Ⅱ．巡回指導調査団報告書

1．巡回指導調査団の派遣

1－1　調査団派遣の経緯と目的

わが国は1992年から3年間にわたりカンボディア王国（以下、カンボディア）保健省に医療アドバイザーを派遣し、同国の保健医療全般の状況把握とわが方支援のあり方について調査を行った。カンボディアの母子保健状況は近隣諸国と比べて特に劣悪であり、その改善は急務であり、調査の結果、1993年11月に新たに策定された国家母子保健計画の実行、推進に対する技術協力の有効性が提言された。それに基づき、わが国に対して同計画の実施責任機関となる国立母子保健センター（National Maternal and Child Health Center）の新築とその運営体制等を強化するためのプロジェクト方式技術協力が要請された。

本要請を受けて、同センターの管理運営能力、研修活動、診断／治療水準の向上を目的とするプロジェクト方式技術協力が1995年4月1日から5年間の協力期間で開始された。

以上の経緯およびプロジェクト開始後約2年が経過し、今般完成した新センターで4月に活動が開始された。1997年度はこの新センターで、新しい組織図に基づく人員配置のもと、料金徴収制度の開始、財務管理、医薬品管理等運営体制の基盤をつくる最も重要な時期となる。このため、今般、プロジェクトの進捗状況と問題点を把握するとともに、今後3年間のプロジェクト活動計画についてより円滑な技術移転が図れるよう先方と協議することを目的として、巡回指導調査団を派遣した。また、新センター開所記念シンポジウムに参加し、調査団員による特別講演等を行うこととした。

1－2　調査団の構成

担当	氏名	所属
顧問	鴨下　重彦	国立国際医療センター総長
団長　総括	塩尻　宏	外務省経済協力局技術協力課企画官
団員　母子保健	喜多　悦子	国立国際医療センター国際医療協力局派遣協力課長
団員　産婦人科	箕浦　茂樹	国立国際医療センター産科医長
団員　母性看護	茂林　和子	国立国際医療センター看護部長
団員　新生児医療	仁志田博司	東京女子医科大学母子総合医療センター教授
団員　協力計画	林　由紀	JICA医療協力部計画課職員

1－3　調査日程

日順	月日	曜日	移動および業務
1	6月10日	火	11：00　成田発（TG641） 15：30　バンコク着
2	11日	水	11：00　バンコク発（TG696） 12：15　プノンペン着 14：00～14：45　JICA事務所打合せ 15：00～15：40　保健省表敬 16：00～16：45　日本大使館表敬
3	12日	木	国立母子保健センター開所記念シンポジウム 8：00～9：00　オープニングセレモニー ・H.E. Dr. Chhea Thang保健大臣 ・塩尻団長 ・新井JICAカンボディア事務所長 9：30～12：00　特別講演 ①Dr. Eng Huot国立母子保健センター長 "Situation of MCH in Cambodia" ②鴨下顧問 "MCH in Japan" ③Dr. Tiv Say 国立母子保健センター医師 "Ante-natal Care and Knowledge, Attitude and Practice Survey" 14：00～17：00　特別講演 ④箕浦団員 "Maternal Mortality and Ante-natal Care in Japan" ⑤Dr. Tung Rathavy国立母子保健センター医師 "Baby Friendly Hospital Initiative／Mother Education" ⑥仁志田団員 "The Principles of Neonatal Care" 18：00～19：30　シンポジウムレセプション
4	13日	金	8：00～9：00　国立母子保健センター視察 クンタボッパ小児病院視察 9：00～12：00　各部門別にカウンターパートと協議 ①運営部門（Meeting Room） 鴨下顧問、塩尻団長、喜多団員、林団員 ②看護部門（Training Room） 茂林団員 ③臨床部門 箕浦団員（Staff Room F） 仁志田団員（Staff Room M） 14：00～16：30　プロジェクト専門家との打合せ 16：30～17：00　シンポジウム閉講式出席
5	14日	土	資料整理
6	15日	日	同上
7	16日	月	9：00～12：00　保健省および国立母子保健センターとの協議 (Joint Coordinating Committee) 15：00～15：30　JICA事務所報告 16：00～16：30　日本大使館報告 18：15～18：30　ミニッツ署名交換
8	17日	火	13：15　プノンペン発（TG697） 14：20　バンコク着 22：15　バンコク発（NH916）
9	18日	水	6：15　成田着

箕浦団員、仁志田団員の16日以降の日程

7	16日	月	9：00～12：00 16：45 17：50	国立母子保健センター内視察、保健省協議 プノンペン発（TG699） バンコク着
8	17日	火	9：40 18：00	バンコク発（TG670） 成田着

1－4 主要面談者

(1) カンボディア側関係者

1) 保健省 (Ministry of Health)

Dr. Chhea Thang	Minister
Dr. Mam Bunheng	Under Secretary
Dr. Te Kuyseang	Director of Cabinet
Dr. Chor Veng Hour	Deputy Director of Cabinet
Dr. Hong Rathavuth	Deputy Chief of Medical Care Office
Mr. Huy Seth	Director of International Relationship

2) 国立母子保健センター (National Maternal and Child Health Center)

Dr. Eng Huot	Director
Dr. San Chan Soeun	Chief of Technical Bureau
Dr. Tan Vuoch Chheng	Deputy Chief of Technical Bureau
Ms. Chhing Chan Tach	Director of Nursing Division
Mr. Dek Inn	Chief of Administration Bureau
Mr. Chea Kim Long	Chief of Accounting Division

3) Council for Development of Cambodia (CDC)

Ms. Heng Sokun	Deputy Director, Cambodian Rehabilitation and Development Board

(2) 日本側関係者

1) 在カンボディア日本国大使館

内藤　昌平	特命全権大使
加藤　重信	公使
磯　　正人	一等書記官
柿田　洋一	二等書記官

2) JICAカンボディア事務所

新井　博之	所長
寺本　匡俊	所員

3) カンボディア母子保健プロジェクト

山田　多佳子	チーフアドバイザー
河合　嘉子	助産婦
藤田　直子	薬剤師
内藤　里美	母子看護
宮崎　　正	業務調整員

2．要　　約

本件調査団は、6月11日から17日までカンボディアを訪問（箕浦、仁志田両団員は都合により16日カンボディア発帰国）し、チア・タン保健大臣（Dr. Chhea Thang）に表敬したほか、マン・ブンヘン保健省次官（Dr. Mam Bunheng)、エン・フォット国立母子保健センター所長（Dr. Eng Huot）をはじめとするカンボディア側関係者およびわが方専門家と本件プロジェクトの進捗状況および今後の取り進め方等につき協議するとともに、わが国の無償資金協力によりさる3月末に完成した国立母子保健センターおよび関連施設の視察等を行った。

調査団はカンボディア側関係者および山田リーダーをはじめとする日本側専門家より、本件プロジェクトのこれまでの活動状況につき聴取するとともに、今後の取り進め方にあたっての問題点および課題につき協議し、残り3年間の協力期間内により円滑な技術移転と国立母子保健センターの運営体制の改善に向け計画内容の調整を行った。右協議の結果は議事録（ミニッツ）に取りまとめ、16日にわが方団長と先方保健省次官との間で署名交換を行った。

調査団滞在中、国立母子保健センターにおいてシンポジウムが開催（12、13日）され、保健大臣とともに塩尻団長および新井JICAカンボディア事務所長が開会挨拶を行ったほか、鴨下顧問、箕浦団員、仁志田団員がそれぞれの専門分野に関する特別講演を行った。右シンポジウムには、パキスタンで実施中の母子保健プロジェクトから仲佐リーダー率いるカウンターパート4名がJICAの技術交換プログラムを利用して参加したほか、当国の地方保健医療従事者、各国援助関係者等を含め、総勢170名あまりの参加があり、活発な質疑応答が行われるなど、当国の母子保健に対する内外の関係者の関心の高さがうかがわれた。

国立母子保健センターは、さる4月下旬にわが国よりカンボディア側への引き渡し式が行われたばかりのところであるが、今後同センターの運営体制の確立と本件プロジェクトの目標達成のためには、日本側の支援に期待するのみならず、カンボディア側も自らの問題としてその実現にいっそうの努力が必要と思われる旨を先方関係者に申し入れるとともに、運営体制の整備・改善の観点から当面以下の点に特段留意する必要があると思われる旨を示唆しおいた。

