カンボディア国
母子保健プロジェクト
計画打合せ調査団・巡回指導調査団報告書

平成９年７月

国際協力事業団
医療協力部

序　　文

カンボディア国母子保健プロジェクトは、平成7年4月1日から5年間の協力期間で、同国保健省国立母子保健センターにおいて、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して技術協力を行っているものです。

平成8年3月、協力開始後1年近くが経過し、技術協力活動が国立母子保健センターのある1月7日病院（January 7th Hospital）で軌道に乗りつつあるところ、国際協力事業団は、本プロジェクト派遣中の専門家の活動状況、カンボディア王国側の対応等現状を確認し、プロジェクト実施上の問題点把握と今後の対応策について両国双方で協議することとし、平成8年3月17日から同年3月31日までの日程で、国立国際医療センター国際医療協力局派遣協力課長　喜多悦子氏を団長として、計画打合せ調査団を派遣しました。

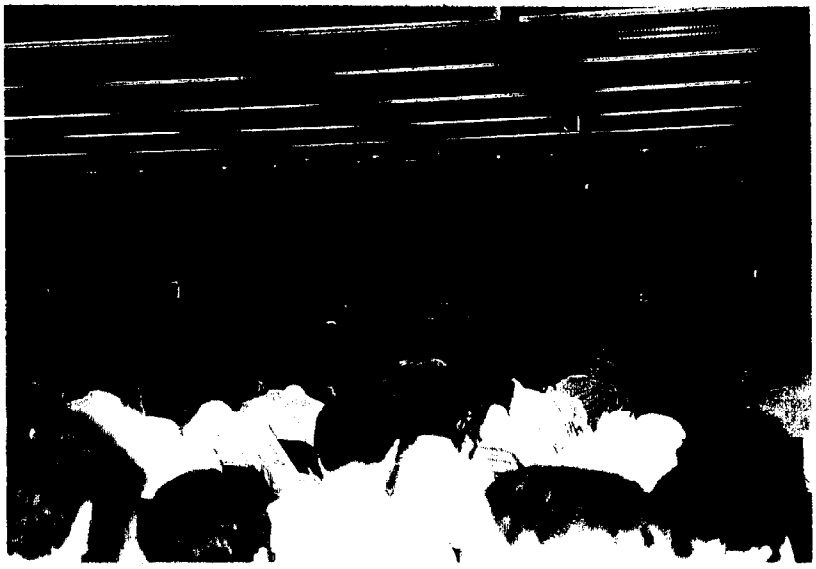
また、カンボディア王国政府は、無償資金協力による国立母子保健センターの新築を要請し、平成7年12月着工、平成9年3月に竣工、同年4月1日より新国立母子保健センターへと移転して業務を開始しました。平成9年6月、2年あまりの時点でこれまでの活動内容を確認し、残りの3年間の協力期間でプロジェクト目標を達成するために必要な事項をカンボディア王国側と協議するため、平成9年6月10日から同年6月18日までの日程で、国立国際医療センター総長　鴨下重彦氏を顧問、外務省経済協力局技術協力課企画官　塩尻宏氏を団長として巡回指導調査団を派遣しました。あわせて新センター開所記念シンポジウムに参加し、調査団員による特別講演を行いました。

本報告書は、上記調査団の調査結果を取りまとめたものです。ここに本調査団にご協力賜りました関係各位に深甚なる謝意を表しますとともに、本プロジェクトの実施運営に対しまして、さらなるご指導、ご鞭撻をお願い申し上げます。

平成9年7月

国際協力事業団

医療協力部長　福原　毅文

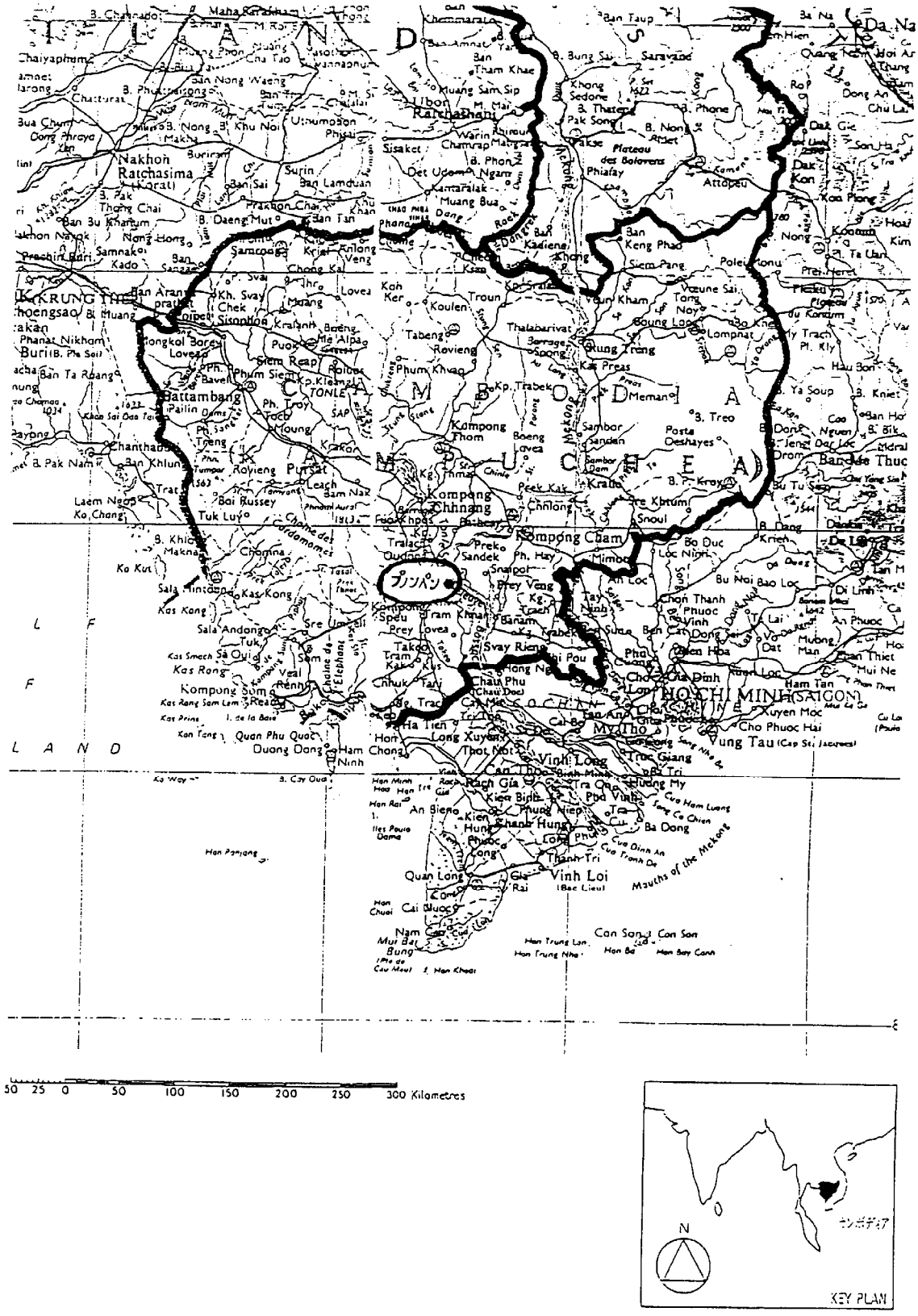


①国立母子保健センター開所シンポジウム　オープニングセレモニー

②指導用人体模型（JICA供与機材）

③ミニッツ署名交換

地図：カンボディア王国


プノンペン
HO CHI MINH (SAIGON)
Mouths of the Mekong
50 25 0 50 100 150 200 250 300 Kilometres
N
KEY PLAN

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Ⅱ．巡回指導調査団報告書

附属資料

Ⅰ．計画打合せ調査団報告書

1．計画打合せ調査団の派遣

1－1　調査団派遣の経緯と目的

1991年10月パリ和平合意文書調印の後、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、カンボディア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。その結果、同国の母子保健状況は近隣諸国と比べて特に劣悪であり、その改善が急務であることが判明した。一方、新体制に移行した同国では、1993年11月に国家母子保健計画が策定され、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。

プロジェクト開始後約1年を経過し、1年目の活動総括と次年度の活動計画について先方と協議を行う必要がある。特に、無償資金協力で建設中の新国立母子保健センターの完工・移転を念頭に置いた病院内のさまざまな管理システムの整備のための計画策定が必要とされ、さらに医療費の有料化の検討がなされていることから、1996年3月17日から3月31日までの日程で計画打合せ調査団を派遣することとなった。

1－2　調査団の構成

担当		氏名	所属
団長	総括	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婦人科医長
団員	協力計画	八重樫成寛	国際協力事業団医療協力部医療協力第一課長代理

1－3　調査日程

<table>
<tr><th rowspan="2">日順</th><th rowspan="2">月　日</th><th colspan="3">移動および業務</th></tr>
<tr><th>喜多団長</th><th>箕浦団員</th><th>八重樫団員</th></tr>
<tr><td>1</td><td>3／17</td><td></td><td>移動／成田(10:30)
→バンコク(15:30)
(TG-641)</td><td></td></tr>
<tr><td>2</td><td>3／18</td><td></td><td>移動／バンコク(11:10)
→プノンペン(12:25)
(TG-696)</td><td></td></tr>
<tr><td>3</td><td>3／19</td><td></td><td>産婦人科清水専門家との打合せ</td><td></td></tr>
<tr><td>4</td><td>3／20</td><td></td><td>〃</td><td></td></tr>
<tr><td>5</td><td>3／21</td><td></td><td>〃</td><td></td></tr>
<tr><td>6</td><td>3／22</td><td></td><td>〃</td><td></td></tr>
<tr><td>7</td><td>3／23</td><td></td><td>〃</td><td></td></tr>
<tr><td>8</td><td>3／24</td><td></td><td>資料整理</td><td>移動／成田(16:20)
→バンコク(21:10)
(NH-915)</td></tr>
<tr><td>9</td><td>3／25</td><td>移動／イスラマバード
(10:30)
→バンコク(17:40)
(PK-778)</td><td>専門家との打合せ</td><td>移動／バンコク(11:10)
→プノンペン(12:25)
(TG-696)
JICA事務所打合せ</td></tr>
<tr><td rowspan="2">10</td><td rowspan="2">3／26</td><td>移動／バンコク(11:10)
→プノンペン(12:25)
(TG-696)</td><td colspan="2">専門家との打合せ</td></tr>
<tr><td colspan="3">日本大使館、JICA事務所表敬
国立母子保健センターカウンターパートとの打合せ</td></tr>
<tr><td>11</td><td>3／27</td><td colspan="3">国立母子保健センターカウンターパートとの打合せ</td></tr>
<tr><td>12</td><td>3／28</td><td colspan="3">合同調整委員会、ミニッツ署名交換</td></tr>
<tr><td rowspan="2">13</td><td rowspan="2">3／29</td><td colspan="3">日本大使館、JICA事務所報告</td></tr>
<tr><td colspan="2">移動／プノンペン(16:55)→バンコク(18:00)
(TG-699)</td><td>国立結核センター視察
堀江専門家との打合せ</td></tr>
<tr><td>14</td><td>3／30</td><td colspan="2">移動／バンコク(11:10)→成田(19:00)
(TG-640)</td><td>移動／プノンペン(16:55)
→バンコク(18:00)
(TG-699)</td></tr>
<tr><td>15</td><td>3／31</td><td colspan="2"></td><td>移動／バンコク(11:10)
→成田(19:00)
(TG-640)</td></tr>
</table>

