

8. ワークショップ・会議出席者リスト

Member List of Observation in Kg. Cham

Date : August 26, 2004

1	JICA Evaluation Team	Ms. Akiko TOMITA	Team Leader
2		Dr. Tamotsu NAKASA	MCH
3		Ms. Yoko KONISHI	Nursing / Training
4		Ms. Shoko SATO	Cooperation Evaluation
5		Ms. Keiko NOJI	Evaluation Analysis
6		Mr. Van Sok Phy	Driver
7	JICA Cambodia Office	Ms. Maki MUROI	JICA Cambodia Office
8		Ms. Kana Yoshitomi	JICA Cambodia Office
9		Mr. Peong Vattana	JICA Cambodia Office
10		Mr. Lim Vuthy	Driver
11	NMCHC	Dr. Tan Vuoch Chheng	Vice Director of NMCHC
12		Mr. Huot Khom	Director of Administration
13	JICA MCH Project	Dr. Kazuhiro KAKIMOTO	Chief Advisor
14		Ms. Izumi SUZUMORI	Coordinator
15		Mr. Takeshi MATSUO	Medical Equipment
16		Mr. Yuta UCHIYAMA	Drug and Materials
17		Ms. Yukie SAKURAI	Training Evaluation
18		Dr. Yumi MUKOYAMA	PMTCT Program
19		Ms. Ing Nary	National Staff of Project
20		Ms. Chhit Thavary	National Staff of Project
21		Mr. Hang Piseth	Driver
22		Mr. Pan Pin	Driver

Evaluation Workshop

Date : August 27, 2004

			group	
1	NMCHC: Steering committee (9)	Koum Kanal	Director of NMCHC	1.2.3.4.
2		Sann Chan Soeung	Vice Director of NMCHC	1.2
3		Tan Vouch Cheng	Vice Director of NMCHC	1.3
4		Hout Khom	Director of Administration	1.4
5		Lao Suntareth	Director of Clinical Dept.	1
6		Chin Chan Thai	Director of Nursing Dept.	1
7		Prak Savuth	Vice Director of Administration	1
8		Prak Somaly	Vice Director of Technical Bureau	1
9		So Sokphy	Director of Accounting Bureau	1
10	Clinical Committee (3)	Ket Ly Sotha	Chief of Maternity, Training Unit	2
11		Po Chin Samuth	Chief of Safety Blood Transfusion Com.	1
12		You Sophat	Chief of Infection Control com.	1
13	Engineering (2)	Chum Toma	Chief of Facility Unit	4
14		HubSok Samnang	Chief of Medical Equipment Unit	4
15	TOT (1)	Chey Phossana	Vice Chief of TOT	2
16	NMCHC: national program (2)	Tung Rathavy	Acting Director	2
17		Ou Kevanna	Director	3
18	NCHADS(1)	Mean Chhi Vun	Representative of NCHADS	3
19	MOH (7)	Chor Meng Chour	Vice Director of HSSP	2.4
20		Keat Phoung	Director of HRD	2
21		Chin Chiev	Vice Director of HSD	4
22		Chi Mean Hear	Vice Director of HSD	4
23		Sok Khim	Chief of Laboratory Unit	2
24		Sok Chan	HSD Staff	4
25		Py Radian	HSD Staff	4

Local staff (4)	Ing Nary Hak Sihun Hang Piseth Chhit Thavary	
JICA Evaluation Team	Ms. Akiko TOMITA Dr. Tamotsu NAKASA Ms. Yoko KONISHI Ms. Shoko SATO Ms. Keiko NOJI	Team Leader MCH Nursing / Training Evaluation Cooperation Evaluation Evaluation Analysis
JICA Cambodia Office	Ms. Maki MUROI	JICA Cambodia Office
JICA MCH Project	Dr. Kazuhiro KAKIMOTO Ms. Izumi SUZUMORI Mr. Takeshi MATSUO Mr. Yuta UCHIYAMA Ms. Yukie SAKURAI Dr. Yumi MUKOYAMA	Chief Advisor Coordinator Medical Equipment Drug and Materials Training Evaluation PMTCT Program

Joint Coordinating Committee Member List

Date : at 14:30 September 1, 04 at NMCHC Training Room 1

Agenda : 14:30-14:50 Presentation by Dr. Kanal

14:50-14:55 Evaluation of 5 criteria by Ms. Noji

14:55- Finalization of Joint Evaluation Report

No.		Name	Position
1	MOH	H.E.Prof. Eng Huot	Secretary of State for Health
2		Mr. Chea Kimlong	Director of Dep. of Finance
3		Dr.Chea Mean Hear	Vice Director of Dep. of Hospitals
4		Dr.Phom Sam Song	Vice Director of Dep. of Human Resources
5	NMCHC	Prof. Koum Kanal	Director of NMCHC
6		Prof. San Chhang Soeung	Vice Director of NMCHC
7		Dr. Tan Vuoch Chheng	Vice Director of NMCHC
8	CDC	Mr.Duong Chantha	Staff of Asia Department
9		Ms.Chet Sophorn	Staff of Asia Department
10	MoEF	Mr.Ly Sam OL	Chief of Economic and Finance to the Ministry of Health
11	EOJ	Ms. Chinami HANAZONO	Chief of Advisor, Economic Coope Section EoJ
12	JICA Cambodia Office	Mr. Hiroto MITSUGI	Deputy Resident Representative of JICA Cambodia Office
13		Ms. Maki MUROI	JICA Cambodia Office
14		Ms.Kana YOSHITOMI	Program Assistant
15		Mr.Peong Vattanak	Program Assistant
16	Final Evaluation Mission	Ms. Akiko TOMITA	Team Leader
17		Dr. Tamotsu NAKASA	MCH
18		Ms. Yoko KONISHI	Nursing / Training Evaluation
19		Ms. Keiko NOJI	Evaluation Analysis
20		Ms. Shoko SATO	Cooperation Evaluation
21	MCH Project	Dr. Kazuhiro KAKIMOTO	Chief Advisor
22		Ms. Izumi SUZUMORI	Coordinator
23		Mr. Takeshi MATSUO	Expert of Medical Equipment
24		Mr. Yuta UCHIYAMA	Expert of Drug and Materials
25		Dr. Yumi MUKOYAMA	Expert of PMTCT
26		Ms. Yukie SAKURAI	Expert of Training Evaluation

Debriefing of JICA MCH project Final Evaluation Mission

Sep. 3 (Fri) 9:00–11:00 at NMCHC

Agenda:

- 1 Project Explanation, Introduction of Mission (By Dr. Koum Kanal)
- 2 Summary of Final evaluation of JICA MCH project (By Ms. Akiko Tomita)
- 3 Q & A

Participants:

1	WHO	Severin Xylander	Medical Officer
2	UNFPA	Sou Souen	NRA–RH
3	GTZ	Anne Erpelding	Coordinator
4	RACHA	Sun Nasy	Deputy–Executive Director
5	NCHADS	Dr. Seng Sutwantha	DD
6	USAID	Ms. Hen Sokun Charya	DAS for MCH/RH
7	DFID	Ms. Elizabeth Smith	Health Advisor
8	FC	Dr. Regine Lefarit Robin	Technical Advisor/MoH
9	SCA	Reginald Xavier	HSSP Manager
10		Danielle Butter	Health Advisor
11	URC	Chan Sodara	DCD
12	MOH	Mr. Chou Yin Sim	Acting Director General for Health
		Mr. Youk Sambath	Deputy–Director General for Finance
13		Mr. Chea Kimlong	Director of Dep. of Finance
14		Ms. Chin Chiev	Vice Director of Dep. of Hospitals
15		Mr. Chi Mean Hear	Vice Director of HSD
16		Ms. Keat Phuong	Director of Dep. of Human Resources
17	NMCHC	Prof. Koum Kanal	Director of NMCHC
18		Prof. San Chhang Soeung	Vice Director of NMCHC
19		Mr. Huot Khom	Director of Administration
20		Dr. Prak Somaly	Director of Technical Bureau
21		Dr. Lao Sunthareth	Director of Clinical Division
22		Ms. Ching Chan Thai	Director of Nursing Division
23		Mr. Prak Savuth	Vice Director of Administration
24		Dr. Keth Ly Sotha	Director of TOT, Maternity
25	NP	Tung Rathavy	Acting Manager
26	JICA	Ms. Maki MUROI	JICA Cambodia Office
27	Mission	Ms. Akiko TOMITA	Team Leader
28		Dr. Tamotsu NAKASA	MCH
29		Ms. Yoko KONISHI	Nursing / Training Evaluation
30		Ms. Keiko NOJI	Evaluation Analysis
31		Ms. Shoko SATO	Cooperation Evaluation
32	MCH Project	Dr. Kazuhiro KAKIMOTO	Chief Advisor
33		Ms. Izumi SUZUMORI	Coordinator
34		Mr. Takeshi MATSUO	Expert of Medical Equipment
35		Mr. Yuta UCHIYAMA	Expert of Drug and Materials
36		Dr. Yumi MUKOYAMA	Expert of PMTCT
37		Ms. Yukie SAKURAI	Expert of Training Evaluation

Joint Evaluation Workshop

At National Maternal and
Child Health Center
August 27, 2004



Schedule

- 8:00-8:15 Opening of the Workshop
- 8:15-10:00 Presentation of Achievement
- 10:30-10:40 Introduction for small group discussion and presentation
- 10:40-12:00 Small group discussion of project implementation process
- 14:00-14:30 Preparation of presentation
- 14:30-15:30 Presentation of project implementation process
- 16:00-17:00 Concluding remarks by NMCHC Director

1. Opening of the workshop

Objectives:

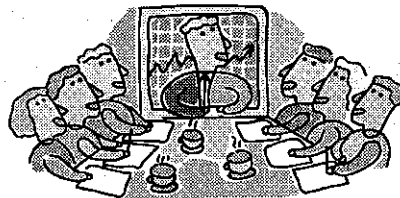
- To assess achievement of the Project
- To review the major events and implementation process

Method:

Small group discussion & exercises

2. Presentation of Achievement

1. 4 groups (Output 1, 2, 3 and 4) present their achievement for the last 4.5 years (Each group: 15-20 min.)
2. Question and Answer session after each presentation (5-10 min.)



3. Introduction for small group discussion and presentation

- Small group exercise with post-it cards

- Golden rules:

- 1 idea on 1 card
- Be specific (5 W1H)
- Write clearly (Large and bold font is better)
- Writing your idea by your self
- Write and post cards before discussion
- Consensus before removing cards



Project Implementation Process (Ex. Output

4)

Activities	Duration/ Frequency	Problems encountered	Reasons	Counter measures taken	Remainin g tasks
1. Maintain and repair equipment at MNCHC	2001-2004 M: once/week R: as occurred	Procurement of spare parts took long time	Delayed arrival of national budget	Appropriate money from user-fee revenue	None
2. Prepare guidelines/ textbooks					****
3 National workshop is well established	Started in Jan. 2002. Twice/month in average	RHs do not have records on equipment Cannot cover all requests	No personnel in charge at RHs Shortage of MCH ME staff	Start developing equipment inventory Train junior staff at ME	Complete the inventory Recruitment of new staff
4. Conduct training and seminar					****

4. Instruction for Presentation

- Select major 5 problems encountered.
- 1 person from each group presents for 10 min.

1. problem,
2. reasons why the problems happened, and
3. the counter measures which you took.

