



## Memorandum

Date March 14, 1988

From J. Timothy Johnson, Dr.P.H., Program Evaluation Branch, Division of Reproductive Health, Center for Health Promotion and Education (CHPE), and Brice Atkinson, M.A., John Snow, Inc. (JSI)

Subject Foreign Trip Report (AID/RSSA): Nigeria, January 18 to February 8, 1988. Assistance to Nigerian Family Planning Program, and USAID, Nigeria

To Billy G. Griggs  
Assistant Director for International Health, CDC (D19)  
Through: Acting Assistant Director for Science, CHPE (A37) *Yolson*

## SUMMARY

- I. PLACES, DATES, AND PURPOSES OF TRAVEL
- II. PRINCIPAL CONTACTS
- III. BACKGROUND
  - A. Previous CDC and JSI Assistance to Nigerian FP Program
  - B. Present Purposes
  - C. Problems Encountered, and Strategy to Accomplish Tasks
- IV. PUBLIC SECTOR COMMODITY REQUIREMENTS, BY STATE
  - A. Methodology
  - B. Summary of Past Performance
  - C. Summary of Recommendations/Amounts Required
- V. PRIVATE SECTOR/COMMERCIAL COMMODITIES STATUS REVIEW
  - A. Trends and Levels of Use
  - B. Current Stock Levels, versus Requirements
  - C. Transfer of Condoms to WHO
- VI. WAREHOUSING AND COMMODITY STORAGE ISSUES
  - A. Findings
  - B. Actions and Recommendations
- VII. FP-MIS AND RELATED ISSUES
  - A. Ogun/Benue Pretest Feedback
  - B. Developments Regarding Proposed FP-MIS Workshop
- VIII. APPROVAL OF A NATIONAL POPULATION POLICY

## ATTACHMENTS:

## APPENDIXES:

- A. Background on Projections Methodology
- B. Warehousing and Recordkeeping Recommendations

## TABLES:

1. Public Sector Performance Comparison, 1986 and 1987
2. Summary of Public Sector Requirements for 1988
- 3-7. State and Method-Specific Requirements, 1988
8. Comparison of Estimates, 1988-1990
- 9-13. National Public Sector Contraceptive Requirements (CPTs)

SUMMARY

CDC consultant Timothy Johnson and JSI consultant Brice Atkinson, at the request of USAID/Lagos, made overlapping visits to Nigeria, January 18 to February 8, 1988. Their principal task was to prepare state-specific estimates of public sector contraceptive requirements. Additional tasks included a more general overview of private sector contraceptive requirements, further work on the development and implementation of the national family planning reporting system, and review of commodity records maintained at AID and at the Sterling warehouse.

To overcome substantial unexpected problems, relating especially to unavailability of key individuals and lack of preparatory work in Lagos prior to our arrival, we found it necessary to adjust our planned schedule and agenda rather drastically. However, we ultimately were able to accomplish all our tasks, though in some instances not quite as fully as we had intended. In particular, we were unable to visit some States which were known or reported to be experiencing commodity or MIS related problems (Section IV-A).

In preparing our estimates of commodity requirements, we also estimated levels and trends of public sector family planning performance. The trends continue to be very encouraging, and generally in line with extrapolations and estimates of likely growth made about a year ago. Overall, 1987 performance exceeded 1986 by about 80 percent (Section IV-B, and Table 1).

Public sector commodity requirements were estimated for each major contraceptive method for each State. The net aggregate quantities required nationally for each method for the remainder of 1988 are summarized in Table 2, and also in Section IV-C. These quantities include:

Copper T 380A IUCDs,	585 cartons	(117,000 units)
Lo-Femeral oral pills,	503 cartons	(603,600 cycles)
Sultan 52mm condoms,	484 cartons	(2,904,000 pieces)
Conceptrol VFTs,	160 cartons	(768,000 tablets)

Detailed state-specific tables for each method are found in Tables 3-6, which also indicate how existing AAO reserves are to be allocated among States, along with the new requirements for each State, and new supplies required for replenishing the AAO reserves. Table 7 provides comparable state-specific requirements for the UNFPA-provided injectable, Depo-Provera.

State-specific estimates were also used as the basis for preliminary estimates of likely 1989 and 1990 requirements. These estimates, along with the previously noted tables, were all discussed and left with the AID Affairs Office. These projections are summarized in Table 8, which compared these estimates with national estimates generated by the CPT computer program. The methodology used for making state-specific estimates is given in Appendix A. We note that differences between national CPTs and our method of state-specific estimation, followed by aggregation, are not large. The method-specific national CPTs appear as Tables 9-13.

