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APPENDIX A**MEDICAL PROFESSIONALS' INTERVIEW PROTOCOL**

Serial No. _____

Interview Date _____

Interview Time _____

Department/Unit _____

Interview Location _____

All information in this schedule will be treated with utmost confidentiality. No names are required. Your response will be completely anonymous and will be used by the researcher only for the purpose of this research.

SECTION A: PERSONAL INFORMATION

1. Your status _____

2. Position _____

3. What is your area of medical specialization? _____

4. What is the nature of your work? _____

SECTION B: INFORMATION NEEDS AND INFORMATION SOURCES

5. Do you encounter some situations where you need information or help to enable you continue with your clinical work? _____

If yes, please explain? _____

6. What mechanisms do you use in trying to address these situations? For example:

(a) Where do you go for help?

(b) Which information sources do you use? Please list them according to

their usefulness and frequency of use.

(c) Are these sources available at Kenyatta National Hospital? If not, from where do you obtain the information? _____

(d) Do you find these sources of information adequate for your information needs?

(e) As a professional specializing in (medical specialization), what kinds of information do you need to support your clinical practice?

7. As a (medical speciality) what are your major reasons for seeking information?

8. Are clinical guidelines available in your institution? _____

If so, which ones? (To list them) _____

How do you access these clinical guidelines? _____

9. Do you have access to library/information services in your institution?

(a) If so, do you find information resources in the library adequate for your clinical information needs? _____

(b) How useful are the information resources for clinical purposes? _____

(c) Are they relevant/reliable/current/accurate and in correct format?

10. Which other information systems/services are available to you?

Do you use any other external library/information services? Which ones?

11. Do you encounter problems in your attempt to acquire and use information relevant to your clinical work?

If yes, what barriers to information access and use do you see as being a problem? (To list them) _____

12. Do these problems affect the way you conduct your clinical work? _____

If so, in what ways? _____

13. Which things would you like to see changed/or introduced to improve access and use of health information by medical professionals at Kenyatta National Hospital? _____

SECTION C: AVAILABILITY AND UTILIZATION OF ICTs

14. Do you think ICT has a role to play in your profession? _____

If yes, how? _____

15. What do you consider to be the actual and/ or potential uses of ICTs in the exchange and communication of health information? _____

16. Which ICT tools and services are available in your institution? _____

17. Do you have access to the Internet facilities? _____

If so, what do you use the Internet for and how often do you access it?

18. Do you have an e- mail address? _____

If so, what do you use it for?

19. Do you have access to electronic medical journals?

If so, from where do you access these electronic medical journals?

20. Are you familiar with: - Medline? _____

-HINARI? _____

-Africa Journals Online (AJOL)? _____

(a) If yes, how often do you use these databases? _____

(b) Do you find the contents of Medline relevant to your clinical work?

21. Are you familiar with the concept of telemedicine? _____

If not, why? _____

If yes, how often do you practice telemedicine?

22. Which other Internet-based health information resources do you use?

23. Do you always find information you obtain from the Internet and other electronic resources relevant to your clinical work? _____

If not, please explain. _____

24. Do you use mobile phone to seek information for your clinical work? ____

(a) If so, how often do you use it? _____

(b) If you do not use it, why?

25. Do you think the use of Internet and other ICTs have enhanced the delivery of quality healthcare services? _____

If yes, in what ways? _____

26. How do you keep abreast with information and knowledge on new developments in your field of specialization? _____

(a) When you do obtain information relevant to your clinical practice, do you share it with professional colleagues? How? _____

(b) In your opinion do you think ICTs have facilitated the sharing of information and knowledge among medical professionals? If so, how? ____

27. Do the hospital management and other members of staff support the use of electronic information resources to guide clinical practice? _____

(a). If so, please explain how _____

(b). If not, why _____

28. In your opinion what limitations or constraints affect access and use of electronic information resources in your institution? _____

SECTION D: ICT SKILLS, COMPETENCE AND USAGE

29. Do you consider yourself competent (having the necessary skills/capabilities) to enable you utilize ICT tools and services to access health information successfully?

