



Memorandum

Date July 2, 1982

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Subject Foreign Trip Report (AID/RSSA): Thailand, April 18-May 9, 1982

To William H. Foege, M.D.
Director, Centers for Disease Control
Through: Horace G. Ogden
Director, CHPE *HGO*

SUMMARY

- I. PLACES, DATES, AND PURPOSE OF TRAVEL
- II. PRINCIPAL CONTACTS
- III. SCOPE OF WORK
- IV. ACCOMPLISHMENTS
 - A. Background
 - B. Problems Encountered and Possible Solutions

ATTACHMENT A: Procedures for the Management of Family Planning Supplies
ATTACHMENT B: Preliminary Trip Report

SUMMARY

This was my second trip to Bangkok to assist the Government of Thailand's National Family Planning Program (NFPP) in the improvement of its supply system. Working with officials from USAID/Bangkok and the Ministry of Health (MOH), Family Health Division (FHD), a number of problems were identified and solutions proposed and agreed upon. We drafted a manual of procedures for supply management and agreed upon a step-by-step schedule for implementation. The major changes in the supply system will be (1) the establishment of regional warehouses to relieve overstocking at the central warehouse; (2) improved reporting procedures which will allow service statistics to be more nearly consistent with data on contraceptives issued to users; (3) procedures to help reduce the number of items managed by the system and to maintain the basic supply list at the lowest level commensurate with program needs, and (4) the establishment of a maximum-minimum system for stock to be maintained at all program levels. Preliminary work was also done on the computerization of supply reports and inventory control at Central and Regional warehouses.

I. PLACES, DATES, AND PURPOSE OF TRAVEL

Bangkok, Thailand, April 18-May 9, 1982 to provide logistics management assistance (Previous related trip: November 12-December 12, 1980; See Thailand RSSA Report dated January 9, 1981). This travel was made at the request of the USAID/Bangkok Office of Health, Population and Nutrition, and USAID/Washington Office of Population (POP), Family Planning Services Division (FPSD). It was in accordance with the Resource Support Services Agreement between CDC/CHPE/FPED and USAID/POP/FPSD. The trip was in conjunction with travel to Honolulu, Hawaii; Dacca, Bangladesh; Colombo, Sri Lanka; Manila, Philippines, and Jakarta, Indonesia, to determine the feasibility of a proposed regional workshop on family planning logistics for Asia. A separate report has been prepared for that activity.

II. PRINCIPAL CONTACTS

A. Family Health Division (FHD), Ministry of Health (MOH), Royal Thai Government

1. Dr. Prasert Suvanus, Director
2. Dr. Morakot Kornkasem, Deputy Director
3. Dr. Suvanee, In-charge, Voluntary Surgical Contraception (VSC) Program
4. Dr. Nonglaks Bunnag, In-charge, Logistics
5. Kuhn Paradee, In-charge, Central Warehouse
6. Kuhn Pornsinee, Assistant Chief, Resources and Evaluation Section
7. Kuhn Suthon, In-charge, Service Statistics System

B. USAID/Bangkok

1. David Oot, Population Officer
2. Kuhn Karoon Rugvanichje, Assistant Project Officer
3. Charunee Bejrakashem, Administrative Assistant
4. Kanda Suraskulwat, Administrative Assistant

C. Columbia University

1. Tony Bennett, Population Advisor

III. SCOPE OF WORK

The purposes of the Bangkok trip (as stated in Bangkok cable number 17468) were:

- (1) Develop a comprehensive Commodity Management Improvement (CMI) plan. Such a plan would constitute the first step in the CMI process as envisaged under the proposed Population Planning II project. The plan would detail steps to be taken to improve procurement planning, budgeting, storage, distribution, and monitoring.
- (2) Review modified reporting forms and plans for physical inventories to determine if data will be adequate to meet the National Family Planning Program (NFPP) and USAID data needs.
- (3) Assist NFPP in identifying and implementing actions needed to adequately accommodate large quantities of contraceptives to be received and stored at both central and regional level during late 1982. This task will include systematic review of central warehouse inventory and procedures and plan for establishment of regional warehouses.
- (4) Assist (NFPP) in identifying and installing mini-computer (Apple II) software, which can be used to facilitate processing of monthly and quarterly stock reports. Such software would be used to help identify locations of inappropriate stock levels based on contraceptive use data.

Since I am not skilled in computer programming, Mr. William Felling of the John Snow Public Health Group, Inc., Boston, Massachusetts, joined me during the last week of my visit and stayed an additional week to work with the Apple II computer; he will file a separate report.

IV. ACCOMPLISHMENTS

A. Background

Upon arrival in Bangkok, I met with David Oot and Kuhn Karoon to review the scope of work and various documents relative to the logistics system. We then met with Dr. Prasert and his staff to establish working relationships and a work schedule.

Our decision was that Kuhn Karoon and I would work with Dr. Nonglaks, Kuhn Paradee, Kuhn Suthon, and Mr. Bennett on a daily basis or as needed to discuss the problems with the logistics system, agree upon solutions, and set a schedule for implementation.

B. Problems Encountered and Possible Solutions

During the consultancy we discussed a number of topics in an effort to find ways to improve the logistics system of the NFPP. All the items listed here were agreed upon.

1. We have agreed that the procedures of the supply system must be clarified and documented in such a way that all those involved with the system can be given guidelines to help them manage the system more effectively. Attachment A is a draft of such a procedure for all levels of the program. The draft is not complete in that it does not describe the procedures for inventory control. We have agreed that the present procedures are adequate; however, they should be described in detail and added to this draft before the final supply manual is written. The plan is to test the procedures in a few provinces, make whatever adjustments are necessary and install the system nationwide.

During the test of the system a training course will be designed, and all persons with responsibility for managing supplies at all program levels will be trained as the first activity in the installation of the new supply system.