(1) 未だ建て直しの段階にある国家財政の現状を反映して、現在の同センター職員の給与手当（所長で24米ドル程度／月）では、センター業務に専念していてはプノンペンでの最低生活を維持するのも困難なレベルにある。職員の志気低下を防ぎ勤労意欲を向上させるために何らかの対策を考える必要がある。

(2) 国立母子保健センターの一組織として位置づけられているクンタボッパ小児病院（運営母

体はNGO）とわが国援助により建設された産科病院（センター事務局を含む）がそれぞれ異なった運営方法をとっているため、今後同センター全体の運営管理のあり方について再検討する必要がある。

3．プロジェクトの実施状況、諸問題および対策

3－1　運営部門

1992年3月、諸外国に先駆けて派遣されたわが国初の対カンボディアODAミッション時の記録を見ると、訪問した保健医療施設（10カ所）に共通する所見として、

① 多数の施設で基礎的な診療機器すら設置されていないか、設置されていても老朽化あるいは破損している、

② 稼働している診療機器はわずかで、その多くは東欧、旧ソ連または中国製の効率の悪い旧い形式のものが多い、

③ 器材の様式が一定していないために診療手技に統一性が保てない、

④ 医薬品など必要な資材もほとんどない、

などの記載とともに、それにも増して深刻な問題は、

⑤ 熟練した専門家、特に経験をもった指導層の不足が深刻であるが、また、

⑥ 正規の教育を受けた医師、看護婦、保健婦、薬剤師、技師などの不足、

と記載している。

これが、1992年9月に始まる保健省へのアドバイザー派遣により国家保健計画策定と特に母子保健計画立案を通じて、国立母子保健センターへの関与のきっかけであった。以来、2年間にわたる5名の保健省アドバイザーが、カンボディアの人々と協力し、国立母子保健センターを母性保健の研修拠点とする技術協力プロジェクトと、電気、上下水設備なども不備で、雨季には中庭が水没し、一階部分も浸水する廃屋に近い旧国立母子保健センターの無償資金協力による新設への協力が決まった。

国立母子保健センターは、研究を含む母子保健に関する各種機能を統括する中枢であり、各種の国家計画を起案すべき組織である。本技術協力プロジェクトは、国立母子保健センターの産（婦人）科病院部分を拠点に、討議議事録（R／D）にはうたわれている（同センターの）管理運営能力の向上、研修活動の確立、診療能力の向上を直接の目的に、カンボディアの母子の保健の改善を上位目標として、1994年4月に開始された。通常の技術協力プロジェクトと異なり、廃屋に近い旧国立母子保健センターで開始された理由は、国家復興過程にあるカンボディアで初めて建設される近代医療施設が、できるだけ早期にカンボディアの人々により管理運営されるように、新センターの竣工以前に、できる限りの技術移転を行うことをめざしたためである。

当時の国立母子保健センターは、外来、手術室、3産科病棟、1小児病棟などで、長年の慣習に従い医師、看護婦がバラバラに働いていた。

プロジェクトは、開始後、ほとんど存在しない各種制度の構築と同時に、医療、看護、物品管理など各分野の基礎的技術の移転を開始した。しかしながら、内戦時代に徹底的に破壊された近代的制度や概念の再興は、高い教育を受けた人や熟練者の放逐殺害という人的資源の枯渇したなかでは、きわめて困難な事業である。

あえていえば職員に蔓延していた無気力さは、このような「国のTrauma（心的外傷）」による後遺症といえよう。したがって、カンボディアにおける最大の問題は技術の移転に伴う困難さではなく、破壊され、消滅してしまった制度を経験していない人々に、国家復興のために近代的な制度が必要であることを理解してもらい、新しい機構を構築するための概念を移転することであり、今まで行われてきた慣習の非効率さや非科学性を理解してもらうことであり、いかに人々をその気にさせるか、また、そのような気持ちを持続させるかにつきる。

プロジェクトは、このようななかで、無償資金協力による新国立母子保健センター竣工前の技術移転をめざして、以下の諸項目が実践された。

(1) User Fee Systemの導入

従来、不十分な保健省からの予算分配と各種援助など、不安定な財源により行われていた運営を、プロジェクト後の自立継続性をもてる体制とするため、カンボディア初の全施設的有料化が開始された。

現在、主な費用は

正常分娩（切開なし入院3日）	$ 20
同上　（切開あり入院5日）	$ 40
帝王切開（入院3日）	$ 120
妊産婦検診（1回目）	$ 1.5
（2回目）	$ 1.2
（3回目）	$ 0.8
予防接種（破傷風／妊婦）	$ 0.8
（BCG、ポリオ）	$ 0.8

User Fee Systemが導入されて、まだ、1カ月の実績しかない時点での評価はひかえるべきであるが、例えば1997年度の予算を見ると、

Budget	$ 830,000
MOH	$ 290,000
User Fee	$ 360,000
JICA	$ 180,000

Expenditure	$ 832,600
Salary	$ 60,000
General	$ 330,000
(5月実績より)Social	$ 8,600
Drug & Material	$ 200,000
Staff allocation	$ 234,000 (from User Fee)

である。すなわち、5月のUser Feeは病床利用率40％程度で、その収入は約3万米ドルであった。外来患者数などは順調に増加していることからして、今後、病床利用率とUser Feeによる収入も増える可能性はある。しかし一方、例えば支出のうち、電気代は7,700米ドルであったが、年間予算の7万6,000米ドルからすれば、1カ月あたりの予算は6,350米ドルであり、支出も予測より20％多い。

したがって、今後のUser Feeによる収支は、今しばらく様子をみたうえで評価し、長期的な対応を考えるべきであろう。

なお、User Feeのひとつの目的であった、勤務者の収入補填は、現在、平均50米ドル程度と見なせるが、日本側が推定する必要人員数270名に対し、実雇用者数は380名であり、今後の運用は、スイスNGOが管理する小児病院職員への俸給を含め、適正な人員配置と適正な補填制度を確立する必要がある。

(2) 看護制度

1997年4月からの新国立母子保健センター竣工のため、新しい機構図に基づく人員配置案が作成され実施された。そのなかで、最も広く定着しているものは、看護制度である。

旧国立母子保健センターでは、3病棟の勤務体制は統一されず、また、入院患者の状態も申し送りなど、わが国では当たり前の看護体制もなく、したがって、施設全体はいうまでもなく、産科のみについても妊産婦の状態は把握されていなかった。

新しい制度では、看護部長職が新設され、多少の問題はあったが、日本人専門家も納得のうえ、Assistant doctor（準医師）の1人がその職に就いた。現体制でも、日勤（7時30分～11時、2時～5時）に加えて、4日ごとの24時間当直制が踏襲されているが、全体としての勤務表が作成され、病棟報告も行われるに至っている。

看護の内容については、なお、問題はあるが、新国立母子保健センターでの勤務体制は、今のところ、順調に根づいているといえる。

(3) 物品管理体制の整備

新しい制度による各種物品管理も開始されているが、最も効果的に運用されているのは薬剤管理である。

(4) 各種管理会議の開始

Steering committee（日本人専門家全員と国立母子保健センター幹部、毎週1回）

婦長会議（日本人看護専門家と看護部長、婦長）

カンボディアの母子保健の中核である国立母子保健センターにも、この項の冒頭に記した（1992年時のカンボディアの）問題6項目があてはまっていたが、そのうちの①～④は無償資金協力により解消したといえる。最後の2項目は技術協力により改善されるべき問題であり、すでに新しい人員配置に伴い、いくつかの機構が稼働し始めていることとあわせて、無償資金協力で設置された機器の90％以上が順調に使用されていることからすると、大きな進歩があったといえる。

特に機器使用については、途上国は先進機器の墓場という極端な言葉に示されるように、わが国など先進国からの供与機器の多くが短期間、しばしば、1カ月以内に故障し、放置されてしまっていたという事実を考えると、画期的な進歩であり、新しいODAとして技術協力を先行させた成果は、十分、達成されているといえる。

また、各種の管理機構が稼働し始めていることも、上記の残り2つの問題点に対する改善として評価し得る。しかし、すべての面について、日本人専門家の強い働きかけによる成果であり、また、しばしば日本人チームへの強い依存性が感じられ、本質的な管理機構の脆弱さは変わっていないといえよう。すなわち、日本－カンボディアからなるプロジェクトとしては一定の成果がみえるが、いわばエンジンにあたる部分は日本側に委ねられており、真の自立性、自助努力の必要性という意識は、なお、うすいとみえる。

