

**Memorandum**

Date March 30, 1984

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Subject Foreign Trip Report (AID/RSSA): Nigeria, February 22-March 9, 1984--Design of Contraceptive Supply and User Reporting Systems for Niger and Ondo States

To James O. Mason, M.D., Dr.P.H.  
Director, Centers for Disease Control  
Through: Dennis D. Tolsma  
Director, CHPE DOT

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## SUMMARY

This consultation was a direct outgrowth of an exploratory visit to Nigeria in December 1983 (See CDC Foreign Trip Report: Nigeria, January 30, 1984). During the present consultation, we assisted Ministry of Health officials in Niger and Ondo States in the development of a commodities management system and a user reporting system. We designed forms for both systems and left written instructions for their use with our counterparts before returning to the United States. We also developed written instructions on estimating months of supply on hand and active users from supply data. The forms and written instructions we developed are attached as appendices to this report.

In conjunction with consultants from International Training in Health (INTRAH), Pathfinder, and Population Communications Services (PCS), we also worked with State committees established in Niger and Ondo to review overall progress on their family planning program plans.

Other issues our report addresses appear in Section V. They include:

Timing of Contraceptive Shipments: In order to ensure that contraceptive pipelines of acceleration States are filled and maintained, we propose that the first two 6-month tranches of commodities be shipped to Ondo, Niger and perhaps Plateau States immediately. Others should initially receive just the first 6-month tranche, as originally planned. We recommend that commodity requests from nonacceleration States be handled conservatively by the AID Affairs Office (AAO).

Client Form Standardization: Appended to this report is a family planning client record form we designed after our return to Atlanta. This form should be submitted for approval to the Federal Ministry of Health (FMOH), which in turn should encourage States to adopt it or a modified version of it as a standard clinic form.

Local Currency Questions: For States constrained by a lack of paper for printing forms, we suggest that the AAO request assistance from appropriate intermediaries, e.g., PCS, in providing modest amounts of paper.

Contraceptive Pricing Policies: It appears that family planning users will be charged a modest fee for the contraceptives they receive. The States and the AAO must agree on how these funds will be spent, i.e., for meeting local costs for such items as paper and printing.

Data Processing--Temporary CDC Role: During the consultation, the AAO expressed a strong desire to track trends in age and number of living children by method for new acceptors. CDC agrees to assist in processing these data if a reasonably complete set of transcription forms containing the required information are submitted to us. A copy of a proposed form and instructions for its completion are presented in Appendix 7. We emphasize that this is a temporary arrangement, since the FMOH must move expeditiously toward institutionalizing family planning evaluation as one of its key roles in the national family planning program.

Future DRH/CDC visits to Nigeria should coincide with the readiness of individual State Ministries of Health (MOH's) to proceed with the establishment of organized family planning services. For the States we visited, a revisit should be scheduled 3 to 4 months after implementation of the systems we proposed during this consultation in order to ensure that they are working, and to make any adjustments that may be required. At this same revisit, systems can be implemented in Plateau State. While we wish to do nothing to discourage the development of family planning programs in other States, we would counsel against pushing ahead too rapidly before we and other consultants to the Nigerian program can digest some of the lessons learned from the originally selected States.

Finally, the current model of providing technical assistance in Nigeria is on a State-by-State basis. This is considered important for implementation of pilot systems and to give consultants opportunities to test the appropriateness of their recommendations. However, given the expense of in-country travel and the time that would be necessary to repeat activities on a State-by-State basis, we recommend that the AAO, in conjunction with the FMOH, begin the process of institutionalizing a training capability at a centralized site, which will eventually provide a base for required technical assistance and training services to Nigeria's growing family planning program. We also specifically propose CDC participation in a late 1984 "workshop" for State-level managers of logistics and service statistics systems.

#### I. PLACES, DATES, AND PURPOSE OF TRAVEL

Nigeria, February 22-March 9, 1984, at the request of the AID Affairs Office/Nigeria, to assist public health officials in Niger and Ondo States to design contraceptive supply and user reporting systems. This travel was in accordance with the Resource Support Services Agreement (RSSA) between the Office of Population, AID, and DRH/CHPE/CDC, and was made in conjunction with a consultation in Ghana during the period February 11-22, 1984.

During the consultations in both Nigeria and Ghana, the CDC team was accompanied by Mr. Lawrence R. Eicher, Population Advisor, AID/AFR/TR.

In order to accomplish its objectives, the team spent February 23-25 in Lagos, after which it traveled to Niger State (February 26-March 3) and to Ondo State (March 4-9). During the period February 26--March 7, the team was accompanied by Mr. Bayo Iginla, AAO/Lagos Commodities Specialist.