Movement of commercial private sector contraceptive commodities through the Nigeria-18 project has been much slower than anticipated. Consequently, we found stocks of condoms, pills, and vaginal foaming tablets which were excessive in terms of recent slow rates of distribution. None of these methods are in need of short-term replenishment. Indeed, partly to alleviate dangers of condom expiration before distribution, and partly to meet a WHO request for condoms for the campaign against the spread of AIDS, we supported an AID/FPIA/Sterling agreement to transfer 5 million Panther condoms to WHO (Sect. V-C).

In our review of warehousing and commodity storage issues, including questions of adequacy of recordkeeping procedures, a number of problems were identified. Mixing of MOH and private sector stocks was noted. Our recommendations for restacking commodities by program, commodity type and brand, and by date of expiration, were fully supported by the new Sterling representative, who initiated action to correct these problems. We also discussed our findings and recommendations on recordkeeping, particularly at the AID office, with the AAO logistics specialist (Section VI and App. B).

Concerning MIS developments, we were pleased to note that pretesting of proposed revisions and additions to the present system appeared to be running smoothly. Further implementation of these modifications should receive a big boost from the planned "training of MIS trainers" round of workshops, now expected to get underway in mid-May (Sect. VII).

Finally, we note that the Nigerian government officially approved a national population policy, which stresses the health benefits of family planning, on February 4, 1988. This long-awaited development should pave the way for accelerated activity in this critical component of Nigeria's developmental efforts (Section VIII).

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

Nigeria, January 18 to February 7 (Atkinson), January 25 to February 8 (Johnson), plus IPPF, London, February 9-10, 1988 (Johnson). At the request of USAID Lagos (Ref. Lagos 16453, dated December 29, 1987), CDC consultant Dr. J. Timothy Johnson and JSI consultant Brice Atkinson visited Nigeria to assist in the preparation of estimates of contraceptive commodity requirements for the Nigerian national family planning program. This included state-specific estimates of public sector requirements, and a more general overview of private sector requirements. At the request of USAID/Lagos, the consultants also looked into questions of commodity records maintenance at AID and at Sterling Products, and worked on the continuing development and implementation of the national family planning reporting system. The latter involved visits to the State family planning programs in Ogun and Ondo states, and brief participation in an ongoing workshop of all state family planning Coordinators and Deputy Coordinators. This travel was in accordance with the Resource Support Services Agreement (RSSA) between the Office of Population/AID, and DRH/CHPE/CDC.

## II. PRINCIPAL CONTACTS

### A. AID Affairs Office (AAO)

1. Dr. E. Keys MacManus, AID Affairs Officer
2. Mr. Lawrence Eicher, Health Development Officer
3. Hadiat H. O. Shitta-Bey, Family Planning Specialist
4. Mr. Adebayo Iginla, Commodities Specialist
5. Dr. Yetunde Akinsipe, Medical Statistician

### B. Federal Ministry of Health (FMOH)

1. Dr. A. B. Sulaiman, Director, National Health Planning
2. Mr. Thomas Ubuane, Senior Statistician, Medical Statistics Unit

### C. Others

1. Dr. Samuel H. Brew-Graves, WHO Representative
2. Mrs. Olabisi R. Olatokunbo, Country Representative, Pathfinder
3. Dr. Mary Taylor Hassouna, MSH Consultant
4. Dr. Muhiuddin Haider, Africare Country Representative
5. Mr. Dennis Weeks, Management Consultant
6. Mr. Kim Winnard, Population Communication Services, Johns Hopkins
7. Mr. Gayi K. Bedou, Regional Deputy Director, FPIA
8. Mr. Opia-Mensah Kumah, FPIA
9. Ms. Joyce Holfeld, Regional Population Officer, REDSO/WCA
10. Dr. Judith A. Harrington, Deputy Representative, UNFPA
11. Dr. Babs Sagoe, UNFPA
12. Mrs. Y. Afonja, Principal Health Sister, Ogun State
13. Mr. Akin Obimakinde, Deputy FP Coordinator, Ogun State
14. Mrs. C.B. Falaki, Ondo State FP Officer
15. Mr. Abayomi Fajobi, Executive Director, PPFN
16. Mr. C. I. Nwosu, Evaluation Officer, PPFN
17. Mr. William Ogden, Representative, Sterling Products (Nigeria), Inc.
18. Mrs. O. A. Masha, FP Project Coordinator, Nigeria-18 Project
19. Mr. N. E. Spiff, Marketing Director, Nigeria-18 Project

## III. BACKGROUND

### A. Previous CDC and JSI Assistance

The Program Evaluation Branch of CDC's Division of Reproductive Health has been extensively involved in the development of Nigeria's family planning efforts since 1983. This involvement is detailed in 12 previous trip reports.