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. Mam Bunheng	Under Secretary
Dr. Te Kuyseang	Director of Cabinet

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
Ms. Chhing Chan Tach	Director of Nursing Division
Mr. Dek Inn	Chief of Administration Bureau
Mr. Chea Kim Long	Chief of Accounting Division

(2) 日本側関係者

1) 在カンボディア日本国大使館

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) 母子保健プロジェクト

山田　多佳子	チーフアドバイザー
宮崎　　正	業務調整員
河合　嘉子	助産婦
川田　泰代	周産期看護
清水　利恭	産科医師

2．要　約

相手国との協議の結果、特に下記の点について合意を得、附属資料①のとおりミニッツの署名交換を行った。

(1) 調査団側はカンボディア側に対し、1996年4月末までに新国立母子保健センターの組織図、1996年9月末までに人員配置と責任者の任務について草案を提出することを求めた。

(2) 病院収入創出に関して、カンボディア側は1996年11月までに診療費徴収制度の標準案を提出することが求められている。国立母子保健センターは移転費も含めた新国立母子保健センターに必要な経費を見積り、それを1997年度の保健省への予算要求に反映させる必要がある。

(3) 日本側は、1997年に少額の消耗品と研修費を支援する案を作成する可能性がある。

(4) 両者は、技術的な点から、妊産婦死亡を減らすため地域におけるハイリスク妊娠のスクリーニングを強化し、研修の実施能力を高めるため国立母子保健センター内でのモニタリング体制を標準化する必要がある。

(5) 次回の合同調整委員会は1996年5月に開催する。

3．各部門の進捗状況

プロジェクトの長期専門家は、当初から派遣されたリーダー（山田多佳子／国立国際医療センター）と調整員（宮崎　正）ほか、看護助産業務管理のための助産婦（河合嘉子、6カ月経過）、助産婦（川田泰代／国立国際医療センター、5カ月経過）である。その他、産科医師（清水利恭／国立国際医療センター、6カ月経過）および数名の短期専門家（産科、助産婦、臨床検査）である。

日本人専門家、カンボディア側スタッフおよび日本大使館、JICA事務所、カンボディア保健省等との意見交換と現状調査から以下の所見を得た。

3－1　管理面

管理面の成果としては以下のものがある。

(1) 運営委員会の設置

1995年8月以来、国立母子保健センター運営委員会が設置され、毎週、各種の問題、議題を協議する体制が確立された。構成員は所長、副所長、事務責任者、会計担当責任者、医師代表、助産婦代表6名と日本側スタッフである。

本委員会では例えば新センター機構図案など、今後の対応についての検討がなされている。定期的に会議をするという習慣すらなかったところで、本運営委員会が根づいたことは大きな進歩といえるが、討議事項の実践に対しては、予算上の問題や保健省との関係等から、具体的な行動計画に結びついていない感があり、集まることに意味があるという印象もある。国立母子保健センターのみで解決不可能な問題に関しては、カンボディア側では保健省などとの、日本側ではJICA事務所、大使館あるいは国内委員会との連携を考慮する必要がある。

(2) 所長巡視

同時期より、所長とチームリーダーが定期的に院内巡視を行い、現場での問題把握を始めている。全体を把握するという意味では大きな進歩といえるが、(1)同様、実践に結びつかない場合には形骸化する。共通の問題は上記運営委員会の議題とし、他は所長権限で解決するなど、また多少の経費は現地業務費にて対応するなど、実践を伴うことにより、いっそう効果的となろう。

(3) IDカード作成とロゴマークコンテスト

実働スタッフの確認と全体の機構改革への準備としてIDカードが作成され、懸賞金つきの

新センター用ロゴマークコンテストが行われた。国立母子保健センタースタッフ全員の参加と自覚を促したこと、将来の機構再編、人事への布石として効果的と考える。ただしカード装着の継続性や紛失した際の対応などに留意する必要がある。ロゴに関しては、新センターの広報や各種報告にも活用するなど、継続使用を考慮することが望ましい。

(4) 各種調査

1) 機器、資材の保有、使用状況調査

保有する診断治療機器や資材、薬剤の補給、使用状況の調査が日本側で行われた。

2) 財務調査

1995年度に関して、予算案と実施、運用について、また、実際の診療に関して運用されている費用の実態などが日本側で調査された。

3) 情報調査

A、B、C各病棟の月間患者数の記録などを基に日本側で統計一覧を作成し、将来の標準化の試みがなされた。

4) 人材調査

センター内の人材の専門性と配置などを調査した。

以上の調査結果は、第2年目の管理面対策への有用な資料である。しかし、既存の情報を活用したとはいうものの、ほとんどは日本側のみの関与で行われたこと、また、調査の目的をどの程度、カンボディア側が理解しているか、一考を要する。

3－2 技術面

(1) 産　科

本調査団の箕浦団員および1995年9月から1996年3月まで派遣された清水専門家の報告に委ねるが、なお、全体として個人レベルの診療に終始している。すなわち個々の患者について、バラバラな診療が行われ、将来、中央レベルの実践的研修を担う国立母子保健センターとして、診療サービスの標準化への対応が遅れている。

特に、本来、本国立母子保健センターは中央レベルの研修センターとして、正常、異常分娩への対応を標準化し各種保健医療専門家の実践教育に当たるべきであるが、プロジェクトが開始されたのちもカンボディア側医師の反応は鈍い。入院後、分娩までの経過で、正常な場合は助産婦に委ねられているが、異常な場合、程度に応じて産科医、さらに児にもリスクが予測される場合には小児科医の関与を求めるべきであるが、助産婦のレベルのみの標準化に終始している。

今後派遣される短期専門家が担うべき役割について、技術移転に重点を置くのか、制度づ

くり、あるいは標準化に焦点をあわせるのか、十分な検討を要する。

(2) 新生児

一定レベルの診療技術が移転されているが、国立母子保健センターでの新生児は不備な妊産婦診療に由来するものも多く、小児／新生児分野のみが突出することは本プロジェクトの目的ではない。

3－2(1)で述べた理由により、産科的機能とのバランスに留意し、周産期医療の研修の場としての標準化をめざしたい。

(3) 助産・看護業務

プロジェクトの範囲を超える可能性もあるが、この分野が制度的に確立していないという本質的な問題は未解決である。

専門家により、国立母子保健センターとしての患者観察用チャートなど基礎的対応が導入されている。今までA、B、C病棟がバラバラに機能していること、勤務が数日おきの24時間体制で情報の申し送り制度などが確立されていないことなど、今後は、管理面と3－2(1)、(2)に述べた産科、小児科との連携を密にしつつ標準化をめざすことを求めたい。

3－3 その他

(1) 意識改革

プロジェクト開始後1年であり、制度として具現化されるもの、数字として現れる変化が多くないことは当然ともいえる。しかし、プロジェクトは多くの面で基礎的な働きかけを行っている。現在は、ほとんど日本側が先導しているが、そのなかでも、あえていえば今まで漫然と行われていた診療、研修、管理などに対する疑問あるいは何かをしようという意識改革の芽が出てきていると感じさせられた。約1年後に予定されている新センターとしての業務のみならず、プロジェクト終了後のサスティナビリティーを考えると、この意識改革への取り組みを高く評価したい。

例えば医師／助産婦および事務管理スタッフは、以前に比べ活発で自発的行動も増えているようにみえるほか、今までの数次の訪問では経験しなかったこととして、今回初めて、整理された倉庫や新しく作られた台帳が自発的に提示された。

(2) 研修

明らかな改善はない。しかし、長期的にみると国立母子保健センターの現有人材の保健医療知識と技術、さらには指導力を高めることなく研修体制の整備はあり得ない。したがって、

現在の技術移転などはそのための準備段階と理解できる。

(3) 地方展開

アドバイザー派遣中に提案されたTBAキット配布などを通じて、地方で活動中のNGOとの連携は深まっているが、プロジェクト固有の地域活動はまだ行われていない。

(4) 人的交流

以前からの保健省、国際機関、内外NGOsなどとの人的交流は継続され、プロジェクトの各方面での活動を助けている。

4. 提　言

4－1　年間行動計画の作成

新センター竣工までに人事、財政、機器資材管理などの機構改革を行わなければならないことは日本・カンボディア両サイドとも認識しているが、全体的な具体的案作成には至っていない。既存の財務、診療記録などから日本側の努力で各種統計資料が作成されつつあるが、カンボディア側の意識、行動はきわめて乏しい。特に新センターでの活動開始までの限られた期間内に行わなければならない診療有料化案作成に関しての対応も遅れている。

これらを踏まえて、第2年度のタイムテーブルを作成し、プロジェクト専門家室、所長室ほかにも掲示し、全員の意識変化と参加を促す必要がある。

具体的に、以下を提言した。

(1) タイムテーブルの作成

約1年後の新センター竣工までの予定として以下を行うこと。

1) 新センター機構図案作成と人材配置

1996年4月中に案作成、5月予定の次Coordinating Committee（保健省を含む）で確認し、これに基づき、既存の人員と新規要請人員の配置を、遅くとも11月ごろまでに作成する。

2) 予算案作成（3)参照）

既存の調査資料などと今後派遣予定の病院管理専門家の活動を通じて、歳入歳出案を作成し、遅くとも11月ごろまでに保健省に提出する。

3) 診療有料化案

リーダーおよび所長らセンター管理層は、有料化病棟をもつカルメット病院などを早急に（4月中を提言）視察して有料化案を作成する必要がある。この原案は、保健省、JICAを含む次Coordinating Committee（5月予定）に提出し、さらに検討する。有料化についてはall or none方式（一定数のベッドを有料化し、固定料金とする）あるいはslide性（富裕者からは高額を、貧困者からは低額を徴収）などが考えられるが、最近、決定されたという政府の有料化政策を基に、早急に案を作成し、あわせて伝票なども試作して料金徴収のリハーサルも行う必要がある。1997年初頭には、少なくともこの程度までが終わっていることが好ましい。