#### II. PRINCIPAL CONTACTS

##### A. AID Affairs Office (AAO)

1. Ms. Keys MacManus, AID Affairs Officer
2. Mrs. H. Shitta-Bey, Family Planning Specialist
3. Mr. Bayo Iginla, Commodities Specialist

##### B. Niger State Ministry of Health

1. Dr. Mohammed O. Jibril, Director of Health Services
2. Mrs. Aminatu J. Mohammed, Chief Nursing Sister
3. Mrs. Mary Baba, Assistant Chief Nursing Sister
4. Dr. Susan Saba, Maternal and Child Health/Family Planning Coordinator
5. Mr. Barnabas Yisa, Chief Pharmacist
6. Dr. Zakari Wambai, Medical Officer-in-Charge for Family Planning, General Hospital, Minna
7. Dr. Jonathan Y. Jiya, Chief Health Planning Officer, MOH
8. Mr. J. Koce, Principal Health Educator, MOH

C. Ondo State Ministry of Health

1. Mr. A. K. Alabi, Commissioner of Health
2. Dr. I. A. Adetosoye, Permanent Secretary
3. Dr. Ade A. Adetunji, Senior Consultant, School of Health Technology
4. Dr. Bisi Oke, Principal Medical Officer, and Maternal and Child Health/  
Family Planning Coordinator
5. Mrs. C. I. Ikuomola, Chief Health Sister, MOH
6. Mr. J. A. Aboluwoye, Community Health Officer, Akure Local Government  
Stores
7. Mr. A. M. Attah, Executive Secretary, State Planned Parenthood  
Federation of Nigeria (PPFN)

D. Other

1. Mr. Tom Milroy, INTRAH Consultant
2. Ms. Donna Robinett, Pathfinder Consultant
3. Mr. Steve Smith, PCS Consultant
4. Dr. Darlene Bisson, Population Specialist, REDSO/CWA

III. BACKGROUND

This CDC consultation was a direct outgrowth of a joint CDC/FPIA/PATHFINDER/APHA exploratory visit to Nigeria, December 1-22, 1983. The December team reported on commodity importation options and warehousing, distribution, and commodity reporting procedures, and made specific recommendations on each of these topics. In addition, the team reviewed the existing and potential status of family planning activities in selected States, and made recommendations on the amounts of contraceptives to be provided to each of these States (See CDC Foreign Trip Report: Nigeria, January 30, 1984). A preliminary version of this report, supplemented by ancillary verbal reports from representatives of INTRAH, JHPIEGO, FPIA, PCS, and Pathfinder, was reviewed by AID/W and representatives of 12 AID-funded private and public organizations at a meeting on January 11, 1984.

At this meeting, AID officials agreed with an earlier recommendation that a CDC team should return to Nigeria in February to develop (1) a commodities management system and (2) a user reporting system for Niger and Ondo States. Other States would be considered at a later date.

While the CDC team focused on the specific task of developing and implementing a logistics management system and a user reporting system during this consultation, it also sought, as far as was practical, to coordinate its efforts with those of representatives of the AAO, AID/W, and AID-funded intermediaries whose travel overlapped with that of the CDC team. This effort at collaboration was made to facilitate coordination among agencies concerned with different aspects of the Nigeria program. In addition, it was recognized that the overall State plans in both Ondo and Niger States for phased introduction of family planning would require review and modification, and it was suggested by the AAO that the CDC consultants, in conjunction with representatives of INTRAH, Pathfinder, and PCS, meet with the appropriate State level officials in both Niger and Ondo States, for that purpose.

It should be noted that since the team's visit in December, an unexpected change in the government had occurred, and prior to this visit, it was somewhat unclear how this might affect previously established plans for family planning program development. While preliminary indications were that no drastic changes were likely, it was considered desirable to more formally assess the long term implications of this development.

Among the immediate results of this change in government was the replacement of many elected and appointed senior officials and a general uncertainty concerning the consequences of this transfer of power for ongoing programs and projects, including health and family planning. This uncertainty contributed to some delay, particularly in Niger State, in developing the family planning program plan and in initiating activities required to prepare for the "training of trainers" program.

An indirect outcome of this development was the decision to hold joint meetings of the intermediaries with key officials in both Niger and Ondo States, to advance program plans and to explore issues which required attention and, in some cases, resolution. The outcomes of these meetings are covered in Section V.

A consequence of the efforts by the military administration to overcome economic malaise was that moves were actively afoot to impose modest charges for health services which heretofore have been free. This move will affect distribution of contraceptives, since there will be charges for these as well as for client identification forms. A precise schedule of charges had not been issued prior to our departure. The move to have such charges is based not only on the revenues that will be generated, which will partly defray costs of the Nigerian health system, but also on the principle that health services and medicines will be perceived as valued commodities.

The immediate implication of this for the Nigerian family planning program is that decisions, acceptable to AID, must be made for the use of the funds generated from the sale of contraceptives provided by AID. As in other settings (cf. Ghana), appropriate uses might include purchase of needed clinic supplies and transportation costs for supervisors and fieldworkers.

In an attempt to streamline and simplify State government operations, different States were introducing some changes in their administrative structure. For Ondo State, this included elimination of "zones" (intermediate between "local governments" and the State). In practice, this should have very little effect on Ondo's State family planning program plans, though it will result in bypassing the zonal warehouses in the contraceptive commodities distribution system. Also, where it had been decided previously to concentrate on the Akure Health Zone in the initial program stages, the elimination of all zones resulted in a decision to include all clinics in the two local governments which essentially comprised the former health zone. These will include a total of 13 clinics, including the State Hospital Clinic and the Arakale Maternity Clinic, which currently are the only family planning service providers. These two clinics are affiliated with the PPFN, and, along with the Ijapo Annex Health Centre, will serve as the three "model clinics" for training service delivery staff.