Previous activities have included assistance in the development of a family planning service statistics and commodity reporting system as the core of a family planning-management information system (FP-MIS), training of state-level staff in the use of the system, and assistance to the Federal Ministry of Health (FMOH) and the Agency for International Development (USAID) on various aspects of contraceptive forecasting and program monitoring. Since early 1987, these tasks have been shared by CDC and JSI. The present consultation was also a joint and complementary effort by a team representing both agencies.

B. Present Purposes

Our principal purpose was to review current contraceptive commodities status, and prepare forecasts and recommendations for additional AID-provided contraceptives to be supplied during 1988. While our primary concern was with the public sector component of the national program, we were also asked to review less formally and in less detail the progress of the AID-supported elements of the organized private sector, including particularly the joint FPIA-Sterling Nigeria-18 project.

Two aspects closely related to our primary task of projecting contraceptive commodities also received our attention. The first was the ongoing task of working with the Federal Ministry of Health and supporting collaborating agencies on further development and implementation of the national family planning service statistics and commodity reporting system. The second aspect concerned issues relating to commodity management, including in-country warehousing and recordkeeping.

In preparation for these tasks, we had requested in advance of our visit that the local AID staff collect certain types of information on performance and stock status for each State, and also that they compile and organize shipping records in a manner we had previously recommended. We also requested that key members of the local AID staff, notably including the two field specialists, be assigned to work closely and travel with us as necessary during this assignment, in order to understand fully the basis for our recommendations so that they could subsequently provide required followup.

C. Problems Encountered, and Strategy to Accomplish Tasks

Two significant developments, unknown to us until after our arrival, forced us to alter our modus operandi rather substantially. First, both AID's field specialists were totally unavailable to us throughout our visit, one hospitalized by a traffic accident while on field duty, and the other on an unscheduled extension of his leave. Their absence also meant that none of the preparatory work we had requested had even been started. Second, the Coordinators and Deputy Coordinators for family planning activities for all States were unavailable in their own States throughout this period, first while they attended a 2-day national workshop in Lagos, and then while they visited States other than their own, as part of a project to assess the countrywide public sector availability of family planning services and equipment.

As a consequence of these developments, combined with the relatively limited time available to us, we found it necessary to modify our original plan of action and internal travel plans quite drastically. Instead of visiting certain "problem States" to verify or amend the progress reports which were to have been compiled before our arrival, our prime task became that of collecting and analyzing monthly returns received by AID and the FMOH, in order to obtain as accurate and complete a picture of current State level supplies and use patterns as possible to enable us to make at least reasonable state-specific assessments of contraceptive requirements.

Since all State family planning managers had been brought together for a workshop in Lagos, we were able to take advantage of an invitation to address this gathering, which partially offset the problem posed by the absence of the coordinators in their respective States. During this session, and during informal lunchtime discussions following the more formal presentation, we were able to obtain some relevant information, particularly on severe shortages of selected commodities reported by some States, and in general to supplement the sometimes not-fully-current information from official monthly returns.

While most of our work was done in Lagos, to which State records are sent, and in which records on commodity shipments for both the public and private sector efforts are maintained, we did manage brief visits to two nearby States--Ogun and Ondo--at the specific request of the AID Affairs Officer. In Lagos we also had useful and relevant discussions with representatives of the Federal Ministry of Health, the Pathfinder Fund, WHO, Africare, the UNFPA, and the Planned Parenthood Federation of Nigeria.

#### IV. PUBLIC SECTOR COMMODITY REQUIREMENTS, BY STATE

##### A. Methodology

Knowledge of prior use and trends in use, combined with information on factors which are likely to influence future use patterns, form the basis for estimating future commodity use. This information, used in conjunction with information on existing stock supplies and desired levels of reserve stocks, provides the basis for estimating additional annual stock requirements. In the case of Nigeria, the evolving FP-MIS is designed to provide information on acceptors, revisits, and quantities of methods dispensed to users. This system has still not been implemented fully, though most States are now submitting their monthly returns to both the FMOH and to AID. As noted above, our request that updated information be compiled before our arrival into systematic summaries by State and method was not met, so that we had to do the best we could with the information available to us. This meant that our data base was less complete than we had hoped and also necessitated some adjustments to our methodology for estimating 1987 use. The steps involved in estimating 1987 method-specific use in each State, projecting this to 1988 expected use levels and adjusting this for required reserves and for stock already "on hand", appears as Appendix A, which also describes the basis for our estimates of desired levels of "AAO Reserve" stocks. Copies of this appendix, as well as the resulting tables plus all other relevant documentation, were left with the AID Affairs Office.