4) 看護管理

国立母子保健センターのみならず、他の施設においても看護管理体制が確立されているとは考えられない。したがって、本プロジェクトを通じて、カンボディアの看護管理のモ

デルを作成する可能性もある。

4月中に看護／助産婦管理専門家とそのカウンターパート（後述）が他の複数の施設を見学し、5月中に試案作成、6月には部分的試行、7、8月に修正することを提言した。

5） カウンターパートの明確化

上述のように、看護体制が確立していないため、いわゆる看護部長にあたる役職が存在せず、看護／助産婦管理面の技術移転は効果的に行われていなかった。本質的には受け入れがたい点もあるが、暫定的措置として、助産婦看護婦ではないが、Medical Assistantのなかから最もふさわしいと思われる1名（チャンタイ氏－女性）を公的に将来の看護部長として任命し、カウンターパートとするよう提言した。

4－2 制度化への取り組み

一定額の資金と一定期間をもって行うODAの担うべき役割のひとつに制度を確立するための協力があると考える。すなわち、保健医療面では、一定レベルのサービスが広く、長く実施されるための制度を作成することである。プロジェクトの目的あるいは達成した一定レベルの保健医療サービスをsustainするための機構をつくることといってもよい。

カンボディアでは、外部社会の支援を得て1992年来、国家復興が行われている。

しかし、例えば国家保健計画は作成されたものの、国全体についてみると医療サービスの普遍化、標準化は、まだ、手がついていない。今までの医療が漫然と継続されているなかで、国立母子保健センターでの医療サービスも一施設内標準化にもほど遠く、同様症例に関しても診療は一定していない。

プロジェクトにより、このような状況を改善するための基礎的技術移転はある程度なされているが、移転技術の広がりは限定され、極端な場合には個人ベースに止まっている。このような場合、制度化への取り組みなく漫然と技術協力を行えば、移転された技術が特定医師の個人的収入を増やすことのみに貢献する危険性も高い。

すべての近代的制度、文化を否定したポルポト時代以後の内戦と鎖国的体制下にあったため、同国では、いわゆる役割モデルとなる熟練者や上級技術者を欠いたまま、何とか、実務的には対応してきた。

このような状況を短期間に改善することも、何ら変化が必要と認識していない多数の人々の意識を変えることが至難の業であることも明白である。しかし、一方、将来的に根づいてほしい制度や標準化された診療サービスは、カンボディア側の意識改革を伴うことなくあり得ないことも明らかである。

プロジェクトにより国立母子保健センター内運営委員会が設置され、各種問題が管理的スタッフ間で議論され始め、助産看護業務などで部分的ながら制度確立への動きが認められている

ことは1年間の成果としては十分容認し得るというだけでなく、今後への大きな期待を抱かせる。

第2年度には、新センター竣工を見据えて、人事、財務、資材管理面に集中し、健全な施設運営に必要な適正な診療有料化を具体化する必要がある。

プロジェクトチームはカンボディア側と一体となり、時限つき年間行動計画を立てること、また、日本側は、その計画に基づく専門家派遣を強力に推進する必要がある。

附　属　資　料

① ミニッツ

② 1995年度母子保健プロジェクト年報

① ミニッツ

THE MINUTES OF DISCUSSIONS BETWEEN THE JAPANESE CONSULTATION TEAM AND THE AUTHORITIES CONCERNED OF THE ROYAL GOVERNMENT OF CAMBODIA ON THE TECHNICAL COOPERATION FOR THE MATERNAL AND CHILD HEALTH PROJECT

The Japanese Consultation Team (hereinafter referred to as " the Team ") organized by the Japan International Cooperation Agency (hereinafter referred to as " JICA ")and headed by Dr. Etsuko Kita 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 of the Royal Government of Cambodia over the conduction of the Project activities.

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

Phnom Penh, March 28th, 1996

Dr. Etsuko Kita
Leader, Consultation Team
Japan International Cooperation Agency,
Japan

Dr. Mam Bunheng
Under Secretary of State for Health
Ministry of Health,
The Royal Government of Cambodia

THE ATTACHED DOCUMENT

1 The Team has requested Cambodian side to submit organogram for new National Maternal and Child Health Center by the end of April 1996, and a draft plan of human resources allocation and terms of reference of responsible person by the end of September 1996.

2 Regarding the income generation , Cambodian side has been requested to propose a standard plan of user fee system, before November 1996. NMCHC also needs to estimate necessary expense for new NMCHC in 1997 including for the cost of moving and reflect it into the request of budget allocation from Ministry of Health for fiscal year of 1997.

3 Japanese side may develop a possible plan of support in terms of a limited amount of disposable items and training in 1997.

4 Both side agreed that, from the technical point of view, it is necessary to strengthen the screening for high risk pregnancy in the community to reduce maternal death, and to standardize monitoring system in NMCHC in order to expand training capacity.

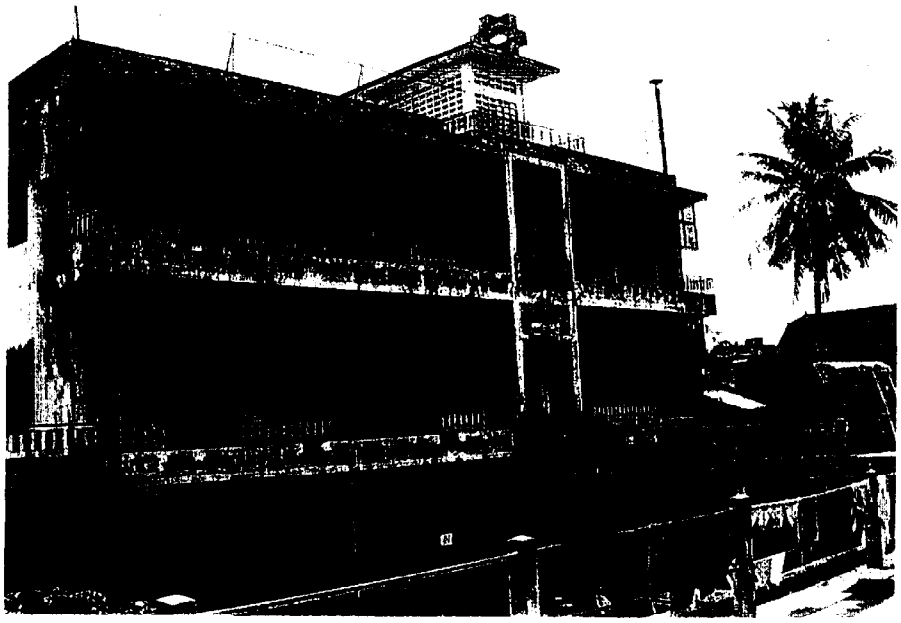
5 Next Joint Coordinating Committee will be held sometime in May 1996.

② 1995年度母子保健プロジェクト年報

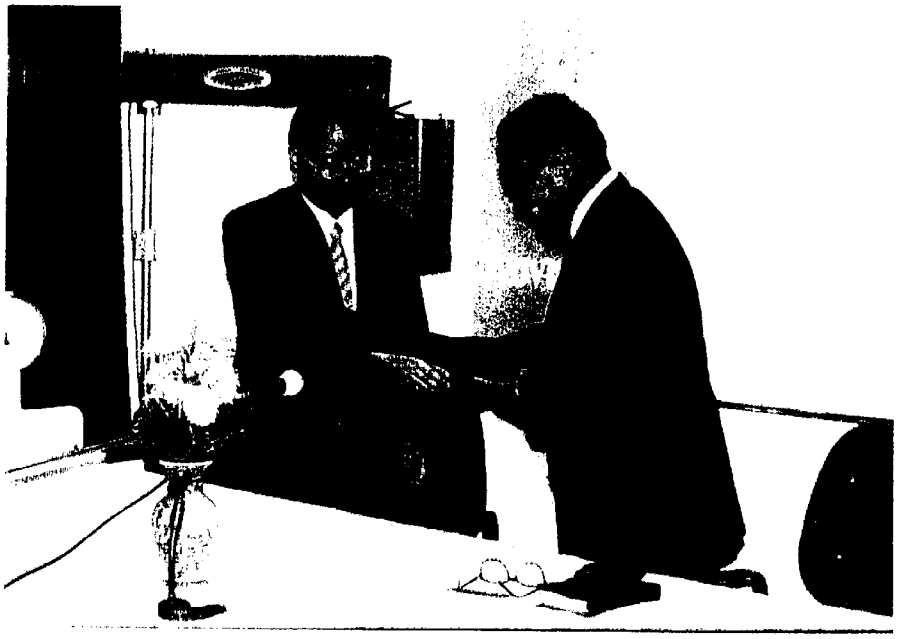
Annual Report
of
Fiscal Year 1995
for
The Maternal and Child Health Project
in
Kingdom of Cambodia

April 1996

Japan International Cooperation Agency
(J I C A)

