ANNEX 1

INFRASTRUCTURE AND WORKING STAFF

Table 1 CUSPH Manpower

Whole CUSPH		Emergency Care Unit	SNICU	Emergency Operation
Group	**Number**	**Number**	**Number**	**Number**
Teaching staff	233	3	3	5
Residents	74	4	11	8
Full time physicians	75	1	-	-
Nursing	401	22	22	11
General administrative director	1	-	-	-
Pharmacists	9	-	-	-
Engineers	3	-	-	-
Administrative affairs specialist	15	2	1	1
Financial affairs specialists	6	-	-	-
Physiotherapy specialists	20	-	-	-
Senior feeding specialist	1	-	-	-
Feeding specialist	12	1	1	1
Laboratory specialist	2	-	-	-
Public relations specialist	4	-	-	-
Social service specialist	10	-	-	-
Senior laboratory technician	1	-	-	-
Laboratory technician	43	-	-	-
Feeding technician	6	-	-	-
Statistic technician	1	-	-	-
Radiology technician	22	-	-	-
Engineering technician	12	-	-	-
Industrial safety technician	1	-	-	-
Laboratory control	1	-	-	-
Nursing technician	7	-	-	-
Health control	4	-	-	-
Security supervisor	3	-	-	-
Registrar	97	-	-	-

Table 2 Equipment available at SNICU by source

No	Description	Q[1]ty	Source	
1	Local area network	1	-	JICA
2	Incubator	18	CUSPH	-
3	Cot	12	CUSPH	-
4	Servo	3	2 CUSPH	1 JICA
5	Monitor	20	CUSPH	-
6	Ventilator	10	CUSPH	-
7	Hand dryer	1	-	JICA
8	Monitor system	1	-	JICA
9	Atom syringe pump	20	CUSPH	-
10	Book	4	-	JICA
11	Portable X ray	1	CUSPH	-
12	Sonography	1	CUSPH	-
13	Autoclave	2	CUSPH	-
14	Laryngoscope	7	6 CUSPH	1 JICA
15	Arterial blood gase	1	CUSPH	-
16	HFO ventilator	2	-	JICA
17	Portable incubator	3	CUSPH	-
18	Refrigerator	2	CUSPH	-
19	Blood refrigerator	1	-	JICA
20	Extracorporeal life assist system	1	-	JICA
21	Ambulance for neonates transport	1	-	JICA
22	Electrocardiograph	1	CUSPH	-
23	Laryngoscope	1	-	JICA
24	Weight scale for neonates	1	-	JICA
25	Act meter	1	-	JICA
26	Anesthesia machine	2	1 CUSPH	1 JICA
27	Glucometer	4	CUSPH	-
28	Suction	6	CUSPH	-

Table 3 Equipment available at Emergency Care Department (ER1 and ER2) by source

No	Description	Q'ty	Source	
1	Local area network	1	-	JICA
2	Jackson-Rees circuit	10	-	JICA
3	Emergency cart	1	-	JICA
4	Digital camera	1	-	JICA
5	Resuscitation table	1	-	JICA
6	Hand dryer	1	-	JICA
7	Monitor system	1	-	JICA
8	Blood warmer	1	-	JICA
9	Monitor	8	CUSPH	-
10	Monitor module	24	CUSPH	-
11	Air curtain	5	4 CUSPH	1 JICA
12	Book	3	-	JICA
13	Portable suction	1	-	JICA
14	Laryngoscope	1	-	JICA
15	Echosonography	1	-	JICA
16	Syringe pump	5	CUSPH	-
17	Radiant warmer	5	4 CUSPH	1 JICA
18	Arterial blood gas	4	CUSPH	-
19	Electrocardiograph	3	CUSPH	-
20	X-Ray	1	CUSPH	-
21	Nebulizer	8	CUSPH	-
22	Pulse Oximeter	1	-	JICA
23	DC Shock	1	CUSPH	-
24	Suction	2	CUSPH	-
25	Weight scale for infant	1	-	JICA
26	Glucometer	4	CUSPH	-
27	Ventilator	11	7 CUSPH	4 JICA
28	Portable ventilator	3	CUSPH	-