国全体としてのtraumaからの回復は短期間になし得るものではなく、脆弱ではあるが、大きな武力闘争がない現在の治安状態が維持され、世代を超えて安定した生活が継続されてはじめて達成されよう。現在では、強制された（imposed）か、不承不承（reluctant）にみえる意識変化も、そのような経過のなかで根づくのであろう。長期的に（他の国への援助を止めてもカンボディアだけに）日本が援助を続けてくれればよいとの希望がしばしば出されたことは危険な信号とも思える。5年というプロジェクトの期限を再認識し、可能な目標を相互で確認する必要があろう。

なお、政治不穏とともに悪化してきた治安が、当プロジェクトの最大の不安要素であることも留意したい。

3－2　看護部門

プロジェクトが関与した看護部門の機能は以下のようである。

(1) 看護部組織と機能　附属資料③参照

(2) 看護部門の運営方針と各看護単位の看護目標

1) 運営方針

・質の高い母子保健サービス提供に寄与する。

・看護マネージメントの向上を図る。

2）目　標

・看護技術の強化

・ヘルス教育の推進

・患者とその家族の信頼

3）各看護単位の看護目標

・Delivery :

- To strengthen the midwife to observe the woman before delivery properly.
- To strengthen the midwife to response and effect on practicing of delivery.

・Maternity East :

- To strengthen the nursing care of mother and baby follow the manual properly.
- Should make the patient trust to the midwife or nurse.
- Should be good communication with other ward.

・Maternity West :

- Should practice the duty properly follow the prescription.
- Should speak the smoothly word to the patient.
- Take care the patient thoroughly.
- Should educate the mother every day.
- Assist to clean the room and explain how to use the toilet and throw away the garbage.
- Should have good discipline.
- The uniform should be properly and clean.
- We try to strengthen more, if there is any shortage of NC. technic.

・Gynecology :

- The uniform should be properly and clean.
- Should respect the time.
- Improve the quality of nursing care by training.
- Meeting in the ward at least 3 times a week.
- Should appoint one midwife to explain to the patient family.
- Should do hand over properly.
- Should be good communication with each ward.

・N.C.U :

- To manage the staff and train more the technical of nursing care.
- Improve on the maintenance of material and equipment.
- Improve on the communication between the other staff, midwife, physician, other ward and the patient.

・CSSD :

- To strengthen the sterilization properly to avoid getting the infection.
- Provide and receive the equipment regular time.
- Should make more compress and cotton for stocking.

・OPD :

- The staff should have good attitude.
- The midwife should get good uniform and the room should be clean.
- The midwife should respect the time and their duty.
- Should train more how to fill up on the with card and other knowledge.

・OT :

- To strengthen discipline
- To strengthen cleaning-the material thoroughly before carrying to CSSD for prevention infection.
- Grade up cleaning in the OT room.

・ICU :

- Meeting 2 times in a month for improving technic.
- Educate the staff to clean the room everyday.
- Practice the hand over and respect the time.
- Educate the midwife and nurse of good nursing care and explain to family of patient how to take care the patient.

(3) 業務基準・管理

1) 一般サービス規則

・就業時間

・業務配置

・業務計画

2) 看護ケアマネージメント

・看護システムの導入

・Plan-Do-Check看護ケア、カンファレンスの実施促進

・看護日誌のチェック

・看護基準およびマニュアルの策定

・患者ベッドの管理

・患者の安全環境確保

・患者からの反響、および目標から看護ケアの質の評価

・患者の容態情報伝達

3） 教育

・スタッフ、研修者へのオリエンテーション

・教育計画策定

・院内外での研修促進

・患者への教育

・研修者のためのカンファレンス、インタビュー

・教育評価

4） 医薬品、機器の管理

・医薬品の適正使用の指導

・適正量

・清潔、品質の維持

5） 安全管理

・事故防止

・感染防止

・火事防止

看護管理日誌、病棟等の管理日誌　附属資料③参照

(4) 看護手順

(5) 諸会議　附属資料③参照

(6) 教育　　附属資料③参照

①院内外における対象別教育（婦長、リーダー、スタッフ）

②院外における教育　－日本での研修－

③地域助産婦に対する教育

新国立母子保健センターの竣工にあわせて、上記のような看護体制が整えられた。わが国など、先進国の看護の歴史をひもとくまでもなく、今まで、看護というものが確立していなかったカンボディアに曲がりなりにも看護部が自立したことは、今後の看護・助産婦機能の充実のための基礎として、また、同国の他の施設のモデルともなり得る体制の実践として、短期間に体制づくりを成功させたプロジェクトの大きな成果といえよう。しかしながら、看護日誌、申し送りなどをはじめとする日常業務や基礎的な機能をはじめ、看護制度のさらなる確立、部長職の機能とその定着は、なお、毎日の実践のなかで、日本人専門家が強力な手本（role model）を示すことを通じて質的改善を行う必要があろう。

例えば、申し送りは行われるようになっており、その必要性が認識されつつあるが、内容的な理解はどの程度なのか不明であり、申し送りやカンファレンスは全員がそろった場合のみ行うと思っているようでもあり、勤務態度改善とともに、これらの活動の意義を徹底する必要があろう。また、日本人専門家の指導により看護手順・基準が作成されているが、その活用方法は、いまひとつ明確に理解されていないようでもあり、各病棟（看護）単位の看護目標も立てられてはいるが、それに従って実践されるべき下位目標を立てることの意義は理解されていず、また、当然、実践されていないなど、形式は整ったものの、機能面の改善は今後の問題といえる。

研修、教育に関しては2つの機能がある。

ひとつは院内スタッフに対するもので、これには院内で日常的に行われるものと、院外での特別な研修がある。前者の成果として、

① 患者観察の要点
② 看護計画作成の基礎
③ 患者安楽の確保
④ 患者清潔の保持
⑤ 母乳の与え方
⑥ 申し送りの意義
⑦ 感染防止
⑧ 機器の取り扱い

などについては、かなり理解が進んでいるといえる。

また、定期的カンファレンス、申し送り、各病棟婦長の毎日の病室訪問などの実践も定着し始めているが、一方、

① 申し送りの内容が一定していない（何を申し送るべきかを理解していない）
② 一定勤務時間が守られず、全員がそろわないため、申し送りできない
③ 全員がカンファレンスに参加しない

④　患者層に格差がありすぎる

などが問題といえる。

ついで院外における看護婦／助産婦の教育としては、日本での受入れ研修のもつ役割が大きい。まだ、限られた人数ながら、看護面だけでなく総合的な医療のあり方を実体験したことによって得た自信が、将来、カンボディアの指導者となるべき人材を育てている。

対外的には、プロジェクトの最終目的でもある地域の助産婦などに対する教育がある。

現在は、WHOなどが関与する卒後教育カリキュラムの整備との整合性が検討されているに過ぎないが、実践を中心とする教育体制が早急に整えられることが望まれる。

以上、ほとんど何の体制もなかっただけでなく、いわば惰性的に行われていた看護を組織的に整え、少なくとも複数の婦長が問題意識をもち始めているまでに育った成果は大いに評価できる。なお、各種機能の内容の是非が不明であり、各看護婦／助産婦の個人差も大きいようであるが、on the job trainingにより、全体としての水準が上がっていると思われる。

今後、全体としての機能改善を図るためには、諸会議の結果をいかにスタッフに周知するかなど、情報伝達の仕方を工夫し、かつ、伝達した内容を理解しているかの確認が必要であろう。

地域のprimary nurseに対してグループワークの形で実施され始めている訓練の内容を一定化し、国立母子保健センターのすべてのスタッフが、等しくその任に当たり得るような体制を整えることが必要であろう。

また、看護部門だけの問題とはいえないが、勤務態度、特に出勤時間の徹底など、全体的な管理面と連携した改善も必要である。

3－3　臨床部門

3－3－1　産婦人科

(1) プロジェクトの進捗状況

今回の調査では、6月13日（金）の午前中に行われた産婦人科スタッフとの臨床的な問題に関するディスカッション、および16日（月）午前中の陣痛室、分娩室の視察以外には臨床面での活動を見る機会がなかったため、産婦人科臨床における全体的な進捗状況を評価するのは困難であるが、CTGを装着する習慣が徐々にではあるができつつあることは日本人チームの努力の結果として評価できる。ただし、CTGの読み方はほとんど習得されていないようで、何が危険なパターンであるかが理解されていないため、胎児仮死の徴候があってもなかなか助産婦から医師への連絡がなされないという結果になっている。