##### B. Summary of Past Performance

Between 1986 and 1987, the public sector family planning program continued to grow rapidly. Table 1 shows our comparative estimates of 1986 and 1987 performance, in terms of Couple Years of Protection (CYPs), for the five main program methods, based on commodities dispensed to users as a proxy for users. A couple of points are worth highlighting.

First, the increase from 116 to 206,000 CYPs represents about a 77 percent increase. However, the figure of 206,000 represents an undercount of total public sector coverage, since it does not include performance by the military

services, and since it tends to undercorrect for nonreporting clinics, and probably also somewhat underestimates performance in the final quarter of 1987. Allowing for these factors suggests that the actual increase was probably at least 80 percent. While this represents an impressive rate of increase, it should be noted that family planning services provided through the public sector still provide contraceptive protection to only a little over 1 percent of women of reproductive age in Nigeria.

In terms of new acceptors and revisits, we estimate over 240,000 and 350,000, respectively, for about 600,000 total visits for family planning services and supplies.

In terms of method mix, the IUCD remains the predominant source of protection against unplanned pregnancy. However, its proportion has dropped to under 65 percent of total public sector coverage from almost 70 percent the previous year. The second ranking method was the oral contraceptive pill, which accounted for over 17 percent of coverage, compared with 14 percent a year earlier. In absolute terms, this method more than doubled from 1986 to 1987. Condom use more than doubled, so that in 1987 this method provided 8 percent of total public sector protection compared with 6 percent a year earlier. Injections grew by 56 percent in absolute terms, which, however, represented the smallest percentage increase and a decline in its share of prevalence from 9 to 8 percent. This was partially attributable to stock shortages in several States. Vaginal foaming tablets (Conceptrol) continued to rank lowest in coverage but showed the greatest rate of increase, as it doubled from 1 to 2 percent of total coverage and more than tripled in absolute levels of use.

#### C. Summary of Recommendations/Amounts Required

Table 2 summarizes the total number of cartons of IUCDs, oral pills, condoms, and vaginal foaming tablets to be shipped to Nigeria in 1988 to meet public sector requirements. This table also summarizes existing levels of "AAO reserves" and the quantities of these reserves to be shipped to the States in the very near future, as agreed in discussions with the AID staff prior to our departure.

The required shipments of AID-supplied commodities for 1988 are divided in Table 2 between shipments to be consigned to individual States versus shipments to be designated as new AAO reserves to replace and supplement current reserves. Combining these two categories, we see that there will be a net requirement of 585 cartons of Copper "T" 380-A; 503 cartons of Lo-Femenal (no more Femenal will be shipped); 484 cartons of Sultan condoms (no more Tahiti need be shipped); and 160 cartons of Conceptrol.

Tables 3-6 give our detailed state-specific estimates of requirements for each of the four AID-provided methods, while Table 7 provides corresponding information for the UNFPA-supplied injectables. Tables 3-6 give, in addition to total 1988 requirements of commodities in each of the 22 States, the amounts to be provided immediately from AAO reserves, and the amounts to be shipped as additional 1988 shipments from the U.S.

With the exception of supplies of Copper "T" IUCDs as noted below, reserve stocks should be sufficient to meet urgent requirements. However, we urge

that the additional stocks designated for States and AAO reserves be shipped as expeditiously as possible. If it appears that sea shipment will not permit these goods to be landed in Nigeria before the end of May, we would urge that as an interim measure, to ensure avoidance of any State stockouts, one-third of the quantity designated as AAO reserve should be air-freighted to Lagos for IUCDs, orals, and condoms. Such a shipment would consist of 40 cartons of Copper "T" 380-A, 30 cartons of Lo-Femenal oral contraceptive pills, and 20 cartons of Sultan brand colored condoms. No urgent or expedited shipment of Conceptral foaming tablets will be required.

In the case of the Copper "T" IUCD, almost no AAO reserve remains, in part due to the inadvertent shipment of an excessive quantity of this commodity to one State in November 1987. If 20 cartons (representing about 60 percent of this shipment) can be retrieved, and re-allocated as indicated in Table 3 to the five States in most urgent need, then an expedited shipment of Copper T's should not be required. However, given the recognized difficulties of such retrieval efforts once commodities have been distributed within a State, we recommend that an immediate shipment to the AAO reserves of 40 cartons of IUCDs be made.

All these recommendations were discussed with the AAO. Copies of our 1988 estimates of requirements for injectables were also discussed and left with UNFPA. It was also agreed with the AAO that Johnson would bring these recommendations to the attention of CPSD and, either through CPSD or directly, also to FPIA. This was subsequently done.

Preliminary estimates were also made of commodity requirements for 1989 and 1990. A hand-written table of these estimates, which were based mainly on extrapolation of past state-specific usage patterns, was left with the AAO.