Q&A for 5 min. after each group's presentation

5. Concluding remarks by NMCHC Director

- Concluding remarks by referring to :

- "Remaining tasks" from the Project implementation chart



Super goal

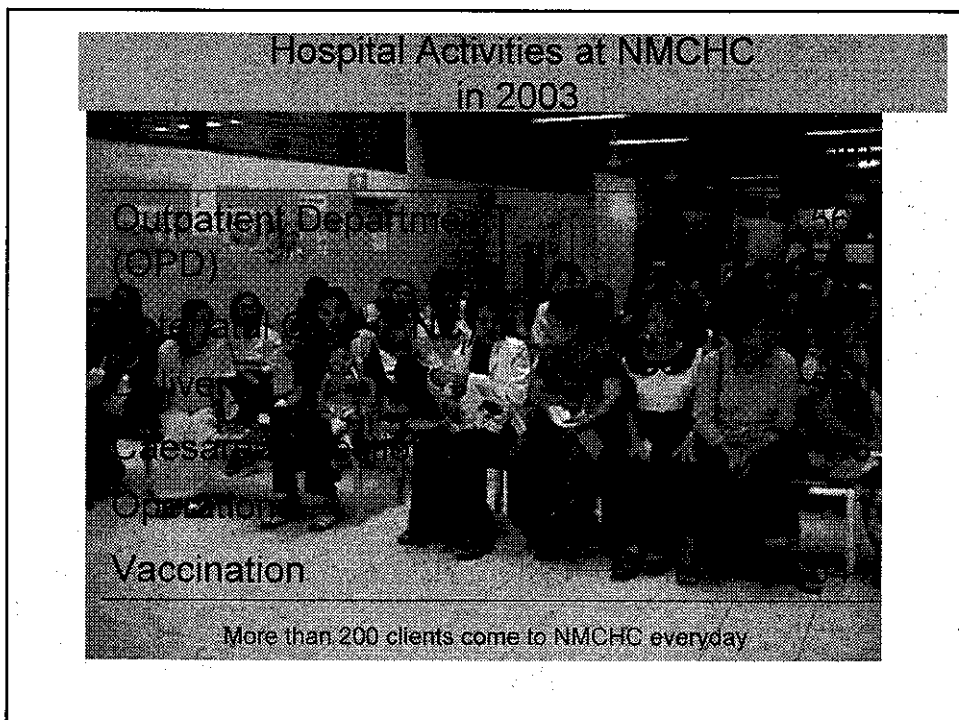
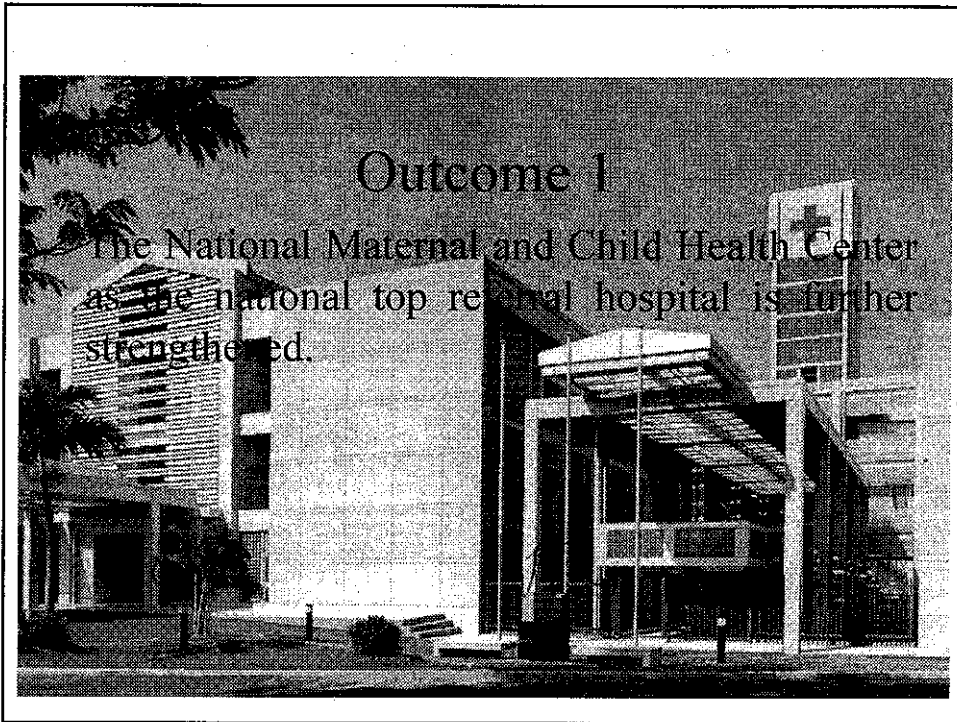
The status of maternal and child health in the Kingdom of Cambodia is improved.

Overall goal

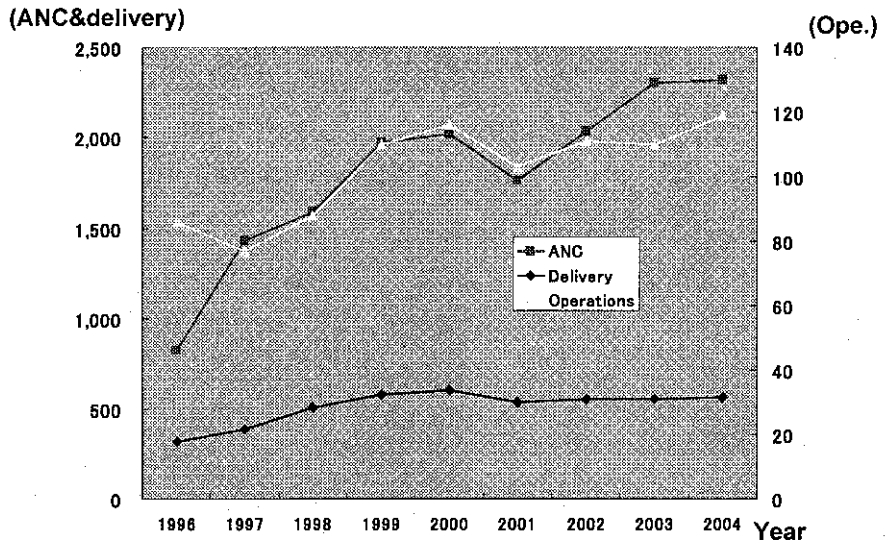
Quality of service for maternal and child health in the Kingdom of Cambodia is improved.

Project purpose

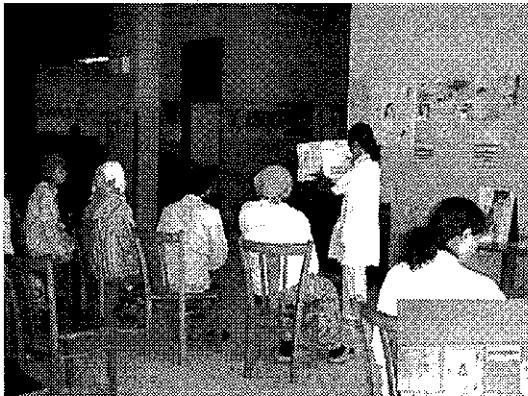
Human resource development for the improvement of MCH, including community health, is strengthened.



Number of ANC, delivery and operations per month in NMCHC (as of June 2004)



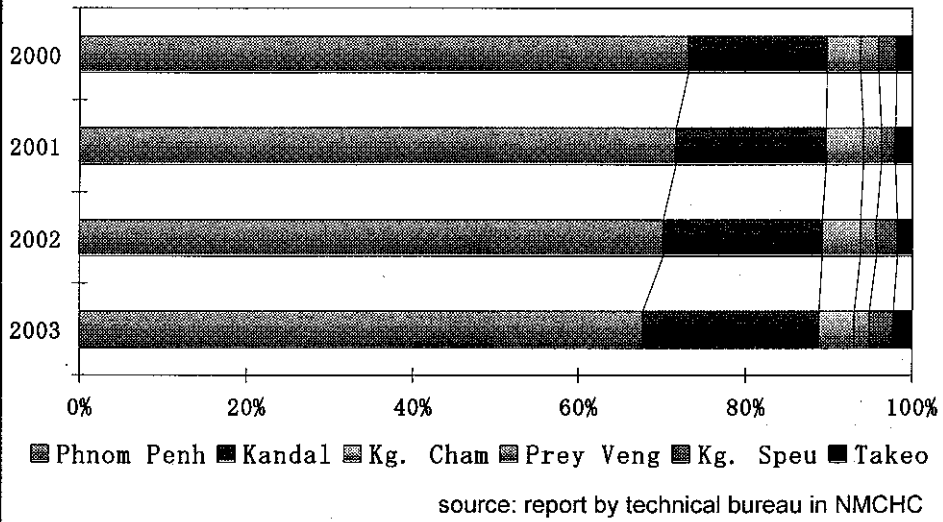
source: report by technical bureau in NMCHC



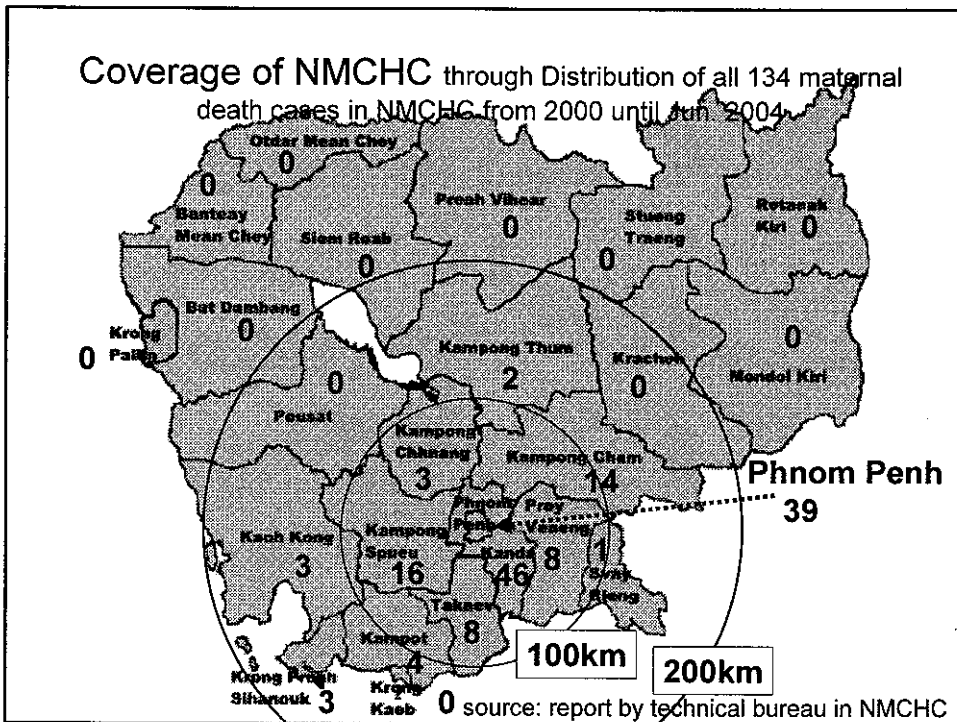
Postpartum education



Ratio of the delivery by residence



Coverage of NMCHC through Distribution of all 134 maternal death cases in NMCHC from 2000 until Jun 2004