16日の午前中にたまたま持続性徐脈を呈した胎児仮死の症例があったが、日本人助産婦の助言もなかなか通じず、（これには言葉の問題もある）、現地のスタッフの動きもきわめて緩慢であった。当症例は結局MA（medical assistant）が来棟して吸引分娩となった

が、吸引遂娩器を探すのに時間を要するといった初歩的問題もあった。なお、吸引分娩は遂娩に時間がかかりすぎることもあるので、牽引力も強く、消毒さえしてあれば直ちに行える鉗子分娩も教育すべきであろう。

13日のディスカッションでは、オキシトシンの使い方なども含めてチーフクラスのスタッフはだいたいのことは頭では理解しているようであったが、若手の医師については発言がなかったため不明である。日本人スタッフによれば、オキシトシンなどはかなりあいまいな基準で使われており、投与方法にも問題があるようである。

(2) 問題と対策

1) 臨床研修病院としての機能

具体的な臨床研修プログラムができておらず、研修がシステム化されていない。これについては国立国際医療センター産婦人科の臨床研修プログラムを英訳し、現地に送る予定である。

2) 診療レベル

診療のごく一部を見たのみであるが、プロジェクトの進捗状況で述べたように、診療レベルは低いものと思われる。産婦人科専門医の長期出張指導と国立母子保健センターのスタッフの日本における研修が必要である。

3) 産婦人科医師数

約50名の産婦人科医師が籍を置いているが、現状では過剰であると言わざるを得ない。しかし、将来的にハイリスクを中心とした年間約8,000～1万件の分娩を扱うようになり、研修もシステム化されれば、病院の性格、規模から、研修生を含めて50名ぐらいの医師数は必要になるものと思われる。

3－3－2 新生児科

(1) 国立母子保健センター開所記念シンポジウムにて講演

6月12日 14：00～17：00

国立母子保健センターレクチャールームにおいて、"The Principle of Neonatal Care"のタイトルで、新生児医療の基本である「保温、栄養、感染防止」を中心に、簡単な学問的背景を加えて、具体的な内容を講演した。また、蘇生術を加えた出生時の新生児の取り扱いに関し解説を行った。英語からカンボディア語への通訳を介し、聴衆からの質問も活発であり、有意義な医療情報が伝達されたと評価している。

(2) 国立母子保健センター新生児スタッフとの合同カンファレンス

6月13日 9：00～12：00

国立母子保健センタースタッフルームMにおいて、医師および看護婦約20名の新生児室スタッフと、具体的な医療の内容に関するカンファレンスを行った。Dr. タンボリンが通訳を行ったが、言葉の壁が双方のコミュニケーションのネックとなった。しかし、いくつかの重要な点について、有意義な意見交換があった。まず、感染症に関しては、日本と異なり、培養や血液の検査が十分に行われ得ないところから、経験に基づく抗生物質が使用されていたが、その抗生物質の選択に関する理由づけについて考えるべき筋道の意見が交わされ、有益な情報となったと評価される。

黄疸の管理から母乳性黄疸の話に進み、途中から参加したパキスタンのカーン教授が、その管理の際に母乳を中断しない対応の重要性を強調し、哺乳瓶の代わりにスプーンで一時的に授乳をすることを話した。しかし、カンボディアのスタッフから非現実的であるという意見が出たことは、発展途上国における母乳栄養の重要性に関する認識に差があることを示すものであった。母乳栄養の推進がより必要であると感じられた。

(3) 国立母子保健センターの新生児室回診

6月13日 14：00～16：00

国立母子保健センター病的新生児室を回診をし、Dr. タンボリンを中心とした5名の新生児専門医と、症例を前に具体的な臨床上のディスカッションを行った。髄膜炎の症例が回復期にあったが、髄液の検査および培養がなされず抗生物質が投与されていることは、国情を考えれば当然かも知れないが、施設のレベルからは奇異な印象を受けた。光線療法下にある症例に関し、「光線療法の次のステップは」との質問に対し、「交換輸血の必要性の知識はあるが、その設備がない」との答えであった。Dr. 山田のコメントでは、血液が手に入らないということであった。10名前後の患児を5人の新生児専門医および3名の看護婦が管理していたが、医師の数が相対的に多いと感じられた。保育器、点滴、抗生物質など、日本の新生児室の基本的なものを有している新生児室であるが、まだ十分にその施設を生かし、活用してはいないという印象であった。看護婦のトレーニングが今後の課題であろうと感じられた。

(4) クンタボッパ小児病院視察

6月13日 8：00～9：00

国立母子保健センターに隣接するクンタボッパ小児病院を、パキスタンのカーン教授らと視察した。ベッド数250、午前中の外来患者1,000名、午後の外来患者500名の規模を

有する小児病院であり、多くの医師、看護婦、検査技師、その他のパラメディカルが忙しく立ち働き、第一線の救急病院を思わせるものであった。結核病棟があり、結核に対する種々の啓蒙活動、予防接種などが行われており、小児医療の大きなターゲットの一つであることが確認できた。下痢、脱水の患者に点滴をしている症例を見て、カーン教授は、発展途上国の脱水の治療のチョイスであるオーラルハイドレーションが適切に行われていない点を指摘していた。

(5) その他

複雑な国情および多くの困難にもかかわらず、山田リーダーらの努力で立派な国立母子保健センターが設立されたことを確認した。しかし、具体的な医療の内容に関しては十分に評価する時間はなかったので、今後の運営に関しては意見を述べることはできない。ただ、隣接するクンタボッパ小児病院とは異なった理念での運営が迫られることは事実であろう。医療設備より教育・啓蒙が、より重要であることが改めて認識された。特に国立母子保健センターにおいては、中心となる人材の養成が急務と考えられた。

附　属　資　料

① ミニッツ

② 1996年度　母子保健プロジェクト年報

③ 1997年4～5月　新母子保健センター活動と運営管理

④ 1997年　看護部門運営管理

① ミニッツ

MINUTES OF MEETINGS
BETWEEN
JAPANESE ADVISORY TEAM
AND KINGDOM OF CAMBODIA
ON
THE TECHNICAL COOPERATION
FOR THE MATERNAL AND CHILD HEALTH PROJECT

The Japanese Advisory Team organized by the Japan International Cooperation Agency and headed by Mr. Hiroshi Shiojiri (hereinafter referred to as "the Team") visited the Kingdom of Cambodia for the purpose of reviewing the activities of the Maternal and Child Health Project (hereinafter referred to as "the Project") and discussing the future plan of implementation.

During its stay, the Team exchanged opinions and had a series of discussions with the authorities concerned of the Kingdom of Cambodia on conduction of the Project.

As a result of discussions, both sides agreed upon the matters referred to in the document attached hereto.

Phnom Penh, June 16th, 1997

Hiroshi Shiojiri
Leader, Advisory Team
Japan International Cooperation Agency

Dr. Mam Bunheng
Undersecretary of State for Health
Ministry of Health
Kingdom of Cambodia

I. Achievement of the Project in the fiscal year 1996

1. Management Capability

1-1) Administrative organization
A revised organization chart was developed for the National Maternal and Child Health Center (hereinafter referred to as "NMCHC"). Job descriptions were clarified for each division of NMCHC, and according to it the staff were allocated appropriately.

1-2) Development of user fee system
Tariffication of each service was decided according to direct cost of materials and drugs required. A registration system was introduced, and accordingly all patients would be officiary registered so that private care by NMCHC staff might be avoided. New systems were introduced for registration and patient's records (in the outpatient department (hereinafter referred to as "OPD")), and for identification cards. A notice was publicized to inform visitors of an introduction of the user fee system and the procedure of payment (i.e. payment should be made only at the cashier, not directly to the staff). Role of the accounting bureau in the user fee system was clarified.

1-3) Material management
A material committee, which consists of chief pharmacists and all the division chiefs, was established to hold meetings on monthly basis to monitor the consumption of drugs and materials in each division and to make a plan for the coming month.