Subsequently, after our return to the U.S., national CPTs were prepared for 1988-1992 for the public sector. Since these were based on aggregate data, and did not incorporate state-specific factors noted in Appendix A, they differ somewhat from the figures left with the AAO. A comparison of these estimates for each method of estimation appears as Table 8. Overall, for the 3 years covered by Table 8, the difference in estimates between these procedures is fairly small, ranging from 1.5 percent for orals to 12.2 percent for condoms.

Since estimates will be updated annually, on the basis of updated information these differences cannot be considered to be very substantial. For overall planning purposes for years beyond 1988, the national CPTs should probably be considered as the preferred estimate, even though it will be necessary each year to make state-specific and project-specific estimates. Tables 9-13 contain the CPTs for the four AID-provided public sector commodities, along with a table for injectables.

## V. PRIVATE SECTOR/COMMERCIAL COMMODITIES STATUS REVIEW

### A. Trends and Levels of Use

Expansion of private sector family planning activity is considered to be an essential component of the overall Nigerian family planning strategy under the FHI II project. Already prior to this project, the "Nigeria 18" joint collaborative effort by Sterling Products (Nigeria), Inc., and FPIA was initiated in 1986. After an auspicious first year, during which large quantities of commodities were distributed to retailers for sale to clients, there has been a marked decline in output, in terms of commodity distribution and sales through this project.

FPIA, Sterling, and AID are all concerned about this trend. While the reasons for this decline are not all clear, FPIA and Sterling recognize that increased demand-creation and marketing efforts are urgently required if the project is to reverse present trends and meet its original goals.

We were asked to make a quick assessment particularly of the adequacy of commodity stocks for this project, and to advise AID on the need for additional commodities during 1988. Both FPIA and Sterling were very helpful to us in providing records of past shipments and sales, and current stock levels at their Lagos and regional warehouses.

### B. Current Stock Levels, Versus Requirements

On the basis of these records, supplemented to a limited extent by a physical inventory of stocks at the Lagos Sterling warehouse, we prepared a table of current supplies in relation to the most recent 6 month distribution figures, to assess current stocks in terms of months of supply on hand. This table, which was discussed with two regional FPIA representatives (Messrs. Bedou and Kumah) as well as with AID staff, showed that current quantities of private sector condoms (three brands), oral pills, and vaginal foaming tablets are well in excess of anticipated 1988 and 1989 distribution needs. Indeed, as noted above, FPIA and Sterling recognize that in the absence of efforts to regain project momentum, there is a real danger of stock expiration dates being reached before these commodities have reached their intended users.

The only method provided under the Nigeria-18 project which is likely soon to require replenishment is the Copper "T" 380-A IUCD. We were unable to reconcile substantial discrepancies between different records for warehouse stocks of this commodity, which may be very close to being out of stock. We did, however, set in motion steps to determine current stock levels, which will quickly show whether additional stocks of this commodity will be required.

### C. Transfer of Condoms to WHO

Regarding current large stocks of condoms, discussions among AID, WHO, FPIA/Sterling, and others led to a proposal to shift 5 million Panther brand condoms to WHO for use in the campaign against AIDS. This will still leave more than adequate stocks of the three brands of Nigeria-18 condoms available to that project, while satisfying WHO's request for an initial tranche of 5 million of this commodity. It is also hoped that such wider dissemination of Panther logo condoms will serve a "pump priming" function by giving greater visibility and exposure to this product.

## VI. WAREHOUSING AND COMMODITY STORAGE ISSUES

### A. Findings

During a previous review of the commodity storage situation in Lagos, we had been favorably impressed by the manner in which the Sterling warehouse staff maintained stocks and records of shipments into and out of the warehousing facilities. MOH and AAO reserve stocks were kept separately from Sterling's own Nigeria-18 stocks, and different methods were kept apart, with dates of production or expiration clearly visible. Our findings were less encouraging this time.

This time we noted numerous problems of mixing of MOH and private sector stocks, and stacking of commodities in a generally haphazard and disorganized manner, not conducive to accurate recordkeeping nor to "first-in, first-out" (FIFO) distribution. This made it difficult for us to establish exactly what stocks existed, and how these corresponded to records of shipments.

We also found one instance in which eight cartons of Femenal had had a viscous, though apparently noncorrosive liquid spilled over them, with no attempt made over several weeks to repackage the contents before significant damage occurred.

### B. Actions and Recommendations

Our findings were discussed with the relevant officials at USAID and Sterling. Following instructions from Sterling's new Representative, Mr. William Ogden, the warehouse staff--with some AID assistance--undertook to correct these problems. By the time we left, the process of re-stacking commodities by program, commodity type and brand, and by date of expiration, was well under way, as was a re-counting of the goods to verify or correct, as necessary, any errors in our own preliminary physical inventory assessment.