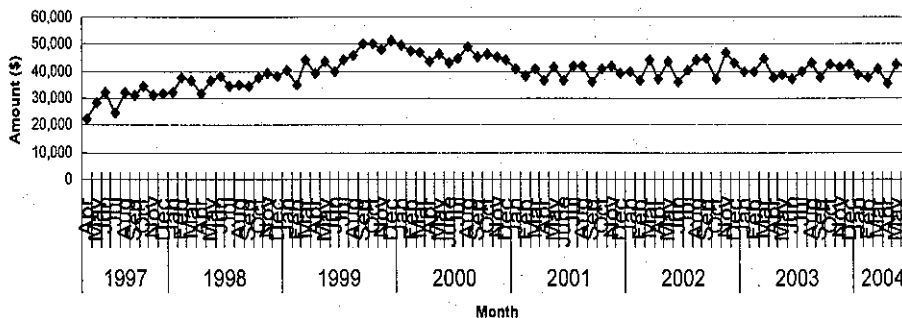


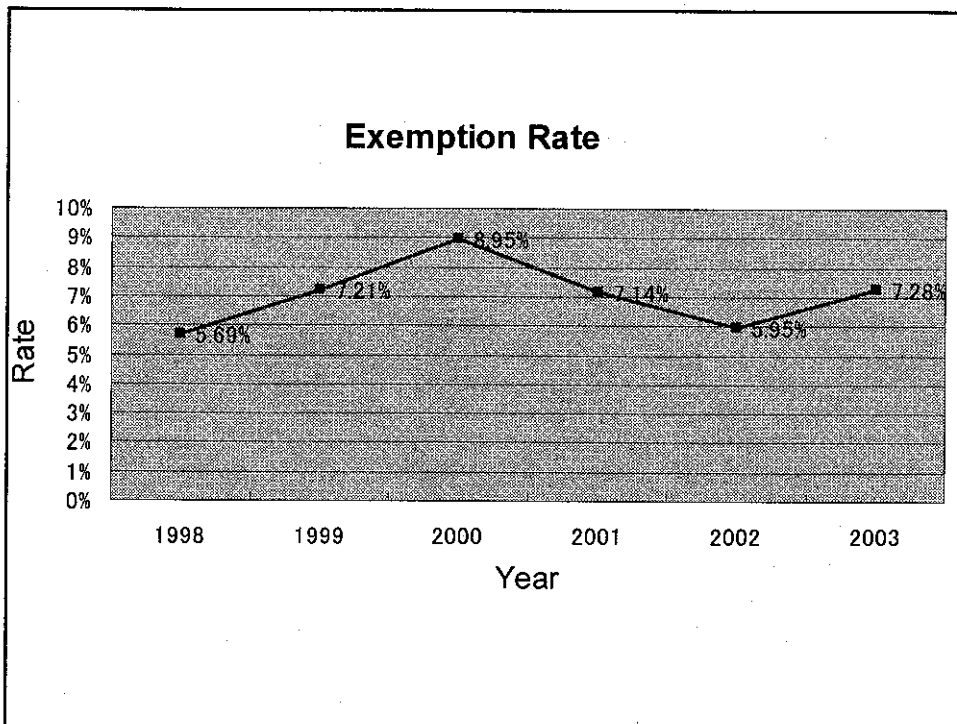
Test items in the laboratory

	1998	2004
Hematology	7	13
Serology	2	8
Biochemistry	0	6
Stool parasitology	1	1
Urinalysis	4	4
Microbiology	0	2
Cytology	0	1
Total	14	35

Source: Lab. records in NMCHC

NMCHC Userfee Monthly Income <FY1997-2004>





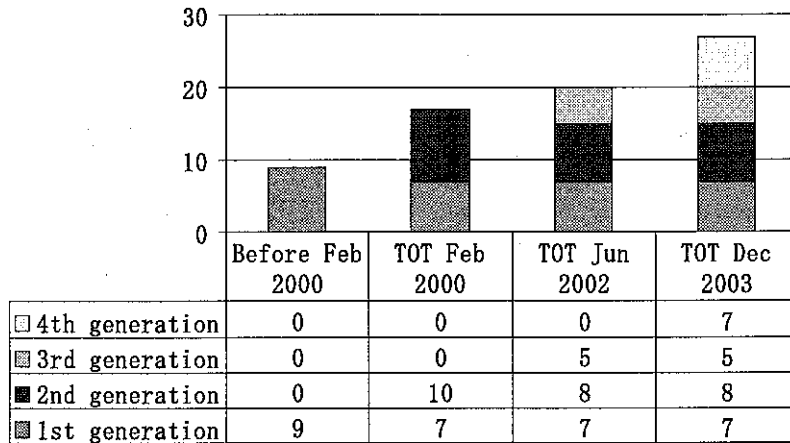
Training in ICU

Outcome 2

The National Maternal and Child Health Center as the national training centre is further strengthened.

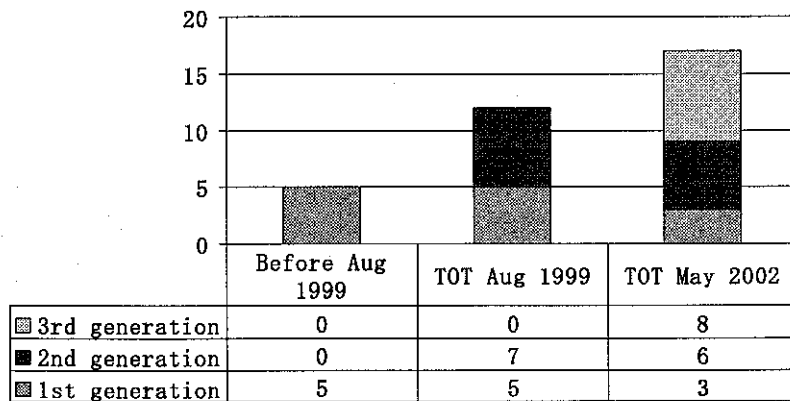
Serious case study

Number of MW/NS trainers after TOT (As of June 2004)



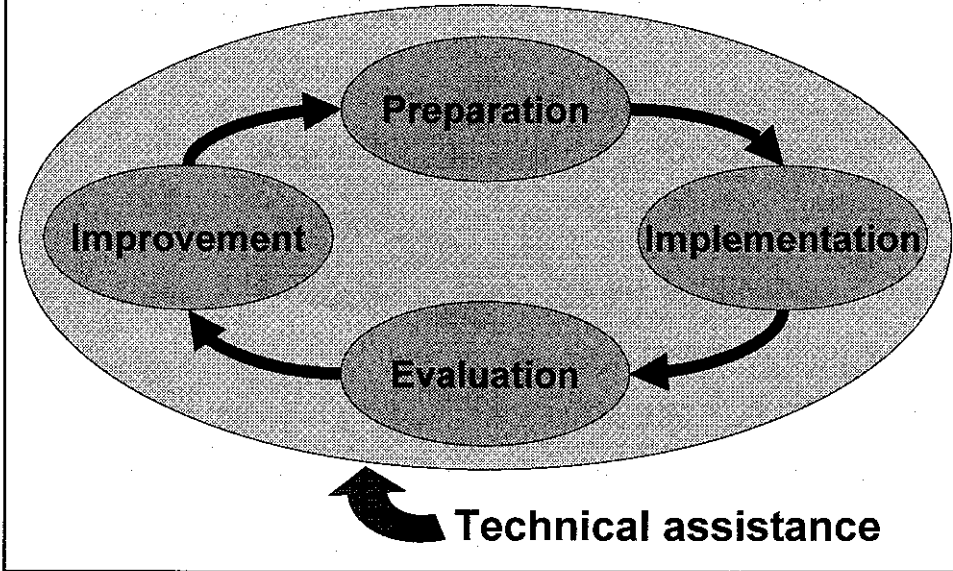
source: training unit record in NMCHC

Number of doctor trainers after TOT (As of June 2004)

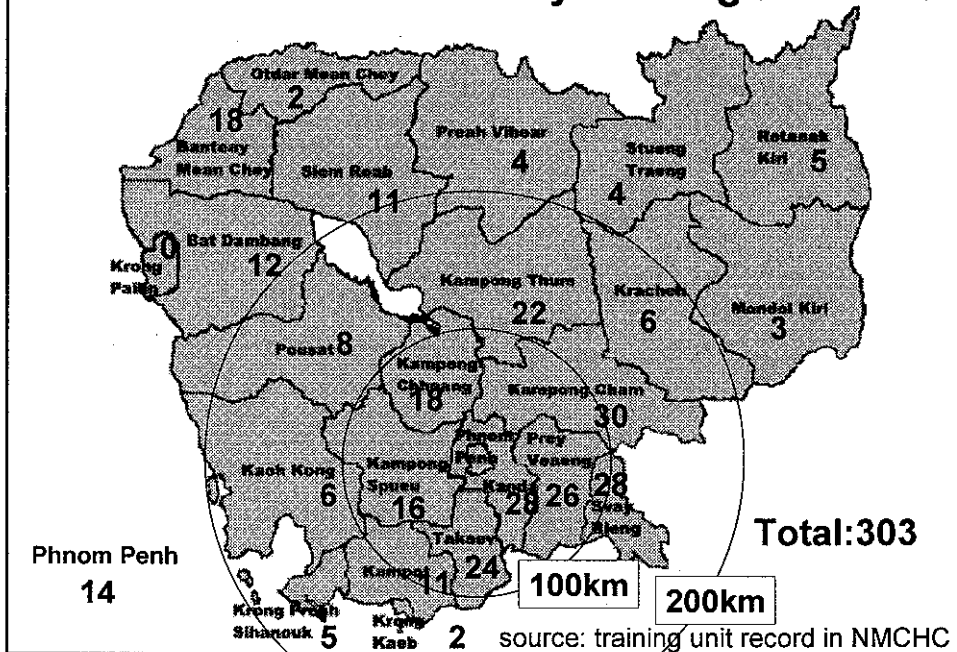


source: training unit record in NMCHC

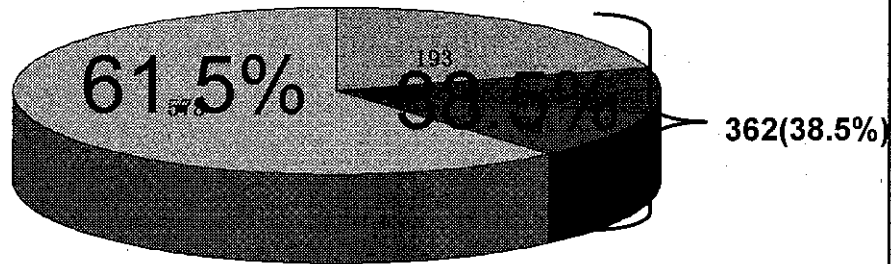
Training cycle



Health centre midwifery training (as of June 2004)