Table 4 Equipment available at Emergency Operation by source

No	Description	Q'ty	Source	
1	Local area network	1	-	JICA
2	Ventilator	2	CUSPH	-
3	Monitor	2	CUSPH	-
4	Operating table	2	CUSPH	-
5	Rigid bronchoscope	1	-	JICA
6	Anesthesia machine	3	CUSPH	-
7	Hand dryer	1	-	JICA
8	Matris heater	2	CUSPH	-
9	Suction	3	CUSPH	-
10	Cold & warm blanket	1	-	JICA
11	Glucometer	1	CUSPH	-
12	Books	3	-	JICA
13	Surgical microscope	1	CUSPH	-
14	Laryngoscope	1	-	JICA
15	Autoclave	1	-	JICA
16	Surgical head lamp	1	-	JICA
17	C-arm X-ray TV System	1	-	JICA

Table 5 Equipment Donated by JICA in SNICU

No	Description	Specification	Q[1]ty	Place	Function
1	Local area network	Compaq deskpro EN desktop 450MHz with Care (soft)	1	NSICU	[1]Care is not functioning
2	Hand dryer	Drying machine T500E	1	NSICU	Functioning
3	Monitor system	Motorola MTX838, 10hand held units and 10 spare batteries	1	NSICU	[2]Not Functioning
4	Books	1-Pediatric Surgery (3 parts) 2-Avery's Disease of Newly born (one part)	4	NSICU	Functioning
5	Laryngoscope	Welch allyn	1	NSICU	Functioning
6	HFO ventilator	Dragger Babylog 8000plus	1	NSICU	Functioning
7	Blood regrigerator	Jewett BBR25,SI-2A	1	NSICU	Functioning
8	Extracorporeal life assist system	MERA ECMO SYSTEM NOGOYA II JAPAN RED CROSS HOSPITAL TYPE , option:SAO2 monitor, 10 sets consumables	1	NSICU	[3]Not Functioning
9	Ambulance for neonates transport	TOYOTAL HIACE ambulance RZH114L-ZRMRS	1	Ambulance (NSICU)	Functioning
10	Laryngoscope	Welch allyn	1	Ambulance	Functioning
11	HFO ventilator	Dragger Babylog 8000plus optional HFV&PSV	1	NSICU	[4]Not functioning
12	Weight scale for neonates	Atom, CM-5811 pediatric examining table model DS-21	1	NSICU	Functioning
13	Act meter	HEMOCHRON model JR	1	NSICU	Functioning
14	Anesthesia machine	CATO-DRAGER, Monitor PM 8060, PM8060vitara	1	NSICU	Functioning

[1]: Local Area Network : three computers one in ER1, one in Emergency OP, one in SNICU, all are working but the CARE system is not working because of technical problems in dealing with the program, people did not use the program but just register some data without using an integrated information system.

[2]: Monitor system Motorola MTX838, 10hand held units and 10 spare batteries, the hand held units and batteries are present in stores and not functioning due to discontinuation of service due to non payment.

[3]: Extracorporeal life assist system is not functioning due to high cost of its connections.

[4]: HFO ventilator Drager Babylog 8000 plus Optional HFV&PSV is not functioning due to high coast maintenance

Table 6 Equipment Donated by JICA in Emergency Care Department (ER1 and ER2)

No	Description	Specification	Q[1]ty	Place	Function
1	Local area network	Compaq deskpro EN desktop 450MHz with Care (soft)	1	ER1	[1]Care is not functioning
2	Jackson-Rees circuits	Blease Jackson-Rees circuit	10	Not found	-
3	Emergency cart	EMT 200 emergency trolley CARDIO-AID MC+ with pacer	1	ER1	Functioning
4	Digital camera	Epson photo PC750z	1	Not found	-
5	Resuscitation table	Nesbit Evans England fixed height patient trolley model 41000	1	ER1	Functioning
6	Hand dryer	Drying machine T500E	1	ER1	Functioning
7	Monitor system	Motorola MTX838, 10hand held units and 10 spare batteries	1	ER1	[2]Not Functioning
8	Blood warmer	Elltec blood warmer AM2	1	ER1	Functioning
9	Air curtain		1	ER1	Functioning
10	Books	1-Nelson Textbook of Pediatric (one part) 2-Emergency Imaging of the Acutely ill or Injured child (one part) 3-The 5 minute Toxicology Consult (one part)	3	ER1	Functioning
11	Portable suction	Atom neonatal suction pump model S-58 code CM-5631	1	ER1	Functioning
12	Laryngoscope	Welch allyn	1	ER1	Functioning
13	Echosonography	Hewlett Packard sonos4500	1	Transferred to outpatient clinic	Functioning
14	Radiant warmer	ATOM infant warmer	1	ER1	Functioning
15	Pulse Oximeter	DATEX-OHMEDA 3800 OXIMETER with three pediatric and neonatal probes	1	ER1	Functioning
16	Weight scale for infant	Seca 707, Capacity 200Kg	1	ER1	Functioning
17	Conventional ventilator	NEWPORT E100M Ventilator, Neonatal-Pediatric-Adult	4	ER1and ER2	Functioning

[1]: Local Area Network : three computers one in ER1, one in Emergency OP, one in SNICU, all are working but the CARE system is not working because of technical problems in dealing with the program, people did not use the program but just register some data without using an integrated information system.