If yes, how did you learn to use the computer, Internet and other ICT facilities? _____

30. Are you able to search for relevant health information from the Internet and other electronic databases independently? _____

If not, where do you go for assistance? _____

31. Do you encounter problems in accessing electronic health information from the Internet?

If so, what kinds of problems? _____

32. In your opinion what do you think are the causes of the problems you have highlighted above? _____

33. Which skills do you need to acquire or develop further to enable you utilize effectively ICTs and in particular Internet-Based health information resources?

34. What recommendations would you propose to improve and enhance application of ICTs in the provision and dissemination of health information in your organization? _____

APPENDIX B
INFORMATION STAFF INTERVIEW PROTOCOL

Interview Date _____

Interview Time _____

1. General information:

a) Department/Unit _____

b) Designation/Position of the Interviewee _____

c) Duties and responsibilities _____

2. Is your library restricted to any particular category of users?

Who are your users? _____

3. What is the size of your library? _____

4. Are the library services automated? _____

If yes, which software package do you use?

Can the users access the OPAC from their places of work?

If not, when do you plan to automate the services? _____

5. Is the library connected to the Internet facilities? _____

a) If yes, what is the Internet used for?

b). To what extent do the medical professionals make use of the Internet?

6. What is the quality of the Internet services in terms of speed? _____

7. Does your Internet service sometimes go down? _____

If so, how many times on average does it go down in a month? _____

What are the major causes of breakdowns?

8. Do you have a Web Site?

If so, what purpose does the Web Site serve your organization? _____

9. In your role as information staff do you think information service is a useful clinical decision support tool for the medical professionals? _____

If so, please explain. _____

10. Does the institution subscribe to electronic medical journals?

(a) If yes, from where do the medical professionals access these electronic journals? _____

(b) If not, which electronic health information resources are available in the library to support the medical professionals in their clinical work? (Please list them). _____

11. Do you have access to: - Medline? _____
 -HINARI? _____
 -Africa Journals Online (AJOL)? _____

12. Which other internet-based electronic health information resources do you have access? _____

13. Do you have CD-ROM databases? _____

If so, which titles are available in the library? (To list them). _____

14. Is your institution a member of the INASP-PERI Kenya programme on enhancing access to health information? _____

(a) If so, please comment on the usage of these information resources by the medical professionals _____

(b) If not, why? _____

15. How does the library create awareness among the medical professionals on information resources relevant to their clinical practice? _____

16. Does the library provide medical professionals with training on the use of Internet and how to access electronic information resources relevant to their clinical work? _____

If not, why? _____

17. Does the library experience problems in the application and use of ICTs for access to health information? _____

If yes, please identify them. _____

18. In your opinion what do you think are the causes of these problems?

19. How would you like to see ICTs being used as way of improving and enhancing access to health information for the medical professionals in your institution? _____

20. Please feel free to make any further comments you would like about the use of ICTs in accessing health information by medical professionals at Kenyatta National Hospital. _____

APPENDIX C**HOSPITAL MANAGEMENT INTERVIEW PROTOCOL**

Interview Date _____

Interview

Time _____

1. General Information:

- a) Department _____
- b) Designation/position of the interviewee _____
- c) Main duties and responsibilities _____
- d) How long have you been the head of this department/unit? _____

2. Does your institution use ICTs to support the core clinical and administrative functions? _____

If so, please explain the nature and the available types _____

3. When did the hospital adopt the use of ICTs to support its functions? _____

4. What were the reasons of adopting the use of ICTs? _____

5. Which areas are the ICTs applied in the hospital? _____

6. What do you consider to be the actual and/or potential benefits of ICTs in the exchange and communication of clinical information among the medical professionals? _____

7. Do you have a Web Site? _____

If yes, what purpose does the Web Site serve your organization?