#### IV. DESIGN OF CONTRACEPTIVE SUPPLY AND USER REPORTING SYSTEMS

The objectives of the proposed supply and user reporting systems for Niger and Ondo States are to provide managers the necessary tools to: (1) assess supply status at all levels of the State family planning program; (2) determine quantities of contraceptive supplies to be issued to outlets, e.g., clinics and hospitals; (3) forecast future supply requirements; and (4) estimate the number of active users served by the program. The two systems are interrelated in that estimates of active users are based on quantities of contraceptives dispensed to users.

The systems proposed for both States are identical. Only two new forms were introduced in each State. These forms will be initiated at the outlet level. Existing supply forms used by each State Ministry of Health (MOH) will continue to be used.

The new forms and instructions to complete them are presented in Appendices 1 and 2. The new forms are the "Daily Activity Register/Report Form" and the "Summary of Contraceptives Issued/Dispensed and Family Planning Users" form.

The proposed supply system for both States is a "push" or allocation system. In this type of system, decisions on quantities to be issued will be made at the central level of each State MOH. The methodology to determine quantities to be issued was discussed with MOH officials in each State. The methodology is presented in Appendix 3.

Two reports which can be prepared from the data submitted on the "Summary of Contraceptives Issued/Dispensed and Family Planning Users" form were also discussed. One of the reports estimates the supply status of the program in terms of months of supply on hand for each contraceptive method in inventory. Instructions for making these estimates are presented in Appendix 4. The second report estimates the number of active users served by the program. The methodology for estimating active users from contraceptives dispensed to users is presented in Appendix 5. Additional reports will be introduced during subsequent consultations.

As mentioned above, existing supply forms in each State will continue to be used. They include Tally Cards, Ledgers, and Requisition/Issue Vouchers (RIV). In both States the Tally Card will be used as a Bin Card while the Ledger will be used as a permanent record of all supply transactions.

Instructions for the use of Tally Cards and Ledgers should be the same as for recording transactions for other drugs in the States' MOH inventory. However, we recommend that separate Tally Cards and entries in the Ledgers be maintained for each contraceptive commodity in inventory. For example, if two types of oral contraceptives are distributed by the program, separate Tally Cards and entries in the Ledger will be maintained for these commodities.

Quantities recorded on RIV's, Tally Cards, and in the Ledgers should be expressed in the following units:

<u>Contraceptive Method</u>	<u>Units</u>
Oral contraceptives	Cycles
Condoms	Pieces
IUCD's	Pieces
Foaming tablets	Tablets
Cream/Jelly/Foam	Cans/Tubes
Injections	Doses
Diaphragms	Pieces

We strongly recommend that each State MOH use their existing RIV's to issue commodities. In Niger State, the RIV is named "Combined Requisition/ Receipt/Issue Voucher" and in Ondo State, "Requisition, Issue and Receipt Voucher for Stores." Both forms combine in one form a commodity requisition, an issue voucher, and a commodity receipt. Written instructions for the use of these RIV's in the States' family planning programs were given to our counterparts during the course of the consultation.

In both States, contraceptive commodities will not be stored initially in Central Stores. In Niger State, they will be stored in a secure room located in the administrative office building of the MOH. In Ondo State, they will be stored in a secure storeroom at the Akure Local Government Maternity Dispensary. As the State programs grow, storage will eventually be shifted to Central Stores.

Finally, issues of contraceptive supplies will be authorized by Dr. Saba and/or Mrs. Mohammed in Niger State, and by Dr. Adetunji and/or Mrs. Ikuomola in Ondo State.

## V. DISCUSSION

### A. Future Consultations

Two major factors should influence the timing of proposed future visits to Nigeria by CDC consultants. These factors, and some preliminary suggestions for States to be visited and suitable dates, were discussed with the AAO.

First is the readiness of individual State MOH's to proceed with establishment of organized family planning services. There is obviously no point in introducing either commodity distribution systems or client service statistics systems in States which are not at a takeoff stage. Conversely, however, one does not wish to delay establishment of such systems to the point that this either delays the implementation of other aspects of the program, or that an idiosyncratic local system, subsequently hard to change, is introduced. This suggests that timing of CDC visits should be linked fairly closely to the timing of training programs and particularly to the establishment of services.

Second, where earlier visits have already laid the groundwork for logistics and service statistics systems, the timing of brief revisits to ensure that the systems are working and to make any adjustments that may be required, should not be delayed too long after the start of family planning services. This is normally 3 to 4 months after implementation so that there is a satisfactory flow of commodities, patients, and hence service statistics from several service delivery points, so that a basis exists for some preliminary data collection and analysis, including a review of the validity of the estimates of projected contraceptive requirements made by the December 1983 team.

We note that, while it is clearly desirable to coordinate CDC assistance on logistics and service statistics systems with the progress on the training, service delivery, and IEC fronts, the specific focus of the CDC technical assistance is fairly narrow and can best be conducted either independently by the CDC consultant(s) with their Nigerian counterparts (both from the individual States and from the AAO's office), or in the context of a small task force consisting of a very limited number of consultants from two or at most three intermediaries. For these specific tasks, we do not consider large contingents of foreign consultants and observers to be the most productive approach.

Given the proposed May-June 1984 timing of the training of service delivery staff in the two States visited this time (Niger and Ondo), it seems appropriate to aim for brief revisits, lasting about 2 working days in each, around late July or early August. This timing would also coincide conveniently with a slightly longer preliminary visit to Plateau State to launch both data collection systems. Plateau State should be at the initial takeoff stage by early August, following the recent INTRAH/Pathfinder program planning assistance to this State, and a proposed "training of trainers" in late May, after which service staff training can be held and services initiated.