[2]: Monitor system Motorola MTX838, 10hand held units and 10 spare batteries, the hand held units and batteries are present in stores and not functioning due to discontinuation of service due to non payment.

Table 7 Equipment Donated by JICA in Emergency Operation

No	Description	Specification	Q[1]ty	Place	Function
1	Local area network	Compaq Deskpro EN desktop- 450MHz *with CARE (soft)*	1	Emergency OP	CARE is not *functioning*[1]
2	Rigid bronchoscope	Fiber light source (FL2), bronchoscope GU3902,3908,3910,3918,GU4004,GU3984,GU4034	1	Emergency OP	Functioning
3	Hand dryer	Drying machine T500E	1	Emergency OP	Functioning
4	Cold & warm blanket	Seabrook, Tropi cool hyper/hypothermia unit	1	Emergency OP	Functioning
5	Books	1-Smith's Anesthesia for infants and children (one part) 2-Pediatric Surgery (2 parts) Pediatric anesthesia (part 1) Anesthesia and uncommon pediatric diseases (part 2)	3	Emergency OP	Functioning
6	Laryngoscope	Welch allyn	1	Emergency OP	Functioning
7	Autoclave	SAKURA AIIIS-006, 490L	1	Emergency OP	Not Functioning[2]
8	Surgical head lamp	Cold Light Fountain HALOGEN150, *Headlight with balljoint*	1	Emergency OP	Functioning
9	C-arm X-ray TV System	SERIES 7700 MOBILE DIGITAL C-ARM, OEC	1	Emergency OP	Functioning

[1]: Local Area Network : three computers one in ER1, one in Emergency OP, one in SNICU, all are working but the CARE system is not working because of technical problems in dealing with the program, people did not use the program but just register some data without using an integrated information system.

[2]: Autoclav SAKURA AIIIS-006,49OL is not functioning due to lack of fitness of the room for the apparatus so it should transported to another suitable place

ANNEX 2

CUSPH CASE LOAD

Table 8 Emergency room (ER1 & ER2) activities in 2002, 2003, 2004

	2002	2003	2004
Number of beds	1100	979	1161
Number of discharged patients	423	425	472
Bed cycle rate	-	-	73
Mean admission days	-	-	4

Table 9 Surgical neonatal intensive care unit (SNICU) activities in 2002, 2003, 2004

	2002	2003	2004
Number of beds	706	729	712
Number of discharged patients	278	306	256
Bed cycle rate	-	-	21
Mean admission days	-	-	11

Table 10 Emergency operation 2002, monthly surgeries by specialties

Month	General surgery	Neuro-surgery	Cardiothoracic surgery	Urology surgery	Ophthalmology surgery	Orthopedic surgery	Total month
January	89	12	12	8	-	1	122
February	60	11	23	5	-	1	100
March	69	8	42	7	-	-	126
April	111	21	25	9	-	-	166
May	86	21	14	7	-	-	128
June	87	42	15	2	-	-	146
July	88	53	15	7	-	2	165
August	82	38	18	2	-	1	141
September	64	38	20	6	-	-	128
October	91	42	4	5	-	-	142
November	83	32	7	4	1	-	127
December	85	41	15	4	-	1	146
Total year	995	359	210	66	1	6	1637

Table 11 Emergency operation 2003, monthly surgeries by specialties

Month	General surgery	Neuro-surgery	Cardiothoracic surgery	Urology surgery	Ophthalmology surgery	Orthopedic surgery	Total month
January	83	34	11	2	-	-	130
February	67	49	17	3	-	-	136
March	92	42	6	2	-	-	142
April	94	50	9	2	-	-	155
May	113	23	5	2	-	-	143
June	125	37	2	1	3	-	168
July	82	43	10	4	4	1	144
August	113	44	21	5	-	-	183
September	98	46	11	-	-	-	155
October	89	48	8	5	-	1	151
November	108	37	16	2	-	1	164
December	109	75	14	1	-	1	200
Total year	1173	528	130	29	7	4	1871