The number of HCs with at least one trained midwife

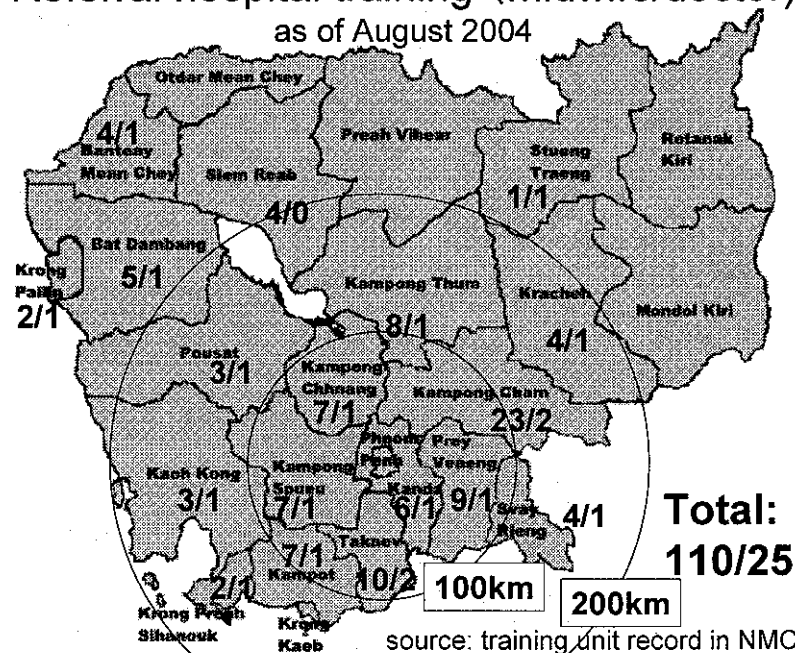


by NMCHC
 by LSS
 by 4 months
 no trained MW

Out of 940 HCs, 38.5% have at least one trained MW.

source: database, Dept. of HRD in MOH

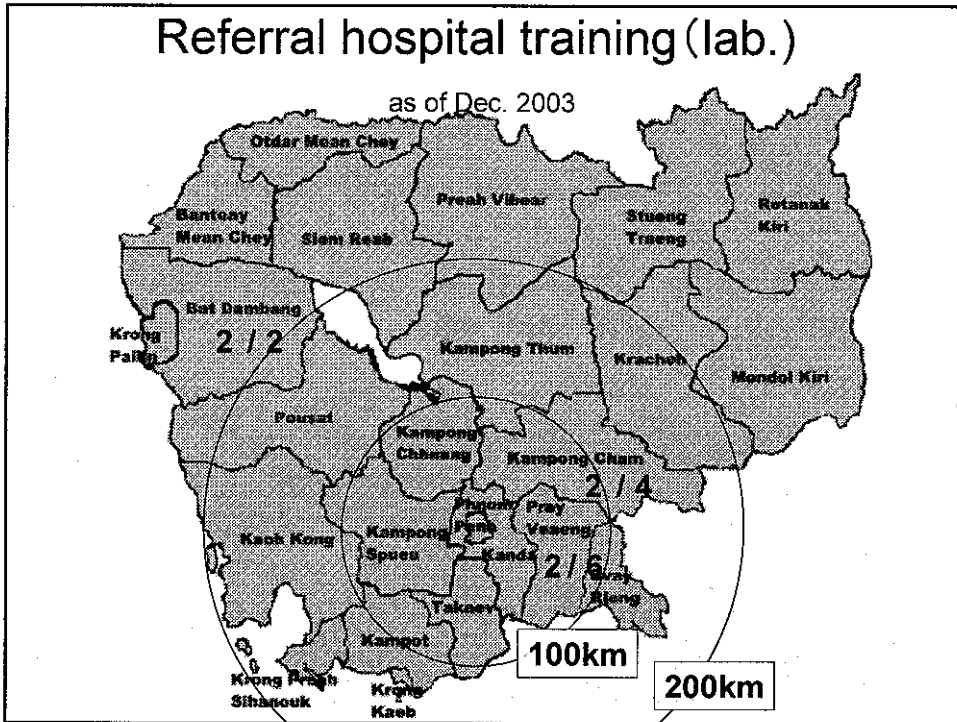
Referral hospital training (midwife/doctor) as of August 2004



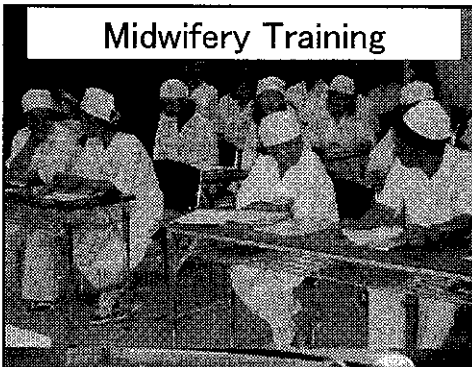
source: training unit record in NMCHC

Referral hospital training (lab.)

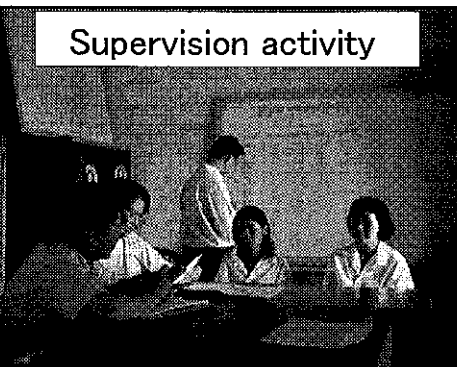
as of Dec. 2003



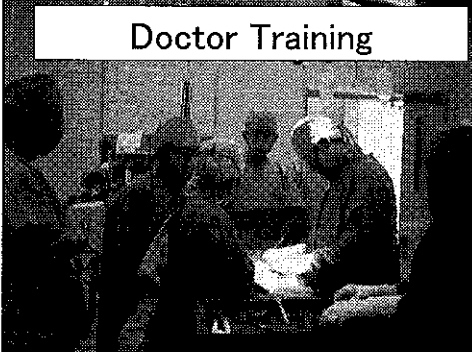
Midwifery Training



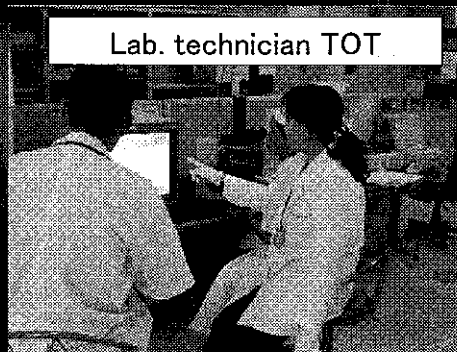
Supervision activity



Doctor Training



Lab. technician TOT



Outcome 3

Functions of the National Maternal and Child Health Center as national programme implementation and collaboration organization are strengthened to support national policy making.



The number of Training sessions for PMTCT counselors

	2001	2002	2003	2004 (-Jul)	Total
Counseling Training	1	2	5	2	10
Counseling Trainer TOT	0	1	0	1	2
Breast Feeding Training	0	0	2	0	2
Infant Feeding Training	0	0	1	1	2

source: PMTCT secretariat record

The number of trained counselors

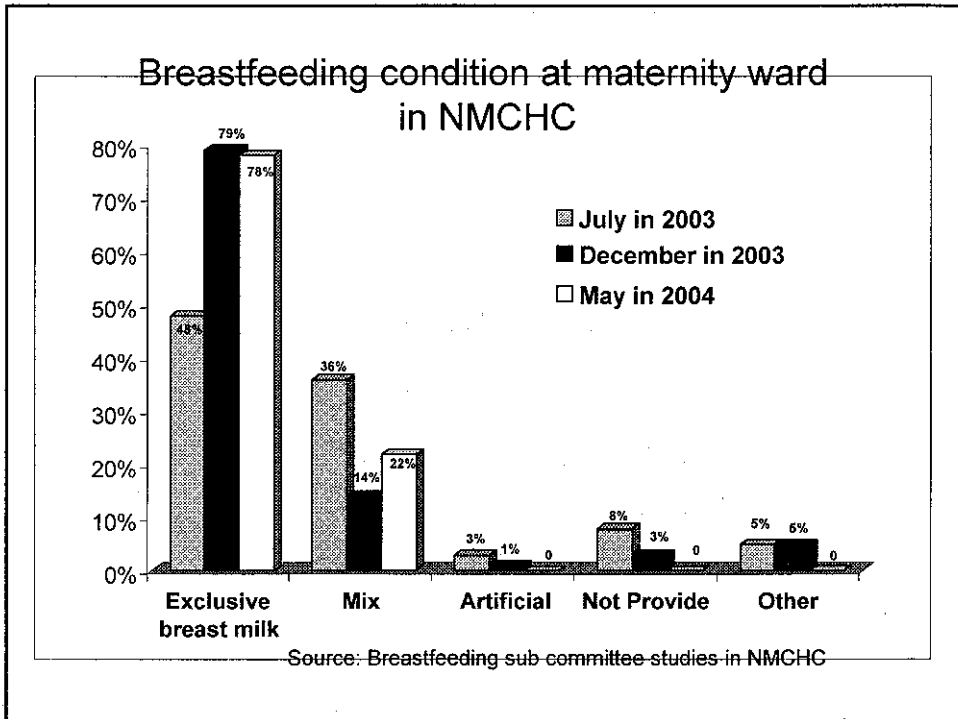
	2001	2002	2003	2004 (~Jul)	Total
NMCHC (counselor)	10	7	4	5	26
NMCHC (trainer)	0	6	0	1	7
Cambodia (counselor)	10	15 (BB 8, NMCHC 7)	60 (BMC 10, SVR 9, PST 9, MRS 6, NMCHC 4, BB 2, RHAC 20)	30 (NMCHC 5, KGT 9, KK 9, Bakan 7)	115
Cambodia (trainers)	0	6	0	3 (NMCHC 1, BB 1, SVR 1)	9

source: PMTCT secretariat record

The number of VCT attendees

	2001	2002	2003	2004 (-Apr)	Total
NMCHC	83	1131	1804	1306	4324
Cambodia (incl. NMCHC)	83	1131(NMCHC)+ 407(BB) =1538	1804(NMCHC)+11 33(BB)+ 411(PST)+ 421(BMC)+ 556(SVR)+ 278(MRS) =4603	1306(NMCHC)+44 5(BB)+ 283(PST)+ 515(BMC)+ 222(SVR)+ 219(MRS) =2990	9214

source: PMTCT secretariat record



Sector Wide Management (SWiM)

- **MOH**
 - COCOM meeting
 - MCH subCOCOM
 - Medical Equipment sub COCOM
 - Laboratory sub COCOM
 - Midwifery Training Working Group
 - Human Resource Development Working Group
 - PMTCT(Prevention of Mother-to-Child Transmission of HIV) Technical Working Group
 - Medical Equipment standard Committee
 - Civil Works Committee
- **WHO**
 - Partners meeting
- **UNICEF**
 - Provincial Health Advisor meeting

Outcome 4

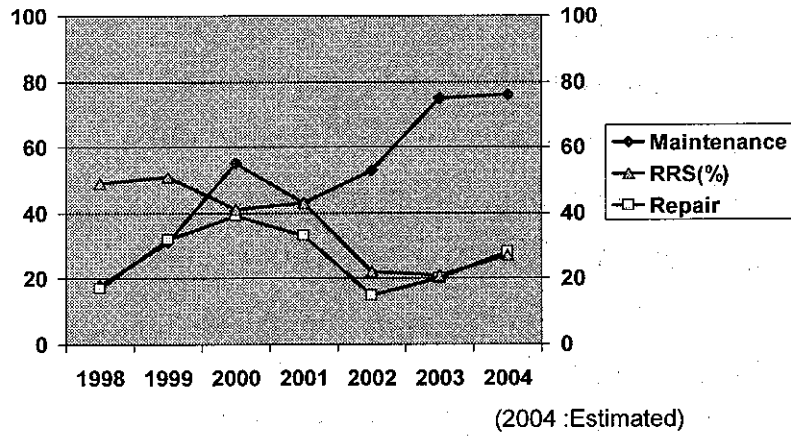
Hospital Facility Management at
NMCHC, National and Referral
Hospitals are Improved