There is some uncertainty at this time concerning the timing of visits to other potential States. Lagos State may soon be ready to move, but has yet to establish a State committee and develop a plan. Kano State, also not one of the original "acceleration" States, may be moving rapidly toward establishment of a program. While we would wish to do nothing to discourage these States (or any others), we would counsel against pushing ahead too rapidly before some of the lessons learned from the originally selected States can be digested.

When CDC and other consultants are providing technical assistance (TA) in Nigeria, it is important that every effort be made to maximize their time while they are in-country. An essential task involves ensuring that host country nationals are informed as well in advance as possible of the dates of site visits, and are available during these visits. Dates of site visits and scopes of work should be prearranged by the consultants and host country nationals in collaboration with the AAO's office. In addition, veteran consultants to Nigeria should be permitted to make their own in-country travel arrangements when it is appropriate and when it facilitates their work.

The current model of providing TA in Nigeria is on a State-by-State basis. This is considered important for implementation of pilot systems and to give consultants opportunities to get a "feel for the terrain" and to test the appropriateness of their recommendations. However, given the expense of in-country travel and the time that would be necessary to repeat activities on a State-by-State basis, centralized training and/or workshops can be instituted for technicians from other States once pilot systems are implemented and operational.

In the particular case of institutionalizing logistics management and service statistics systems, we recommend that a "workshop" for key representatives from States nearing program implementation, i.e., delivery of services, be held in Nigeria in late 1984. This workshop would review the systems in place in the accelerated States and the rationale behind these systems, and would provide some "hands on" exercises, based on the systems. The participants would then be expected to introduce the commodities logistics and the service statistic systems in their respective States. Backup would be provided by the commodities specialist in the AAO office, supplemented by periodic visits, as necessary, by CDC consultants.

More generally, we recommend that the AAO, in conjunction with the FMOH, begin the process of institutionalizing a training capability at a centralized site, which will eventually provide a base for required TA and training services to Nigeria's growing family planning program.

#### B. Timing of Contraceptive Shipments

In accordance with previous agreements between AID/W, FPIA, AAO/Lagos, FMOH, and Sterling Products (Nigeria), the entire shipment of contraceptives for the initial 18 months of the program will be shipped in one consignment to Nigeria in early April. This consignment consists of pre-assigned amounts for each State, subdivided for each 6-month period. In addition, a reserve has been provided, to allow for the possibility that some States may accelerate services more rapidly than anticipated, and to permit modest initial shipments to "nonacceleration" States.

##### 1. Acceleration States

In order to ensure that the State level pipelines are filled and maintained at adequate levels, we propose that the first two 6-month tranches be shipped immediately from Lagos to Ondo, Niger, and perhaps Plateau. For other States, which are not as close to readiness to proceed, shipment of only the initial 6-month supply should be sufficient for the present.

At the time of the next CDC visit, the rate of drawdown of contraceptives can be determined and a recommendation made for the date of shipment of the next 6-month tranche.

Also, at that time, some preliminary planning for commodity requirements beyond the initial 18 months can be made if the acceleration States have data available on drawdown and balances on hand for at least a 3-month period.

## 2. Nonacceleration States

Part of the 18-month reserve is intended to be available to meet the needs of States not included in the original estimates of commodity requirements. We suggest that commodity requests from these States be handled conservatively by the AAO, who will be responsible for recommending to FPIA the amounts of commodities which Sterling will deliver. We propose that a pre-established ceiling be placed on the initial amount any new State will receive, and that certain procedures be introduced to monitor subsequent commodity use before further shipments are authorized.

Specifically, we propose that no undesignated State shall receive more than 10 percent of the original reserve supply for any method as an initial shipment. As a condition for receiving such a shipment, these States, as also the "designated" but nonacceleration States, will be expected to keep records of the amounts of each commodity dispensed to clients and the balance on hand at the end of each month. This is required so that the rate and trend of commodity drawdowns can be determined; this can serve as a basis for assessment of subsequent needs. We suggest that the commodity forms appended to this report be used for this purpose, and that the commodities specialist on the AAO staff, who is familiar with these forms, be asked to assist the States in their use.

## C. Client Form Standardization

In order to facilitate uniform recordkeeping and analysis, it is generally considered desirable to have identical standard forms in use in the different States. So far, where we have introduced the new forms for commodity and contraceptive user monitoring, we have had no appreciable difficulty in gaining acceptance of the proposed forms. Such agreement has not been reached, however, on the design of a family planning client record form in the two States we visited. In these States, forms and protocols already exist or are being developed. In both cases, while MOH staff are willing to entertain some changes and to listen to suggestions, they have indicated a desire to make their own decisions on what the content and layout of the client form will ultimately be.

Since States do have a considerable degree of autonomy from the FMOH, the compromise suggestion was made by the AAO that CDC prepare a prototype form. This form will be submitted for approval to the FMOH which, in turn, will encourage States to adopt it or a modified version of it as a standard form. This form should be designed to contain the basic minimum of information required by service delivery staff in prescribing initial methods and in providing followup services to family planning clients.

We accepted this task, and propose the client form layout presented in Appendix 6. This form is a somewhat modified version of the client form which is currently in use in PPFN clinics.