1-4) Establishment of nursing division
An organization chart of the nursing division was developed and its director was nominated. The director received training from Japanese long-term experts to boost her managerial capability. All the division chiefs were assigned and their meeting was held weekly.

2. Training Activities

A working group was established for midwife training and developed a manual to be used for a referral hospitals and health centers. All the midwives in NMCHC received training on monitoring pregnancy and deliverly by using such as white card and partogram .

3. Clinical Activities

3-1) Medical care system
A physician-in-charge system was introduced to provide fair and appropriate obstetric-gynecological care (Ob-Gy care). In such system a senior doctor provide necessary medical care to individual patient under his/her responsibility. Such senior doctor gives training to a number of attending junior doctors. An emergency Ob-Gy care manual was produced by Cambodian counterparts.

3-2) Nursing division
A chart of procedures was formulated to provide appropriate and efficient nursing care to emergency cases, especially with post-operative or severe obstetric complications. A monitoring system was introduced on labor with cardiotocograph .

3-3) Laboratory division

Training on basic laboratory procedures was given by short-term Japanese expert to Cambodian counterparts. A manual of laboratory works was developed by the Cambodian side.

4. Other Activities

4-1) Mother's class
A group of doctors and midwives collaborated to conduct mother's class for OPD patients every Monday from September, 1996, which was attended by approximately twenty to thirty pregnant women after their regular check-ups in OPD. A class for post delivery women in the ward was launched in January 1997.

4-2) Supervision activity
The national program staff visited two or three provinces every month to supervise the maternal and child health activities at provincial level or under. They observed the performance of staff both at provincial and district levels and investigated their training needs.

II. Future Project Plan of Action

1. Management Capability

1-1) Financial management
a. In order to make user fee system reliable and sustainable, a precise and fair accounting system should be established.
b. In order to make user fee system transparent, audit to the accounting bureau from outside should be invited such as the Ministry of Health and/or the Ministry of Finance.
c. In order to secure and strengthen the financial capability of NMCHC, health information and relevant statistics should be appropriately utilized.

1-2) Personnel management
a. In order to improve the quality of medical services, measures such as rewarding system to motivate staff should be arranged.
b. In order to maintain qualified professional attitude, a standardized regulation and monitoring system of work performance should be established.

1-3) Material and equipment management
a. In order to secure supply of necessary materials and procure equipment, a committee should be established, in which decision of prioritization of purchasing materials should be authorized.
b. In order to utilize equipment effectively, a system of regular check ups for maintenance should be established.

2. Training Activities

2-1) In order to provide safe delivery in community, refresher courses should be implemented for midwives in provinces, districts and communes level.
2-2) In order to prepare training courses to physicians and other health professionals, an internal working group should be organized.

3. Clinical Activities

3-1) In order to improve professional performance, skill and knowledge, in-service-training including moral support should be provided.
3-2) In order to provide qualified service constantly in NMCHC, procedures for patients care should be standardized.
3-3) In order to improve the quality of laboratory services, necessary training should be provided to the staff.

4. Promotion of the Antenatal Care

4-1) Health education campaign should be prepared and implemented.
4-2) Effective and attractive materials for mother's class should be developed and distributed.

5. Referral System

5-1) In order to establish a model referral system, relationship between NMCHC and peripheral levels including NGOs working in the field of maternal and child health should be consolidated.
5-2) For reviewing the training courses, feed back of results of the supervision at provincial level should be made.

III. Matters Discussed and Recommendations

1. In order to secure better financial position of NMCHC, followings were discussed and recommended to be established.

1-1) Audit system
1-2) Reporting system
1-3) Regulation (coverage of free patients; allocation of human resources, materials and running cost; etc.)
1-4) Review and revision of medical cost based on tarification

2. In order to develop human resources, followings were discussed and recommended.

2-1) Establishment of practical (post-graduate) training on Ob-Gy care for the staff of referral hospitals.
2-2) Appropriate measures should be taken to assess performance and service of the staff.

3. In order to maintain and utilize medical equipment, followings were discussed and recommended.

3-1) Training courses of the regular check- ups
3-2) Annual plan to be prepared for procurement of the spare parts and consumables

4. In order to expand training activities, followings should be discussed further.

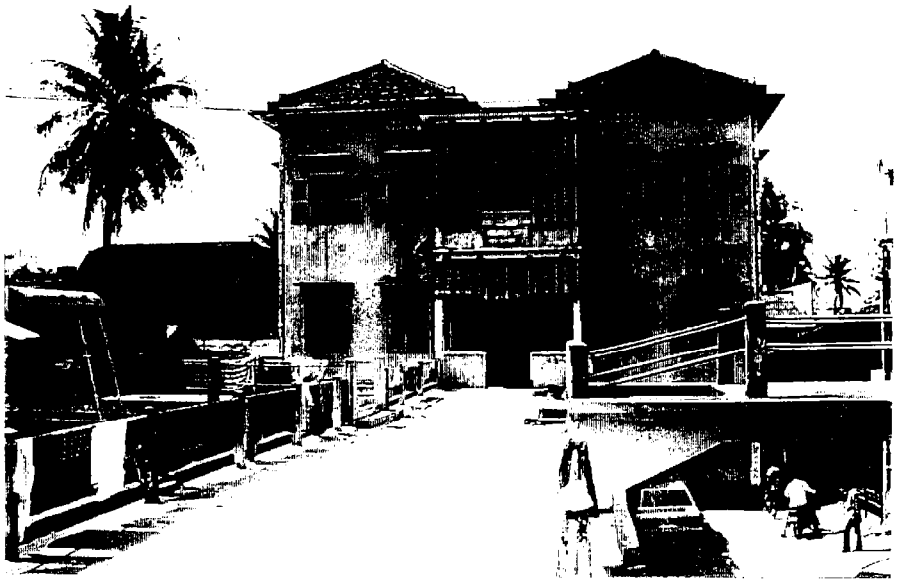
4-1) Sustainable fund
4-2) Voluntary participation
4-3) Scholarship
4-4) Additional income generation

② 1996年度　母子保健プロジェクト年報

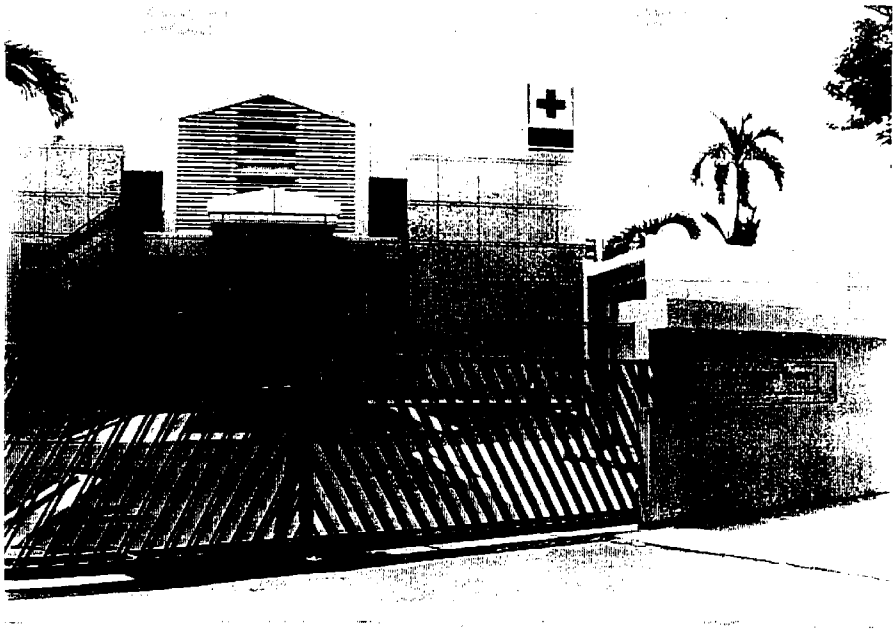
Annual Report
of
Fiscal Year 1996
for
The Maternal and Child Health Project
in
Kingdom of Cambodia