2. The primary purpose for establishing regional warehouses is to transfer the responsibility for reupplying the Provincial Chief Medical Offices (PCMOs) from the Central Warehouse to a location closer to the PCMOs. In so doing the pressure for storage at the Central Warehouse should be relieved. Other advantages are that shipping costs should be less and the time required to ship to the PCMOs should be reduced. The main disadvantages are the cost of operating the regional warehouses and the need to identify personnel with experience in logistics to staff them.

To accomplish the benefits, the regional warehouses should be fully stocked with all supplies used by the NFPP supply system. At the present time equipment, especially equipment with a high value, should continue to be managed by the Central Warehouse. The present plan is to attach the regional warehouses to MCH centers, except that in Bangkok the Central Warehouse will function as a regional warehouse for the Central Region. Including Bangkok, there will be 7 regional warehouses; they will all be operational within 2 years. The locations of these warehouses and the provinces to be served by each is shown in Figure 1.

3. All locations within the NFPP will be assigned a source of supply. No location will be allowed to draw supplies routinely from any source other than the one designated. As mentioned above, equipment will continue to be managed from the Central Warehouse. In the future, all provincial hospitals will draw their family planning supplies from the PCMOs. All other government organizations and private voluntary organizations (PVO) that take their supplies from the NFPP will be asked to use the procedures outlined in paragraph #1 of the attached Procedures for the Management of Family Planning Supplies (see Attachment A) in their own family planning supply systems. In this way logistics reports for the outlets that take their supplies from the NFPP can be processed separately from others who have their own sources of supply so that logistics data and service statistics data will be comparable.
4. Where possible, incoming shipments will be diverted directly from port clearance to the regional warehouses without passing through the Central Warehouse.
5. The NFPP supply system will not manage low value, readily available items such as cotton, disinfectants, etc. These will be purchased locally.
6. The most recent (December, 1981) annual report from the Central Warehouse will be circulated to all department heads of the Family Health Division with a request that they indicate which items on the stock list are no longer needed and to provide shipping instructions for as many items as practicable to be shipped to the field.
7. A committee of medical experts within NFPP will be assembled to review the stock list for the purpose of identifying any items that are duplicative or are no longer used by the program. They will make recommendations as to the disposal of these items. This committee will be permanent for the purpose of reviewing and approving any new items to be added to the basic stock list. The NFPP should attempt to keep this list as small as possible to serve the needs of the program.

8. After the activities in paragraphs 6 and 7 have been completed a basic stock list will be prepared. This list will include the name, stock number and package quantities of each type or brand of supply that will be available through the NFPP supply system in the future. After the stock list has been completed, copies will be furnished to all program locations throughout the country. The list will be updated from time to time as new items are added to the system and old items are deleted. An example of how this stock list should look is contained in Attachment B.

Attachment A to this report contains a preliminary draft of supply management procedures for all program levels. Attachment B is my preliminary trip report, which outlines the actions needed and target dates for completion. These two attachments contain suggestions for forms and procedures. It should be emphasized that these are preliminary documents and might need modification as this project progresses.

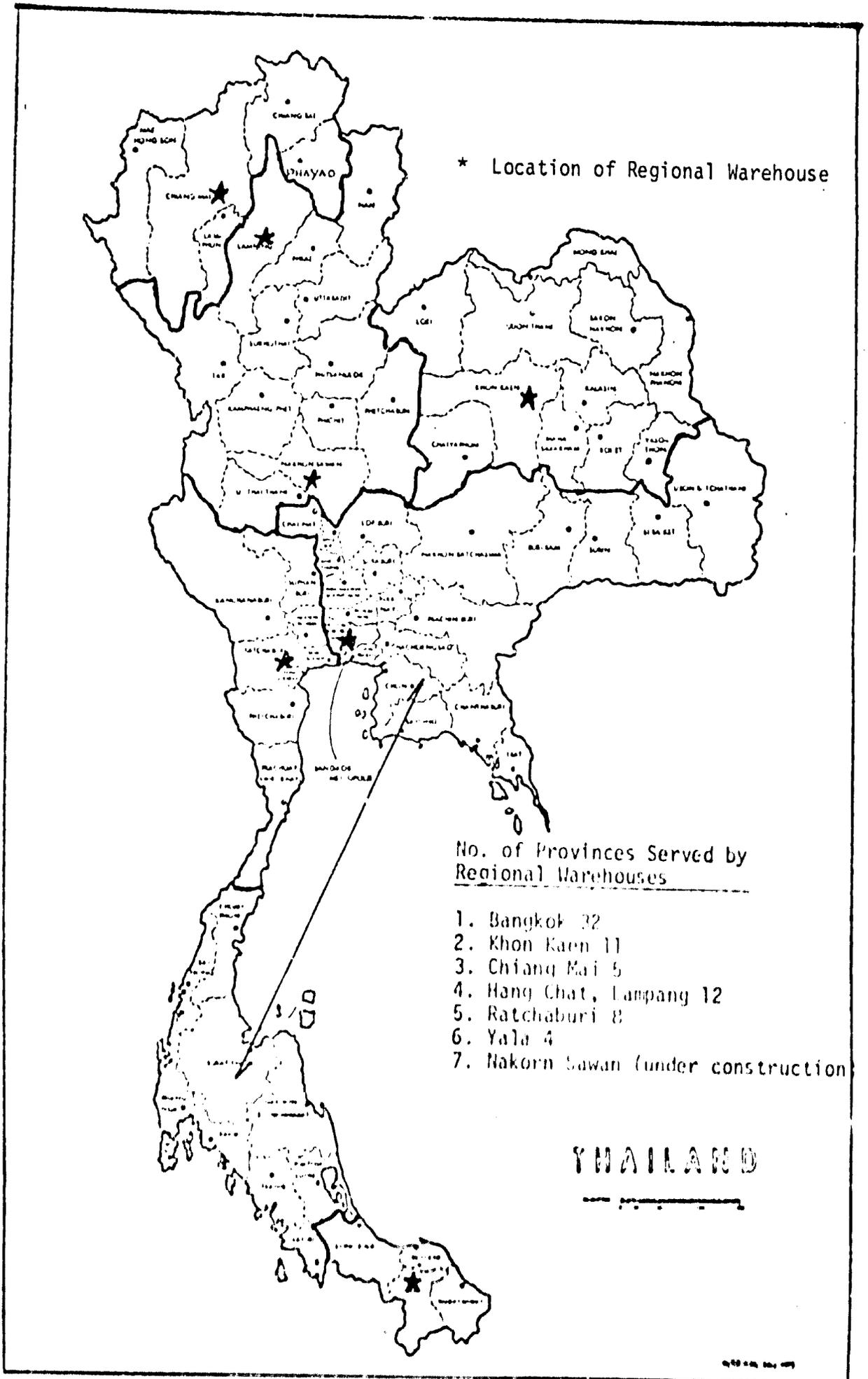
When Mr. Felling arrived, we discussed the need for data processing so that analysis can be simplified and management information produced on a timely basis. We considered not only processing supply data from the field, but also, adapting the inventory control system at Central and Regional levels for computerization. One problem is that the Apple II computer being used by the program does not have sufficient data storage capacity to be useful for all these purposes. Problems relative to data processing were to be resolved after my departure, and the final decisions are found in Mr. Felling's report.