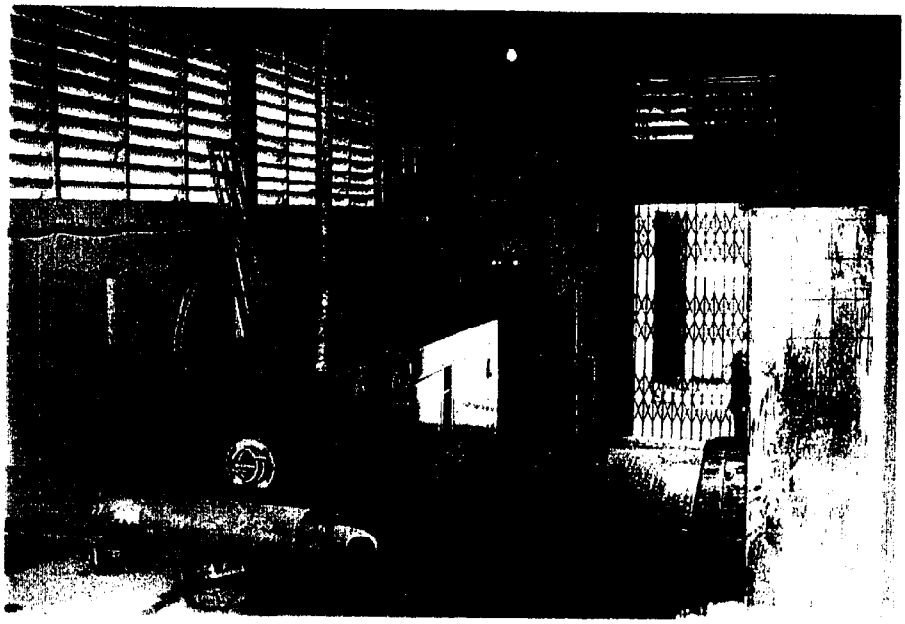


Maternity A ward of NMCHC

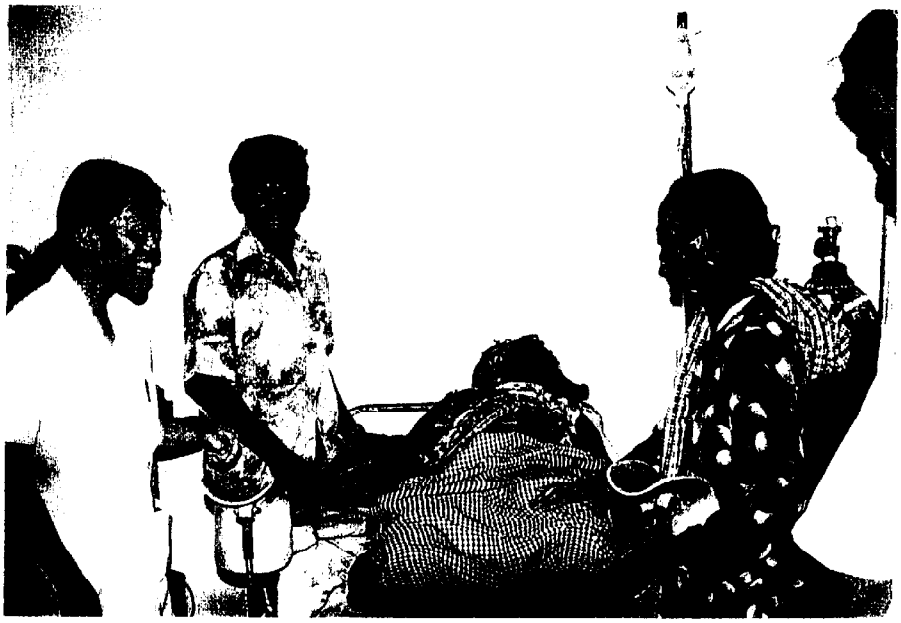


The ceremony of handing over Medical Equipment

Former electricity room



JICA provided a big generator and renovation for electricity room



Technical cooperation by Japanese midwife

Logo contest

CONTENTS

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 care activities for women and infants at the NMCHC

The activities of the project in the first year(April 1995 - March 1996)

There are three main activities of the project to achieve the overall goal.

1)To strengthen the management capability of the NMCHC

1)-1.The activities of the steering committee

The steering committee was orgnaized to improve the management capability for human resources, finance, and drug and medical supply system in NMCHC. The committee is consisted of six members from NMCHC(director, vice director, chief of technical bureau, chief of midwife, chief of administration and chief of accountant) and the all of the experts of JICA project team. The committee has started from 15th of July and held on every Saturday morning. The main themes of discussion carried out in the first year are as follows;

a. Organogram of the new NMCHC(Annex-1)

The construction of the new NMCHC has started from December in 1995 and will be completed in December 1996. All of the function of NMCHC will move in March 1997. Since some of the facilities or function are not existing in the current NMCHC, the committee discussed the new organogram for the new NMCHC.

b. Human resources (Annex-2)

The accurate number of the personnel who are working in NMCHC except Khunta Bopha Hospital was clarified by making the ID cards. Total number of the staff is 327 at the end of February 1996.

c. Financial analysis (Annex-3, 4)

The total budget demanding from the NMCHC to the ministry of health(MOH) was 1,500,793,000 Riel($600,317) including the salary for the staff in K-B hospital. This requirement does not include drug and medical materials because Central Medical Store(CMS) of MOH provides them to the NMCHC directly without cash management. On the other hand, the budget that NMCHC received for 11 months in 1995 was 468,791,761 Riel($187,517) only corresponding with 31% of total requirement.

The real cost for the material and drug for the patient's care was also analyzed to estimate the running cost in NMCHC and make a plan for the user fee system introducing by MOH in the future.

d. Drug and matcrilas (Annex-5, 6)

Drug and medical materials from CMS are always insufficient to provide the satisfactory care for the patients. JICA provides these materials(total cost: $3,500 - $4,000) every month and monitor the consumption.

1)-2. The meeting of chief of midwife (Annex-7)

The chief of midwife in maternity A, B, and C have responsibility to manage the materials and make a monthly report of patients statistics. The meeting of chief of midwife was started from June to exchange the information of statistics

2)To strengthen training activities of the NMCHC

The NMCHC is responsible for the training and education for the staff come from other provinces and students from the medical and nursing school.

Two midwives and one obstetrician as JICA experts are dispatched to train the staff in NMCHC to become trainers in the future.

3)To improve the knowledge, skill and attitude of staff in NMCHC (Annex-8, 9)

Midwifery and obstetrics are major areas focused to achieve the goal. The activities of the Japanese experts for midwifery and obstetrics are described later.

Since perinatal mortality rate is very high in NMCHC(Annex-7), resuscitation workshop was carried out in May and June. 105 midwives were received the lecture and practice of mask & bag resuscitation for the asphyxiated babies. Although most of the midwives did not know how to use the mask & bag before the workshop, 90% of them answerd to have the experience of mask & bag resuscitaion for the asphyxiated babies after 6 months of workshop. However, the perinatal mortality rate is no change before and after the workshop because most of the babies died in utero before birth. The training for the monitoring of the fetal asphyxia is necessary to reduce the perinatal fetal loss.

Baseline survey of the patients' satisfaction with care was conducted in June. 50 patients admitted in NMCHC for the deliveries were interviewed about the treatment, skill and attitude of staff. Most of the patients were very shy to answer the question. Only 3 patients complained about the attitude of the staff. More than 50% of the patients are not satisfied with the condition of the accomodation. 88% of the patients paid money to the staff and at least 38% of the patients were forced to pay. The price of demand for normal delivery is estimated as $20-50 and for Cesarean section is $80-120 in NMCHC.

4)Others

4)-1 Knowledge, attitude and practice(KAP) survey of the pregnant women for the antenatal check

The main target of this project is a pregnant women, so that the promotion activities for the pregnant women to receive the antenatal check is improtant. KAP survey of the pregnant women for the antenatal check are prepared in the first year to analyze the target people and make a plan of promotion campaign for the antenatal check in the second year.

4)-2. Provision of TBA and midwife kits

There are many NGOs working for MCH program in grassroots level. They train TBAs or commune midwives and contribute the safe pregnancy and delivery.

JICA supported their actvities by provision of TBA kits and midwife kits. 13 NGOs received TBA kits and midwife kits depending on their activities.

Input by JICA

1)Dispatch of JICA experts (Annex-10)

Four long term experts and four short term experts are dispatched in the first year of the project. Two major areas are focused to achieve the goal.

1)-1 The activity of expert of midwifery

1. Midwife/ nurse committee

There was not organization of MW/NS in NMCHC. The NMCHC has a lot of MW/NS. The committee is established to strengthen the role of MW/NS.

The committee is consisted of 4 groups as follows; management, nursing care, education, and study.

The management group plan to improve nursing system and to make daily report of patient and to manage material and medicine. The nursing care group has been improving nursing chart and planed to make nursing manual.

The education group has been making nursing manual.

The education group will train midwives in NMCHC and provinces and also students.

The study group planed to study fundamentals of nursing and case presentation. JICA provided nursing textbook in Khmer for committee member.

2. MW/NS meeting (every Wednesday)

MW/NS did not be authorized in NMCHC. There are 3wards doing same activity in this hospital. They did not have meeting together eventhough they have same problems, so that we started to solve some problems in meeting.

3. Training

We trained MW/NS about safe delivery.

#Different types of delivery position

#Preliminary care

#Resuscitation of newborn

#Management of the first stage of labor

#How to use cardiotocograph, How to read cardiotocograph

It is important that MW do monitoring and screenings of high risk delivery but they do not have any clear idea of basic midwifely. We started to use CTG and they become to be able to understand mother and fetal condition during delivery.

#Flexible midwifery by Japanese maternity home

4. Promotion of breast feeding

This hospital is certified as BFHI(Baby Friendly Hospital Initiative). We cooperated to promote breast feeding. We participated in work shop that was held 4times for 2months. The number of participants were 100.

5. Emergency chart

Many emergency cases transfered from other hospitals and provinces. The main reasons of referals are eclampcia, lot of bleeding of placenta previa, uterine rupture, retained placenta etc. The observation and assessment of patient is very important, so that we developed the observation record of emergency case to improve the assessment of patients.

6. Partograph

All midwives have been trained to use partograph by British NGO for 2years. We continue and follow up to use correctly.

7. Development of organogram of nursing division

We are now proceeding the development of organogram of nurse division for the new NMCHC.

MIDWIFE, NURSE TRAINING PLAN 1996~2000

	management	nursing care	education	study/reseach	notes
1996	1. to estabish nursing division and system 2. to be able to assess and report the condtions of patients 3. management of equipment and medicine 4. to improve workinging system and labor management to make Nursing Management Standards	1. to improve nursing charts 2. to improve nursing techniques 3. to prevent infections and control the environmental sanitation to make a Nursing Manual	1. to be able to study nursing standards 2. to study health education and implementation 3. to evaluate and improve health education to make Nursing Standards to make annual educational plan	1. to understand fundamental nursing 2. to practice presentation 3. to learn definition of medical, nursing term	to select the overseas trainee
1997	1. to be able to make an annual plan 2. to organize training system (supervision, refresh, student)	1. to be able to make a nursing plan 2. to prevent infections and control the environmental sanitation	1. to be able to train students* 2. to do refresh training	1. to be able to do a case study or conference	*according to the essencial points of the school
1998	1. to strengthen the subjects of 1997	1. to strengthen the subject of 1997	1. to continue and improve the subjects of 1997 2. to study about supervision	1. to be able to write a paper as a nursing study	
1999	1. to develop the subjects of 1998 and to be able to solve the problems of nursing management	1. to continue and improve the subjects of 1998	1. to strengthen the subjects of 1998	1. to strengthen the subject of 1998	
2000 (goal)	to be able to have policy and to manage the nursing department according to the policy of NMCHC	to be able to take care the patients by considering for each patients individually	to be able to work as a nursing trainer in Cambodia. to be able to educate the staff and student effectively	to be able to find a subject and to study without help and to present it at home and abroad	

MIDWIFE - NURSE COMMITEE MONTHLY PLAN IN 1996

	MANAGEMENT	NURSING CARE	EDUCATION	STUDY
JAN	———— *TO*	*ESTABLISH MIDWI*	*FE NURSECOMMIT*	*TEE* ————
FEB	———— *TO* To change the nursing system and evaluate at MB	*MAKE PLAN AND*	*MONTHLY PLAN*	————
MAR	To apply the new nursing system at MA | evaluate	To improve nursing chart	*To make standerd* Antenatal care Delivery Postnatal care New born baby care	Introduction to nursing. Nursing through time and space.
APR	To make daily report management of equipment |	*To make nursing manual* Antenatal care Delivery		Basic needs of clients. Clients nurse interaction.
MAY	| Preparation the list of equipment	Postnatal care New born baby care		The nursing process
JUN	To change report book |			Nursing measures to assess the clients
JUL	| | Evaluate			Nursing measures to meet the physical needs of the clients.
AUG	Management of medecin			Measures to provide safety needs.
SEP	| Preparation the list of medecin			Nutrition elemination
OCT				Infection and complication. Exercise
NOV				Administration of drugs
DEC				First aid

1)-2The activity of the obstetric expert

1 Daily activity

- Attend morning meeting of three wards (Maternity C,B and C wards)
- Take part in clinical rounds,teaching duty doctors and discussing about patients problems.