D. Local Currency Questions

Some States are severely constrained by a lack of basic supplies (such as paper for printing forms) due to a lack of local currency for purchase of these commodities. We suggest that, at least for States as constrained as Niger, the AAO request intermediaries to provide modest amounts of paper. This solution would only be temporary, since the anticipated generation of funds through new commodity and service pricing systems (see next section) should provide a solid fiscal base for future local expenditures.

E. Contraceptive Pricing Policies

While we were in Nigeria, the new government--at both national and State levels--was moving away from the former "free" provision of services and drugs to one of charging clients a modest fee. This policy will certainly affect the family planning program. The actual charges to be imposed for different contraceptives had not been established, though the consensus of people with whom we discussed this was that prices would likely be close to, or somewhat below, the PPFN guideline of 1 Naira per month of contraceptive supplies, at least for orals, condoms, foaming tablets, and injectables.

Regardless of the eventual pricing decisions, the sale of contraceptives will generate local funds. The States and the AAO must agree on how these funds may be spent. It appears that these funds could serve as a reservoir for meeting local costs for such items as paper and printing, and possibly to meet other direct program-related costs such as job-related field transport.

F. Data Processing--Temporary CDC Role

The December team report recommended the establishment of an evaluation unit in the FMOH to monitor various aspects of the Nigerian Family Planning Program (See January 30, 1984, CDC Foreign Trip Report, p. 12).

During the present visit, the AAO expressed a strong desire to track trends in age and number of living children, by method, in the MOH program from its start. These data would be used to profile, albeit in a limited way, these characteristics of new acceptors. Analysis of these data could be used to demonstrate the extent to which the State family planning programs have been successful in attracting young, low parity women to the program. If trend analysis showed a decrease in age and parity of new acceptors, a decrease in the Total Fertility Rate (TFR) might, ceteris paribus, be expected. Such analysis should ultimately become the responsibility of the proposed evaluation unit.

We agree that the collection and analysis of these data should be among measures of program activities. However, given the low prevalence of use of contraceptives in Nigeria, the fact that State programs are in their early stages of development and the fact that experience worldwide shows that newly established family planning programs generally attract older, higher parity women, we feel that it would be more important at this time to concentrate efforts on measuring overall increases in use. The contraceptive supply and user reporting system we proposed for Niger and Ondo States is designed to do just that, and this should be the principal initial emphasis of the evaluation unit.

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Since this unit has not yet been established, we agreed that we would try to assist in the specific task of tracking age/living children, by method, for new acceptors, if a reasonably complete set of transcription forms containing the data are submitted to us. The key information to be collected on each new acceptor is her age, the number of her children still alive, and the method accepted, along with the clinic and State identification codes, a visit number, and the month/year of acceptance. A copy of the proposed form and instructions for its completion are appended (See Appendix 7). We emphasize that this is a temporary arrangement, since the Nigerian FMOH must move expeditiously toward institutionalizing family planning evaluation as a key to its management information system.



J. Timothy Johnson, Dr.P.H.



Richard S. Monteith, M.P.H.

Attachments

## APPENDIX 1

### Instructions for Completing Daily Activity Register/Report Form

#### General

The purpose of this form, which is designed to be used in contraceptive outlets, is to provide a daily log of the number of patient visits, subdivided by the type and amount of contraceptives dispensed to each patient. This will permit ready tabulation of monthly and quarterly counts of patient visits and of amounts of each contraceptive dispensed.

#### Form Headings

The name of the clinic, zone, and State in which it appears will be recorded at the top of the form. The month and year of reporting will appear in the upper-right corner.

#### Column Headings

Date will be recorded in the first column, and will include the day (1 to 31), followed by the month (1-12). For example, October 17 will be marked 17/10. The date needs to appear only for the first entry for that date, except that when additional pages are required to record visits for a given day, the date should also appear for the first entry on the next page.

The visit number will be recorded in the second column. Visit number will begin anew each month with the number 001. Patients will be numbered sequentially by the order in which they appear. At the end of the day, a blank row will be left, which will separate that day from the next. If one page is insufficient, the day's record will be continued on the next page, starting with the next sequential number. A new page should be started for each new month.

In the third column we record whether this is a new patient. If this is the first family planning visit by this patient to this clinic, a checkmark or tick (✓) will be entered. If this client has been served previously by this clinic as a family planning patient, the space will be left blank.

The remaining set of columns, "Method Dispensed at this Visit," is critical for determining both the number of patients accepting by method and the amounts of each of these methods being dispensed. (Note: Method mix may vary among States. Therefore, individual States are advised to modify the subheadings as required). Care must be taken that the correct amount of the selected contraceptive is recorded, as follows:

#### (a) Orals

In this section, write in the number of cycles of contraceptive pills dispensed to the patient under the subcolumn corresponding to the brand dispensed.