It was a pleasure to work in this dynamic family planning program again. I would like to express my appreciation to Kuhn Karoon, Kuhn Charunee and Kuhn Kanda for their support. As the management of the FHD implements the activities agreed upon here, there might be a need for assistance in evaluating progress; if so, I would be happy to return to Bangkok.

Jack L. Graves, M.P.H.



FIGURE 1



ATTACHMENT A

PROCEDURES FOR THE MANAGEMENT OF FAMILY PLANNING SUPPLIES

D R A F T

FAMILY HEALTH DIVISION

NATIONAL FAMILY PLANNING PROGRAM

I. Procedures for the Management of Family Planning Supplies in OUTLETS.

A. Introduction

For the purposes of this instruction an outlet is defined as any place from which contraceptives are dispensed to users. The types of outlets supplied by the National Family Planning Program (NFPP) supply system are:

1. Midwifery Centers (MWC)
2. Tambon Health Centers (THC)
3. District Hospitals (DHOSP)
4. Provincial Chief Medical Office (PCMO) Clinics
5. Provincial Hospitals (PHOSP)
6. Municipal Health Centers (MHC)
7. MCH Centers
8. The clinics of some of the private voluntary hospitals and organizations (PVO)
9. Other government hospitals and organizations (OGO), such as military and university.

In addition, some MWCs and THCs provide contraceptives through village health volunteers (VHV) and some PCMOs and DHOSPs provide contraceptives through mobile units. VHVs and mobile units are considered to be extensions of the organizations to which they are attached, and they will be supplied from their parent organizations.

B. Source of Supply

The first six types of outlets listed above will be resupplied on a monthly basis from stocks maintained at the PCMO. MCH centers will be resupplied from the stocks maintained at Regional Warehouse attached to MCH center or, if no Regional Warehouse has been established, they will be resupplied from the Central Warehouse in Bangkok. Small PVOs with operations limited to a few provinces outside the Bangkok area will be resupplied from the PCMO; large PVOs which operate on a national scale will be resupplied from the Central Warehouse. Other government hospitals and organizations located outside the Bangkok area will be resupplied from the PCMO; those in the Bangkok area will be resupplied from the Central Warehouse.

The outlets of PVOs which have their own sources of supply such as CBFPS, PPAT, etc. are not included in this system and will not be resupplied from the resources of the NFPP.

C. Transportation

Supplies provided to MWCs and THCs will be transported to the district town by the District Health Officer(DHO); they will be transported from the district town to the MWC or THC by personnel of the outlet being served. All other outlets (except MCH Centers served from the Central Warehouse) will transport their supplies from their designated source to their location using their own means of transportation. Supplies will be shipped by ETO from Bangkok to the MCH Centers that do not have a Regional Warehouse attached; those with Regional Warehouses attached will provide their own transportation from the Regional Warehouse to the MCH Center.

D. Frequency of Resupply

All outlets are to be resupplied routinely once a month. More frequent resupply will be on an emergency basis only.

E. Amount of Stock to be Maintained

All outlets will maintain a stock level of contraceptives sufficient to their needs for at least 3 months but not more than 4 months. A months supply needs is defined as the quantity of each type or brand of contraceptive that was dispensed to users in the most recent 6 months, divided by 6. This amount may be increased or decreased if special emphasis is being placed on certain contraceptives. Also, for new contraceptives, where the outlet has no history of dispensing to users, and for supplies other than contraceptives, the quantity to be maintained in each outlet will be determined by the chief officer of the outlet (or the DHO for MWCs and THCs) with assistance from the PCMO and/or NFPP central office. The quantity of each type or brand of contraceptive that represents a month's supply should be recalculated at least once every 6 months. If substantial changes in demand are occurring, it should be recalculated more frequently. See Annex 1 for an example of these calculations.

F. Submitting the Requisition

All supplies will be requested by completing Form 6, Order for Family Planning Supplies (hereafter called the Order. See Annex 2). MWCs and THCs will submit their requisitions to the DHO. Others will submit directly to their supply source.

G. Filling Out the Requisition

The Order is designed in such a way that all contraceptives supplied by the NFPP are printed at the top in a column headed "Description". The lower part of this column is left blank and is to be used for requesting all supplies other than contraceptives. A list of all supplies that can be obtained through the NFPP supply system will be provided to all outlets. The procedure for ordering other supplies will be the same as that for ordering contraceptives with the exception that the requesting unit must enter the name and/or stock number of the article and the unit requested.

Please note that these instructions are for supplies only; a separate instruction will be issued for the procedures to be followed when requesting equipment. In general, those commodities which are used up or otherwise expendable are considered to be supplies and those commodities which are not used up are considered to be equipment. In the NFPP supply system, the commodities to be considered as supplies or equipment will be so designated on the basic supply list as mentioned above.