We also found recordkeeping, and particularly the verification of receipt of shipments by the AAO's logistics specialist, to be less than fully satisfactory. We subsequently discussed and left with him a copy of our preliminary inventory findings, and a set of written instructions on actions required to avoid a repetition of these problems. A slightly shortened version of these instructions is attached as Appendix B.

## VII. FP-MIS AND RELATED ISSUES

### A. Ogun/Benue Pretest Feedback

Proposed modifications of the existing FP-MIS have undergone field testing since mid 1987 in two LGAs in Benue and Ogun States. These field tests have been supervised by staff of the Federal Ministry of Health and the Pathfinder Fund in collaboration with MSH. The AAO requested that we visit some field sites, and review the operation of the system in its present form. Time constraints previously alluded to precluded our visiting any sites other than in the urban Abeokuta (Ogun State) LGA, as well as the State MOH headquarters in Ogun, and unfortunately, even for that visit, FMOH/Pathfinder representatives were unable to accompany us.

We concentrated our review mainly on those aspects of the MIS which related to assessing overall program outputs and information required for logistics

management. This meant that we were concerned particularly with changes in the basic Client Record, Daily Activity, and Summary forms, designated respectively as forms 1, 2, and 3--plus ancillary forms intended for aggregating clinic data.

Since the changes in these forms are fairly limited it was not surprising, though still gratifying, to find that clinic workers experience no difficulty in filling the forms once they have been instructed in their use. There do remain some questions about the validity and ultimate utility of some of the new data on sources of referral, but at least there seems to be little difficulty in completing and tabulating this information.

The only difficulty or confusion we found related to the use of Form 4. There is evident confusion by those who revised this form, and have sought to implement it in the field, about its purpose. This form was not intended originally as a routine clinic form, but rather as a means for tracking issues from central to lower level warehouses or storage depots. We have tried to emphasize this point previously (most recently in Johnson letter to Elkins, dated December 6, 1987), but still find this form being filled by clinics, where it duplicates Form 3 data and confuses the staff, who in most cases obtain their supplies through a supervisor-mediated "push" system based on drawdown rates documented in Form 3, rather than by the "pull" approach implied by clinic completion of Form 4. This is one of several questions which require further discussion by the FMOH, in consultation with all agencies involved in FP-MIS in Nigeria, in preparation for development of a coherent and agreed-upon set of guidelines for clinic and State information management.

#### B. Developments Regarding Proposed FP-MIS Workshop

Already before our arrival in Nigeria, it had become clear that February or early March dates for the proposed "Training of MIS Trainers" were unrealistic in light of problems and lack of progress in planning some aspects of these workshops. Within a day of our arrival, and following discussions with the FMOH and AAO staff, who in turn met with the Pathfinder representative, we were told that this proposed set of two "national" followed by four "zonal" workshops would probably not begin before mid-May. During our visit, and subsequently through cabled communications to Pathfinder, the AAO expressed her strong wish that we should remain involved in the planning and conduct of at least the two "national" workshops.

Following the CDC consultant's return to the U.S., further telephone conversations were held on this topic, and a tentative April date was set for a meeting to be held at Pathfinder in Boston among probable participants in this effort. The particular focus would be on the agenda, division of labor among facilitators, and preparation of materials. This would also provide an opportunity for all concerned to discuss aspects of future coordination among themselves and with the FMOH with regard to issues of common concern, including particularly further MIS development and related aspects of commodity management.

#### VIII. APPROVAL OF A NATIONAL POPULATION POLICY

We are happy to note, in concluding, that the Nigerian government on February 4, 1988, officially approved the long-awaited and much discussed

national population policy. This policy stresses the health benefits of family planning and encourages women to have children only after they have reached age 18 and before age 35, and encourages adequate spacing, and not more than four children.

Promulgation of this policy, particularly with its stress on voluntarism and its emphasis on health, should be especially helpful in advancing family planning activities in some States, which have heretofore been reluctant to move too fast in the absence of a formal supportive national policy. It should also be a boon to national IEC efforts and comes at an opportune time with regard to the formal phasing-in of the FHI-II program.



J. Timothy Johnson, Dr.P.H.

APPENDIX ASome Notes On Methodology Used For 1987 Commodity Use Estimates,  
And Estimates of 1988 RequirementsI. 1987 Use Estimates

Data on quantities of commodities dispensed to clients were judged to be too incomplete and unreliable for direct use from monthly returns of Form 3. Therefore, an indirect methodology was used which paralleled the method of estimation employed for 1985 and 1986. This involved estimates of use based on new acceptors and revisits by method, adjusted for missing months of observations. Overall, 12-1/2 percent of "State by month" observations were lacking, mostly for November and December 1987.