- (b) IUCD's  
The three most frequently used IUCD's at present are the Copper "T" and Lippes Loop, sizes C and D. In addition, space has been left to enter "other" IUCD's, since in a few cases other sizes or types may be used. If an IUCD is inserted at this visit, record the number "1" in the column for the specific type of IUCD selected.
- (c) Condoms  
For patients to whom condoms are provided, the actual number of condoms dispensed should be entered.
- (d) Foaming Tablets  
For patients given foaming tablets (Neosampoon or equivalent brands), the actual number of tablets dispensed should be entered.
- (e) Injection  
Patients receiving a contraceptive injection will have a "1" recorded in the column.
- (f) Cream/Jelly/Foam  
For contraceptive creams, foam, and jellies, the number of tubes dispensed will be recorded. Note that occasionally a patient will receive both a diaphragm and spermicidal cream. In this case, both items should be marked for this patient. However, if this is a resupply of cream or jelly to a patient already having a diaphragm, only the number of tubes of cream or jelly dispensed will be entered.
- (g) Diaphragm  
For any woman for whom a diaphragm is provided, the size of the diaphragm (either 75 or 85 mm) should be entered in column 9.
- (h) Other (Specify)  
Occasionally, a patient may come in for a contraceptive procedure or method not appearing in the foregoing list. The "other" column will be used to specify the method and quantity dispensed.
- (i) None  
In some cases, clients attending family planning clinics, even if they came with the intention of becoming acceptors or getting resupplies, may for some reason not receive any contraceptive service or supply at this visit. For instance, if during the visit it is determined that the woman is currently pregnant, she may simply be advised to return after this pregnancy is terminated, or she may be seeking counseling for sterilization or for infertility. Codes should be developed to record these visits such as "SC"--sterilization counseling.

#### Totals

Two rows appear at the foot of each page. The first is marked "Page Total". In this row will appear the total number of entries occurring under each method column on this page, and also the total number of patients seen (second column) and new patients (third column).

The second row is marked "Cum Total" as an abbreviation for "Cumulative Total for Month." In this row will appear the sum of the page total plus the cumulative total (if any) carried over from the previous page. For the last entry of the month, this cumulative figure will give the number of patients seen, the number of new patients, and the amounts of each method dispensed during the month.

For quarterly reports, the final cumulative totals for the three corresponding months can simply be added.

#### Form Specifications

The form should be printed on legal size paper (8-1/2" x 14") and on both sides of the paper in order to save paper. The column headings should appear on the short axis of the paper. The form heading need not be printed on the reverse side.



## APPENDIX 2

### Instructions for Completing Summary of Contraceptives Issued/Dispensed and Family Planning Users Form

The purpose of this form is to provide a summary of clinic activity in terms of numbers of new and continuing users of family planning methods, and the amounts of commodities dispensed, received, and on hand at the start and close of the reporting period.

This will facilitate efforts to keep track of user trends, by method, and of the amounts of commodities required to maintain adequate supplies on hand to meet clinic needs.

Clinic figures can readily be aggregated to provide zonal and State summaries, which are particularly important for tracking trends for ensuring supply adequacy and for forecasting.

Information on users and quantities of commodities is required for all contraceptive methods indicated in the column headings.

The first three rows refer to users, subdivided among new, continuing, and total users. For each method, the number of people becoming acceptors or receiving supplies as "continuing users" in this clinic is to be recorded in the appropriate cell. No cell should be left blank. If there were no acceptors or users of a specific method during a reporting period, a zero ("0") should be entered. Note that space is provided in the first column to enter the total number of acceptors and users of all methods served during the reporting period. This provides a summary of the number of family planning client visits during the period.

All this information at the clinic level will be abstracted from the clinic Daily Activity Register/Report Form.

For the lower four rows, the quantity of each contraceptive on hand at the start, received and dispensed during the period, and on hand at the end, will be entered. "Units" of contraceptives will be actual numbers for IUCD's, condoms, foaming tablets, and diaphragms. For pills, it will be the number of monthly cycles, and for injectables it will be the number of doses, i.e., count the number of vials and multiply by 10. For creams and jellies, the number of tubes will be recorded. As for the previous count of users, no cells should be left blank. For example, if there were no pills dispensed in the period, a zero will be entered in the cell.

This form will normally be completed on a quarterly basis by each clinic, and will be collected for aggregation at the zonal level by the zonal supervisor, or directly at the State level by the State supervisor's staff. A copy of the aggregate State figures will be maintained at the State family planning headquarters. Two additional copies will be prepared; one of these will be forwarded to the Federal MOH, while the second will be sent to the AAO, U.S. Embassy, Lagos.

SUMMARY OF CONTRACEPTIVES ISSUED/DISPENSED AND FAMILY PLANNING USERS

Clinic \_\_\_\_\_ Zone \_\_\_\_\_ State \_\_\_\_\_

Reporting Period: From (Month) \_\_\_\_\_ to Month \_\_\_\_\_, 19 \_\_\_\_\_

	No. of Client Visits	Oral Contraceptives					IUCD's				Condoms	Foaming Tablets	Injection	Cream Jelly Foam	Dia-phragms (Give Sizes)	Other (Specify)	None (Specify Type of Visit)
		Fem- nal	Non- day	Neo- gynon	Min- ovlar	Other	Lippes C	Lippes D	Cu T	Other							
<b>Clients:</b>																	
New Acceptors																	
Continuing Users																	
Total Visits																	
<b>Commodities:</b>																	
Beginning Balance	X																
Amount Received	X																
Amount Dispensed/ Issued	X																
Ending Balance	X																

### APPENDIX 3

#### Determining Issue Quantities\*

Three types of data are used to determine issue quantities in the proposed supply system:

1. Quantities dispensed to users during last reporting period.
2. Balance on hand at end of last reporting period.
3. Maximum months of supply for each method assigned to the clinic.

The first two data are obtained from the Summary of Contraceptives Issued/Dispensed and Family Planning Users form which is to be submitted to the MOH Central Office at the end of each quarter.