Table 12 Emergency operation 2004, monthly surgeries by specialties

Month	General surgery	Neuro-surgery	Cardiothoracic surgery	Urology surgery	Ophthalmology surgery	ENT	Total month
January	107	44	27	-	3	-	181
February	78	52	25	5	-	-	160
March	139	61	11	-	2	-	213
April	113	38	14	8	-	-	173
May	113	38	14	8	-	-	173
June	126	36	14	8	-	-	184
July	102	34	13	-	6	-	155
August	91	43	19	3	1	-	157
September	99	31	13	7	-	3	153
October	123	28	17	6	3	-	177
November	104	45	8	5	-	-	162
December	138	38	24	-	-	-	200
Total year	1323	498	199	50	15	3	2088

Table 13 Total number of surgeries in Emergency Operation by specialty and type of surgery 2002

Specialties	Special skills	Major	Intermediate	Minor	Total
General surgery	348	233	242	172	995
urology surgery	33	2	25	6	66
Ear Nose and Throat surgery	-	-	-	-	-
Orthopedic surgery	1	2	2	1	6
Ophthalmology surgery	0	1	-	-	1
Neurosurgery	178	37	123	21	359
Cardiothoracic surgery	13	7	179	11	210
Total	573	282	571	211	1637

Table 14 Total number of surgeries in Emergency Operation by specialty and type of surgery 2003

Specialties	Special skills	Major	Intermediate	Minor	Total
General surgery	412	259	158	344	1173
urology surgery	22	6	1	-	29
Ear Nose and Throat surgery	1	3	-	-	4
Orthopedic surgery	-	-	-	-	-
Ophthalmology surgery	-	-	7	-	7
Neurosurgery	202	112	119	85	518
Cardiothoracic surgery	6	1	106	17	130
Total	643	381	391	446	1861

Table 15 Total number of surgeries in Emergency Operation by specialty and type of surgery 2004

Specialties	Special skills	Major	Intermediate	Minor	Total
General surgery	362	348	196	417	1323
urology surgery	34	3	10	3	50
Ear Nose and Throat surgery	2	1	-	-	3
Orthopedic surgery	2	6	3	4	15
Ophthalmology surgery	-	-	-	-	-
Neurosurgery	159	104	158	77	498
Cardiothoracic surgery	1	17	165	16	199
Total	560	479	532	517	2088

ANNEX 3

DISCUSSION GUIDE

Qualitative Research of Ex-Post Evaluation Survey
Of the Pediatric Emergency Care Project in Egypt

"In-depth Interviews"

Objective	Questions	الأسئلة باللغة العربية
Impact evaluation	- Your perception toward the role of EU in decreasing the infant & mortality rate in Egypt? - EU Has double role therapeutic & educational, to what extent this happened?	- ماهو شعورك حول دور وحدة الطوارئ بالمستشفى فى تقليل حالات وفيات الأطفال فى مصر؟ - دور وحدة الطوارئ علاجى و تعليمى فى نفس الوقت من وجهة نظرك هل قامت الوحدة بهذا الدور؟
Positive and Negative outcomes	- What are the positive and negatives outcomes of the project? - What are the main barriers and constrains that face the EU activities?	- ما هى الإيجابيات و السلبيات لتنفيذ وحدة الطوارئ فى مستشفى الأطفال الجامعى؟ - ما هى المعوقات و المشكلات التى واجهت الوحدة لتنفيذ أنشطتها المختلفة؟
Counterpart role	- What is the role of the Egyptian Counterparts, eithe directors of the CUSPH, or the working teams during the past period?	- ما هو الدور الذى قام بها الشريك المصرى من إدارة المستشفى و العاملين بالوحدة خلال المرحلة الماضية؟
Project sustainability	- Your perceptions and attitude towards the sustainability of the EU activities especially after fund stopped? - What your opinion toward the sustainability measures that done to EU Equipments?	- ما هى وجهة نظرك حول مدى قدرة الوحدة على الإستمرار فى العمل خاصة بعد إنتهاء التمويل؟ - ماهى وجهة نظرك فى صيانة أجهزة وحدة الطوارئ؟
Recommendation	- What your recommendations for the next steps?	- ما هى توصياتك لعمل وحدة الطوارئ خلال المرحلة المقبلة؟

Qualitative Research of Ex-Post Evaluation Survey
Of the Pediatric Emergency Care Project in Egypt

"FGD"

