APPENDIX A

REQUIREMENTS GATHERING FORM

Requirements Gathering Form

Please fill in the following particulars.

Title : ❑ Dr.   ❑ Mr.   ❑ Ms.

Name (optional)   : _____

Occupation   : _____

Name of Medical Center: _____

Place of Work   : ❑   Government Clinic   ❑   Private Clinic

                    ❑   Government Hospital   ❑   Private Hospital

Work Area :   ❑   Rural   ❑   Urban

Instructions :   Please answer **Section A** and **B**. Answer **Section C** if there is an existing system at your medical centre.

Instructions: Please answer **Section A**. For each of the following questions, please tick (√) your answer where applicable.

Section A : General Questions	Yes	No
1. Is computer used at your medical center?	☐	☐
2. Do you think that the specialists, in general, are distributed equally to rural and urban areas?	☐	☐
3. Would you prefer to have a computerized medical expertise system, whereby the information of each medical expertise at your medical center can be obtained and analyzed immediately? (It means, no more paperwork!)	☐	☐
4. Is there a computer at your medical center for the use of patients when they need information on a certain medical expertise?	☐	☐
5. How does the administrative staff manage or keeps track of the medical expertise at the medical center? ☐ Manual (Paper reports) ☐ Computerized System ☐ Others, please state.		

Instructions: <u>Please answer **Section B**. For each of the following questions, please tick (√) your answer where applicable.</u>

Section B : Requirements Gathering for A System to Keep Track of Medical Expertise

1. Do you think a computerized system to keep track of medical expertise is needed?
    ☐ Yes   ☐ No

2. The main features that you would like to have in the new system would be (you may tick more than one) :
    ☐ Add/Modify/Delete Specialists' Record
    ☐ Generate and Print Reports
    ☐ Analyze Records
    ☐ Others, please specify. …………………………………….

3. What are the extra features that you will be looking for in a system to keep track of medical expertise? (you may tick more than one) :
    ☐ Security feature e.g. password
    ☐ Help menus
    ☐ Others, please state. ………………………………………

4. Would you like to have a statistical package incorporated in the system?
    ☐ Yes   ☐ No

5. Would you use such a system at your medical center?
    ☐ Yes   ☐ No

6. Do you think you will benefit from such a system?
    ☐ Yes   ☐ No

7. Would you like the system to be accessed by patients, too, in finding information of their desired medical expertise/specialist?
    ☐ Yes   ☐ No

8. Do you think this system will be a useful and a practical system at medical centers?
    ☐ Yes   ☐ No

Instructions: Please answer this section if there is an existing system at your medical centre. Otherwise, please omit this section.

Section C : Current System Used

1. What is the name and the version of the current system used at your medical centre?

   Name : _____

   Version : _____

2. When was it implemented?

   Year : _____

3. Who uses the system?
   - ☐ Health care managers
   - ☐ Administrative Staff
   - ☐ Doctors/Physicians
   - ☐ Nurses
   - ☐ Others, please state._____

4. The main features that the system has (you may tick more than one)
   - ☐ Add/Modify/Delete Specialists' Records
   - ☐ Generate and Print Reports
   - ☐ Analyze Specialists' Records
   - ☐ Others, please specify. _____

5. Is security feature provided in the system (e.g. password)?
   - ☐ Yes
   - ☐ No

6. Is there a statistical package incorporated in the system?
   - ☐ Yes
   - ☐ No

7. Can patients use this system, too, in finding information of their desired medical expertise/specialist?
   - ☐ Yes
   - ☐ No

8. Is the system beneficial to your medical center? (e.g. improves job effectiveness, reduces paper volume reports, etc.)

☐ Yes   ☐ No

If yes, please state how.

_____
_____
_____
_____
_____

If no, please state why.

_____
_____
_____
_____
_____

9. What are the weaknesses and limitations of the current system (if any)?

_____
_____
_____
_____
_____

10. What are the future enhancements that you would like to see in the system that you are currently using (if any)?

_____
_____
_____
_____
_____

Thank you for your participation!

APPENDIX B

EVALUATION FORMS

MediX Evaluation Form
(Administrator)

Please fill in the following particulars.

Title : ❏ Dr. ❏ Mr. ❏ Ms.