NMCHC

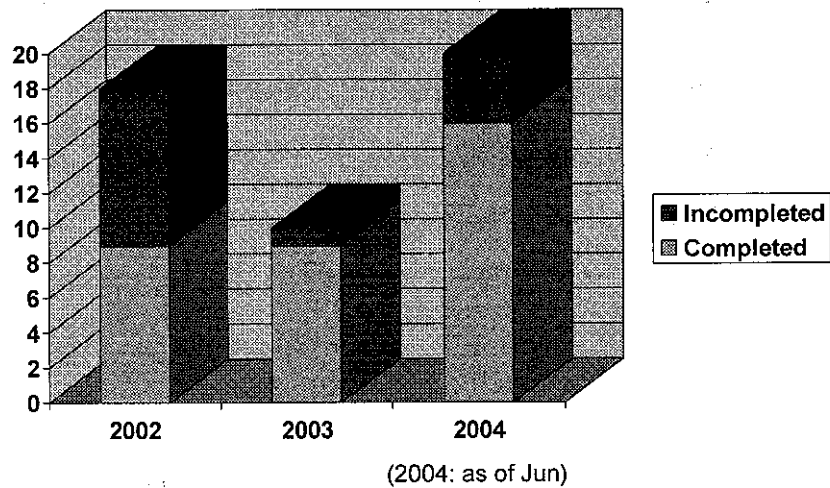
- Medical Equipment Utilizing Rate (%)

	Grant Aid 1993		Grant Aid 1996		JICA Project 1995- 2002	
	No.	Cost	No.	Cost	No.	Cost
1998	62	46	94	95	--	--
1999	85	84	94	91	--	--
2000	86	87	93	91	83	73
2001	89	87	94	91	88	95
2002	89	87	95	91	88	88
	All Equipment (Purchased by JICA, MoH, NMCHC, Others)					
	No.	Cost				
2003	93	95				

Repair and Maintenance



External Service for Maintenance of Medical Equipment



Cooperation With MoH (4)

Training on Medical Equipment Management (NMCHC Staffs)

- Maintenance of Medical Equipment
 - 2 persons X 3 month, in Sri Lanka
 - Management of Medical Equipment
 - 1 person X 2 month, in Japan
 - Operation of X-ray Equipment
 - 2 persons X 2 weeks, in Cambodia
 - Operation of Database Software
 - 2 person X 3month, in Cambodia
- Coperation With MoH(5)

Training on Medical Equipment Management (External Services)

- Doppler Operation, Maintenance
- Incubator Operation, Maintenance
- X-Ray Basic Operation on site

Coperation With MoH(6)

HSSP (Health Sector Support Project)

- CPA Building Guideline
- CPA Medical Equipment Standard
 - CPA1, CPA2 and CPA3
- MPA Medical Equipment List

Cooperation With MoH (7)

Promotion of Medical Equipment Inventory System

- Collaborated with GTZ
 - Physical Assets Management Inventory System
- Pilot Project
 - Kompomg Thom Referral Hospital - Completed
- Problems
 - Incomplete Database Programming
 - GTZ Withdraw
- Planning to promote New Inventory System

Cooperation With MoH(8)

JOINT EVALUATION WORKSHOP, August 27, 2004

Output-1

Activities	Duration/Frequency	Problems Encountered	Reasons	Counter Measures taken	Remaining Tasks
A. Function of Administrative Bureau is further strengthened					
- Management Cycle is sufficiently used to improve general management		- How do we control a good staff?	- For improving the quality of services in NMCHC	- MoH has to set the regulation - MoH has to give direction to NMCHC	- Strengthen the internal regulation
- Job descriptions are appropriately revised.		- In-service training are not conducted regularly	- Lack of budget - Not enough time (each staff has many other jobs)		- Make budget plan
- In-service staff training is further strengthened					
- Hospital maintenance system is well established					
B. Function of Accounting Bureau is strengthened					
- Accounting-staff improve their knowledge and skill		- Some jobs can't be completed on time	- Number of skilled staff is limited - Working time is short (some staff work only morning time)	- MoH has to consider distribution of staff	- Reduce procurement procedures, by using User ~Fee
- Poor patient's case is well managed		- Materials from MoH are not on time - Consumption of materials is not appropriate.	- Procurement takes a long procedures - Budget is not enough - No way to control budget - New activities were introduced	- MoH & MEF solve - Wards/services have to consume materials appropriately	
C. Pharmacy & Para clinic division are further strengthened					
- Para clinic introduces new test		- Drug supplies are not enough	- Some items of drugs are not available at local market	- MoH helps	- Continue to improve
- Appropriate Drug & Materials management		- Para clinic result are late - Can't fill out the request form	- Head of laboratory and Para-clinic do not undertake their jobs	- Strengthen staff's responsibility	

Activities	Duration/Frequency	Problems Encountered	Reasons	Counter Measures taken	Remaining Tasks
D. Clinical & Nursing Divisions Patient care is improved and standardized	- 2001-2004, the Divisions have conducted monthly meeting regularly - We have conducted meeting regularly	- Clinical practice is not standardized yet - Junior staffs do not have appropriate knowledge & skill - Job description is not good	- Some protocols do not exist in Clinical Division - Job disciplines aren't performed	- Continue to develop the protocols & guidelines - Continue to conduct training	- Complete job descriptions
- Infection control committee improved its activities		- The number of wound infection cases are still high	- Monitoring has not been done regularly - Hand washing is not done correctly - Staffs do not change behavior - Staffs do not perform their task	- Monitoring should be regular - Microbiology control of infection was conducted - Advice from JICA Expert	- Set up infection Control Team (ICT) - Complete Bacteriology of control infection with JICA - More improvement for reaching the satisfactory level
- Safety Blood Committee improved its activities	Internal SBT flow is not completed	- Selling blood still takes place - Lab-staff doesn't collaborate with Safety Blood Committee - Blood does not come on time	- Blood isn't supplied appropriately according to request - NBTC doesn't have enough blood	- Lab-staff of NMCHC and NBTC's staff have to collaborate each other	
- Clinical Research is better conducted		- There is no research committee (Clinical research) - There is lack of updated document	- We have no human resource - We don't have information system	No measures were taken	- Need to set up research committee - Need advice from JICA expert

Activities	Duration/Frequency	Problems Encountered	Reasons	Counter Measures taken	Remaining Tasks
E. Function of Information and Research division					
- Patient document is rearranged and its management's improved	After 2002	- Can't keep secret of patient document - Patient documents are still incomplete	- Patient document hold by the patient from Technical Bureau to ward - Physicians do not take responsibility	- Requested document referral system from Technical Bureau to Ward - Regulation is there, but physicians do not follow	- Create transfer patient document system - Physician have to follow regulation
F. Appropriate in-house training courses are conducted					
- Provided training for doctors and midwives and other health staff at referral hospitals and health center	- Referral hospital midwife training is conducted twice a year - Health center midwife training is conducted once a year - Birth spacing provider training is conducted twice a year		Our capacities are limited	- Training master plan is developed - Training is conducted, in collaboration with HRD and stakeholders	- 64.5% of health center midwife should be trained - 5 training courses for referral doctors should be provided - >35 training courses referral hospital midwife (CPA2 + 3) is needed
- Pre-service training courses for midwife students (practice) are provided	- Received students of 1 year post basic midwife training 3-4 groups/year; 3 weeks/group - Received trainees of 4 months course training	- Some students have dropped out from their practice - Some students do not come for night practice	- They work for private clinic	Developed regulation	
- Regular meeting/conferences among hospitals are conducted	- Meeting is conducted for one time	- Number of participant is limited	- Budget is limited		

Output-2

Activities	Duration/Frequency	Problems encountered	Reasons	Counter measures taken	Remaining tasks
A. Training management is improved					
Training unit is strengthened with Training cycle	<ul style="list-style-type: none"> - Conduct weekly meeting of Training Unit staff - Training unit has developed its job descriptions - Training activity is reported to Steering Committee monthly 	<ul style="list-style-type: none"> - Unable to conduct regular training after TOT - Insufficient teaching materials - Capacity of tutors is limited - Inappropriate trainees were selected - PHD was late to submit application of trainees to NMCHC - Training curriculum was not standardized 	<ul style="list-style-type: none"> - Arrival of National budget from government delayed - Lack of budget for training at provincial level - Lack of budget to upgrade tutors' capacity - Some tutors changed or moved to other wards - Collaboration between provincial level (PHD, OD) and Training Unit is poor 	<ul style="list-style-type: none"> - Made request for PAP budget - Arranged budget by JICA - Requested HSSP budget - Revised lesions - Made recommendations to PHD regarding selection of trainees, etc. - CPA curriculum is developed - Laboratory TOT (for 5 provinces) is planned 	<ul style="list-style-type: none"> - More trainings to be provided by Training Unit - Complete revising CPA curriculum
B. Appropriate and sufficient trainers are raised					
Trainings of trainer are sufficiently conducted	<ul style="list-style-type: none"> - TOT for doctor and midwife is conducted once a year 	<ul style="list-style-type: none"> - Supervision to trainees could not be conducted sufficiently - Supervision covers only 46% of RH midwives and 54% of HC midwives 	<ul style="list-style-type: none"> - Number of coverage province is small (ex. only 3 provinces have laboratory trainers) - Time is limited 	<ul style="list-style-type: none"> - Planned to conduct laboratory TOT for 5 provinces - Planned to increase frequency of supervision 	<ul style="list-style-type: none"> - 15 provinces of laboratory trainers needs to be trained - 2/5 of doctor trainees remaining to be supervised - 46% of health center midwife trainees remaining to be supervised - 54% of referral midwife trainees remaining to be supervised

Activities	Duration/Frequency	Problems encountered	Reasons	Counter measures taken	Remaining tasks
C. Appropriate training courses are conducted					
- Provide training for doctors and midwives and other health staff at referral hospitals and health center	- Referral hospital midwife training is conducted twice a year - Health center midwife training is conducted once a year - Birth spacing provider training is conducted twice a year	- Coverage of health center midwives is 38.5% - Referral doctors: 25 among 51 are trained. - CPA2: 52 among 195 are trained - CPA3: 95 among 532 are trained	Our capacities are limited	- Training master plan was developed - Training was conducted, in collaboration with HRD and stakeholders	- 64.5% of health center midwife should be trained. - 5 training courses for referral doctors should be provided - More training courses for referral hospital midwife (CPA2 + 3) are needed
D. Pre-service training course for midwife students (practice) are provided	Received students of - 1 year post basic midwife (training 3-4 groups/year; 3 weeks/group) - Received trainees of 4 months course training	- Some students have drop out their practice - Some students do not stay during night practice	- They work for private clinic	Developed regulation for student practice	
E. Regular meeting/conferences among hospitals are conducted	- Meeting is conducted for once a year (Symposium)	- Number of participants is limited	- Budget is limited		

Output -3

Activities	Duration/Frequency	Problems encountered	Reasons	Counter measures taken	Remaining tasks
A. NRHP on Safe motherhood is well implemented and expanded to other provinces.					
- CPA Midwifery curriculum is updated.	- CPA Technical WG: weekly meeting for 18 weeks in 2004	- TWG could not conduct meeting regularly.	- Members of TWG have many other jobs.	- Duration of TWG meeting have been extended	