The Order will serve two purposes, ordering and reporting. The Monthly Report, Form 7, will no longer be required. Since Form 7 will not be used in the future, an Order must be submitted each month even when no supplies are to be ordered. All cells in the upper part of the Order must be completely filled out every month; this is very important because the quantities of each contraceptive that were used during the month and that remain on hand at the end of the month are needed for reporting purposes. Do not leave any cell blank; if the quantity for any of the top part of the Order is 0, then enter 0 in the required space. Do not use "-", "✓", or other marks in the cells.

The Order is to be submitted by every outlet on the first day of each month. In the "Used" column, enter the quantity that has been dispensed to users since the last Order was submitted. In the "On Hand" column enter the quantity on hand on the date the Order is prepared. The "Quantity Requested" should be the quantity that would bring the stock on hand up to 4 months needs. Note that the "Unit" column shows "mc" (monthly cycle) for orals, "pc" (piece) for IUDs and condoms and "dose" for DMPA. All quantities entered on the Order must be expressed in these units. The Order is to be prepared in 3 copies. The outlet preparing the Order should submit all 3 copies to the supplier. Quantities requested should be entered on the stock records of the outlet.

When the Order is filled by the supplier, the quantity supplied will be entered in the designated column. If this is different from the quantity requested; the difference should be explained in the "Remarks" column. A copy of the Order with the "Quantity Supplied" column filled out will be returned to the outlet that initiated the Order along with the supplies requested. The stock records of the outlet receiving the supplies should be updated accordingly.

II. Procedures for the Management of Family Planning Supplies in DISTRICTS

A. Introduction

The responsibilities of the District Health Office (DHO) in the National Family Planning Program (NFPP) supply system are:

1. To insure that all outlets maintain the proper quantities of family planning supplies on hand at all times.
2. To receive the "Order for Family Planning Supplies", Form 6 (hereafter called the Order, see Annex 2) from all outlets each month.
3. To review the Orders and insure that they are complete and accurate.
4. To consolidate the monthly Orders from the units into a single Order for the district.
5. To receive the supplies from the PCMO.
6. To transport the supplies to the district town.
7. To issue the supplies to the outlets (MWCs and THC's)
8. To provide guidance to the outlets concerning the routine operation of the supply system and to assist them when emergencies arise that cannot be managed through routine procedures.

Depending on local conditions, family planning supplies are managed in districts in 3 different ways. In some districts the DHO receives orders from the outlets, has them filled at the PCMO supply room, transports them back to the district town and issues them to the outlets; no supplies are maintained at the DHO. Others operate on a similar basis, but maintain a few supplies at the DHO for emergency needs. In other cases, DHOs keep a quantity of supplies on hand to fill orders from the outlets and replenish these supplies from the PCMO as needed. Because of these variations, it will be necessary for DHOs to interpret these instructions to fit their own style of operating.

B. Preparing the District Order

When the DHO has received and checked the monthly Order from all outlets he will prepare a consolidated Order by adding together all the quantities in each corresponding cell of the Orders from the outlets. That is, quantities used, on hand, and requested for each type and/or brand of contraceptive will be consolidated. If the DHO maintains any stocks, they should be added to the quantities on hand in the consolidated Order. This consolidated Order will then reflect the stock position, quantities ordered and quantities dispensed to users for all the outlets under the supervision of the DHO.

The DHO will then take this consolidated Order to the PCMO and receive the supplies. The PCMO stock clerk will enter the quantities supplied in the proper column of the Order. The DHO will then enter the proper quantities to be issued to the outlets on each unit Order.

One copy of the consolidated order and one copy of each outlet Order will be stapled together, with the consolidated Order on top, and mailed to the NFPP, Bangkok by the PCMO. On the Consolidated Order the words "District Consolidated Order" are to be written in the space for "Unit" at the top of the Form.

In DHOs that maintain store rooms, the consolidated Order should be completed in the same way and the quantities that the DHO issued to the units should be totaled and entered in the column "Quantity Shipped". This amount would then be drawn from the PCMO supply room to replenish the DHO stocks. If the DHO desires to draw additional stock for his store room, a separate Order must be made with all cells left blank except the "Quantity Shipped" column. The words "District Stock Order" should be written in the space for "Unit" at the top of the Form. A copy of this Order should be mailed by the PCMO to NFPP, Bangkok along with the others mentioned above. It should always be stapled on top of the others.

III. Procedures for the Management of Family Planning Supplies in PROVINCES (PCMO)

A. Introduction

The National Family Planning Program (NFPP) recognizes that PCMOs manage most of the supplies used by public health units in their provinces, and that family planning supplies represent only a small portion of the total. Since most of the family planning supplies, particularly contraceptives, are imported and require that the NFPP be able to forecast the quantities needed by the program well in advance of the time they are to be used, very precise information about the quantities on hand and the quantities being dispensed to users is needed. In addition, a simplified system for distributing these supplies to the 7,000 outlets in the NFPP is needed to assure that the supplies needed are always available in all the outlets. The NFPP, therefore, requests that all PCMOs adopt the procedures outlined in this guideline for the management of family planning supplies.

The responsibilities of the PCMO in the NFPP supply system are:

1. To be sure that all districts and outlets which draw supplies from the PCMO supply room maintain the proper quantities of family planning supplies on hand at all times.
2. To receive the Order for Family Planning Supplies, Form 6 (hereafter called the Order, see Annex 2) from all District Health Officers (DHO) and other outlets each month.

3. To review the Orders and insure that they are complete and accurate.
4. To maintain the proper quantities of family planning supplies in the PCMO storeroom so that each item is always available to the outlets.
5. To order supplies from the Regional Warehouse or Central Warehouse on a timely basis, receive these supplies and keep them under proper storage until they are issued to DHOs or outlets.
6. To issue supplies to DHOs and outlets upon receipt of a properly executed Order.
7. To provide guidance to DHOs and outlets concerning the routine operation of the supply system and to assist them when emergencies arise that cannot be managed through routine procedures.
8. To forward copies of all completed Orders received from DHOs and outlets to NFPP, Bangkok.