The latter is a pre-established figure which takes into account possible delays in resupply and unexpected high demand. This is expressed in terms of a quantity sufficient to provide a certain number of months' demand. For example, program policy may be to maintain a maximum of 5 months of supply in all outlets. Thus, if resupply is to occur every 3 months (quarterly), the outlet should have approximately a 2-month safety stock ( $5-3=2$ ) on hand at the end of the quarter in the event resupply is delayed, or have this amount on hand during the quarter to be dispensed to users in the event there is unexpected high demand.

Given the uncertainties of demand for family planning in Nigeria but the relative short lead time needed to resupply State outlets providing family planning services, we recommend that a maximum of 5 months' supply for all contraceptive commodities be assigned to the clinics. A maximum supply level of 12 months should be assigned to Central Stores. We further recommend that clinics be resupplied quarterly on the basis of the information submitted on the Summary of Contraceptives Issued/Dispensed and Family Planning Users form.

The steps required to determine issue quantities follow. The oral contraceptive, Femenal, is used for illustrative purposes.

STEP 1: Determine the average monthly quantity of Femenal dispensed to users during last quarter.

This is done by dividing the quantity reported to have been dispensed by an outlet during the last quarter by 3. This will give the monthly average.

For example, if Clinic A dispensed 326 cycles of Femenal during the fourth quarter of 1983, the monthly average would be:

326 divided by 3 = 108.6; use 109  
(Since 6 is greater than .5, we round up to the next whole number, 109).

\*Quantities to be issued

STEP 2: Determine the new maximum supply (Smax) level for the contraceptive method based on the quantity dispensed to users during last quarter.

This is done by multiplying the monthly average dispensed of Femenal by the number of months of supply assigned to the clinic for the method. We recommend that a 5-months' supply be assigned to the clinics for all methods.

Thus, using the information obtained in Step 1, our new maximum supply for Femenal in Clinic A is:

$$109 \times 5 = 545$$

STEP 3: Determine the quantity of Femenal that Central Stores should issue to Clinic A.

This is done by subtracting the balance on hand of Femenal at the end of the last quarter from the new maximum supply calculated in Step 2. Balance on hand is obtained from the Summary of Contraceptives Issued/Dispensed and Family Planning Users form.

For example, if Clinic A had 201 cycles of Femenal on hand at the end of the last quarter, Central Stores would issue the following quantity to Clinic A:

545 - 201 = 344; issue 400 cycles  
(Femenal is packaged in sleeves of 100 cycles. Rather than break lots, Central stores will issue 4 sleeves or 400 cycles to Clinic A).

## APPENDIX 4

### Estimating Months of Supply on Hand

This analysis is useful in identifying stock imbalances (over- or undersupply) in the supply system, in identifying "bottlenecks" in the flow of supplies, and in projecting future supply requirements for the program. The analysis can be specific to individual contraceptive outlets and stores, or an aggregate analysis of all clinics or stores.

Three steps are involved in the analysis.

STEP 1: Determine balance on hand at the end of the last quarter.

This information is obtained from the last row of the Summary of Contraceptives Issued/Dispensed and Family Planning Users form.

As an example, let us assume that Clinic A had 1,079 cycles of Noriday on hand at the end of the first quarter (January-March) of 1984.

STEP 2: Determine the average monthly quantity of Noriday dispensed to users during the quarter.

Following our example in Step 1, the quarterly figure is obtained from the next-to-last row of the Summary of Contraceptives Issued/Dispensed and Family Planning Users form. Let us assume that 759 cycles of Noriday were dispensed during the quarter.

In order to obtain a monthly average of Noriday dispensed to users, we simply divide 759 by 3:

$$759 \text{ divided by } 3 = 253$$

STEP 3: Estimate Months of Supply on Hand.

This is done by dividing the balance on hand of Noriday at the end of the quarter by the monthly average of Noriday that was dispensed to users during the first quarter of 1984:

$$1,079 \text{ divided by } 253 = 4.3 \text{ months of supply}$$

Since the policy of the program is to maintain between 2 and 5-months' supply of each contraceptive at the outlet level, we can see from this analysis that Clinic A is in compliance. Program officials would issue the clinic an amount of Noriday that would bring stock levels up to a 5-month supply.

This analysis should be done for all contraceptives in inventory at Clinic A, and should be done for all clinics in the program. Thus, at a glance, supply imbalances can be identified by method and by clinic, and corrective action can be taken, if required.

For example, the following table could be constructed to show months of supply on hand for each clinic in the program. (For illustrative purposes, we exclude the other methods. Of course, a table showing months of supply on hand for all methods should be prepared.)

<u>Clinic</u>	Months of Supply <u>on Hand of Noriday</u>	Over/Under- <u>Supply</u>
A	4.3	OK
B	0.9	-
C	9.8	+
D	6.1	+
E	1.7	-
F	5.2	+

As mentioned above, an aggregate analysis can be done of all clinics in the program. The same steps are involved, but before performing these steps, one must first add all of the balances on hand in--and all of the quantities dispensed during the quarter--by the program clinics.

In order to determine months of supply on hand in Central Stores, one simply divides the balance on hand of contraceptive A in Central Stores at the end of the quarter by the monthly average of contraceptive A dispensed by all of the clinics.