2 Obstetric activity

2-1 Caesarean section

- Present the analysis of the results of Caesarean section which shows indications are not so accurate and discuss at the MD/MA meeting in order to improve the decision of the indication of operation.
- Made the draft of proper indication.

2-2 Pregnancy complications

- Lectures and bed-side teaching to treat properly severe cases after preparing some management protocols in French : eclampsy and hypertension,prelabour rupture of the membranes, cardiopathy in pregnancy.

2-3 Normal delivery

The Cambodia midwives 'techniques are almost heartless and very rough. In cooperation with midwife experts,we tried to change their skills to be more humanized.

2-4 Another obstetrical techniques

I stressed the appropriate use of all medical technology at any times.

3 Gynecology

It seemed that there are many unrevealed cases of sexual transmitted diseases,however,by Cambodian custom and by incapacity of laboratory ,the activity is very limited.

There are some small problems concerning the operation techniques which might be improved in near future.

4 Echography

- Organize lectures and technical training as following.

Lecture :2sessions of 5 days x about 2hours /day
(total 30 participants)

Technical training :9sessions of 2days x 2~3hours /day for 2 persons
4sessions of 3days x 2~3hours/day for 2 persons
(total 26 participants)

After first lecture and training,only few doctor began to use echography because most participants are old and busy or passive,and further some younger doctor demanded to more session.

Finally about 10 doctors learned positively and their practices are increasing little by little.

5 Organizing activity

5-1 Training protocol working group

Discussing the protocols from Dec.'95 once a week in order to preparing the textbook for the first training course of provincial medical staffs. - assist and take a portion of the work .

5-2 Baby Friendly Hospital Initiation (BFHI)

BFHI is very important for MCH, but ordinary obstetricians are rather indifferent to this activity . Considering this tendency, - discuss with the program manager frequently and teach her the recent knowledge and the important notions .

5-3 Reading conference

-Organize the conference once a week for the purpose of improvement of doctors' knowledge and of learning English in the second half of the mission

5-4 MD/ MA meeting

- In case of need , lecture , presentation and discussion at the meeting once a week.

2)Provision of the equipment (Annex-11)

The equipment provided in the first year are listed on Annex-10.

3)Counterpart training in Japan (Annex-12)

Three people received the training in Japan in the fields of obsetrics, neonatology and midwifery. Their reports are attached on Annex-11.

4)Others

4)-1. Improvement of the infrastructure

a. Renovation of facilities

The existing facilities of NMCHC is very old and damaged. JICA provided small scale of renovation for the building(maternity A, B, C, pediatric department meeting room and electricity room).

b. Electricity supply system

Electricity supply was very much limited in NMCHC due to the small capacity of generator and lack of the fuel. JICA provided a big generator(75kv) and sufficient fuel to keep running the generator.

4)-2. English class

Many staff are eager to learn English. JICA provides two English teachers to conduct the 6 classes for 60 people from May 1995.

4)-3. Logo contest

Logo contest was carried out to motivate the staff to perform the task with pride as a member of the NMCHC. 39 people applied and Ms. Chhing Chan Tach(chief of midwives) won as the first prize.

Action plan for the second year

To achieve the goal, following activities will be required in the second year.

1)To strengthen the management capability of the NMCHC

1)-1. Organogram and human resources

a. To establish the organogram of the new NMCHC and decide the human allocation for each division

b. To clarify the job description and responsibility

c. To train the people of the administrative bureau

1)-2. Financial management

a. To get the information about the affordability of patients

b. To make a plan for the user fee system

c. To analyze the expenditure and make a budget plan for 1997

1)-3. Drug and medical materials, maintenance of the equipment

a. To train the staff to make a plan for the requirement of drug and medical supply depending on the needs of the patients

b. To establish the demand and supply system between the each division and pharmacy

1)-4. Health information system

a. To improve the patients' record and chart

b. To introduce the patients' card system and establish the out patients record

c. To feedback the statistics of patients to improve the clinical care

2)To strengthen the training activities of the NMCHC

a. To improve the training for students

b. To organize the reflesher training workshop for the provincial MCH staff

3)To improve the knowledge, skill and attitude of staff in the NMCHC

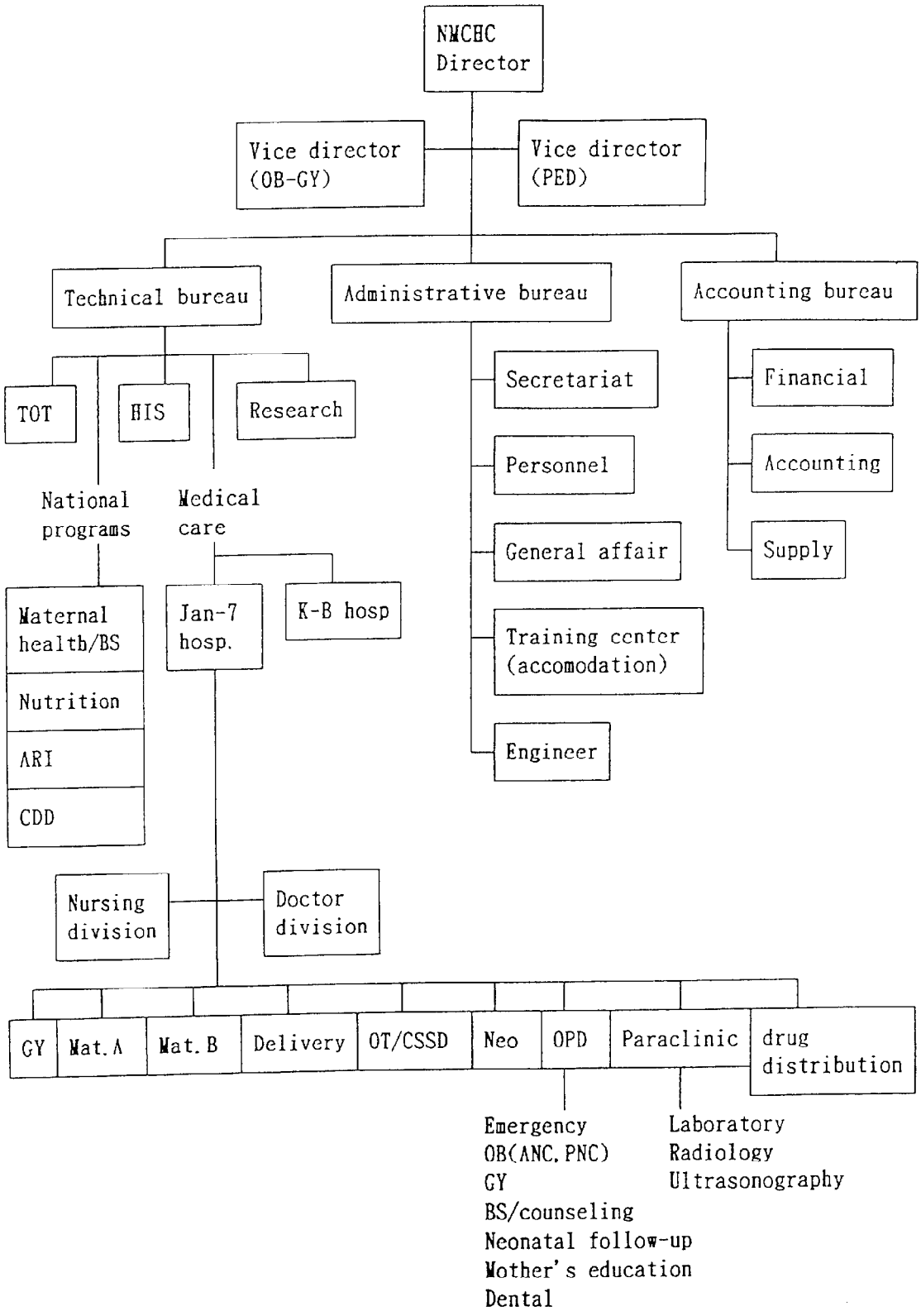
a. To train the staff of laboratory to improve the quality of laboratory service

b. To improve the capability of the assessment of the condition of the patient

4)To promote the pregnant women to receive the antenatal check

a. To make a plan of the promotion campaign for the antenatal check

Organogram of new NMCHC (draft)



NATIONAL MATERNAL AND CHILD HEALTH CENTER

ESTIMATE ACTIVE STAFFS

POSITION	DR	MA	STM	SM	SN	PN	PH	SL	PL	W	SE	HY	DV	A	C	E	SG	Sts	D	TW	TOTAL
ADMINISTRATION	2	2								2			3	6				1		1	17
TECHNICAL OFFICE	4	3			3	1															11
SECRETARY HOSPITAL											2	3	4		3	1	1				14
GY.OB MATERNITY A	6	4	4	26		2				3										1	46
GY.OB MATERNITY B	11	3	5	27		1				3											50
GY.OB MATERNITY C	7	3	2	24																	36
PEDIATRIC	14	8			22	18				3									1		66
OPD	8	8	4	18		(1NS)															39
RADIO .RX		1			2																3
OPERATION THEATER	4	3		1	(+1 1)	4				3										1	28
LABORATORY					1		1	8	2												12
PHARMACY						1	4														5
TOTAL	56	35	15	96	40	28	5	8	2	14	2	3	7	6	3	1	1	1	1	3	Total 327

DR Medical Doctor
MA Medical Assistant
STM State Midwife
SM Secondary Midwife
SN Secondary Nurse
A Accountant

PN Primary Nurse
PH Pharmacist
SL Secondary Laboratory
PL Primary Laboratory
W Worker
SE Security
HY Hygiene
DV Driver.
C Cooker

E Electrician
SG Supervisor General
Sts Stock Staff
D Dental
TW Temporary Worker
(+) Nursery

Budget 1995

ANNEX - 3(a)