Name (optional) : _____

Occupation : _____

Place of Work : ❏ Government Clinic ❏ Private Clinic

❏ Government Hospital ❏ Private Hospital

Work Area : ❏ Rural ❏ Urban

Instructions: <u>Please answer **All Sections**. For each of the following questions, please circle or tick (√) your answer where applicable.</u>

Section A : General

1. In your opinion, is the system easy to be understood without reading the User Manual (for the first time).
    - ❏ Very Easy
    - ❏ Easy
    - ❏ Moderate
    - ❏ Difficult
    - ❏ Very Difficult
    - ❏ No comment

2. Has the system fulfilled the initial requirements?
    - ❏ Yes
    - ❏ No

3. Has the system satisfied the development objectives?
    - ❏ Yes
    - ❏ No

Section B : Messages

1. Are the messages helpful when errors are made during the operation?
    - ❏ Very Helpful
    - ❏ Helpful
    - ❏ Moderate
    - ❏ Fairly Helpful
    - ❏ Not Helpful
    - ❏ No comment

2. Are the messages understandable (e.g. specific, definite and not vague)?
    - ❏ Yes
    - ❏ No

3. Was there any incorrect message found during the operation of the system?
    ☐ Yes   ☐ No

    If yes, please state at which form and what type of error message.
    _____
    _____
    _____
    _____

4. During the operation of the system, has any runtime error been detected?
    ☐ Yes   ☐ No

    If yes, please state at which form it occurred.
    _____
    _____
    _____

Section C : Functions/Modules	Yes	No	No Comment
1. Are the forms logically integrated?	☐	☐	☐
2. Are the functions or modules (e.g. add/modify/delete) logically integrated?	☐	☐	☐
3. Is the record easy to be added, modified or deleted in the database?	☐	☐	☐
4. Is the reporting function helpful in your daily work?	☐	☐	☐
5. Are correct results displayed when you print a report?	☐	☐	☐
6. Is the chart/graph module necessary?	☐	☐	☐
7. Is security feature undertaken in the system (e.g. password)?	☐	☐	☐

Section D : Statistical Package	Yes	No	No Comment
1. Does Stata appear when the analysis button is clicked?	☐	☐	☐
2. Can the necessary analysis be done on the medical expertise (e.g. one way frequency, two-way cross tabulation and etc.)?	☐	☐	☐

		Yes	No	No Comment
3.	Could you perform all the necessary statistical analysis for the time being?	☐	☐	☐
4.	Is the statistical package (incorporated together with the system) easy to use?	☐	☐	☐
5.	Do you need training in Stata (statistical package)?	☐	☐	☐
6.	Is it good to have a statistical package incorporated with the system?	☐	☐	☐

Section E : User Interface

		Yes	No	No Comment
1.	Is the screen overcrowded with command buttons and text boxes?	☐	☐	☐
2.	Are the fonts used viewable and at appropriate size?	☐	☐	☐
3.	Are the colours used for the screen appropriate?	☐	☐	☐

4. The user interface of the MediX system is

☐ Excellent   ☐ Moderate
☐ Very Good   ☐ Poor
☐ Good   ☐ Very Poor

Section F : Overall Aspects

1. In your opinion, is MediX easy to use?

☐ Very Easy   ☐ Difficult
☐ Easy   ☐ Very Difficult
☐ Moderate   ☐ No comment

2. In your opinion, is MediX a useful system for the medical community?

☐ Very Useful   ☐ Fairly Useful
☐ Useful   ☐ Not Useful
☐ Moderate   ☐ No comment

3. In your opinion, is MediX a useful system for the general population?

☐ Very Useful   ☐ Fairly Useful
☐ Useful   ☐ Not Useful
☐ Moderate   ☐ No comment

4. Are you happy/satisfied with the system?

☐ Very Happy/Satisfied   ☐ Unhappy/Dissatisfied
☐ Happy/Satisfied   ☐ Very Unhappy/Dissatisfied
☐ Moderate   ☐ No comment

Section G : Comments/Recommendations

1. As you see it, what are the primary benefits of the MediX system (check as many as necessary)
   - ☐ Improved job efficiency
   - ☐ Cost and time savings
   - ☐ No benefit
   - ☐ Others, please state._____

   _____
   _____
   _____

2. What are the primary drawbacks in the MediX system (check as many as necessary)?
   - ☐ Lack of familiarity with the system.
   - ☐ The system is too complex to be understood.
   - ☐ Too many computer terms used.
   - ☐ Others, please specify._____

   _____
   _____
   _____

3. Are there any important functions that the system should provide but is unavailable currently?

   _____
   _____
   _____
   _____
   _____

Thank you for your participation!

User Feedback Form

Please fill in the following particulars.

Title : ❏ Dr. ❏ Mr. ❏ Ms.