Activities	Duration/Frequency	Problems encountered	Reasons	Counter measures taken	Remaining tasks
<ul style="list-style-type: none"> - Drs, MWs at NMCHC, RHs, and HCs are trained sufficiently based on the curriculum. 	<ul style="list-style-type: none"> - RH Doctor training: one course a year, 12-weeks/course. - Conducted Training <ul style="list-style-type: none"> 1- HC, MWs 1 course/year, 4 weeks/course 2- RH, MWs 2 courses/year, 5 week/course 	<ul style="list-style-type: none"> - Time is limited for training. - Difficult to get national budget. - The human resource isn't enough. It is difficult to find client for practice, during training 	<ul style="list-style-type: none"> - Training can't be provided to many trainees at one time. 	<ul style="list-style-type: none"> - JICA supports 	<ul style="list-style-type: none"> - More training courses need to be conducted and need to continue on going jobs. - Government has been taking over the responsibility - Decentralization system will be used. - Monitoring and evaluation system needs to be continued and improved.
B. PMTCT is well implemented and expanded to other provinces					
<ul style="list-style-type: none"> - Training guideline for PMTCT are established <ul style="list-style-type: none"> • Counseling training • TOT (counselors) • Infection control - Trainers counselors were trained sufficiently at MCH, RH and HC. 	<ul style="list-style-type: none"> - Each PMTCT counseling training course is conducted for 2 weeks, and its frequency is depending on sites. - Two counselor TOT courses are conducted, 2 weeks/course - Conducted training on infection control for 5 days, depends on sites 	<ul style="list-style-type: none"> - Human resource isn't enough (lack of trainers) - Provinces are late to send the report to NMCHC 	<ul style="list-style-type: none"> - Program is expanded rapidly - TOT isn't enough - Counselors are lack of experiences (inappropriate counselors were chosen.) - Communication between the secretariat and sites isn't good enough. 	<ul style="list-style-type: none"> - TOT has been conducted. - Needs assessment of PMTCT has been improved. - Supervision to the field has been conducted. 	<ul style="list-style-type: none"> - Finalize PMTCT training curriculum package. - PMTCT needs more TOT - Decentralization of management should be used, and training package for PMTCT's curriculum should be developed. - OI and ART should be provided to patients - Improve monitoring and evaluation system.
<ul style="list-style-type: none"> - PMTCT program secretariat was established in NMCHC. 	<ul style="list-style-type: none"> - PMTCT secretariat was established in November 2001 	<ul style="list-style-type: none"> - Staff is lack of management skill 	<ul style="list-style-type: none"> - PMTCT training package does not include management 	<ul style="list-style-type: none"> - PMTCT semi-annual meeting is conducted - PMTCT has discussed with TWG. 	<ul style="list-style-type: none"> - Provide training on management

Activities	Duration/Frequency	Problems encountered	Reasons	Counter measures taken	Remaining tasks
C. Collaboration with NNP on IYCF is satisfactory					
Midwives are trained based on guidelines	- TOT is conducted for 2 weeks/course - Breastfeeding is conducted training for 1 week/course	- Trainers are lack of training experience			- PMTCT needs to train counselor on IYCF.

Output-4

Activities	Duration/ Frequency	Problems	Reasons	Counter Measures Taken	Remaining Tasks
A. Medical equipment maintenance and repair at NMCHC improved					
Maintenance of medical equipment and facility is well conducted	- 1997-2004 - The maintenance is conducted according to regular maintenance schedule (weekly, monthly, quarterly, 6 monthly, yearly) 1998-June 2004, over 313 events of maintenance were conducted (for medical equipment)	- Engineering staff is still lack of skills in repair of particular equipment - Inappropriate operation by users caused equipment failure.	- Delayed arrival of national budget	- Engineering's staffs are sent to domestic and overseas training - Operation and maintenance training to users is conducted - Survey test, monitoring and calibration of equipment are conducted - Appropriate supply of spare parts is planned	- Refresher training to engineering staffs is needed - A clear oversea procurement flow needs to be set up - Further strengthening of users by training and monitoring needs to be continued
Repair of medical equipment and facility is well conducted	- Repair is conducted as faulty of equipment occurred 1998-June 2004, 170 events of repair were conducted (for medical equipment)				

Activities	Duration/Frequency	Problems encountered	Reasons	Counter measures taken	Remaining tasks
Installation of new equipment, maintenance or repair, in collaboration with supplier is strengthened					
B. Necessary guidelines/ textbooks are prepared and disseminated					
Textbook for maintenance/ repair methods are prepared	- In 2001, 2002 and 2003, guidelines and textbooks were distributed to PHD and referral hospitals	- Recipients do not understand about contents in the guidelines/textbooks - Lack of budget for promotion of guidelines/textbooks	- Technical terms make recipients of guidelines/textbooks difficult to understand	Found donor (JICA)	- After installation of new equipment, necessary operation and maintenance manuals should be given to users - Guidelines /textbooks should be printed out and promoted more
Guidelines/textbooks are disseminated					
C. National workshop is well established					
External services is provided sufficiently	- The national workshop was established in 2001 2002-now, external services has been provided to other public hospitals and institutions according to requested	- National workshop does not have sufficient manpower - National workshop does not have: a) transportation fee b) spare parts stock - Quality of maintenance and repair is still limited - Development of data-base for medical equipment is incomplete - Users have inadequate knowledge on operation of equipment	- National workshop does not have any engineers in the field of bio-medical engineering (staff level) - Government supplies not enough budget	- Seminar on medical equipment management has been conducted - Collaboration with JICA has been strengthened	- Medical equipment management skills for engineering staffs need to be further strengthened - Skills in maintenance and repair of medical equipment need to be further improved - Inventory system needs to be completed - Workshop and tools (for external service) are needed - More training to users is needed

Activities	Duration/Frequency	Problems encountered	Reasons	Counter measures taken	Remaining tasks
C. Training and seminar are provided by ME staff					
Seminar on medical equipment management is conducted sufficiently	- Medical equipment workshop was conducted twice, in 2002 and 2003	- Lack of budget - Lack of human resources		- Found donor (JICA) - Trainings for provincial engineering staffs were conducted	- Trainings to provincial engineering staff need to be continued - Contents of (maintenance-operation) manuals should be revised. - Teaching skill of ME staff needs to be improved
Medical equipment/facility maintenance staff training at RH are conducted	- Doppler training for users was conducted in 2003				
Operational training of installed equipment is well conducted	- Incubator training for users was conducted in 2004 - Short-duration trainings on basic knowledge were provided to users at provinces				
D. MOH activities					
PAM inventory system	2003-2004 3 months	GTZ withdraw Data base is incomplete	Program is complicated. No expert in PC skill		Develop a complete program
ME inventory system	2004-present		Not enough budget		Training
CPA equipment standard list	2003 for CPA 3 and 2004 for CPA 1&2	Budget lines	No national budget	Negotiated with UNICEF and HSSP	Review the list
CPA guidelines	2001-2003				Need update
CPA building guidelines	2003.7-12 (for 6 months)				Must disseminate
Review specification equipment list for MPA	2003.7 -8 (for 2 months)				Review and make a standard for national use

Contents of Discussion and Presentation in the workshop

Output 1

1. Function of Administration Bureau

Administration Bureau has a difficulty to manage staff in National MCH Center. Ministry of Health that should give idea on staff management to NMCHC. In -service training courses are not conducted regularly, because we lack of budget and have not enough time. The bureau has to make budget plan.

2. Function of Accounting Bureau

Accounting Bureau has a difficulty to complete the job on time, because it has a small number skilled staff. It is advisable that Ministry of Health to provide skilled staff to NMCHC. While NMCHC uses a lot of materials, it has not enough budgets and also created new activities. So all services have to save and reduce their consumption and use user fee to solve this mater.

3. Pharmacy & Para clinic division

Drug and Materials management are not appropriate, because the supplies aren't enough. Some are not available at the local markets, so Ministry of Health should assist. Para clinic's results are so late, and they did not fill in the request form. On the other hand, head of laboratory doesn't undertake his job, so that we have to strengthen Lab's staff responsible.

4. Clinical & Nursing Division

Clinical does not have clinical protocol, so we have to continue to develop protocols. Junior staffs do not have appropriate knowledge and skill, so we need to conduct more training. Staffs do not follow job descriptions, so we have to fulfill job descriptions. Infection Control Committee meeting has been conducted regularly. However, but some staffs do not wash hands correctly, so that we have to conduct monitoring regularly and set up Infection Control Team (ICT). Safety Blood Committee improved its activities. It conducts meeting regularly. However, we still could not receive appropriate blood as we requested.

Output 2

Major topics of group members were about: Training schedule; Meeting schedule; Job description; Problem encountered; Number of student practiced in NMCHC; Number of RH MW trained in NMCHC; Problem of student during clinical practice; Problems encountered and remaining task.

Activities of training unit have followed the training cycle. After training they conduct supervision workshop, evaluation, review lesson, pre training workshop, were conducted. After training, post training workshop and pre-supervision workshop were also conducted. NMCHC has provided training to Health center (HC) midwives for one course per year, Referral Hospital (RH) midwives two courses per year and RH doctor one course per year that supported by JICA, and trained TOT of MW/NS and doctor of NMCHC for three generations. Training Unit conducted supervision once a year on trained midwives and

doctors, interviewed former trainees, and gave feedback to trainee and PHD. This year they have collaborates with MoH to develop the CPA curriculum.

There were the problems such as trainee selection (i.e. inappropriate criteria), sending same midwife to be trained by LSS course, delayed to submit the application and insufficient number of trainer and tutor, and trainees job assignment at their job (i.e.. after training some of them transferred). Training unit of NMCHC cannot cover all HC or RH, until now. It trained 52 trainees on CPA 2 and 95 trainees CPA3. Supervision covered only 46% of RH MW and 54% of HC MW because time is limited. To solve these problems, Training unit of NMCHC should:

- Strengthen a relationship with PHD to solve problem.
- Make training master plan
- Try its best to reach 64.5% of HC MW, 5 training course for RH doctor and 35 training course for RH MW.
- Conduct regular meeting and conference

Output-3

Members of the group discussed on the process of project implementation in the last five years. They have taken time for NRHP because there are many activities on it such as family planning, Safe-motherhood, CPA, PMTCT, Nutrition, etc. Finally they decided to present three main activities because other activities were not supported by JICA MCH project.

1. NMCHC's activities on CPA refresher training and developing CPA curriculum for Referral Hospital doctors (Drs) and midwives (MWs) training course.

CPA curriculum is very important activity for NMCHC, as Ministry of Health and Human Resource Department accepted NMCHC to revise CPA curriculum for RH Drs and MWs training, and NMCHC should finish revision of CPA curriculum in 18 weeks, because HRD wants to use it as a national standard curriculum. HRD have already planned for RH Drs and MWs training, therefore HRD needs CPA curriculum as soon as possible. NMCHC has tried the best to finish revision of CPA curriculum, now. NMCHC has problems with time, budget and human resources. JICA is supporting this activity. Although NMCHC's staff members work hard, some tasks still remain unaccomplished. Government has been also taking over the responsibility. NMCHC will decentralize training, monitoring and evaluation of training courses to provinces.

2. PMTCT activities, which include expansion of the program to provinces, counselors training, TOT, Infection Control Training, etc.