8. In your role as a hospital manager and a policy-maker do you think information systems and service is a useful clinical decision support tool for the medical professionals? _____

If so, please explain _____

9. How has the institution ensured adequate provision of information services to meet the clinical information needs of the medical professionals?

10. Does your institution have a written and approved ICT strategy/policy? _
If yes, what does it say regarding access and use of information as a clinical decision support system for the medical professionals? _____

11. Do you feel that your ICT strategy/policy fits the purpose or could it be improved in any way? _____

12. What are your institution's top priorities ICT needs? (To list them) _____

13. What are your institution's sources of funding to implement your ICT initiatives? _____

14. Do you have the entire required fund for your priority ICT initiatives? Please explain. _____

15. Approximately what percentage of your institutional operating revenue (not income) is spent on ICTs (including infrastructure, connectivity, hardware, software, user training)?

Is this amount sufficient? _____

16. Approximately what percentage of your institutional capital budget is spent on ICTs (including infrastructure, connectivity, hardware, software etc.)? _____

17. Approximately what percentage of the ICT capital funds are spent on:

a) Clinical applications? _____

b) Administrative applications? _____

18. What percentage of the medical professionals have sufficient computers connected to the Internet and with capability to access and operate electronic information resources in the institution? _____

19. Earlier (no.12), you highlighted the institution's top priorities ICT needs, are you considering or aware of innovative information systems that would fulfill those needs? _____

(a) If so, which ones? _____

(b) If not, what is the institution planning to do to fulfill those needs? _____

20. Are there obstacles you face in investing, application and use of ICT solutions in your institution? _____

If yes, please identify them _____

21. In your opinion what factors or barriers hinder access and use of electronic information resources by medical professionals in their clinical work? _____

22. Are there any further factors or barriers hindering the uptake of ICTs or development of a health information system in your institution or any barrier that are causing particular difficulties? Please explain _____

23. In your opinion what do you think are the causes of these problems?

24. What are the top enablers of effective ICT adoption your institution has utilized?

25. What recommendations would you propose to improve and enhance the use of ICTs for communication and information exchange and as a clinical decision support tool for the medical professionals in your institution?

APPENDIX D

OBSERVATION GUIDE (For the researcher)

Objective: To examine the nature, types, distribution, and accessibility of ICTs and how they are being utilized to access health information in the study area.

Date: _____


Time: _____

Department/ Unit _____

1. Nature and types of ICTs.
 - ICT infrastructure
 - Nature and types of ICTs available.
 - Application and use of ICTs available
 - Hardware and software being used.
2. Distribution of ICT tools and services.
 - In the library
 - In departments/ Units
 - In consultation rooms.
 - In the wards
 - In offices
 - Accessibility of ICTs by Medical professionals.
3. Nature, types and availability of ICT tools and services in the library.
 - Internet facilities
 - E-mail services
 - Electronic journals/databases available
 - CD-ROM Databases
 - Accessibility of the services by doctors
 - Automation of the services.
4. Problems encountered in the work place.

APPENDIX E

RESEARCH PERMIT

PAGE 2	PAGE 3
THIS IS TO CERTIFY THAT:	Research Permit No. <u>MOEST 13/001/36 C 92</u>
Prof./Dr./Mr./Mrs./Miss <u>GEORGE</u>	Date of issue <u>14.2.2006</u>
<u>M. GATERO</u>	Fee received <u>SHS. 500.00</u>
of (Address) <u>MOI UNIVERSITY</u>	
<u>P.O. BOX 3900 ELDORET</u>	
has been permitted to conduct research in <u>KENYATTA NATIONAL HOSPITAL</u>	
<u>NAIROBI</u> Location, <u>NAIROBI</u> District, <u>NAIROBI</u> Province,	
on the topic <u>UTILIZATION OF INFORMATION</u>	PERMANENT SECRETARY MINISTRY OF EDUCATION SCIENCE AND TECHNOLOGY
<u>AND COMMUNICATION TECHNOLOGIES IN</u>	
<u>ACCESSING HEALTH INFORMATION BY</u>	<i>M.O. Ondieki</i>
<u>MEDICAL PROFESSIONALS AT KENYATTA</u>	M. O. ONDIEKI
<u>NATIONAL HOSPITAL</u>	FOR: Permanent Secretary
for a period ending <u>31ST DECEMBER</u> , 20 <u>07</u>	<i>M.O. Ondieki</i> Applicant's Signature
	Ministry of Education Science and Technology