Using condoms as an example:

1. Balance on hand in Central Stores: 20,700 pieces
2. Condoms dispensed during quarter:

<u>Clinic</u>	Dispensed <u>During Quarter</u>
A	1,118
B	660
C	1,008
D	395
E	916
F	78
	<u>4,175</u>

3. Monthly average dispensed by clinics:

4,175 divided by 3 = 1,392

4. Months of Supply on hand in Central Stores:

20,700 divided by 1,392 = 14.9 months

A 12-month maximum supply should be assigned to Central Stores. Thus, according to the above analysis, Central Stores is slightly oversupplied with condoms.

## APPENDIX 5

### Estimating Active Users

This analysis is useful in determining the proportion of the target population, i.e., married women age 15-44, the family planning program is serving. The following steps will give us the numerator for this analysis. The denominator is generally obtained from census data.

Three steps are involved in estimating the number of active users (numerator) served by the program.

STEP 1: Determine quantities dispensed to users by method.

This information is obtained from the second-to-last row of the Summary of Contraceptives Issued/Dispensed and Family Planning Users form.

STEP 2: Determine quarterly usage of the various contraceptive methods dispensed by the program.

Special studies can be conducted to determine usage rates, especially for coital-related methods. Usage rates of noncoital-related methods, such as orals and injections, are fixed: 13 cycles per year and 4 injections per year. In the absence of special studies, we recommend the following annual and quarterly usage rates, which are referred to as "Conversion Factors":

<u>Method</u>	<u>Conversion Factors</u>	
	<u>Annual</u>	<u>Quarterly</u>
Orals	13 cycles	3.25 cycles
Injections	4 injections	1 injection
Condoms	144 units	36 units
Foaming tablets	144 units	36 units
Cream, Jelly, Foam	6 tubes	1.5 tubes

For methods such as IUCD's and diaphragms, we look at usage in terms of the average amount of time a woman will use these methods. This is approximately 2.5 years for IUCD's, and 1 year for diaphragms.

STEP 3: Estimate number of active users served by the program during the quarter by method.

With the exception of IUCD's and diaphragms, this is done by dividing the quantity of a specific method dispensed during the quarter by its corresponding Conversion Factor. For IUCD's, we multiply by 10 (2.5 years = 10 quarters), while for diaphragms we multiply by 4 (1 year = 4 quarters).

Example:

<u>Method</u>	<u>Quantity Dispensed During Quarter</u>	<u>Conversion Factor</u>	<u>Estimated Active Users</u>
Orals	13,069	3.25	4,021
Injections	814	1	814
Condoms	9,789	36	272
Foaming tablets	21,040	36	584
Cream, Jelly, Foam	543	1.5	362
IUCD's	266	10	2,660
Diaphragms	20	4	80
		TOTAL	8,793

Thus, this example shows that 8,793 users were served during the quarter. Stated more precisely, 8,793 quarters of contraceptive use were achieved through program activities undertaken during the quarter.

This type of analysis can be done by clinic, by region, or for the entire program.

Finally, we mentioned earlier that the proportion of married women aged 15-44 served by the program can be determined from this analysis. Let us assume that census projections estimate that 458,000 married women age 15-44 years live in the State. In order to determine the proportion of this population that is served by the program, the following calculation is performed:

$$8,793 \text{ divided by } 458,000 = 0.019 = 1.9\%.$$

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## APPENDIX 7

### Instructions for Completing Age and Number of Living Children of New Acceptors Form

#### Columns 1 and 2:

State codes will be recorded in these columns. Codes 01 through 19 should be assigned to the 19 States. The State codes can be assigned arbitrarily or sequentially as State programs are implemented. Codes 20 and above should be assigned to the Army and other special programs.

#### Columns 3, 4, and 5:

Each clinic in a given State should be assigned a three-digit code starting with 001; these codes will be recorded in these columns. Clinic codes can be assigned arbitrarily or sequentially as family planning is implemented in clinics.

#### Columns 6, 7, 8, and 9:

These columns correspond to a sequential visit number. The first new acceptor in a given clinic in a given quarter will be assigned the code 0001. Additional new acceptors will be assigned identification numbers 0002, 0003, etc.

#### Columns 10 and 11:

These columns correspond to the month of the visit made by new acceptors. Code 01 will be assigned to January, 02 to February, and so forth.

#### Columns 12 and 13:

In these columns the year the visit is made will be recorded. For new acceptors in 1984 the code would be "84", in 1985 "85", etc.

#### Columns 14 and 15:

The age of new acceptors will be recorded in these columns. If age is unknown, record "99".

#### Columns 16 and 17:

The total number of living children of new acceptors will be recorded in these columns. If the acceptor has one living child, code 01. For an acceptor with no living children, record code 00. If number of living children is unknown, record "99".

Column 18:

In this column a code that corresponds to the method accepted will be recorded. We suggest the following codes:

<u>Method Accepted</u>	<u>Code</u>
Orals	1
IUCD's	2
Sterilization	3
Condoms	4
Foaming tablets	5
Cream, Foam, Jellies	6
Injection	7
Diaphragms	8
Rhythm (Billings Method)	9
Withdrawal	
Other	0

As this list of codes imply, only women accepting a method at the initial visit will be recorded on the data collection form, as there is no code allowed for "none".

Finally, the form should be printed on legal-size paper (8-1/2 x 14) and on both sides of the paper. On the reverse side it is not necessary to include the form title and identifiers.