B. Source of Supply

The NFPP is in the process of decentralizing the supply system. Regional Warehouses are being established throughout the country; these warehouses will be attached to MCH Centers. In those Regions where Regional Warehouses exist, the PCMO will draw all its family planning

supplies from the Regional Warehouse, PCMOs in other Regions will continue to draw their supplies from the Central Warehouse in Bangkok. All equipment (non-expendable) will be supplied from the Central Warehouse.

C. Transportation

Supplies provided to PCMOs will be shipped via the ETO transportation system.

D. Frequency of Resupply

All PCMOs are to be resupplied routinely once a month. More frequent resupply will be on an emergency basis.

E. Amount of Stock to be Maintained

All PCMOs will maintain a stock level of contraceptives sufficient to the needs of their outlets for at least 4 months, but not more than 6 months. A month's supply needs is defined as the average quantity of each brand or type of contraceptive that was dispensed to users through the outlets served through the PCMO supply room for the most recent 6 months. This amount may be increased or decreased if special emphasis is being placed on certain contraceptives. Also, for new contraceptives, where the outlets have no history of dispensing to users, and for supplies other than contraceptives, the quantity to be maintained will be determined by the PCMO with assistance from the NEPP central office. The quantity of each type or brand of contraceptive that represents a month's supply should be recalculated every month.

F. Submitting the Order

All family planning supplies will be requested by completing the Order and submitting it to the Regional or Central Warehouse.

G. Filling Out the Order

The Order is designed so that all contraceptives supplied through the NFPP supply system are printed at the top in a column headed "Description". The lower part of the Order is left blank and is to be used for ordering supplies other than contraceptives. A list of all supplies that are to be obtained through the NFPP supply system will be provided to all PCMOs. The procedure for ordering other supplies will be the same as that for ordering contraceptives with the exception that the requesting PCMO must enter the name of the article and the unit requested.

Please note that these instructions are for supplies only; equipment will be available from the Central Warehouse only.

The Order will serve two purposes, ordering and reporting. The Monthly Report, Form 7 will no longer be required. Since Form 7 will not be used in the future, an Order must be submitted each month even when no new supplies are needed. All cells in the upper part of the Order must be completely filled out every month; this is very important because the quantities of each contraceptive that were issued during the month and the remaining balance on hand at the end of the month are needed for reporting purposes. Do not leave any cell in the upper part of the Order blank; if the quantity for any cell is 0, then enter 0; do not use "-", "✓", or other marks in the cells.

The Order is to be submitted by every PCMO on the first of each month. In the "Used" column, enter the quantity issued to DHOs and all other outlets since the last Order was submitted. In the "On Hand" column enter the quantity on hand on the date the Order was prepared. The "Quantity Requested" should be the quantity that will bring the stock level up to 6 months' needs. The quantities for all cells should be expressed in the unit that appears in the "Unit" column; oral contraceptives should be the number of monthly cycles (mc), IUDs and condoms should be the number of pieces (pc) and DMPA should be the number of doses. All quantities must be expressed in these units; do not use dozens, hundreds, packages, vials, etc. The Order is to be prepared in 3 copies, all 3 should be mailed to NFPP, Bangkok, or the Regional Warehouse. The quantities ordered should be entered in the stock records of the PCMO before the Order is mailed.

When the Order is filled, one copy will be returned to the PCMO with the shipment. If the quantity of any item is different from the quantity ordered, an explanation will be in the "Remarks" column. Upon receipt of the supplies, the PCMO should update the stock records.

For routine orders "PCMO Stock Order" should be entered in the space marked "Unit" at the head of the Form. If the order is not a routine stock order the words "PCMO Emergency Order" should be entered in this space.

H. Resupplying DHOs and Outlets

Each DHO and outlet served by the PCMO will submit an Order in 3 copies every month. The PCMO should check these Orders for completeness and accuracy before issuing the supplies. Every effort should be made to

issue the quantities requested; if the quantities issued are not the same as those requested an explanation should be written in the "Remarks" column. The quantities issued should be written in the designated column of the Order. When the Order form has been completed and the supplies issued, the triplicate should be returned to the DHO or outlet with the supplies, the duplicate should be filed in the PCMOs supply files, and the original should be mailed to:

Family Health Division (Supply Section)
Ministry of Public Health
Bangkok

In addition to copies of Orders from DHOs, copies of Orders from the outlets served by each DHO are to be attached to the copy of the DHO Order being mailed to the above address. The PCMO should mail these copies of Orders from DHOs and outlets as they are received, do not wait for all monthly orders to be submitted.

IV. Procedures for the Management of Family Planning Supplies in REGIONAL WAREHOUSES

A. Introduction

Regional Warehouses are now being established at 6 locations throughout the country. Each warehouse will be attached administratively to an MCH center. The locations are:

1. Khon Kaen
2. Chiang Mai
3. Hang Chat, Lampang
4. Ratchaburi
5. Yala
6. Nakorn Sawan

In addition, the Central Warehouse will serve as the Regional Warehouse for the Central Region. The provinces to be served from each Regional Warehouse are shown in Annex 3. All family planning supplies used by PCMOs and outlets in the provinces indicated will be drawn from the assigned Regional Warehouse; equipment will not be stocked in these warehouses and will be obtained from the Central Warehouse in Bangkok.

B. Source of Supply

All Regional Warehouses will be supplied from the Central Warehouse. In some cases, when large shipments are imported, the share for the Regional Warehouses will be sent directly from the port.

C. Transportation

All supplies will be transported from Bangkok by the ETO transportation system.