RUNNING COST(1995)	NMCHC request	received(11mo)
CATEGORY-1: human resources & general supp		
chapter-10: salaries & allowances		
article-2 : permanent civil servants		
paragragh-1: basic annual salaries	275,700,000	226,134,010
2: allowances for dependants	25,054,000	
1)children under 5 years	18,415,000	
2)children at school	2,244,000	
3)marriage partner	4,395,000	
3: additional allowances	116,164,000	
1)overtime	115,408,000	
2)heavy and dangerous work	756,000	
article-3		
paragraph-1: basic wage	3,744,000	505,440
sub-total	420,662,000	226,639,450
chapter-11:general supplies,equip.& repair		
article-1 :supplies & equipment		
paragraph-1: buildings	271,564,000	53,956,250
subparagraph-2: repairs & maintenance	35,500,000	
3: water	5,454,000	2,459,850
4: electricity	230,610,000	51,496,400
paragraph-2: furniture & small equipments	20,000,000	6,690,000
3: communication(tel,postage)	9,960,000	1,089,344
4: printing,office suppl.& equip	25,570,000	15,700,000
5: books & documents		700,000
6: meetings & conferences	732,000	
7: transport costs	101,960,000	67,551,100
subparagragh-1: repairs & maintenance	30,875,000	47,016,910
2: fuel and oil	32,130,000	20,534,190
3: vehicle rental & public tr	38,955,000	
8: reception costs	16,544,000	3,925,800
subparagraph-1: for foreign delegation	2,450,000	2,128,000
2: for national delegation	14,094,000	1,797,800
9: costs for celebrations	3,278,000	
10: clothing & uniforms	25,300,000	9,930,600
11: safety equipment & special cost for hazards	16,000,000	
sub-total	490,908,000	159,542,990
12: training for improving skills	22,696,000	
subparagraph-1: research	9,544,000	

laboratory equip. for train	13,000,000	
seminars & conferences	152,000	
13: publication of inf. for public	289,500,000	47,780,000
sub-total	312,196,000	47,780,000
14: expenses specific to the scc		
subparagraph-1: drug supplies	?	
2: medical materials	?	
3: medical equipment supplies & maintenance	5,000,000	1,500,000
4: patient food	153,000,000	21,799,000
5: oxygen	37,700,000	6,358,667
6: claening	6,600,000	4,000,000
7: patient bedding & clothing	12,000,000	2,500,000
10: funeral cost	3,168,000	
11: other expence for good & service	10,000,000	
sub-total	227,468,000	36,157,667
article-2: reimbursement of costs		
paragraph-1: in-country travel		
subparagraph-1: transport costs	4,240,000	37,600
2: accomodation	16,695,000	2,528,950
3: cost of mission	5,250,000	2,705,000
sub-total	26,185,000	8,993,950
CATEGORY-3: CONTRIBUTIONS to OTHER PUBLIC INSTITUTIONS		
chapter-31: social & cultural expenses		
article-1 : direct social expenses		
paragraph-1: direct social expenses		
subparagraph-1: birth	1,200,000	
2: illness	2,400,000	
3: work accidens		
4: deaths	1,140,000	
5: invalids & handicapped	384,000	
6: aid for retirement	13,680,000	
7: aid for redundancy	4,560,000	
sub-total	23,364,000	
grand total	1,500,793,000	468,791,761

Cost of drug and material for patient's care

categoly	item	cost	total
consultation			
• antenatal check	white card	$0.5	$4.2
	medicine(including iron)	$0.2	
	vaccination	-	
	gloves	$0.5	
	laboratory examination	$3.0	
• gynecology	gloves	$0.5	$6.0
	compress, cotton	$0.4	
	medicine	$5.1	
delivery			
• normal delivery	gloves(2 pairs)	$1.0	$10.0
	suture(2 pcs)	$3.0	
	compress, cotton	$2.0	
	medicine	$4.0	
• complicated delivery	gloves(2 pairs)	$1.0	$27.0
	suture(2 pcs)	$3.0	
	compress, cotton	$2.0	
	fluid	$6.0	
	medicine(oxytocin, diazepam)	$15	
operation			
• Cesarean section	gloves(6 pairs)	$3.0	$80
hysterectomy	cutgut(10pcs)	$10	
laparotomy	compress, cotton	$	
	fluid 2l(operation)	$6.0	
	2l x 3-4 days(post)	$12	
	medicine	$10	
	anesthesia(drug, oxygen)	$22	

Drug and material consumed in 1995

	Aug.	Sep.	Oct.	Nov.	Dec.
No. of patients(Mat. A, B, C)	2081	2110		2216	2031
No. of admission(Mat. A, B, C)	410	386	454	469	433
No. of admission(Pediatrics)		50	65		43
No. of cases of OPD		1830	2211	2225	2213
No. of cases of operation		76	103	79	89
No. of cases of laboratory exam.		900	792	803	910
materials					
examination gloves	786	1174	1479	1513	1451
surgical gloves	995	1368	1838	1456	1512
compress	1103	1173	1316	1432	
cutgut No. 1-0			762	598	
No. 2-0			120	165	393
cutgut No. 1			14	9	196
No. 2			3	2	178
catheter No. 18					92
No. 22			130	118	11
No. 24			9	4	11
scalvein No. 26			16	15	8
No. 27			53	40	50
needle No. 26 1/2			250	148	74
No. 21					70
Infusion set			41	43	43
syringe 2cc			256	163	125
5cc			3657	3433	5730
10cc			3583	3179	1625
urine bag(2l)			103	88	96
urine catheter			103	88	96
alcohol	133	214	234	219	247
perfusions					
Dextrsoe 5%			57	19	24
Dextrose 10%			309	486	626
Dextrose½			24	149	10
Dextrose⅓			22	11	6
Lactate Ringer			822	712	631
Plasmastil			24	37	29
NSS			14	11	8
injectable medicines					
Ampicillin 1g			1330	361	2211
½g			114	56	93
Andrenoxil			16	43	
Calcium gluconate			55	34	31
Cloxacillin 1g			8	5	3
Metronidazol			49	48	37
Rocephine			22	12	
Vitamine K1			58	60	38

Drug and materials provided by JICA in 1995

item	June	July	August	Sep.	Oct.	Nov.	Dec.	Total
materials								
examination gloves	600	1000		2500		1500		5600
surgical gloves	600	1100		2000		1500		5200
compress	1050	1183		1500		1000	1000	5733
syringe(5cc)	500	500	500	5700			10000	17,200
syringe(10cc)	350	500	500	5700				7050
scarvein(26G)		500	300					800
scarvein(27G)					14			14
catheter(24G)		100						100
catheter(18G)				150		80	80	310
needles(26G x ½)				500				500
infusion set(Ped)		500						500
cutgut plain No. 1			84	204	180	120		588
cutgut plain No. 2			144	72	180	120		516
cutgut plain No. 3						120		120
cutgut plain No. 1-0				192	240	120		552
cutgut plain No. 2-0				240	240			480
vicryl No. 1			15					15
vicryl No. 2			21					21
Folly catheter(16Fr)				200		80	80	360
urine bag(2l)				200		80	80	360
alcohol	210	210			210	210	210	1050
perfusions								
Lactate ringer	150	300			500	600	600	2150
10% dextrose(500ml)					500	600	600	1700
5% dextrose(500ml)	120	210		100		100		530
½ dextrose(500ml)	160	360		50		100		670
⅓ dextrose(500ml)		300		50				350
plasmastil	13	8	50	50		30	30	181
gelufondin						30		30
injectable medicines								
Ampicilline(500mg)			200	1200				1300
Ampicilline(1g)			800			2000	1000	3800
Cloxacilline	50	100	200					350
Rocephine(Swiss)	10	20						30
Metronidazol(100ml)			30	30		30	30	120
Adrenoxil				50				50
Oxytocin(Germany)					200			200
Vitamine K		50		50	100	50	54	304
Calcium gluconate			50				50	100
50% glucose					100			100
Hydrocortisone					100			100
Hydralazine							45	45
Pentazocine(30mg)					200			200
Promethazine(50mg)					200			200
Largetil(25mg)					40			40
total cost(US$)	1376	2842	1322	3573	3098	4938	3486	20,635

Statistics of deliveries in 1995

	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
Normal deliveries	206	212	236	219	257	294	244
1. twin	5	1	2	3	6	11	4
2. breech	5	2	2	7	14	11	5
3. premature	30	22	3	16	14	22	18
Abnormal deliveries	92:31%	68:24%	77:25%	81:27%	88:26%	83:23%	71:23%
1. C/S	43:14%	42:15%	47:15%	46:15%	43:13%	46:13%	46:15%
2. Vacuum	32:11%	24: 9%	29: 9%	31:10%	42:12%	33: 9%	24: 8%
3. Forceps	0	0					
4. Craniotomy/Embry	8	2	1	1	3	4	1
Maternal death			3	3	0	2	3
Toxemia/Eclampsia			7		8	5	6
Hemorrhage			7		3	5	6
Neonates	284	262	315	301	351	388	320
1. 2.5kg< alive			271	250	284	338	273
2. 2.5kg< died			14	7	10	10	10
3. 2.5kg> alive			19	25	44	36	26
4. 2.5kg> died			11	19	13	14	11
Perinatal death	19:7%		25:8%	26:8%	23:7%	24:6%	21:7%
in utero	14			17	23	23	16
after birth	5			9	0	1	5
indication for C/S							
1. placenta previa	13	9	9	15	8	9	14
2. arrest of dilatation	12	7	7	5	2	1	2
3. dysproportion/CPD	6	6	6	5	10	8	10
4. small pelvis	4	4	4	3	2	5	3
5. toxemia/eclampsia	2	1	1	2	3	5	3
6. breech/transverse	2	6	6	4	5	9	4
7. abrupcio placenta		5	5		3	1	2
8. dystocia	5	1	1	2	2	4	3
9. weak pain							
10. rupture of uterus	1						1
11. fetal asphyxia				2			1
12. others	1	9	9	8	7	4	3

Resuscitation workshop for midwives: Comparison of the pre-test and post-test

1)Respondants for the questionnaire

	pre-test (before the workshop)	post-test (6 months after the workshop)	experience of mask & bag resuscitaion after workshop
number	55	41	37(90%)

2)What are indicators of Apgar score ?

indicators	pre-tset	post-test
skin color	46(84%)	39(95%)
movement/ muscle tone	45(82%)	36(88%)
respiration/ crying	45(82%)	39(95%)
heart rate	38(69%)	37(90%) ⇧
reflex	28(51%)	21(51%)

3)When you count Apgar score after a baby was born ?

time after birth	pre-test	post-test
immediately	46(84%)	26(63%)
afer cut umbilical cord	2(4%)	2(5%)
1 min	4(7%)	6(15%) ⇧
5 min	21(38%)	23(56%) ⇧
10 min	17(31%)	23(56%) ⇧
others/no answer	2(4%)	1(2%)

4)What kind of equipment you use for resuscitation of asphyxia babies ?

	pre-test	post-test
aspirator & tube	54(98%)	39(95%)
oxygen	44(80%)	35(85%)
oxygen tube		2(5%)
mask & bag		18(44%) ⇧
mask	17(31%)	14(34%)
laryngoscope		1(2%)
syringe & tube		14(34%) ⇧
dry towel		17(41%) ⇧
stethoscope		16(39%) ⇧
gauze		6(15%) ⇧
medicine	6(11%)	3(7%)
alcohol	5(9%)	