Name (optional) : _____

Occupation : _____

Instructions: <u>Please answer **All Sections**. For each of the following questions, please tick (√) your answer where applicable.</u>
Section A : General

1. Your ability to identify the desired medical expertise/specialist was
    ☐ Excellent
    ☐ Good
    ☐ Poor
    ☐ No comment/Not used

2. The ease of use of the search function was
    ☐ Excellent
    ☐ Good
    ☐ Poor
    ☐ No comment/Not used

3. Is the screen overcrowded with command buttons and text boxes?
    ☐ Yes   ☐ No

4. Are the fonts used viewable and at appropriate size?
    ☐ Yes   ☐ No

5. Are the colours used for the screen appropriate?
    ☐ Yes   ☐ No

6. If errors are made during the operation, are the messages helpful?
    ☐ Yes   ☐ No

7. Is MediX easy to use?
    ☐ Yes   ☐ No

8. How would you rate the usefulness of the system?
   - ☐ Very Useful
   - ☐ Useful
   - ☐ Moderate
   - ☐ Not Useful

9. Do you think MediX is a useful system for the general population?
   - ☐ Yes
   - ☐ No

10. Are you happy/satisfied with the system?
    - ☐ Very happy/satisfied
    - ☐ Happy/Satisfied
    - ☐ Moderate
    - ☐ Dissatisfied

11. What is your overall impression of the MediX system?
    - ☐ Positive
    - ☐ Neutral
    - ☐ Negative

Section B : Comments/Recommendations

1. As you see it, what are the primary benefits of the MediX system (check as many as necessary)
   - ☐ Information on the desired medical expertise/specialist can be got immediately
   - ☐ Cost and time savings (e.g. no need to travel to other hospitals/clinics to check
   - ☐ for medical expertise)
   - ☐ No benefit
   - ☐ Others, please state._____

   _____
   _____
   _____

2. What are the primary drawbacks in the MediX system (check as many as necessary)?
   - ☐ Lack of familiarity with the system.
   - ☐ The system is too complex to be understood.
   - ☐ Too many computer terms used.
   - ☐ Others, please specify._____

   _____
   _____
   _____

3. Are there any important functions that the system should provide but is unavailable currently?

_____
_____
_____
_____
_____
_____

Thank you for your participation!

APPENDIX C

SAMPLE SCREENS OF THE MEDIX SYSTEM

Sample Screens
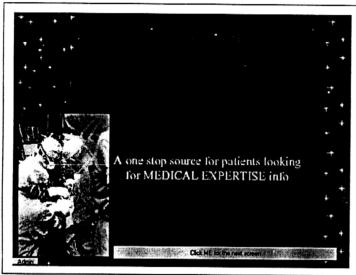
Fig. C.1 : Introductory Screen
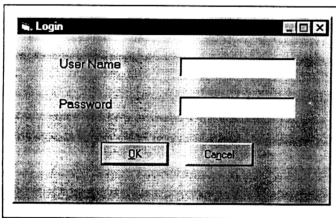
Fig. C.2 : Login Screen for the Administration Section
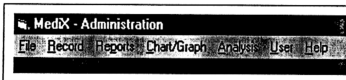
Fig. C.3 : Menu Screen for the Administration Section
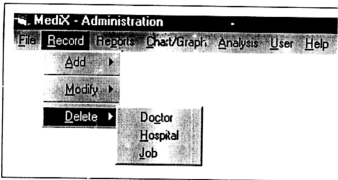
Fig. C.4 : Sub-Menu for the Record Module