Objective	Questions	الأسئلة باللغة العربية
Impact evaluation	- From your point of view, did the EU decreases the infant mortality rate in Egypt? - EU Has double role therapeutic & educational, to what extent this happened?	- من وجهة نظركم هل إقامة وحدة الطوارئ فى مستشفى الأطفال الجامعى ساهم فى تخفيض وفيات الأطفال فى مصر؟ - دور وحدة الطوارئ علاجى و تعليمى فى نفس الوقت من وجهة نظركم هل قامت الوحدة بهذا الدور؟
Positive and Negative outcomes	- What are the positive and negatives outcome of the project? - What are the main barriers and constrains that face the EU activities?	- ما هى الإيجابيات و السلبيات لتنفيذ وحدة الطوارئ فى مستشفى الأطفال الجامعى؟ - ما هى المعوقات و المشكلات التى واجهت الوحدة لتنفيذ أنشطتها المختلفة؟
Counterpart role	- You are responsible about EU, what are your qualifications and training experience that you had before your work in EU either before or during your job their? -What is the role of the Egyptian Counterpart, the directors of the CUSPH, and the working teams to keep the work in EU in a good way?	- أنتم مسئولين عن العمل فى وحدة الطوارئ ماهى التدريبات التى حصلتم عليها سواء قبل عملكم بالوحدة و أثناء العمل بها؟ - ما رأيكم فى الدور الذى قام بها الشريك المصرى من إدارة المستشفى و العاملين بالوحدة خلال المرحلة الماضية للمحافظة على كفاءة العمل فى وحدة الطوارئ؟
Project sustainability	- Your perceptions and attitude towards the sustainability of the EU activities?	- من وجهة نظركم ماهى الإجراءات الأساسية التى أتبعت للمحافظة على استمرارية الوحدة فى العمل؟
Recommendation	- What your recommendations for the next steps?	- ما هى توصياتكم لعمل وحدة الطوارئ خلال المرحلة المقبلة؟

Annex 1: Evaluation Summary Form
Evaluation conducted by : JICA Overseas Office

1. Outline of the project		
Country :Egypt		**Project title :** The Pediatric Emergency Care Project in Egypt
Issue/Sector : Health / Medical Care		**Cooperation scheme :** Project-type Technical Cooperation
Division in charge : Second Medical Cooperation Division.	**Dept.,** Medical Cooperation Department	**Total cost; 509 million yen**
Period of Cooperation: 1 April 1999 - 31 March 2002		**Partner country's implementing organization :** Cairo University Specialized Pediatric Hospital (CUSPH) **Supporting organization in Japan :** Showa University, Nagoya City University, Showa University Fujigaoka Hospital, Nagoya Daini Red Cross Hospital, Sapporo Medical University

Related Cooperation: Related Cooperation: Project-type Technical Cooperation; "Cairo University Pediatric Hospital (Phase1,2)", "Project for the High Institute of Nursing, Cairo University" The dispatch of Experts; "Clinical Laboratory Testing", "Medical Engineering", "System Management" *The single dispatch before the Project Grant Aid; "Project for Construction of Cairo University Pediatric Hospital", "Expansion Project of Cairo University Pediatric Hospital", and "Project for Rehabilitation of Cairo University Pediatric Hospital"

1-1. Background of the Project: The Government of Egypt requested Project-type technical cooperation from the Government of Japan in the field of pediatric emergency medicine with the following aims: (1) to establish a scheme of pediatric emergency medicine, (2) to upgrade the training facility for pediatric emergency medical care and (3) to prepare a system of education on pediatric emergency medical care for the students.

1-2. Project Overview: To establish an emergency pediatric medical system at CUSPH, the Project provided a training program for hospital managers and medical equipment maintenance personnel, and held seminars for medical practitioners at clinical tests and in newborn infant care departments.

(1) Overall Goal: Pediatric emergency care in Egypt is improved.

(2) Project Purpose: CUSPH functions as a central and model facility of pediatric emergency care.

(3) Outputs:

1) The concept of pediatric emergency medicine is introduced to CUSPH.
2) The system of providing pediatric emergency care service is improved.
3) CUSPH functions as a teaching hospital of pediatric emergency care for medical students, nursing students, and relevant medical personnel.