Each counselor-training course was conducted for 2 weeks, TOT was 1 week and infection control was 5 days. PMTCT secretariat was established in 2001. PMTCT faces some problems such as: lack of human resources, late reporting from provinces, lack of management skill due to rapid expansion of PMTCT implementing sites; and communication between national level and provincial level. Counselors are lack of experience and communication skills. To improve such situation,

PMTCT program has conducted: TOT, need assessment, supervision, semi-annual meeting and technical working group (TWG) meeting. However, PMTCT has to continue training of trainers, decentralization of management to PMTCT implementing sites, developing PMTCT's training curriculum package and enhancement of OI and ART services. In addition, PMTCT also needs to improve and continue monitoring/evaluation by central level. Prof Koum Kanal worried about rapid expansion of PMTCT. He realized that decentralization to provincial level is a good method. But what he concerned is that whether provincial level can take responsibility by themselves. This is the point we should consider.

3. Collaboration with National Nutrition Program (NNP) on IYCF satisfactory in NMCHC.

The program needs NMCHC's staffs to involve and work closely with other sectors; especially PMTCT counselors should be trained on nutrition and IYCF.

Output 4:

1. Internal Services:

After self-introduction, he reminded that we (NMCHC and MoH) did not concentrate on maintenance, previously. We just repaired after equipment became fault. Since JICA project has introduced the maintenance concept to our NMCHC, we have changed our concept. We have concentrated more on maintenance. So far, engineering's staffs of NMCHC conduct maintenance of medical equipment and facility regularly (weekly, monthly, quarterly, semi-annually and yearly). Furthermore, operation and maintenance training to users by Engineering section staff is conducted. As the result, NMCHC could keep medical equipments in good working order and keep a high medical equipment utilization rate. However, we are still facing to some problems such as: inadequate operation by the users, knowledge and skill in repair of particular equipment is still limited, delayed arrival of national budget, etc. Many of equipments are almost over life span, which need to renew. In conclusion, we need more users and ME staff training opportunities as well as continuous support by JICA. Also, Ministry of Health should consider budget for maintenance, repair and renewal of medical/facility equipments.

2. External Services:

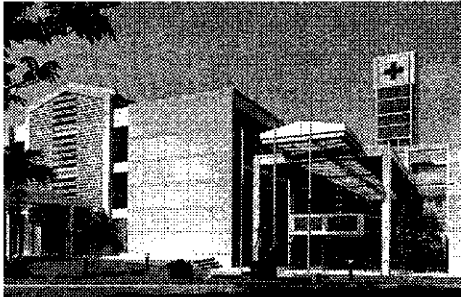
The National Medical Equipment Workshop was established in May 2001. Since then, National Medical Equipment Workshop has provided maintenance, repair, and installation of medical equipment to national and referral hospitals according to request. User training and medical equipment management seminar are conducted. Textbooks, guidelines as well as standard list are developed and disseminated. PAM inventory system is established.

National Medical Equipment Workshop faces some problems e.g. hospitals could not prepare budget for maintenance-repair service, some spare parts are not available in local market. National workshop is lack of budget for printing and dissemination of textbooks, guidelines, etc. to provinces. GTZ withdrew; therefore, PAM inventory system could not be completed. To overcome the above

problems, more training for ME staff as well as for maintenance staff at referral hospitals is necessary, a clear oversea procurement flow (for spare parts) should be set up, a new equipment inventory system should be complete, etc. Therefore, the Workshop further needs collaboration with and support from JICA.

11. 評価調査結果報告プレゼンテーション

Results of Final Evaluation



Evaluation by Five Criteria

1. Relevance
2. Effectiveness
3. Efficiency
4. Impact
5. Sustainability

RELEVANCE

- High MMR and IMR in Cambodia
- Human resource development as one of the 6 key areas in Health Sector Strategic Plan 2003-2007 in Cambodia
- Advancement of health care highlighted in assistance for poverty program and social development in Japanese ODA strategies

EFFECTIVENESS (1)

- NMCHC as the national top referral hospital
- NMCHC as a national training center
 - 303 Health Center Midwives (4 weeks)
 - 110 Referral Hospital Midwives (5 weeks)
 - 25 Referral Hospital Doctors (3 months)

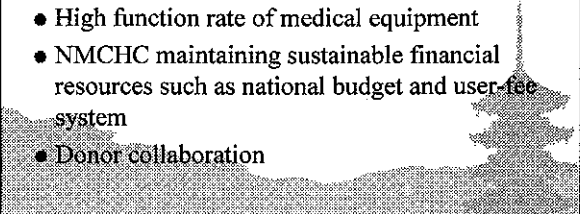
EFFECTIVENESS (2)

- Pre-test/post-test and Supervision to assure quality of training
- Collaboration with NGOs to train health personnel at regional/provincial level

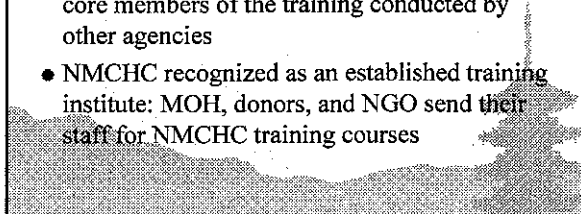
EFFECTIVENESS (3)

- Collaboration with National Programs
 - Unified training curriculum for MPA/CPA to be approved as national training course
 - Technical support to PMTCT program
 - Expansion guidelines of the Program
 - 9 trainers and 115 counselors trained
- Improved Management System of Medical Equipment

EFFICIENCY

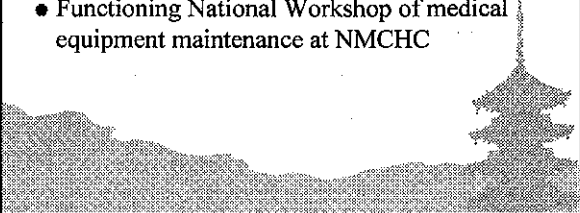
- Timely dispatch of Japanese Experts
 - Proper assignment of Cambodian counterparts
 - Third country training / experts
 - High function rate of medical equipment
 - NMCHC maintaining sustainable financial resources such as national budget and user-fee system
 - Donor collaboration
- 

IMPACT

- Expansion of the user-fee system to other hospitals
 - Ex-trainees of NMCHC training becoming core members of the training conducted by other agencies
 - NMCHC recognized as an established training institute: MOH, donors, and NGO send their staff for NMCHC training courses
- 

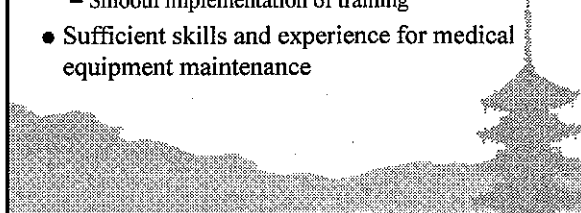
SUSTAINABILITY

Organizational

- Established hospital management system and improved clinical and para-clinical services
 - Improved training skills by the training cycle
 - Functioning National Workshop of medical equipment maintenance at NMCHC
- 

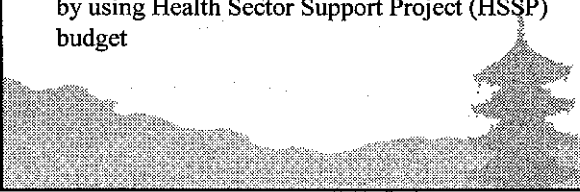
SUSTAINABILITY

Technical

- Technical knowledge and skills well transferred to the Cambodian side:
 - Revision of training materials
 - Smooth implementation of training
 - Sufficient skills and experience for medical equipment maintenance
- 

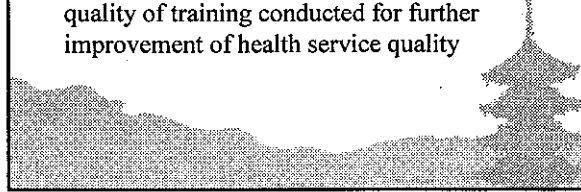
SUSTAINABILITY

Financial

- Sustainable financial management of NMCHC by increasing amount of national budget and the revenue from user-fee system
 - CPA/MPA training budget assured by MOH by using Health Sector Support Project (HSSP) budget
- 

RECOMMENDATIONS

Short-term: by March 2005

- To finalize CPA/MPA training curriculum
 - To develop a plan to prepare for retirement of main staff at NMCHC
 - To compile existing data to measure the quality of training conducted for further improvement of health service quality
- 

RECOMMENDATIONS

Short-term: by March 2005

- To further strengthen the procurement practice in NMCHC and utilize the revenue from user-fee system
- To assess difficulties and challenges for further expansion of
 - PMTCT program
 - Medical equipment management system

RECOMMENDATIONS

Long-term

Human Resource Department

- To include an expansion plan of CPA/MPA trainings in Annual Operation Plan and implement it
- To enhance RTC training function and PHD management in order to decentralize the training and to improve quality of health service in provinces

RECOMMENDATIONS

Long-term

Hospital Service Department

- To expand medical equipment management and maintenance services to referral hospitals
- To continue training of trainers (TOT) courses for lab technicians by ensuring the financial resources

RECOMMENDATIONS

Long-term

Drug and Food Department


- To shorten the lead time in the national item supply system in collaboration with MOEF

RECOMMENDATIONS

Long-term

MOH/NMCHC

- To strengthen management capacity of PMTCT secretariat, PHD and OD, and coordinate collaboration between PMTCT program and other national programs



Save the Children
Australia

Safe Delivery Strengthening Project

Funded By JICA

Memut & Ponhea Krek/Dambe Operational
Districts

Report on MW and TBA Training/Refresher
Training

June-August 2004

Background

- Cambodia has the highest Maternal and Infant Mortality rates in Southeast Asia
 - MMR: 437/100,000 live births
 - IMR: 95/1000 lives birth
 - Children under 5: 125/1000 live births (MOH Health Strategic Plan 2003-2007)
- 85% of women living in remote areas
- 80% of women assisted by TBA
- Majority of MMR/ IMR caused by malpractice due to lack of TBA/ Midwife technical skills and other pathology such: ARI, Diarrhea, Dengue Hemorrhagic Fever , Malaria, Mainutrition, TB and other vaccine preventable diseases among the children

Project Goal: To reduce Maternal and Infant Mortality Rates in Ponhea Krek/Dambe & Memut OD

- **Objective 1:** To improve safe delivery practice of midwives in PNK/D & MM OD
- **Objective 2:** To improve health knowledge of TBAs in PNK/D & MM OD
- **Objective 3:** To improve health awareness of pregnant women and their husbands concerning safe delivery at health facilities and/or by trained staff
- **Objective 4:** To improve safe delivery management of midwives in PNK/D & MM OD

Strategies

- In Community:
 - Memut OD:
 - Continue to conduct health education
 - 173 TBAs have attended refresher training
 - Remaining 179 TBA will be trained from Sep-December 2004
 - Ponhea Krek/Dambe OD:
 - Continue to conduct health education
 - 272 TBAs will be trained from August until December 2004
- For Health Staff
 - 60 Midwives (PM & SM) from both OD will be trained on safe delivery (Training curriculum will be adapted from Safe Motherhood Guidelines)
- Quality Control
 - Deputy Director Operations and SCA M&E observe certain training sessions

TBA Refresher Training for Memut OD (173 TBA)

– Refresher Training Curriculum:

- Day 1:
 - Pretest
 - Problems during Pregnancy, delivery and post delivery
 - Recognizing women at risk and emergency/timely referral
 - Hygiene and sanitation during normal delivery
- Day 2:
 - Review from previous day
 - Hygiene and sanitation during delivery
 - Practice for normal delivery



TBA Refresher Training for Memut OD (con't)

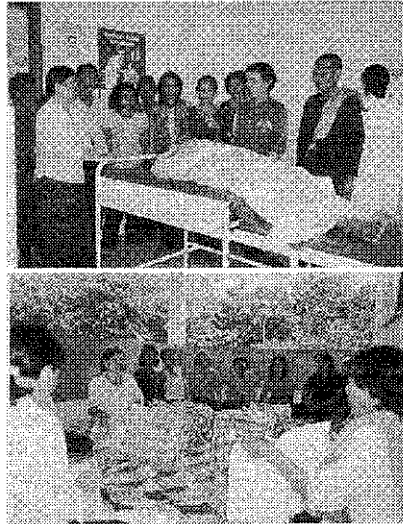
- Day 2:
 - Early breastfeeding (exclusive breastfeeding from 0-6 months)/ infant feeding
 - Malnutrition & Micronutrients deficiency
 - Immunization
- Day 3:
 - Review from previous day
 - Field practice (Health education in the community)



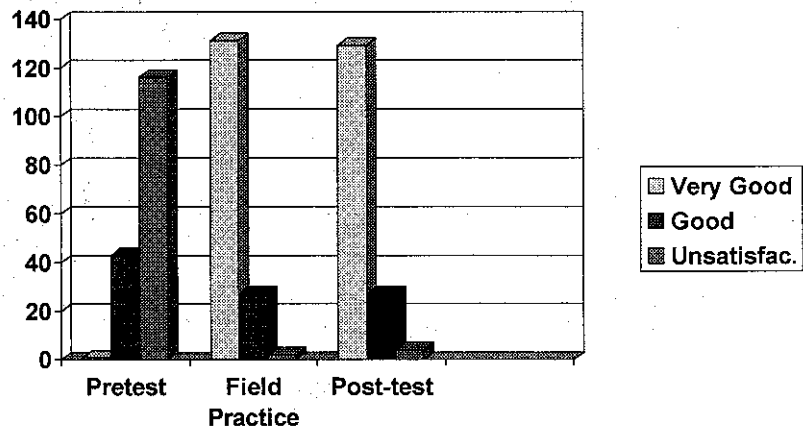
TBA Refresher Training for Memut OD (con't)

- Day 3:

- Health Center visit and demonstration of delivery process in the health center
- Review all lessons
- Post-test
- Distribution of TBA kits



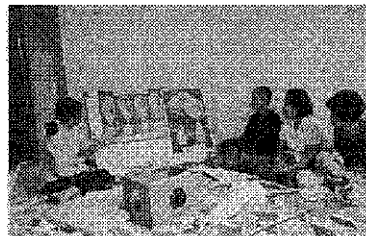
TBA Refresher Training Memut OD June-July 2004





Ponhea Krek/Dambe TBA Training

- TBA training curriculum:
 - Day 1:
 - Pretest
 - Training objectives
 - Role of TBA
 - Problems during pregnancy, delivery and post delivery
 - Identifying women at risk and timely emergency referral



Ponhea Krek/Dambe TBA Training

- TBA training curriculum:

- Day 2:

- Review of day 1
- Identifying women at risk and timely emergency referral (Con't)
- Delivery Materials: Preparation, Sterilization and Delivery Practice
- Early Breastfeeding



Ponhea Krek TBAs Training

- TBA Training Curriculum:

- Day 3:

- Review of day 2
- Malnutrition
- Immunization
- How to give health education
- Field Practice: health education in the community
- Micronutrient deficiency (Iodine, Vitamin A and Iron deficiency)



Ponhea Krek/Dambe TBA Training (272 TBA)

- TBA Training Curriculum:

- Day 4:

- Review of day 3
 - Micronutrient deficiency (Iodine, Vitamin A and Iron deficiency)
 - Care of Sick Child:
 - Fever
 - Diarrhea and Rehydration
 - HIV/AIDS and other STD



Ponhea Krek TBA Training

- TBAs Training Curriculum:

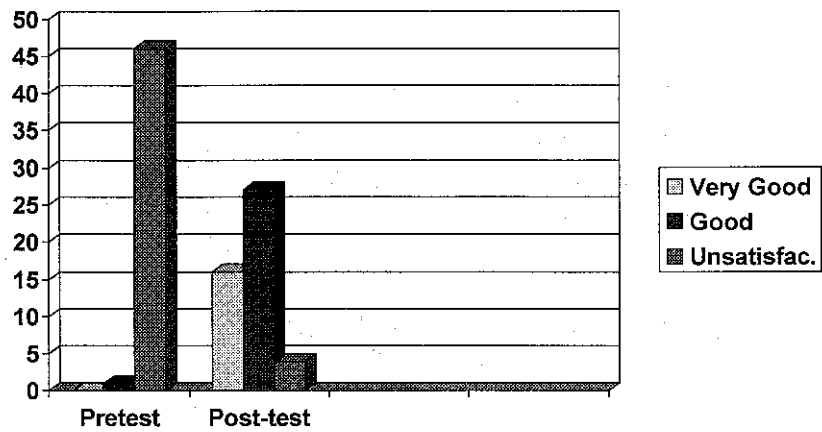
- Day 5:

- Review of day 4
 - Abortion complications
 - Birth spacing
 - Child Care and Child Rights
 - Reporting system
 - Review of the lessons
 - Post-test





Ponhea Krek/Dambe OD
TBA Training
August 2004



Constraints

- Some TBA cannot remember all danger signs and identify high risk women, even after several months of training
- Some TBA feel shy and unconfident to talk in front of an audience
- Some identified high risk women refuse to be referred to health facility for delivery



Management of constraints

- During outreach activities in the villages, HC midwife must meet with TBA after each session not only collecting data, but to discuss problem solving and remind about key messages
- Encourage TBA to talk in small groups or one on one for health education
- Conduct refresher training every 6 months
- Strengthen Health Facility midwives to have high quality midwifery skills to address demand



Recommendations

- Continue to support TBA training/refresher training while MOH cannot supply enough trained midwives to fulfill demand, especially in the remote HC
- Include examination gloves in TBA kits as HIV/AIDS transmission is now spreading to remote areas (Human Rights Issue)
- Ongoing training to update and monitor technical skills
- Midwife follow up after training to identify their needs and to support ongoing improvement of safe delivery
- Advocate for the establishment of a strong operational province wide midwife's association (already in existence in KC) by organizing regular workshops (every semester) for exchange of knowledge, experience and problem solving as to improve skills and knowledge base



13. プロジェクト関連研究業務

Domestic congresses

1. Koum Kanal. National policy of PMTCT (prevention mother to child transmission). Cambodge santé, Phnom Penh, Cambodia, Oct 2000
2. Koum Kanal, Tiv Say, Sar Polinn. Comperative study between clinical and paraclinic diagnosis of pelvic tumor at the NMCHC. Cambodge santé, Phnom Penh Cambodia, Oct 2000
3. Seang Tharith. Evaluation of intramuscular MgSO₄ use for the prevention and management of eclampsia and severe pre-eclampsia. Cambodge santé, Phnom Penh Cambodia, Oct 2000
4. Seang Tharith. Etude des sutures secondaires des plaies de la paroi abdominale post - cesarienne suppurees. Cambodge santé, Phnom Penh Cambodia, Oct 2000
5. San Chan Soeung et collegues. Perinatal outcome of hemorrhage during 3rd trimenster. Cambodge santé, Phnom Penh Cambodia, Oct 2000
6. Seang Tharith, Hy Soryaphear. A case of uterine inversion in home delivery. Cambodge santé, Phnom Penh Cambodia, Oct 2000
7. Hy Soryaphear, Hiromi Obara, Prak Somaly, Seang Tharith, Koum Kanal. Analysis of 426 Cesarean cases in the National Maternal Child Health Center from June 2000 to June 2001. Cambodge santé, Phnom Penh Cambodia, Nov 2001
8. T Vouch Chheng. Analysis of uterine fibroma in the National Maternal Child Health Center. Cambodge santé, Phnom Penh Cambodia, Nov 2001
9. Seang Tharith. Outcome of cytotec (PGE₁, misoprostole) use for 3rd trimester. Cambodge santé, Phnom Penh Cambodia, Nov 2001
10. You Sophat, Prak Somaly, Huot Khom. Activities of obstetiric anesthesia in the National Maternal Child health Center during 1998-2001. Cambodge santé, Phnom Penh Cambodia, Nov 2001
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12. Chin Cham Tach. La fonction de Chef de nursing à l'Hôpital PMI. Sante Cambodge, Phnom Penh, Cambodia Feb 2003
13. Chin Cham Tach. Experience de l'éducation à l'Hôpital PMI. Sante Cambodge, Phnom Penh, Cambodia Feb 2003
14. Ou Saroeung (Association des Sages-femmes). L'éducation des malades et des familles dans le soin: le point de vue des sages-femmes. Sante Cambodge, Phnom Penh, Cambodia Feb 2003
15. Lao Sunthareth. Antibiotics use at National Maternal and Child Health Center result of baseline survey. Sante Cambodge, Phnom Penh, Cambodia Feb 2003
16. Te kuy Chiv, Saing Sona. Prevalence and Characteristics of obstetric near miss cases at ICU / Recovery in National Maternal and Child Health Center. Sante Cambodge, Phnom Penh, Cambodia Feb 2003
17. Keth Ly Sotha. L' oxytocine et la délivrance dirigée. Sante Cambodge, Phnom Penh, Cambodia Feb 2003
18. Koum Kanal. L'accès au service de counseling et test volontaire, et du programme confidentiel de prévention de la transmission verticale mère-enfant du VIH/SIDA. Sante Cambodge, Phnom Penh, Cambodia Feb 2003
19. You Sophat. Activities of infection control committee at National Maternal and Child Health Center. Sante Cambodge, Phnom Penh, Cambodia Feb 2003

20. Keth Ly Sotha. La différente prévalence des complications obstetricales selon les conditions sociaux géographiques. Sante Cambodge, Phnom Penh, Cambodia Feb 2003
21. Koum Kanal. L'intérêt de l'auto examen du sein dans la prévention du cancer du sein. Sante Cambodge, Phnom Penh, Cambodia Feb 2003
22. Sieng Sody. Experience of neonatal follow-up at National MCH Center. Sante Cambodge, Phnom Penh, Cambodia Feb 2003
23. Koum Kanal. Etude rétrospective sur la mortalité au Cambodge. Sante Cambodge, Phnom Penh, Cambodia Feb 2003
24. Koum Kanal. Prévention de la transmission du VIH de la mère à l'enfant au Cambodge. Données épidémiologiques et présentation de la politique National. Sante Cambodge, Phnom Penh, Cambodia Feb 2003
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3. Lao Sunthareth, Suos Meas Chamroeun Sokha, Chhun Long, Tung Rathavy, Koum Kanal. National Reproductive Health Program in Cambodia. Reproductive Health Taking Care of Tomorrow's World, Australia, July 2002
4. Tan Vouch Cheng, Kakimoto Kazuhiro, Thai Leang Chou, Fujita Noriko, Poirot P.Etienne, Koum Kanal. Acceptance of voluntary counseling and testing for pregnant women in New National program in Cambodia. 14th World AIDS Conference, Barcelona, Spain, July, 2002
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