APPENDIX F

ETHICAL APPROVAL LETTER

**KENYATTA NATIONAL HOSPITAL**

Hospital Rd. along, Ngong Rd.
 P.O. Box 20723, Nairobi.
 Tel: 726300-9
 Fax: 725272
 Telegrams: "MEDSUP", Nairobi.
 Email: KNHplan@Ken.Healthnet.org

Ref: KNH-ERC/ 01/3551**Date: 26th May 2006**

Mr. George M. Gatero
 Dept. of Library, Records Management &
 Information Studies
 Moi University

Dear Mr.Gatero

**RESEARCH PROPOSAL: "UTILIZATION OF INFORMATION AND
 COMMUNICATION TECHNOLOGIES IN ACCESING HEALTH
 INFORMATION BY MEDICAL PROFESSIONALS AT K.N.H"
 (P39/02/2006)**

This is to inform you that the Kenyatta National Hospital Ethics and Research Committee has reviewed and **approved** revised version of your above cited research proposal for the period 26th May 2006 – 25th May 2007.

You will be required to request for a renewal of the approval if you intend to continue with the study beyond the deadline given.

On behalf of the Committee, I wish you fruitful research and look forward to receiving a summary of the research findings upon completion of the study.

This information will form part of database that will be consulted in future when processing related research study so as to minimize chances of study duplication.

Yours sincerely


PROF A N GUANTAI
SECRETARY, KNH-ERC

c.c. Prof. K.M.Bhatt, Chairperson, KNH-ERC
 The Deputy Director CS, KNH
 The HOD, Medical Records, KNH
 Supervisors: Prof. Cephas Odini
 Dr. Joseph Kiplang'at

APPENDIX G**PARTICIPANTS' CONSENT FORM****Explanation Letter**

George M. Gatero
Moi University
School of Information Sciences
P.O. Box 3900, Eldoret-Kenya
E-mail: ggatero@yahoo.co.uk

Dear Participant,

**RE: UTILIZATION OF ICTs IN HEALTH INFORMATION ACCESS BY
MEDICAL PROFESSIONALS AT KNH**

I am a research student in the School of Information Sciences at Moi University. The research that I am working on will result in a dissertation for submission for a doctoral degree at Moi University.

The research is being carried out among medical professionals at Kenyatta National Hospital in order to develop a clear picture of the adoption and use of ICTs in accessing health information. The key area of interest for the research is on access to electronic health information.

The study is envisaged to provide a basis for considering the actions that can be taken to overcome barriers and improve access to relevant information and knowledge by medical professionals at Kenyatta National Hospital and in other major hospitals in the country. A case study report, which will summarize the results of the investigation, will be provided to the organization.

Your participation in this research project is greatly appreciated. In order to maintain confidentiality and anonymity for all the participants no names will be required. If there are any questions or concerns following your participation, please do not hesitate to contact me. I can be reached at the following phone number: 0722-902-263 or you can write to me at the address on top of the page.

Once again, thank you for your assistance.

Yours sincerely,

George M. Gatero

Consent for Participation

I _____ have been explained the objectives of the research. I note that the study will respect my confidentiality and there are no risks to my knowledge for my participation.

I appreciate that my participation will contribute positively to the improvement of access to information for the healthcare professionals.

I therefore, willingly and voluntarily agree to participate in the study.

Signed _____

Date _____