential and may be used by anyone.**
- **Lack of touch and feel.**

RECOMMENDATIONS

- **Trainings should be given to all the medical professionals to use the e-health web applications.**
- **Regular trainings should be held when there is up gradation in the software.**
- **The medical professionals should be taken into confidence and taught how to keep their data safe .**
- **Uninterrupted power supply should be maintained for battery backup so that reliable information is not lost.**
- **Some visits or meetings should be scheduled so that confidence and trust can be developed when there is interaction through internet.**
- **New technologies should be informed using telephonic calls, messages or mails.**

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THANK YOU

SURVEY FORM

Hi. I am doing a survey to access laboratory services and the acceptance of E-Health connecting facility by the various stakeholders of healthcare especially doctors and nurses. This survey would take 3-5 minutes to complete. Your answers will be kept confidential and detailed in aggregate.

1. Out of the choices given below, rank each factor (on a scale of 1-6, 6 being least important and 1 being most important) on the basis of its importance for you while choosing a laboratory service?

- Consistency in the quality of lab work _____
- Timely reporting of critical values _____
- Test turnaround time _____
- Acceptability of the test results released _____
- Quality parameters being followed by the laboratory(IQC,EQAS) _____
- The Pathologist who runs the lab _____

2. How often do you have to ask your laboratory to repeat a test in a month ?

- One sample in a day
- 2-5 samples in a day
- 2-5 in a week
- 2-5 in a month

3. What makes you ask for a repeat sample?

- Sample collection error
- Reporting error
- No standard result values
- Misidentification of patient
- Mismatch with other reports
- Mismatch with patient's medical history

4. Do you know any e-health related web applications?

- **Yes**
- **No**

5. What is the acceptable variation in the result of a test?

- **+/-5**
- **+/-10**
- **+/-25**
- **+/-50**

6. (A) Is there any method of notifying critical values of a report ?

- **Yes**
- **No**

(B) If no, How would you like to get the notification?

- **Messages**
- **Email**
- **Phone call**
- **In person reporting**

7. (A) In your opinion, will E-Health connecting facilities (applications that provide online consultation, booking appointments, sharing patients laboratory result) benefit medical professionals:

- **Agree**
- **Not applicable**
- **Disagree**

7. Do you use any health related web applications?

- Yes
- No

- **(B) If no, why?**
- **I am not well versed with technology, therefore, e-Health is not useful for me**
- **e-Health is NOT reliable because what if I don't have internet access when I want to share some important data with my patient online**
- **e- Health is not reliable because my data is not confidential and may be used by anyone**
- **Physical interaction with a patient cannot be replaced by e-interactions**
- **e-Health is not reliable because all saved medical records could be lost because of backup issues**

9. As I read each, please Tell me whether you completely agree with it, somewhat agree, neither agree nor disagree, somewhat disagree or completely disagree with that statement.

- **Do you agree that e-health..**
 - **Improves communication**
 - **Reduces medical error**
 - **Helps effective diagnosis**
 - **Helps to access patient records and medical history easily**
 - **Makes doctors more accessible worldwide**