(4) Inputs (as of the Project's termination)

Japanese side :

Long-term Expert: 4	Equipment	115 Million Yen
Short-term Expert: 39	Local cost	699,643 pounds Egyptian (20 Million Yen)
Trainees received: 16		

Egyptian side :

Counterparts: 31

Land and Facilities local cost: 100,000 pounds Egyptian (2.87 Million Yen)

2. Evaluation Team		
Members of Evaluation Team	Team Leader/:Prof. Dr Fatma El-Zanaty, Director of El-Zanaty Associates Assistant team leader: Dr Ibrahim Ismail, Qualitative research consultant, Pediatrician, PhD Assistant team leader: Dr Hamdy Abdel Ghaffar, Health specialist, Toxicologist, MD	
Period of Evaluation	1/1/2005- 28/2/2005	**Type of Evaluation :** Ex-post

3. Results of Evaluation

3-1. Summary of Evaluation Results

(1) Impact:

The child mortality rate has been reduced due to implementation of emergency services in CUSPH

The medical staff, physicians, nurses and administrators, in CUSPH getting more experience in dealing with pediatric emergency cases due to the training programs conducted either in Japan or in Egypt.

(2) Sustainability

The sustainability of the project has reached a sufficient level as the project is still performing the duties that were designed for; the project has the trained staff that capable to perform the duties; the supplies that given to the project are still working; there is good & continuous maintenance system.

3-2. Factors that have promoted project

(1) Impact

The project is established in a University specialized hospital with a well trained staff.

The training program conducted in Japan had a good impact on the performance of the personnel which reflected on their duties in CUSPH

The equipment that given to the project were selected on program need and the maintenance system help in keeping the work at high standard

(2) Sustainability

The presence of well trained and enthusiastic staff together with a good infrastructure help in project sustainability. The administrative support from the director of CUSPH add to the sustainability.

Efforts done by the staff to get donation to enhance the working conditions.

(3) Others

NA

3-3. Factors that have inhibited project

(1) Impact

High turnover of staff specially nurses

Irregular training with no documentation or evaluation for training courses

Information system for statistical analysis and medical recording was not utilized.

(2) Sustainability

The case load has been doubled from 30000 to 60000 cases which affect the lifetime of the used equipment

(3) Others

NA

3-4. Conclusions

- The emergency unit that was initiated in CUSPH helps in reducing the child mortality rate in Egypt through improvement of the emergency services.
- The training programs that were conducted either in Japan or Cairo, helped the medical staff of CUSPH to manage the emergency pediatric cases, but as the turnover of the medical staff is high, these training programs should be continued to train new staff.
- The information system that was implemented for statistical analysis not used now because it was not applicable. An easy system should be designed and implemented.
- Some devices like ECMO, was not cost-effective in a developing country like Egypt due to high operating and maintenance cost. The ECMO device now not used at all.
- The design of the emergency area need an urgent modification, as there is only one door for the emergency operating room, so if any accident occurred will be very dangerous to all the personnel in that room. Also the autoclave of the emergency surgical unit is located very near to the operating room

3-5. Recommendations

To maximize the impact of the emergency unit on the child mortality rate, it would be better to recommend the following items to CUSPH management team:

(1) The training programs that run in the emergency unit either for the physicians or to the nurses must be rearranged and evaluated.

(2) Establishment of a national network for pediatric emergency management could be the next step between different pediatric sectors allover the country. (JICA could support either by technical or financial aid to implement such recommendation)

(3) Establishment of a quality assurance system in the emergency care department is highly recommended.

(4) Measures to increase the effectiveness of infection control program like regular evaluation and monitoring from central level and behavioral changes are recommended.

(5) A simple and easy use computer filing system must be introduced and applied to help in statistical analysis and medical recording.

(6) It is highly needed to supply the emergency unit with a well trained nurse's staff.

(7) A social marketing plan is needed to increase the awareness of the population about the services done by the emergency unit. (JICA could support either by technical or financial aid to implement such recommendation)

3-6. Lessons Learned

The lesson learned that could help in other projects are:

- Emergency Pediatric unit is an example of successful cooperation project, as its outcome on the health and welfare of childhood is easily achievable.
- Training programs either in Japan or on-job training in Egypt by a short term and long term experts had a great outcome on the staff working in the pediatric emergency unit.
- To introduce the pediatric emergency in Egypt, there is a need to train large number of physicians and nurses; this could be easily happened if the emergency unit in CUSPH works as a center of expertise to train other health personnel in Egypt.
- The supplying of equipments to developing countries must be study as a cost-effective strategy.
- The selection of the equipments must be through a team including engineer specialized in maintenance of medical equipments to be sure that the selected equipments have easy and cost effective maintenance system.
- Also the selection of the equipments must have suitable well designed places to get use of them.
- The maintenance team should be trained on how to use different equipment together with the physicians and nurses to deal with any urgent problem.

Follow-up Situation

N/A