D. Frequency of Resupply

Regional Warehouses will be resupplied routinely every 2 months. More frequent resupply will be on an emergency basis or when a large shipment is received which cannot be accommodated in the Central Warehouse. Regional Warehouse managers will be informed when such shipments are expected to arrive and the quantity of goods they will receive from the shipment.

E. Amount of Stock to be Maintained

Regional Warehouses will maintain a stock level of contraceptives sufficient to the needs of the outlets served by them for at least 4 months, but not more than 8 months. A month's supply needs is defined in Section III, paragraph E. It is important to note that it is based on quantities dispensed to users, and is not related to quantities issued to PCMOs, DHOs, or outlets. These quantities will be calculated by the Central Supply Section, Family Health Division, and the managers of the Regional Warehouses will be informed of the quantities on a routine basis.

F. Submitting Requisitions

The Regional Warehouses will not submit requisitions or orders to the Central Warehouse. The Central Warehouse will calculate the needs of each Regional Warehouse based on data received from them and from PCMOs and outlets. If emergency needs arise, the manager of the Regional Warehouse should contact the Central Supply Section by letter, telegram or telephone.

G. Filling Orders

The Regional Warehouses will provide family planning supplies to PCMOs, MCH Centers and, perhaps, a few PVOs and OGOs. These organizations have been instructed to submit orders to the Regional Warehouse on a monthly basis, see Sections I.B. and D., and III.B. and D. All orders are to be written on the Order for Family Planning Supplies, Form 6 (hereafter called the "Order"). The Order is to be in 3 copies.

When an Order is received, it should be checked for completeness and accuracy. The quantities requested should be shipped when possible, and, if the Regional Warehouse is unable to ship the quantities requested, an explanation should be written in the "Remarks" column. When the supplies are ready for shipment the quantities shipped should be entered in the designated column on all 3 copies of the Order. The triplicate should be enclosed in the shipment; the box with the copy inside should be marked "Packing List Enclosed". The duplicate copy of the Order should be retained for the files of the Regional Warehouse, and the original should be mailed to:

Family Health Division (Supply Section)
Ministry of Public Health
Bangkok

H. Stock Records

The Regional Warehouse will maintain stock records consisting of inventory control cards. These stock records are to be updated immediately when supplies are received or shipped.

I. Reporting

The Regional Warehouse will submit a report of inventory on hand by actual count once each quarter on the last day of the quarter (i.e., March 31, June 30, September 30 and December 31). It will be mailed to the address in paragraph G.

V. Procedures for the Management of Family Planning Supplies in the CENTRAL Warehouse

A. Introduction

The Central Supply Office is to be the control center for family planning supply system. In addition to purchasing, clearing, receiving, storing and shipping the supplies, the Central Supply Section must receive and process data and other information to produce reports on stock utilization and inventories at all levels of the program. The Central Warehouse is to serve as both a central storage point and as a Regional Warehouse for the Central Region. Section IV. describes the activities of Regional Warehouses; these instructions should be followed by the Central Warehouse when it is acting as a Regional Warehouse; the instructions in this section refer to its activities as a Central Warehouse with national responsibilities.

B. Source of Supply

Supplies will enter the Central Warehouse as a result of purchases from the budget of the government and from donations from aiding agencies. The types and quantities of the items are determined by NFPP management with assistance from the Supply Office. This assistance is in the form of providing information to the Director and Department Heads related to the quantities of the different types and brands of articles on hand and being used by the program. In addition, information should be provided on the condition of the warehouse, particularly space available to store additional quantities of supplies. The Supply Office should be able to suggest the timing of shipments to be received so that the system does not become overloaded.

C. Amount of Stock to be Maintained

The Central Warehouse will maintain supplies sufficient to meet the needs of the national program for at least 4 months, but not more than 8 months. This is in addition to stocks to be maintained for the Regional Function.

D. Resupplying Regional Warehouses

The only recipient of supplies from the Central Warehouse will be the Regional Warehouse, except that, PCMOs and MCH centers in Regions where a Regional Warehouse has not yet been established will also draw from the Central Warehouse.

The quantities of supplies to be shipped to the Regional Warehouses will be determined by the Central Supply Office from reports reviewed from the field. These reports will be in the form of copies of orders submitted to other supply points in the system. These are:

1. From PCMOs
 - (a) Copies of Orders submitted by DHOs.
 - (b) Copies of Orders submitted by outlets in the province not resupplied by DHOs.

2. From Regional Warehouses

- (a) Copies of Orders received from PCMOs.
- (b) Copies of Orders received from MCH Centers.
- (c) Copies of Orders received from POVs.
- (d) Copies of Orders received from OGOs.

E. Analysis of Field Reports

When reports (copies of Orders) are received from the field they will be filed by Region and province. The reports will be checked for accuracy by adding the quantity received to the quantity on hand from the previous report and subtracting the quantity used. The result of this calculation should be the quantity on hand on the present report. If these are in the reports submitted from DHOs, the reports from outlets will be checked to try to identify and correct the error. If the error cannot be corrected, the office from which the report originated will be contacted with a description of the error and a request for correction. As the reports are certified as correct, they will be summarized on a master list for each province. When reports for each province in a Region are complete, they will be summarized for the Region. When all Regional summaries are complete, a National summary will be made.

The summary will consist of 3 numbers for each unit, the quantity on hand, the quantity dispense to users and, for PCMOs, Regions, and Centers the quantity issued to outlets and other offices.

The form for the Provincial Summary will be:

Summary of Contraceptive Supplies for _____ Province,
Month _____ Year _____

Location	Quantity of _____ (name of contraceptive)				
	On Hand	Dispensed to Users	Issued to Location from:		
			PCMO	Regional Warehouse	Central Warehouse

The locations should be listed in the same order as the NFPP Monthly Report of service statistics. The Regional and National Summaries will be in the same basic form.

From these data a months supply for each contraceptive will be determined for Regions and the Central Warehouse. While the numbers would be much larger, the basic calculations are the same as those in the example shown in Annex 1. Shipments to the Region's Warehouses will be based on maintaining the recommended levels of supply at those locations. These data will also provide the basis for forecasting total program needs so that budgets can be prepared, negotiations with aiding agencies can be conducted and shipping schedules determined.