Fig. C.5 : Add Particulars of Medical Expertise Screen

Fig. C.6 : Modify Particulars of Medical Centre Screen
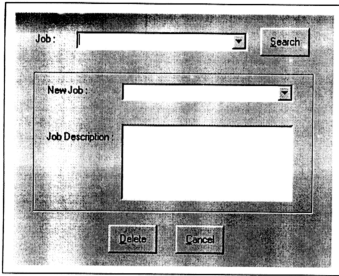
Fig. C.7 : Delete Particulars of Specialty Screen
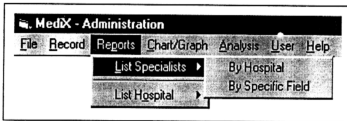
Fig. C.8 : Sub-Menu for the Reports Module
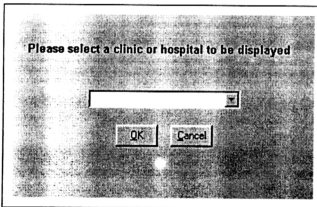
Fig. C.9 : List Specialists By Medical Centre Screen
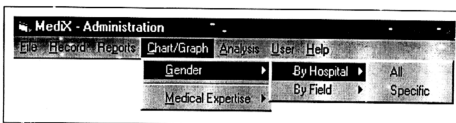
Fig. C.10 : Sub-Menu for the Chart/Graph Module
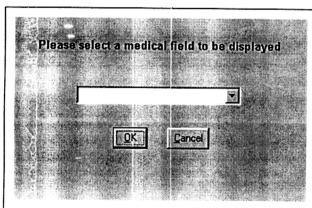
Fig. C.11 : List Specialists By Gender in A Specific Specialty Screen
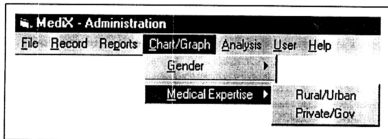
Fig. C.12 : Sub-Menu for the Chart/Graph Module
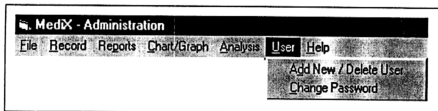
Fig. C.13 : Sub-Menu for the User Module
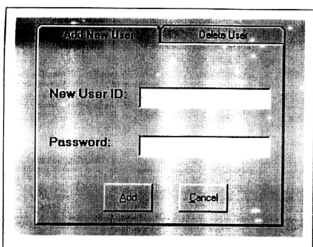
Fig. C.14 : Add New or Delete Existing User Screen
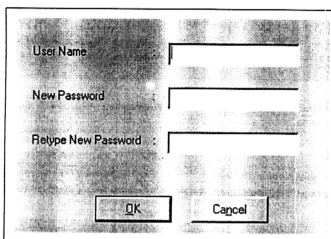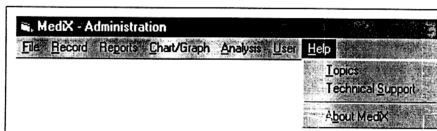

Fig. C.15 : Change Password Screen

Fig. C.16 : Sub-Menu for the Help Module

Fig. C.17 : Medical Expertise Search Screen for the User Section

Fig. C.18 : Symptom Search Screen for the User Section

MediX Version 1.0

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S.Kasthuri

University of Malaya

Serial no. : 58254152417932489?

Warning : Unauthorized reproduction or distribution of this program, or any portion of it, may result in severe civil and criminal penalties.

[OK]
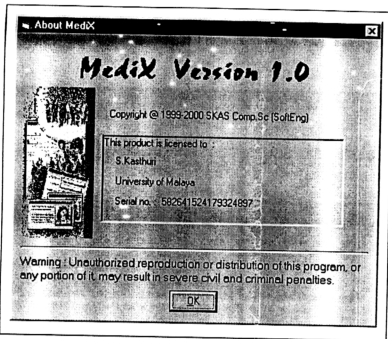
Fig. C.19 : About MediX Screen

APPENDIX D

SAMPLE REPORTS

Anaesthetisologist

Assunta Hospital

A. DAMODARAN DA, FMM, FRCA, FANZCA

Gleneagles Intan Medical Centre

NAZRI BHUPALAN MBBS(LON), FFARCSI (DUBLIN)
SITI AISHAH SAIDIN
MURALEETHARAN MADHAVAN

Ipoh Hospital

KAVITA M. BHOJWANI
MOHD. MARTADZA
KAMAL D. MANECKSHA

Normah Medical Specialist Centre

YEE CHEE SENG
SATHINDREN
KYIN WIN

Pantai Medical Centre

A. DAMODARAN DA, FMM, FRCA, FANZCA
JOSEPH A. MANAVALAN DA(UK), FFARCS (IRE), AM (MAL)
MOHAMED NAMAZIE B. IBRAHIM MBBS, FRCA, FAMM
NAZRI BHUPALAN MBBS(LON), FFARCSI (DUBLIN)
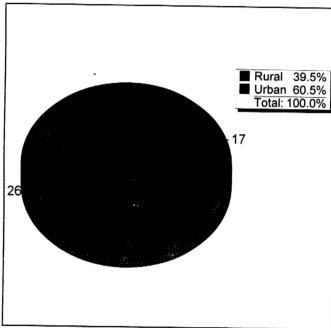SAYWAN LIM FAMM, MBBS, FRCA, FFARCS(I), FANZCA, FRCPS(G), FRACP(HON), FA
SYLVIAN DAS MBBS, FFARACS, FANZCA, FAMM, FIAMS

Tengku Ampuan Rahimah Hospital

NIRUMAL KUMAR

Ratio of
General Surgeon / General Practitioners
at
Urban & Rural Areas

Rural	39.5%
Urban	60.5%
Total:	100.0%

26

17

Ratio of
Ophthalmologist
at
Government & Private
Hospitals & Clinics

Government Hospital	28.6%
Private Clinic	7.1%
Private Hospital	64.3%
Total:	100.0%