● Patients' satisfaction with care

	good	fair	bad	no answer
treatment	44	5	1	
skill	41	7	2	
attitude	38	9	※※3	
accommodations	10	12	※26	2

※※1)Some of the staff made painful sterilization of wound when she asked the question to the staff. (No. 24)
2)Some of the staff did not change gauze for the wound. (No. 24)
3)The staff did not show up even though they called three times because urine did not pass. (No. 36)
4)(No. 44)

※ 1)no electricity
2)dirty toilet, no water in the bath room
3)broken or no window

● Payment for the staff

paid	44
did not pay	5
no answer	1

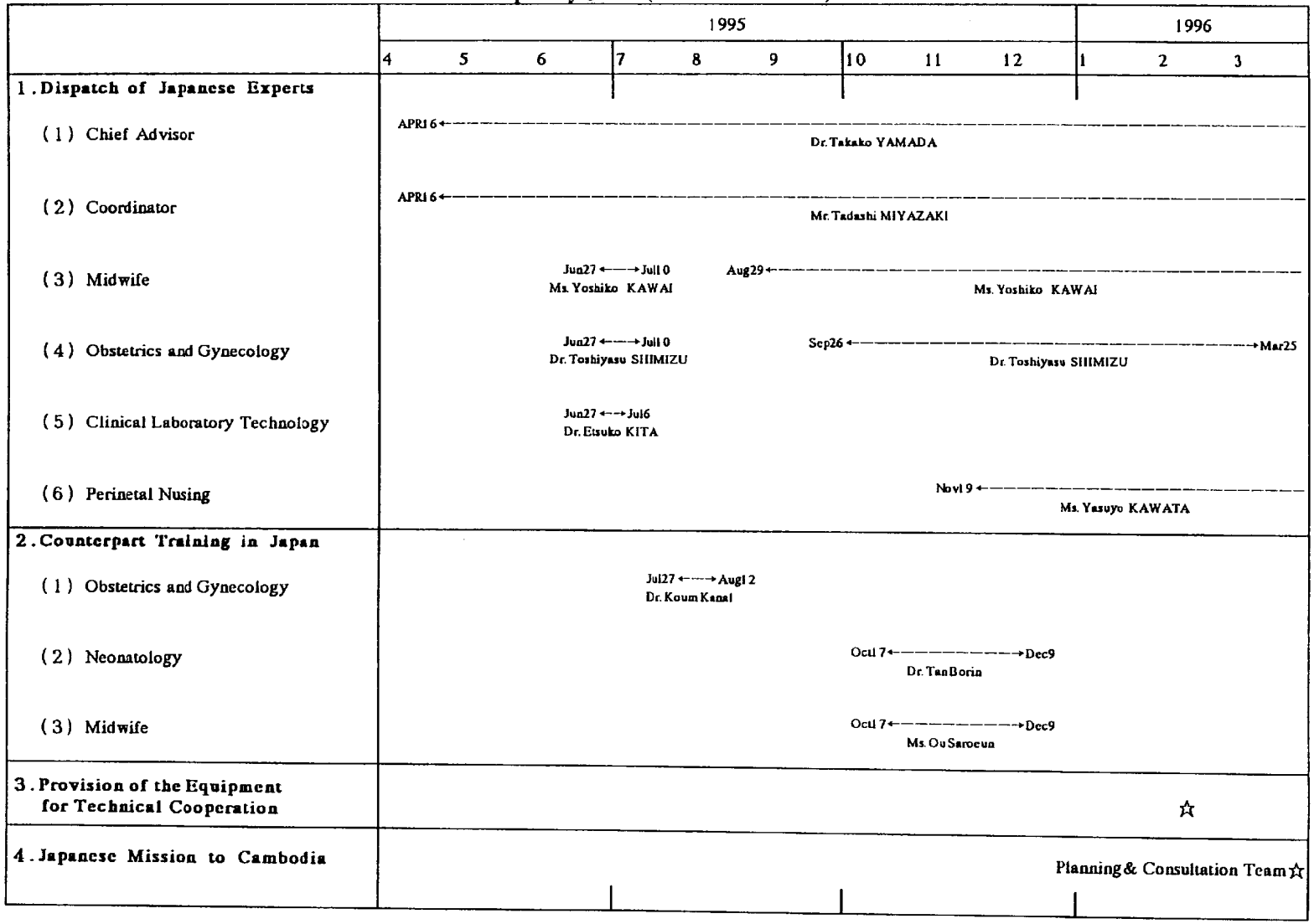
demand from staf	19
voluntarily	5
unknown	20

amount	staf	medicine	room charge
~ $5	4		3
$6~ 10	4	5	
$11~ 20	11	3	
$21~ 50	13	1	
$51~100	7		
$101~150	3		
unknown	2		

1)She sold cow(No. 14)
2)She sold clothes(No. 30)
3)She borrowed money from her relative(No. 23, 34)

1)Average cost for Cesarean section is $80~120
2)Average cost for normal delivery is $20~50 (episiotomy:$50)
3)Affordable cost for most of the patients is less than $20.
4)Some of the patients think hospital delivery is free charge.

Input by JICA (Fiscal Year 1995)



LIST OF EQUIPMENT

No.	Item	Description	Quantity		Amount (US$)
1.	Generator	Denyo; Brand New 75KVA	1	pc.	30,000
2.	Educational Equipment				
	--Overhead projector	3M; Portable Overhead Projector 2770	1	pc.	1,100
	--Slide projector	Kodak; Ektagraghic II A Projector	1	pc.	2,722
	--Slide Tray	Kodak; Model 2	2	pcs.	82
	--Slide Processing machine	Polaroid; Power Slide Processor	1	pc.	893
	--Slide Mounter	Polaroid; Slide Mounter with Light	1	pc.	119
	--Mount	Polaroid;	500	pcs.	125
	--Slide Film	Polaroid; Polachrome CS	20	pcs.	860
		Polablue BN	20	pcs.	740
	--Camera	Canon: EOS 888	1	pc.	500
	--Video monitor	SHARP; 29" color monitor 29FN1	1	pc.	860
	--Video player	SHARP;VC-MH80	1	pc.	390
	--Medical Books		81	pcs.	25.965
3.	Transport Vehicle	Mitsubishi; PAJERO V32WNHL	1	pc.	29.400
4.	Office Equipment				
	--Photo Copy machine	Canon; NP6016	1	pc.	2.680
	--Computer with accessories	Apple;Machintosh Power PC 6100/66	1	set	3.748
	--Printer	Apple;Mac Laser Printer 360	1	pc.	1.762
5.	Infant Warmer	Drager; Babytherm 8000 OC	1	set	8.778
		Nakamura; NIW-2000	1	set	6.098
6.	Portable Incubator	Nakamura; H-100	1	set	2.439
	with spear cylinder	Nakamura; 1-028	2	pcs.	366
7.	Photo therapy Unit	Drager; Phototherapy unit 4000	1	unit	4.182
8.	Potable Suction Unit	Atmos; Atmolit 26	1	unit	1.461
9.	Equipment for Newborn Baby Care				
	--Infant Scale	Atom; NS-44	1	set	1.927
	--Laryngoscope Hundle	Igarashi; No.684-1	1	pc.	452
	--Laryngoscope	Igarashi; No.693	1	pc.	134
	--Laryngoscope Halogen Bulb	Igarashi; No.707-2(s)	5	pcs.	170
	--Stethoscope for neonates	Atom; CA-1100	10	pcs.	900

LIST OF EQUIPMENT

No.	Item	Description	Quantity		Amount (US$)
10.	Bilirubin Measuring Unit				
	--Auto-correction Bilirubinmeter	Toitsu; BL-200	1	unit	7,317
	--Hematocrit Centrifuge	BDH; Model No.403 0200 02	1	pc.	2,106
	--Hematocrit Capillary Tubes	BDH; Model No.403 0204 02 1000/B	1	box	78
	--cristaseal	BDH; Model No.403 0208 00 10tray/B	1	box	45
	--Reader,micro hematocrit	BDH; Model No.403 0202 00	1	box	177
	--Lansets	BDH; Model No.403 0640 00 100/B	10	boxes	55
11.	Resuscitation Equipment				
	--Ambu Bag with mask	Ambu; Model R No.083 019 000	1	pc.	139
	--Ambu mask	Ambu; size 00 No.000 251 001	5	pcs.	105
		Ambu; size 0 No.000 251 002	1	pc.	21
	--Jackson Rees Resuscitation Bag	Atec: No.07007305 0.5 ℓ 20/B	1	box	464
	--Endotracheal tube	Portex; 2.5mm 10/B	5	box	735
		Portex; 3.0mm 10/B	5	box	735
		Portex; 3.5mm 10/B	5	boxes	735
	--Infant Feeding Tube	Atom; NS-510 4Fr 100/bag	5	bags	855
		Atom; NS-510 5Fr 100/bag	5	bags	915
12.	Pulse Oxymeter	Nellcor; N-180	1	pc.	4,268
	Pulse Oxysensor	Nellcor; N-25 24pcs/box	5	boxes	10,065
13.	Infusion Unit				
	--Syringe Infusion Pump	Nakamura; SP-60	1	pc.	3,659
	--Argyle Tubing Connecter	Shawood; MAR2702	100	pcs.	300
	--disposable syringe	Nipro; 08-902 50㎖	500	pcs.	1,500
	--Extension tube	Baxter; IM8511 30/B	10	boxes	1,155
14.	Fetal Monitor	Toitu; cardiotocograph MT-325	1	set	10,330
	--paper for fetal monitor	Toitu; 10pkt/p	1	box	207
15.	Electro-Surgical unit	Coagulasem	1	unit	1,320
				TOTAL	175,889

REPORT OF TRAINING IN JAPAN

1. NAME : Dr. KOUM KANAL
2. Title of the Course : Obstetric and Gynecology

3. Duration : July 27 , 1995 to August 12 ,1995

4. Background and Purpose of the course :

Since 1992 , Japan has cooperated with Cambodia in their Medical policy by sending medical advisers to the Ministry of Health . Maternal and perinatal medicine has not well developed yet in Cambodia yet, and to cope with this situation , a project- type technical cooperation was begun in order to train staff of the National MCH Center this year .

5. Aims of this Course :

To understand the perinatal medicine as a team care based on the cooperation between obstetrics and neonatology. .