The estimates of use for the specific methods, as indicated on the individual worksheets, were as follows:

- A. Orals: 1 cycle per new acceptor, plus 3 per revisit.
- B. IUCD: 1 insertion per new acceptor, plus 0.1 per IUCD revisit. (This was based on rough estimates that while most IUD revisits were simply for checkups, some revisitors for IUCDs were switching from other methods to the IUCD, and some were IUCD users who had had the IUCD expelled or removed and were getting it re-inserted).
- C. Condoms: Based on 12 condoms being dispensed per client visit, regardless of whether this is a new or revisit. While 12 condoms (3 strips of 4) is the most common provision in most States, and some give out up to 20 condoms to revisitors, overall this may be a slight overestimate. However, use of this figure provides some allowance for the increasing number of condoms now given out in publicity campaigns, which are not dispensed to "clients of record."
- D. Foaming Tablets: Conceptrol use is computed on the same basis, using the same factor of 12 tablets per visit that was used for condoms.
- E. Injectables: This is based on the assumption of one injection being given per visit, regardless of whether this is a first or later visit.

II. 1988 Projections of Expected Use and Net Requirements

- A. Based on observed national public sector growth for each method, plus an estimate of required reserve stock, estimates were then made for each State for 1988, using the estimated state-specific use rate in 1987 as the base.

For the three fastest growing methods--pill, condoms and foaming tablets--each of which more than doubled between 1986 and 1987, we allowed for 1988 for a doubling of 1987 use, plus a reserve equal to one half of this estimated 1988 use. In effect, this meant that the gross need estimate for each State was set at three times actual (estimated) 1987 use.

For the somewhat slower growing IUCDs and injectables, 1988 needs were estimated at 1.5 times 1987 use, and a reserve of 50 percent of this 1988 projected use was then also incorporated, yielding a gross need estimate of 2.25 times observed 1987 use.

B. From the 1988 gross needs, we next subtracted end of year 1987 commodity stocks available for 1988 use. This computation gave us a state-specific estimate of net need in 1988.

C. Our final "best estimate" of needs for 1988 was based mainly on the estimate in "B" (above) but was adjusted somewhat upward or downward in some instances on the basis of (1) unique circumstances in some States, such as stock shortages at some point in 1987, or a division of one State into two, and (2) particular requests submitted by some States.

D. Based on past use, current reserves, and estimated net needs in 1988, we identified States in particular need of commodities on an urgent or expedited basis. These needs were matched as far as possible with the availability of AAO reserves, for recommended immediate shipment of commodities for these States. Remaining reserves were allocated among States in approximate proportion to their supply and relative use rates.

### III. New Shipments Required, States

After allocating existing reserves (minus a quantity of reserves still to be maintained for purposes outlined in IV) among States, the requirements for new shipments were computed by subtraction of AAO allocations from net needs. These figures were tabulated for all States to yield total net new requirements to be shipped to States.

### IV. AAO Reserves, and Grand-Total New Shipments

In general, the rule of thumb we applied for AAO reserves was to start them at a level equal to about 25 percent of the total required by States. This reserve serves two major purposes. First, it serves as the supply base for such providers as the Armed Services and miscellaneous university and voluntary bodies, plus to a limited extent to the PPFN. Second, when states expand more rapidly than expected, so that projected requirements turn out to be inadequate, this reserve can be used to avoid stockouts.

Our present set of allocations is designed to move most of current reserves out to the States in advance of the arrival of new shipments, and then to replenish the reserves by a specific AAO reserve allocation.

### V. A Note on Total New Acceptors and Revisits

All our estimates for 1987 are based on State Monthly Reports submitted to the AAO and FMOH offices. While reports were virtually complete for the first 6 months and fairly complete for the next 4 months, by December we lacked reports from 15 of the 20 States (plus from Akwa Ibom and Katsina, which only became States in late September). Combining Akwa Ibom and Katsina with their parent States, we find we have 20 States times 12 months = 240 potential data periods. Of these, we have reports from 210, or 87.5 percent. For our annual estimates, we adjusted each State for the number of available observations, and tabulated these to get our "best" national estimate. Two caveats should, however, be noted--both of which suggest that this methodology results in a moderate undercount of perhaps between 5 and 14 percent in total visits. First, most of the missing (mainly late) observations are late in the year when overall performance was higher than at the start. Second, some States indicate that their returns omit clinics which have reported too late for inclusion. Most such clinics tend to be small, and not in metropolitan areas, according to State coordinators.