April 1997

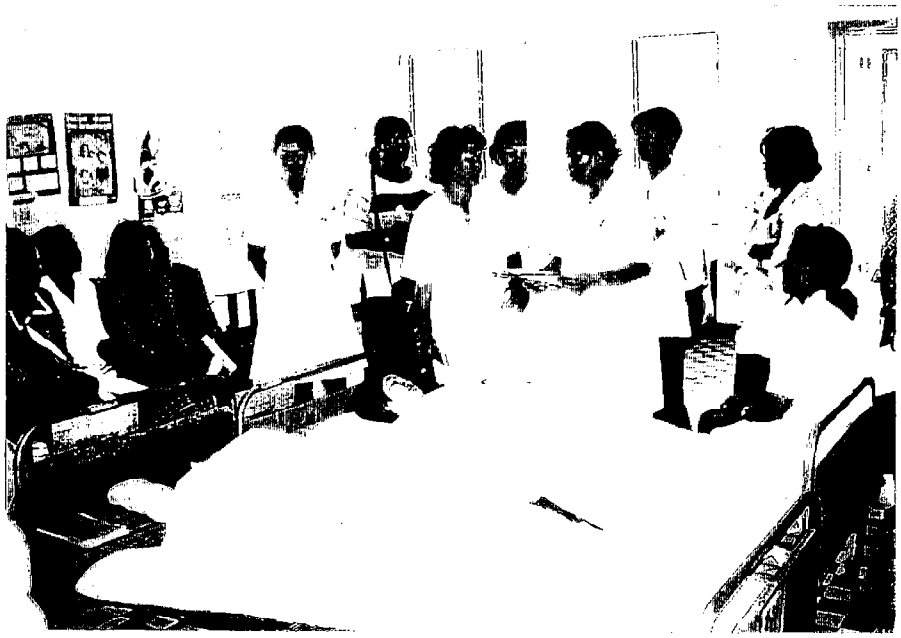
Japan International Cooperation Agency
(J I C A)



Maternity B ward of old National Maternal and Child Health Center



New National Maternal and Child Health Center (NMCHC)



Midwife Training by trainers of midwife

Nursing Training by an Anesthesiologist

Mother's Class

Training for Electrocardiograph at New NMCHC

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Annual Report
of
the Japanese Technical Cooperation
for the Maternal and Child Health Project in Cambodia

Introduction

The Japanese technical cooperation for the maternal and child health(MCH) project was started in April 1995. The overall goal of the project is to improve the status of maternal and child health in the Kingdom of Cambodia through the promotion of the National Maternal and Child Health program's activities.

The purpose of the project is to strengthen the activities of the National Maternal and Child Health Center(NMCHC), which is principally responsible for implementation of the National Maternal and Child Health Program.

The outputs of the project are as follows;

1)Improvement in the management capability of the NMCHC

2)Strengthening of the NMCHC training activities

3)Improvement in the clinical activities for women and infants at the NMCHC

The construction of the new NMCHC by grant-in-aid of the Japanese government was also started in December 1995. The construction was completed in March 1997.

The situation analysis of the NMCHC has been done in the first year of the project and the preparation to establish the system for the new NMCHC is a main activity in the second year.

The activities of the project in the second year(April 1996 - March 1997)

1)To strengthen the management capability of the NMCHC

1)-1. Organogram and human allocation of the new NMCHC(Annex-1, 2, 3)

The organogram of the new NMCHC was shown to the coordinating committee in the MOH in May and approved inofficially. The total active number of the staff in the NMCHC is 357 except Khunta Bopha hospital and EPI program in January 1997 and 50 persons are temporary leave without salary or going to school. While the number of the technical staff in the hospital such as physicians and midwives is too much, the administrative staff is a few number. Especially engineer to keep running the hospital such as an electrician or a mechanician is only 5 persons and the level of the knowledge and technique is quite low. The training for the electrician and mechanician has been started from November by the Japanese staff of the grant-in-aid project during the construction of the new NMCHC.

1)-2. Financial management(Annex-4, 5, 6)

A short term Japanese expert for the hospital finance was dispatched from April to June 1996. He analyzed the current situation of the managment ability for finance. He concluded that the recording system of the accounting is not bad however people has no idea for the management. They are not good at making a plan by using the statistics of the patients' data. The capacity building for the financial management is critical for the implementation of the user fee system in the new NMCHC.

The user fee system is developed by the health financial committee. The tarification made by the committee was approved by the minister. Registration system at the technical bureau is discussed in the steering committee and OPD patients' documents are prepared.

The expense of the budget in 1996 except water, electricity and communication is 666,776,080 Riel($266,710). However, the NMCHC only received 331,905,037 Riel ($132,762) from the MOH. The problem of delay of money is due to the complicated procedure between MOH and MOF. Even though the Cambodian government has money but it does not work appropriately.

1)-3. Material management

The long term Japanese expert of pharmacy has been started to work from October 1996. She is organizing the material committee once a month to develop the management system of medical material and drug. The communication between the chief of each division and pharmacy department is improved.

1)-4. Management of the nursing division

The chief of midwife/nurse in each division of the new NMCHC continues a weekly meeting to establish the system of nursing division and imporve the nursing care for the patients.

Daily management report has been started in each division and the director of nursing division checks every morning.

2)To strengthen the training activities in the NMCHC

2)-1. Nursing division

The long term Japanese expert of midwifery has been started with training group of midwives in NMCHC to develop the training curriculum for midwives working at provincial/district hospital or commune health center.

3)To improve the clinical activities in NMCHC

3)-1. Nursing division

Emergency chart was developed to observe the patients with complication or post-operation case carefully.

Most of midwives do not realize that fetal heart rate is changed depending on the contracture or sometimes a position of mother during the second stage of delivery, so that the cardiotocograph was introduced to show them the relationship between the contracture and fetal heart rate continuously and the dangerous sign as fetal asphyxia. Some of the midwives understand the sign and implement to give oxygen or put the mother in lateral position when fetus is bradycardia.

3)-2. OB-GY division

Physician in charge system has been started to take care the patients. One senior doctor and two or three junior doctors make one group to develop a teaching system in each group. However, senior doctor has no idea and skill to train junior doctor systematically. The standarization of treatment is also needed.

Emergency OB-GY care manual was made by doctor's group in NMCHC but it is not used effectively.

3)-3. Laboratory division

One Japanese short term expert worked from April to June. He organized the lecture done by each staff responsible for one theme and developed the manual made by them. All of the laboratory staff enjoyed to work together with the Japanese expert and they realize their role as laboratory technician in NMCHC. However, basic function of laboratory is not still sufficient due to the poor facility and lack of knowledge and experiences of the staff.

4)Other activities

4)-1. Mother's class

Education group of doctors and midwives has made a plan and implement mother's class for OPD patients from September. Approximately 30 pregnant women attend the class every Monday. Mother's class for post delivery women in the ward has been also started from January 1997.

4)-2. Supervision of provincial MCH activities

National program staff visits 2 or 3 provinces every month to supervise the MCH activity in each province.

Input by JICA

A. Dispatch of JICA experts (Annex-7)

Five long term experts and five short term experts were dispatched in the fiscal year 1996.

I .The activity of experts of midwifery.

1.The organization of Nursing Division

According to the organogram of NMCHC , Nursing Division was set up in OB-GY hospital. The establishment of new division is meaningful for midwifery and nursing care activity.

1-1.The organogram (Annex-8,9)

One nursing director, three vice directors, nine chiefs were newly appointed by the director of NMCHC. They are chief of Maternity East, Maternity West, Gynecology, Delivery, Out Patient Department, Operation Theater, Intensive Care Unit / Recovery, Neonatal Care Unit and Central Sterilizing Supply Division.

Three vice directors have separate role respectively, these roles are education, personnel and clinical. They concurrently hold the post of a nursing unit.

1-2.Activities of the nursing division

a.The training of nursing director

The contents of training is as follows

-nursing care management
-management of nursing division
-education
-measures of accident
-public relations

The training was carried out 4 days in a week (8~10hours) for 6 months. After finishing the course we took up current problem and subject of new hospital. The problem was discussed in the midwife and nurse meeting and also the chief committee.

b.MW/NS meeting

The purpose of the meeting is improvement of the quality of midwifery and nursing care, but there were many problems to manage effectively. The number of members are so many that we could not to discuss about the subject. At first there were many participants, but the number of attendants decreased on half-way. Then we changed to have the same meeting two times. Then the participants have kept 100~120 through two times of meeting.