6. Method of the Course : Lecture and observation .

7. Language to be used in the Course : English .

8. JICA officers and supporting staff :

Training officer at TIC : Ms Mika TAMAFUJI
Training coordinator : Ms Kaori KAMOTO

9. Course schedule : Please refer to the next page .

ACTIVITIES IN DETAIL :

July 28, 1995 : Briefing Program at briefing room of TIC . After registration the officer explained on today's schedule and presented the video screening "Guide to JICA and training for progress". I contacted with training coordinator in charge and TIC observation tour was done.In afternoon session, TIC staff explained transportation, Bank Card and watch the video screening "The Beginner's Guide to Tokyo trains and subways".

July 29, 1995 : Half day bus Tour. Visit the Imperial Palace, the Meiji Temple, and Shinjuku down town. From July 31 to August 1 : lecture and observation at the International Medical Center of JAPAN. After the welcome from the Director of Training Division, Bureau of Int'l cooperation and welcome from Mr. Deputy Director of the Int'l Medical Center of JAPAN, Dr. SHIMIZU gave the information by providing the video screening about the different activities of JICA and Maternal and Child Health Care in JAPAN since before 2nd World War until today, guide about the normal delivery and situation of Maternal and Child Health in JAPAN. On the 2nd day I concentrated on the observation of different activities in International Medical Center especially in the operating theater (observation of a type of hysterectomies, OPD for gynecology , paraclinics check up, hysteroscopie and hysterographie, colposcopie, ultra sound and scanner).

On the afternoon of August 1, I went to TOKYO Women's Medical College to participate the weekly perinatal conference at the Maternal and perinatal Center .

From August 2 to August 4 : Observation and discussion about Maternal and perinatal care at Maternal and perinatal Center in TOKYO Women's Medical college with professor Dr. Nakabayashi and his staff to discuss " How to manage the pregnant women at risk during the delivery time and how to manage the new born infants at risk especially premature babies.

In August 6 I moved to TOCHIGI by express train and stay in Asaya hotel. In August 7 , after the welcome of MAKIO YAGISAWA , Mayor of Fujihara Town, I visited the municipal health center of Fujiwara-Cho and Kawamura hospital. At Fujiwara Cho municipal health center , : Observation and discussion about the basic activities of this center with their staff and the volunteers in this region (observation of nutrition education and children growth check up, surveillance and rehabilitation of the development retarded children). In August 9 , I went to IMAICHISHI health center to observe the ante natal visit and growth monitoring and education for the children .

At Fujiwara municipal health center, I had a plenary discussion about the community participation with the volunteer of the region .

Course Schedule for Mr. KOUM Kanal
Course Title : Obstetrics and Gynecology

date	time	program/curriculum	supervisor	name, place&phone of institution	name&phone of accommodations
Jul. 27(Thu)		Arrival			TIC ☎03-3485-7051 (7/27 - 8/6)
28(Fri)	9:40-	Briefing / Program Orientation	Ms. Tamafuji, JICA Officer	TIC ☎03-3485-7016	
29(Sat)	8:45-	Bus Tour			
30(Sun)		Free			
31(Mon)*		Training Orientation at Int'l Medical Center of Japan O:Hospital of the Center	Mr. Moriya Dr. Aoyama	Int'l Medical Center of Japan ☎03-3202-7181	
Aug. 1(Tue)		O:Obstetrics and Gynecology			
2(Wed)* 3(Thu) 4(Fri)		Training at Maternal and Perinatal Center, Tokyo Women's Medical College	Dr. Nakabayashi, Professor	Tokyo Women's Medical College ☎03-3353-8111	
5(Sat)		Free			
6(Sun)*		Move to TOCHIGI			Asaya Hotel ☎0288-77-1111 (8/6 - 8/11)
7(Mon)* 8(Tue)* 9(Wed)* 10(Thu)*		O:Fujiwara-cho O:Kawamura Hospital O:Imaichi-shi		Kawamura Hospital ☎0288-77-0085	
11(Fri)*		Move to TOKYO			TIC (8/11 - 8/12)
		JICA Evaluation	Ms. Tamafuji	TIC	
12(Sat)		Departure			

* : Coordinator assigned when marked
O:Observation

Report of training in Japan

Name : Tan Borin

Title of the course : Neonatology

Duration: : Oct. 17Th, 1995 - Dec 9 Th, 1995

Briefing session;

Oct. 18. 1995:Registration, explanation on today's schedule

Video screening : 1. Guide to JICA 2. Training for progress

TIC observation tour

Contact with training coordinator in charge

Video screening:"How to protect yourself from fire and earthquake"

Explanation of distributed materials

Explanation of transportation

Video screening:"The beginner's guide to Tokyo train and subways"

Distribution and explanation of bank card

General Orientation

Oct. 19. 1995:Explanation about programs

Opening speech:Mr. Mitsuo

Japanese society and people:Mr. Sozo Yokoyama

Japanese politics and government:Prof. Emeritus Fusao Yamaguchi

Japanese history and modernization:Mr. Mikio Sakamoto

Oct. 20. 1995:Education in Japan:Prof. Masako Kamijo

Japanese conversation

Japanese economy:Prof. Toshikazu Hamada

Oct. 21. 1995:Half-day observation tour of Tokyo

-Meiji jingu shrine

-National stadium

-National diet building

-Governmental quarter

-Stop on route at Imperial Palace

-Return to TIC by round through Sinjuku

The system of neonatal care management

At International Medical Center of Japan

-For normal new born baby

They put them in one room, separated from mothers. Every day, nurses check skin bilirubin, measure head circumference, body tem-

perature,weigh body weight and mothers give breast milk in the feeding room.They take care the baby for 3days if there are no problem,they transfer them to their mothers.

-For high risk baby

They take care babies at NICU.They check blood sugar, bilirubin, blood gas analysis, CRP,measure body temperature and weigh body weight.They monitor saturation of oxygen,heart rate and respiratory rate.

-At NICU

The cleanness is very important to prevent infections,so that before entry NICU every body must change their shoes,wear sterilized gown and wash their hands.

At Tokyo Women's Medical College

-For normal new born baby

The well new born can stay with mother one day after birth. Pediatricians have to check bilirubin,physical examination on the first and fifth day of age.Every day,nurses do their routine work: measure body temperature,weigh,head circumference, check skin bilirubin.

-For high risk baby

The patient must be transferred to NICU.When there are premature baby was referred to NICU,nurse has to prepare incubator (warming ,connected O2) before baby will come.They do examinations,chest X-ray,make drip infusion in incubator to avoid hypothermia of baby.Every morning,pediatricians round to discuss the condition of all of babies admitted. Duty doctor presents the problem of babies and some results of laboratory examinations to doctors in charge.At NICU,all doctors can do chest X-ray,ultrasound, blood examinations (bilirubin,blood sugar,blood gas analysis,electrolytes)by themselves. Every Tuesdays at 4:00pm they have a perinatal conference including OB/GY and pediatricians.They discuss about high risk mothers and conditions of babies admitted last week.At Cesarean section and high risk deliveries,pediatricians must attend and do resuscitations for asphyxiated babies,after that the baby was transferred to NICU. I have been to Fukuoka with Dr.Yamada and Dr.Qader from Bangladesh.I have visited St.Mary's Hospital,there are a big NICU

including 130 beds (30 beds for severe cases). In this training I have gained some knowledge for normal new born infants and high risk babies.

According to my experience in Japan ,I plan to do in the future:

1. To prevent hospital infection
   - -establish the cleanness
   - -hand-washing
   - -wear sterilized gown in the nursery
   - -using disinfectant
2. To prevent birth asphyxia
   - -Pediatricians should attend the high risk deliveries and Cesarean section to do resuscitation quickly at birth.
3. To reduce mortality rate.
   - -All babies should transfer to neonatal care as below
   - -birth asphyxia
   - -Mother has fever or complication
   - -premature baby
4. To improvement neonatal care
   - -Reorganize the good relation between obstetrician and pediatrician to share each other about condition of babies and mothers.
   - -Share some knowledge about neonatal care to other pediatrician and nurse.

Report of training in Japan

Name : Mrs. Ou Saroeun

Title of the course : Midwifery

Duration : Oct. 17. 1995~Dec. 9. 1995

Briefing session;

Oct. 18. 1995: Registration, Explanation on today's schedule

Video Screening: 1. Guide to JICA 2. Training for progress

TIC observation tour

Contact with training Coordinator in charge

Video screening: "How to protect yourself from fire and earthquake"

Explanation of distributed materials

Explanation of transportation

Video screening: "The beginner's guide to Tokyo train and subways"

Distribution and explanations of bank card

General Orientation

Oct. 19. 1995: Explanation about programs

Opening speech: Mr. Mitsuo

Japanese society and people: Mr. Sozo Yokoyama

Japanese politics and government: Prof. Emeritus Fusao Yamaguchi

Japanese history and modernization : Mr. Mikio Sakamoto

Oct. 20 1995: Education in Japan: Prof. Masako Kamijo

Japanese conversation

Japanese economy: Prof. Toshikazu Hamada

Oct. 21 1995: Half-day observation tour of Tokyo

The system of neonatal care management

At International Medical Center of Japan

-For normal new born baby

After checking vital sign and cleaning the baby, the midwives took them to put in one room, separated from mothers. Every morning, midwives check skin bilirubin, measure body temperature , measure head circumference, weigh body weight. When the baby was hungry, all mother went into the baby room and give breast feeding. Midwives took care the baby for 3 days then they sent them to stay with mother.

-For high risk baby

They put them in the NICU. They check blood sugar , bilirubin, blood gas analysis, measure body temperature and weigh body weight. They put the monitor, saturation of oxygen, heart rate and respiration rate. At NICU, the cleanness is very important to prevent infection, so that before go into NICU, everybody must change their shoes, wear sterilized gown and wash their hands.

The system of maternity care management

Japanese pregnant women know about the health care, so that they come to receive examination in the hospital. Although they are not admitted, they had all documents same as admission patients. All documents should be kept in hospital for five years. According to this system Japanese patients easy to be followed for their disease.

All maternities in Japan have a great management. Midwife are divided to three teams and each team works eight hours per day. Every morning they have a meeting be fore hand over They discuss some problems that they have.

A good relationship between a midwife and a midwife , doctors and patients. They cooperated together. When the patients come to admission, a midwife completed her history in the documents and followed vital sign, check blood pressure, temperature, pulse, fetal heart rate, contraction , dilatation of cervix until delivery.

During labor, the midwife explains to the patients her confidence, happiness and unfearfulness. They never keep her stay alone.

After delivery the patient should be stay for two hours in the delivery room, then they transfer her to post-natal room.

During admission, midwives invited all mothers to educate about taking care new born baby , clean body, breast feeding and nutrition by video.

High risk pregnant women, are also invited to see video described activity, position of labor.

Patients are explained about family planning technique of taking care baby before discharge. Patients should visit the hospital to receive the check of themselves and babies after one month

They have one book for mother and baby. This book is very important to control mother until new pregnant and babies are followed childhood until school age.

In this training, I have gained some knowledge about system of maternal and new born care management for normal cases and abnormal cases.