ANNEX 1

Example for an Outlet

For this example we will assume that contraceptives dispensed to users over a 12 month period are as follows:

Contraceptive	Quantity Dispensed											
	J	F	M	A	M	J	J	A	S	O	N	D
A	10	12	11	9	13	10	15	17	14	19	21	18
B	113	126	110	132	128	110	115	102	92	108	89	96
C	23	25	28	20	22	25	27	23	20	26	27	23
D	35	38	30	32	33	18	15	12	16	13	10	9

To calculate a month's supply (according to the instructions) add the most recent 6 months and divide by 6. For example, for July, a month's supply of contraceptive A would be:

$$(10+12+11+9+13+10) \div 6 = \frac{65}{6} = 11$$

For August it would be:

$$(12+11+9+13+10+15) \div 6 = \frac{70}{6} = 12$$

A month's supply for each of these contraceptives, beginning in July, would be:

Contraceptive	One Month's Supply					
	J	A	S	O	N	D
A	11	12	13	13	15	16
B	120	120	116	113	109	103
C	24	25	24	23	24	25
D	31	28	23	21	18	14

With this pattern of distribution, the quantities to be maintained in stock, which are to be not less than 3 month's supply (min.) nor more than 4 month's supply (max.) would be:

Contraceptive	M O N T H											
	July		Aug		Sept		Oct		Nov		Dec	
	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
A	33	44	36	48	39	52	39	52	45	60	48	64
B	360	480	360	480	348	464	339	452	327	436	309	412
C	72	96	75	100	72	96	69	92	72	96	75	100
D	92	124	84	112	69	92	63	84	54	72	42	56

Let us assume that it is the first day of August, the unit is to prepare the Order for Family Planning Supplies and they have on hand the following:

Contraceptive A = 24
 Contraceptive B = 380
 Contraceptive C = 115
 Contraceptive D = 50

The amount they would order would be the quantity to bring their stock level up to 4 month's supply (max.), and would be:

Contraceptive	Maximum Supply	Quantity On Hand	Quantity To Order
A	48	24	24
B	480	380	100
C	100	115	0
D	112	50	62

If we carry this example to the end of the year we can calculate the quantities to be ordered each month:

September:

Contraceptive	On Hand	Received	Dispensed	On Hand	September	
	End of July	+ in August	- in August	End of August	Max	Order
A	24	24	17	31	52	21
B	380	100	102	378	464	86
C	115	0	23	92	96	4
D	50	62	12	100	92	0

October

Contraceptive	On Hand	Received	Dispensed	On Hand	October	
	End of August	+ in September	- in September	End of September	Max	Order
A	31	21	14	38	52	14
B	378	86	92	372	452	80
C	92	4	20	76	92	20
D	100	0	16	84	84	0

November

Contraceptive	On Hand	Received	Dispensed	On Hand	November	
	End of September	+ in October	- in October	End of October	Max	Order
A	38	14	19	33	60	27
B	372	80	100	352	436	84
C	76	20	26	70	96	26
D	84	0	11	73	72	1

December

Contraceptive	On Hand	Received	Dispensed	On Hand	December	
	End of October	+ November	- November	= November	End of Max	Order
A	33	27	21	39	64	25
B	344	92	89	347	412	65
C	70	26	27	69	100	31
D	71	1	10	62	56	0

These calculations would continue for each month. If this system is followed, it is unlikely that any outlet would ever run out of stock and, also, they would be unlikely to have so much on hand that the expiration date would be reached before the contraceptives could be used. This assumes that all levels in the program will practice the first-in-first-out (FIFO) rule for managing the supplies.

Even with a simple system like this one, sometimes judgement must be used. From the data we can see that the rate of use of contraceptive A is increasing, B is decreasing, C is staying about the same and D was staying about the same until June when there was a dramatic drop in demand. We would assume that the unit would know why this drop occurred, and could judge whether it is a temporary decrease or if it might continue until demand for this contraceptive would no longer justify carrying it in stock. From the calculations, you can see that, for the last 4 months, only 1 of these was ordered. If the unit judged that demand would continue to decrease, they probably would not order any of this contraceptive until its use rate stabilized. It is, therefore, very important that the unit not only watch these rates of usage closely, but, also be aware of the reasons for any changes in the rates.

ADD TO ANNEX 1

In this example a months supply was recalculated each month. The instructions state that this calculation should be made at least twice a year, but more often if substantial changes in use levels are occurring. The use levels for contraceptives A and D changed substantially during the period and, if the month's supply had not been recalculated monthly, the outlet would begin to experience undersupply of contraceptive A and oversupply of contraceptive D by the end of the period. The others, B and C would have been slightly different, but still adequate for the outlet's needs. The decision to recalculate these values is one of judgement by the chief officer of the outlet; the guiding principle being to be sure there is enough, but not too much stock on hand to meet the needs of users being served through the outlet.

ORDER FOR FAMILY PLANNING SUPPLIES

Unit _____

District _____ Province _____

Serial No.	Description	Stock No.	Unit	Used	On Hand	Quantity		Remarks
						Requested	Supplied	
1	Noriday		mc					
2	Norinyl		mc					
3	Ovostat		mc					
4	Ovral		mc					
5	Eugynon		mc					
6	Loop B		pc					
7	C		pc					
8	D		pc					
9	Inserter		pc					
10	Cu T		pc					
11	Condom		pc					
12	D.M.P.A.		dose					
13								
14								
15								
16								
17								
18								
19								
20								

Requested By _____ Approved By _____

ATTACHMENT B
PRELIMINARY TRIP REPORT

**Memorandum**

Date May 6, 1982

From Jack Graves, Chief, Management Analysis Section, Program Evaluation Branch,
Family Planning Evaluation Division, Center for Health Promotion & Education

Subject Preliminary Trip Report

To David Oot, Population Officer
USAID/Thailand

During my visit I had the opportunity to discuss the problems of the family planning supply system with you, your staff and a number of key officials in the RTC/MOH/FHD. I was very pleased with our progress, particularly the interest shown by those in the FHD in improving their service to the many outlets for family planning supplies so that these materials, particularly contraceptives, can be made continually available to users.