The infiltration of the subjects are got little by little.

c. MW/NS committee

There are four MW/NS committees such as management, nursing care,

education and study/ research starting the activity from January 1996. The management committee has been developed as a chief committee in June 1996, after deciding the chiefs for the new NMCHC.
The chief committee was held every week and the management of the committee was implemented by Nursing Director whom we have led and supported completely. The main subjects were management matter and task force for the new hospital.
Nursing care and education committee work together to make a nursing standard manual. The education committee is also working to implement the mother's class.

d.Works of chief (Annex-10)

We made a chief to understand their works before moving to the new hospital. Because a chief is a key person to decide quality of care.

e.Establishment of information system in the nursing division

Nursing director needs information for management of nursing division from every nursing unit. We made Daily Management Report and began to use from October 1996. Nursing director can grasp number of patient and conditions. She reports Management Report of Nursing Division to the Director. This system is useful for management but it can not be used effectively.

f.The human allocation of midwife and rotation system in the new NMCHC

The new allocation was made to be considered that midwife rotate every four months.

2.Midwife, nurse training

2-1.Working group (Annex-11)

Midwife Training Curriculum

This working group established in September 1996 to make curriculum and textbook for provincial, district midwives. The working group have meeting every Monday and Friday afternoon.
NMCHC has a role of training center, we will train midwives as soon as possible. There are two kind of curriculum, one for a health center level, another one for a referral level. The midwives of health center level can do health education and detect abnormal pregnancy, then midwives can refer the abnormal women effectively. The midwives of referral level can do midwifery care of abnormal pregnant women.
Now we are planning 2-4 weeks course, of training consisting of the clinical practice and theory. We are also making check list for on the job training.

2-2.Midwife training

This training was implemented intensively by dividing all midwives into four groups. The contents of the training are hand over of the patient's information, understanding of the basic human needs, ante natal care including how to use the white card, breathing method during the delivery and post-natal care. Chief of midwives were

working as a trainer and conducted this course. Evaluation check was carried out for all of the participants after training course. The average patient of examination was 6.8/10.

2-3.Nursing training

Nurses are allocated to OT, ICU/ Recovery, NCU, OPD and CSSD in the new center. Then the training was implemented depending on their working place. The contents of this training are understanding and practice of antiseptic concepts and skill, nurse technique of taking vital sign catheterization, maintenance equipment and so on. Chief of each service, anesthesiologist and pediatrician were working as trainer.The average point of examination after the test was 6.8/10.

2-4.Training of cardiotocographe(CTG)

Midwives did not observe the fetal heart rate during delivery. They do not understand changing FHR by uterine contraction. So I trained to midwives how to observe and how to use CTG for four months. Now they have used the CTG for 1 year for 339 pregnant women. Almost midwives can read the CTG record, and they can do emergency nursing care but can not do the treatment. It is necessary that medical doctor must be trained about CTG.

2-5.Mother's class

Mother's class are planed by education committee from June and implemented from September 1996. The program was evaluated in each session by questionnaire for the participants and taking video. The manual of mother's class is developed to use for the training of province, district and commune midwives.

Ⅱ. The activities of the expert of Pharmacy

- Activities -

1. Drug and material supply

In NMCHC, there are 3 resources for drugs supply. One come from CMS (Central Medical Stores) every 3 months, other one is from JICA according to request from NMCHC. Last one is supplied by each medical or patient get from private pharmacy.

CMS could not supply sufficient drugs and materials which NMCHC needs. but the supply in 1996 was better than that in 1995 (Annex-12). But JICA still helps to get some drugs and materials (Annex-13).

Drug supply department in MOH had a discussion about drug and material supply in 1997 with each national hospital in Phnom Penh, they try to introduce new supply calculation method according to each hospital activities. They plan to collect data from each hospital in 1997, and carry out new system in 1998.

2. Drug and Material Committee

Every month Drug and Material meeting is held on with the member from each section. Each section reported their consumption in last month and request for next month, then pharmacy make the report of monthly consumption and member discuss about that (Annex-14). First step is to report exactly from each section, but it could not completed in 1996.

The main purpose of this meeting is to collect exact data and discuss to compare their activities and consumption. So that every one think about not only their own section but also all section in the hospital. Through this process, each member study about saving, planning, and service for patients.

3. Record system in Pharmacy.

Pharmacy has a lot of documents, these are depending on the recording system in Cambodia. CMS send a invoice separately according to their fund source such as national budget, Aid or World Bank. Every month Pharmacy send a consumption record to the accounting bureau. And accountant fill their price and report to MOH. In these case, there are many inventory card for one item. It makes difficult to manage drugs and materials.

Pharmacy got one computer from JICA, and started to make report or invoice, and make daily and monthly consumption. 2 pharmacy staff finished computer beginners class for Windows 95, excel. 7 and word. 7 in August 1996 and March 1997, and now 2 more staff are learning in the same course. The problem for improving computer system was not only understanding the system but also understanding English technical word. They improved day by day, but it takes at least 1 more year to speed up and manage it.

- Future plan -

1. Drug and material supply

CMS said that they try to supply all drugs and materials needed in this country in 1997. CMS supplied only Essential Drug and quantity was according to standard treatment. The large amount of antibiotic usage in NMCHC was indicated before. We should make standard treatment guide clearly and make monitoring system for it.

The user fee system start on the 1st April. NMCHC needs some non-Essential drugs. Hospital will start to try procure drugs and materials by themselves, reducing the support from JICA. They need some committee to work more strongly. In April and May , we collect data and make plan of procurement.

2. Drug and Material Committee

This committee will become one of important procurement committees. Each member should have responsible for their drug and material management in each section. They collect certain data and understand the relation between consumption and activities. Adding it, Paraclinic and Dental materials and reagent for laboratory should be supplied from Hospital.

3. Record system in Pharmacy.

Pharmacy will have 2 computers on April. All of document data will put in them and make clear the all drug and materials flow.

4. Information system

Drug and materials information is not well known in each section. If each section need, pharmacy send the information regularly.

III.Recommendation from the short term experts

III-a. Recommendation on finance management

1.Present Condition

The basic work in accounting division, such as general ledger, inventory control, cash book, payroll, etc, are well kept in present condition. And basic information also well kept in the book, but it is only to be kept. We have to use these information for management purpose, those are planning, controlling, evaluation and decision making. The number of staff is proper in the present. But when user fee system start, it will be lack of manpower. Consider about human allocation and staff's training for improvement of management.

2.Managerial Accounting

The accounting division of NMCHC should be from keeping accounting to managerial accounting.

On the management purpose, we need many kinds of information based on accounting. The managerial accounting is in the primary, but not the only, provider of information to management. Much of the information provided by managerial accounting is used in decision making.

The accounting division is responsible for collecting data input, for gene-rating financial statistics, and for obtaining any other information needed to compile reports for the comparison of the hospital's performance.
This information can come from many sources so that the accounting division can fulfill its information center function of collecting data and preparing useful reports for management.
The accounting division would then assimilate these data for reports to the various levels of management.

A comprehensive list of activities of accountants can not be made and is not needed,but some major activities are as follow:

1) aiding in the design of the total information system of the hospital
2) gathering data
3) ensuring that the system is performing according to plan
4) understanding special analyses for management
5) interpreting accounting data based on the particular requirements of the manager(hospital director, other management staff who has a respon-sibility to NMCHC) in a given situation

3. Job description

Job description of accounting department is listed below. And additional of job description,about new system,are mentioned at footnote. Now we have a good

opportunity, that is user fee system and new hospital (facility). Considered about this opportunity, we must improve each job.

4. Statistic

What type of statistics is necessary for managerial accounting, I make some sample sheets. Please try to make useful statistics by your idea, these sample are the basic plan for discussion.

1) Income report (In-patient)
2) Income report (Out-patient)
3) Income-Expense report
4) Number of Out-patient (department,examination)
5) Number of In-patient (department,ward,disease)
6) Number of Discharge patient (department,ward,disease)
7) Number of Operation (department,operation type)
8) Laboratory report
9) X-ray report
10) Other examination report
11) Salary report (occupation,department)
12) Personnel report (number of staff occupation,department)
13) Others

5. Computer

JICA will provide computer systems to accounting division and pharmacy for the purpose of the management. About the pharmacy, we have a plan to dispatch an expert of pharmacist, she will be able to give suggestion for you.

About the accounting division, I have some idea of how to use the computer. In my opinion, it should be use for managerial accounting. It means to make some statistics for management use.