Working together, we produced a draft of a number of procedures to be followed by all levels of the program. In addition to assuring continuing availability at field levels, these procedures should result in reducing the inventory level at the Central Warehouse and enabling the program to tie the logistics data to service statistics so that consistency in these sources of information can be assured.

In drafting these procedures, we did not cover all phases of supply management. Our suggestion to FHD management was to be sure to incorporate other procedures in the final product. Of particular importance are:

1. Adding the procedures for inventory control, i.e. proper maintenance of inventory control cards at all levels and transferring data from orders, issues, receipts, etc. to these records on a daily basis.
2. The practice of first-in-first-out (FIFO) should be emphasized at all program levels.

Our work covered three major areas:

1. Production of a basic stock list for the FHD supply system. This is needed so that all program levels know what items can be obtained through the FHD supply system and to establish control on the number of different items to be managed, with emphasis on keeping the basic list as small as possible in keeping with program needs. It was agreed that this can be accomplished within 2 months. The target date for completion is July 1, 1982.

2. Establishing the Regional Warehouses. It was agreed that seven Regional Warehouses will be established and fully stocked according to the needs of the provinces to be served by each warehouse. The Central Warehouse will serve as the Regional Warehouse for the Central Region. My concern is that this is the largest region in Thailand (32 provinces). This, along with the increased demand for storage space for incoming contraceptives might very well result in a more crowded condition than now exists. It would be a good idea to calculate storage needs for incoming contraceptives to try to quantify this problem. It might be necessary to rent additional space for bulk storage in Bangkok. Our group agreed that the system of Regional Warehouses will be established and functioning by the end of November 1982.

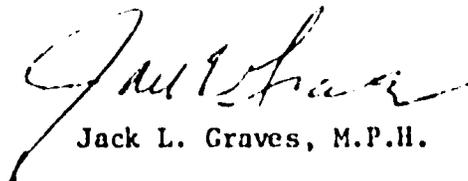
The steps for this activity include:

- a) Inspecting the warehouses to determine space available.
 - b) Calculating the basic stock requirements for each warehouse.
 - c) Calculating the storage space requirement for the basic stock list.
 - d) Comparing a) and c) above to see if space available is sufficient and making adjustments in the quantities of goods to be managed if it is not.
 - e) Identifying and training person(s) to manage each Regional Warehouse.
 - f) Shipping the basic stock to the Regional Warehouses.
 - g) Installing inventory control and other operating procedures.
3. Modifying the procedures for managing the supply system to include a minimum-maximum stock level system of supply management as described in the paper we wrote. The steps here include:
 - a) Review the paper as written, add procedures for inventory control, FIFO, etc. Make modifications as needed.
 - b) Print forms and instructions.
 - c) Train persons with responsibility in logistics at all program levels in a few provinces for field testing.
 - d) Install the system in these provinces.
 - e) Observe how the system works and modify it as needed.
 - f) Install the system nationwide.

Page 3 - David Oot

It was agreed that this can be done in approximately 10 months and that the system should be installed and operating by the end of February 1983.

It was a pleasure to work with you and the FHD officials in this effort. If my services are needed in the future, please let me know. I will write a more complete trip report when I return to Atlanta and will send 10 copies to you as soon as it is written.



Jack L. Graves, M.P.H.

Family Health Division
Ministry of Public Health

Basic Stock List

This stock list has been prepared so that all organizations served by the FHD supply system will know what items are available. The supply system will attempt to keep all the listed items in inventory. The list is separated into supplies and equipment. Supplies will be available to Provincial Chief Medical Offices (PCMO), Regional MCH Centers and organizations not served by the PCMO through Regional Warehouses attached to MCH centers. Equipment will be available from the Central Warehouse only.

The stock list is organized in sections according to various classifications. Stock numbers and package quantities are included to assist the units, PCMOs, and all other locations in preparing their Orders for Family Planning Supplies (Form 6). Where possible, orders should be for package quantities. Stock numbers should be used when ordering items other than contraceptives.

Only the items on this list will be routinely available from the FHD supply system; other items should be purchased locally or through the General Pharmaceutical Organization.

RTG/MOH/FHD/NFPP
Basic Stock List
Supplies

Group Type Brand Size	Stock Number	Unit	Quantity:		Remarks
			Minimum Order	Packages Quantities	
<u>Contraceptives</u>					
Oral					
Noriday	CP01	mc	1	3/60/100, 600	
Norinyl	CP02	mc	1	100/1200	
Ovral T28	CP03	mc	1	100/2000/5400	
Ovostat 28	CP04	mc	1	100/1600/2000/3000	
Eugynon	CP05	mc	1	100/1000/2400	
Condom	CC01	pc	4	4/100/6000	
IUD					
Lippen					
Loop B	CI01	pc	1	100	
C	CI02	pc	1	100	
D	CI03	pc	1	100	
Inserter	CI04	pc	1	100	
Multiload	CI05	pc	1	100	
Injectable					
DMPA					
1 cc	CD01	done	1	10	
10 cc	CD02	done	10	10	

Royal Thai Government
 Ministry of Health
 Family Health Division
 National Family Planning Program

Basic Stock List
 Equipment

Group Description	Stock Number	Remarks
Surgical Equipment		
Forceps, 5" Curved	EF-01	
Forceps, 5" Straight	EF-02	
Forceps, 3½" Curved	EF-03	
Etc.	EF-04	
Speculum, Size A	ES-01	
Size B	ES-02	
Size C	ES-03	
Size D	ES-04	
	Etc.	
Furniture		
Table, Examining	EF-01, Etc.	