To install the accounting software for the basic work in accounting division is not necessary at the present situation. Because

1) it is difficult to share only one computer by several staff
2) lack of computer knowledge
3) present manual book keeping system is proper and well kept
4) we can operate manually still present capacity
5) it is difficult to improve several job at the same time (user fee system, managerial accounting, computerization, we must think about a priority)

I suggest using the computer system of accounting division as follows:

1) to make statistics for management (controlling,monitoring, planning, evaluation)
2) to calculate staff salary
3) to make aiding book of general ledger(detail of "06 expenditure")

These types of job can be done through business software like "Excel".

III-b. Recommendation on clinical laboratory.

1. Close communication should be kept between clinicians and the laboratory.

The laboratory in-charge takes part in the clinical meeting of the center once a week. That is one of good tradition of the center, and I appreciate if following would be practiced.

①Whenever the clinician feel discrepancy between a lab. test result and clinical finding of the patient,the cause(s) of the discrepancy must be tried to be found through the close communication between clinicians and lab. in charge. Otherwise it is difficult expect of lab. performance development. The lab. staff should feel clinical needs of lab. tests they are doing.

②The lab. in charge should inform clinicians regarding character of each lab. test method adopting,especially concerning interpretation of the test results, e.g. the specificity of test methods, possible false results caused medical care, range of acceptable error, etc.

2. Lab. test record (registration) must be maintained properly.

Proper maintenance of examination registration may be particularly imperative task that should be accomplished to be ready for introducing the "user fee system". Also well maintained registration records can meet H.I.S. (Health Information System) requirements instantly.

①The Lab. has a couple of registration notebooks.One is for blood tests and the other is for urine tests.The format of the both registration note books are well designed. It was observed that the format was followed by not all lab. personnel. Most of them followed the format but other not. All lab.personnel should be informed the rules of entry the registration notebooks.

②The registration records should be entered immediately after specimen, or requisition forms received, to avoid missing any examination record, in a same moment, a daily serial lab. number should be give on the lab. requisition form.

3. Standardization of the lab. performance.

Each lab. test should be carried out by an authorized method. A test can be done by some different methods. However, one test method should be adopted for a test in the laboratory. The method should be authorized on the authorized method.

The authorized method should be chosen and decided through careful consideration and discussions among lab. staff and hospital authority (clinical,supply) in both the reliability and the practicability of methods.

The recommendation to be made by "sub. cocom for laboratory services,training and research" may be considered as guideline to decide the authorized lab. test method for the laboratory of OB & GY Hospital.

4. Lab. equipment maintenance

As it was pointed out at the coordination committee meeting on 29th May 1996, that once a medical equipment used in government medical facilities damaged, it is difficult to repair it. According to my experience, many equipment might not be damaged, if the equipment handled adequately, or if weekly and monthly servicing that should be performed by the operator were carried out properly. To enable this, it is clear that:

a)the laboratory should have copy of instruction(operation) manuals for each equipment used at the laboratory,
b)the operator should read the manuals thoroughly before and when using equipment and
c)should follow the instructions written in the manuals regarding operation and daily, weekly and monthly maintenance service.

III-c. Recommendation on maintenance of equipment

EMERGENCY COUNTERMEASURE ITEMS

1.Decide a counter part in the hospital side which will manage a maintenance and control of medical equipment from now on.

We will start with one responsible person and one staff in total of two for the time being, and study its structure depending upon circumstance. The responsible person for maintenance and control of medical equipment must be completely separated from maintenance and repair of buildings. If a technical counter part would not be available at the beginning, a clerk would be permitted. First of all he should master maintenance and control system of medical equipment, consumable and spare parts and learn gradually how to cope with simple troubles. Misuses and lack of consumable as causes of unusable equipment seem to be troubles, but those are not troubles actually. " The troubles which are not trouble " is estimated at about 85% (In Japan 50%). Consequently, a clock counter part could take care of this job sufficiently. The person would be desirable to understand English since manuals are written in English.

2.Separate maintenance and control system of building completely.

In developing countries, it is sometimes under the same control as maintenance and control of equipment due to lack of personnel including workshop (there is such an opinion in this project). This is a big mistake, and the handling of medical equipment and its consumable and spare parts should be considered on the extension of disinfectant, drugs and medical supplies. Especially, equipment which touches patients would be always necessary to consider sterilization and disinfection. Therefore it must be separated from maintenance and repair of building.

3.Conduct education for total management of medical equipment and its consumable and spare parts and maintenance and control method of medical equipment to counter parts.

First of all we will let them understand well necessity and effectiveness of a blanket management (centralized management). It would require sufficient time for them to understand necessity and effectiveness of the blanket management although it would be anticipated that individual user may oppose it. Then we will educate them in a method to obtain status of medical equipment and management method of consumable and spare parts. It would be the most effective that Japanese staff create an actual model and execute it.

4.Conduct preparation and guidance of receiving method and management cards for medical equipment and its consumable and spar parts.

Management cards (the same as carte management) will be prepared including usable existing equipment and blanket management will be conducted. This is going to be the base of data base input in the case of computer management for maintenance and control structure of medical equipment in Cambodia in future. If we could not start the

blanket management at the same time of receiving on March 15, it would be anticipated that confusion such as loss after receiving may occur. In order to get this on the rails, it would be necessary to obtain a Japanese side corporation judging from the present situation, and the technology transfer would be done under the condition that the system would move smoothly. At that time, an appropriate inventory level of consumable and spare parts should be obtained. In order to conduct the blanket management, it would be anticipated well that they would resist saying their wish to control consumable and spare parts by themselves. However, we would take time to let them understand it.

ID Number ---- Preparation of Carte for Equipment and Consumable / Repair Parts --- Clear Show of User / User Place / Keeping Place

- Add a control method (writing of input and output) if equipment is take out such as rent.

5.Conduct handling guidance of medical equipment.

Training of medical equipment could be done by repetition and understood gradually. It would be difficult for them understand it by a Japanese supplier's only once explanation on handing. It would be necessary that the person in charge sets actually on patients and carry its assay. On top of it, in consideration of that operation manuals and service manuals are written in English to conduct actual training to persons using them.
First of all, attach hospital's control numbers to equipment (paste wappens) based on management cards of individual equipment. Operation manuals and service manuals of medical equipment in khmer could not be prepared in time. This will be asked to a professionals as a long term job. For the time being as a emergency sake, cope with it by numbering operation procedures according to operation manuals so that no mistakes would not occur. About 85% of problems in maintenance control of donated equipment have been caused by troubles of improper handing. It could be anticipated that we would notice lack of small parts, etc. so often during actual training. Unless these are supplies immediately, equipment would not be used for long time, which would be the same situation as improper handling and inferior maintenance.

B. Provision of the equipment (Annex-15)

The equipment provided in the second year of the project are listed on Annex-15.

C. Counterpart training in Japan (Annex-16)

Four people received the training in Japan in the fields of of obstetrics, midwifery, neonatal nursing and anesthesiology.Schedule of individual training is listed on Annex-16.

D. Grant Aid project of NMCHC

The contraction of the new NMCHC was started in December 1995 and completed in March 1997.Training of staff for the maintenance of facilities and equipment was carried out before the hand over.

Technical experts contributed the design of the building and allocation of equipment depending on the need and level of Cambodian people.

Future action plan of the project

1. To strengthen the management capability

   1-1) Financial management
   a. To establish the clear and precise accounting system of the user fee in the NMCHC.
   b. To start audit for the user fee income and expenditure in the NMCHC by MOH or MOF
   c. To utilize the health information to make a financial plan of the NMCHC

   1-2) Personnel management
   a. To motivate the staff to improve the quality of activity in each division
   b. To improve the discipline by incentive and punishment

   1-3) Material and equipment management
   a. To establish the procurement committee to decide the priority to purchase the material by user fee income
   b. To introduce the maintenance system of the medical equipment

2. To strengthen the training activity
   2-1) To implement refresher course for midwives from province, district and commune
   2-2) To organize the working group for training of obstetrician

3. To improve the clinical activities in the NMCHC
   3-1) To improve the attitude of staff for the patients
   3-2) To establish the standard obstetric care in the NMCHC
   3-3) To train the staff of laboratory to improve the quality of basic skill

4. Promotion of the ante natal care for the pregnant women
   4-1) preparation of promotion campaign of ante natal care
   4-2) development and distribution of the manual of mother's class

5. Referral system
   5-1) to strengthen the network between the NMCHC and NGOs
   5-2) to feedback the results of supervision to training activities.