## APPENDIX B

### Memorandum On Warehousing And Recordkeeping Recommendations, For AAO Communities Specialist

#### A. Tasks to be Completed at Warehouse

1. Each carton of Femenal must be checked for date of manufacture. Those dated 3/1983 should be put in a separate stack--those dated later in another stack. Issue the oldest Femenal first.
2. A major task will be the separation of Conceptrol foaming tablets from the Flower logo (commercial) foaming tablets. Someone who can read must supervise this activity.

Suggest mark the cartons with different colors, perhaps green for Conceptrol--blue for commercial.

The Conceptrol tablets should be put in the AAO reserve in the "Roche" warehouse.

The Flower logo tablets should be put in the main Sterling warehouse.

3. All contraceptives, regardless of type for the FMOH program, should be put in the "Roche" warehouse. All new FMOH shipments should be put only into the "Roche" warehouse.

In the future, if at all possible, no commercial stock should be in the Roche warehouse. If they are put in the Roche warehouse, they must be kept away from the FMOH/AAO stocks.

4. The expired Noriday pills (commercial) should be counted and stacked in one location in the main Sterling warehouse (in the "Roche" warehouse if there is not enough room at the main, -but they should be consolidated in one location).

We want to make absolutely certain that the expired Noriday is not mixed up with the new Noriday shipment expected soon.

The way to prevent a mixup is to put the new Noriday in the Roche warehouse and the old Noriday in the Sterling main warehouse. If room (limited space) does not permit this, try to ensure that the old and new Noriday are as far apart as possible. When the old Noriday is destroyed, try to put the new Noriday into the Sterling main warehouse.

5. Visit the warehouse at least once each month--even if no shipments have arrived or are moving out. Each time you visit, check that the AAO reserves are being kept separate. If they are not, have it corrected. If they plead inability or unwillingness, report this to Dr. MacManus and/or Mrs. Shitta-Bey. They can contact Mr. W. Logan at Sterling. Also report any other storage problems.
6. At the end of each quarter, do an inventory, by physical count, of all AAO reserve supplies.

Use this to (a) reconcile and verify your office records, and (b) detect levels which may result in future shortages.

Give Dr. MacManus or her successor or designee a copy of the quarterly inventory.

B. Suggestions on Office Records and Comments on Inventory

1. Comments on Inventory

As you know, we were not able to obtain a really accurate count of foaming tablets. Our count of condoms was better, but still not as accurate as we would wish.

We suggest you do a recount of all stocks as soon as Sterling has completed restacking and moving.

2. Office Records

You have already made a good start on revising your records. We suggest the following guidelines for further improvement.

- a. Your shipment and office records of AAO reserve and of shipments to States should be kept separately for (1) the FMOH program, and (2) the commercial program.
- b. Shipment records must note the type of commodity received per shipment, and the quantity per type per shipment. Orals should not be noted just as "pills" nor "condoms" just as "condoms." Pills should be noted as Femenal or Lo-Femenal or Noriday, etc., and condoms as Panther or Sultans or Majestics, etc. The same principle applies to foaming tablets; indicate whether they are Flower logo or Conceptrol.
- c. The above applies also to your office records on the AAO reserves.
- d. Make preliminary entries from the copy of the shipping request form, but final entries on each shipment received should be made only from the packing list.

TABLE 1

Estimated 1986 and 1987  
Performance, by Method, in CYPs

<u>1986</u>	<u>Performance Level</u>				<u>1986/1987 Percent Increase</u>
	<u>1987</u>		<u>1987</u>		
	<u># CYPs</u>	<u>%</u>	<u># CYPs</u>	<u>%</u>	
IUCD	81,250	69.9	132,343	64.4	62.9
Oral Pills	16,600	14.3	36,045	17.5	117.1
Condoms	6,880	5.9	16,638	8.1	141.8
V.F. Tablets	1,140	1.0	4,303	2.1	277.5 <sup>1</sup>
<u>Injections</u>	<u>10,375</u>	<u>8.9</u>	<u>16,189</u>	<u>7.9</u>	<u>56.0</u> <sup>2</sup>
Total	116,245	100.0	205,518	100.0	76.8

<sup>1</sup>Regarding the very high rise in use of vaginal foaming tablets, it should be noted that in the base year of 1986 there was a shortage of Neo-Sampoon at mid-year, before the introduction in August 1986 of Conceptrol.

<sup>2</sup>Depoprovera, which had shown the greatest relative increase between 1985 and 1986, showed somewhat slower growth between 1986 and 1987. It is probable that at least part of this is attributable to shortages or stockouts in some states during 1987.

TABLE 2

## Summary of AID-Supplied Community Requirements and Status, Public Sector, 1988

Method	Combined Net	AAO Reserves,	AAO Reserves	<u>New Shipments Required: Cartons</u>			<u>New Level of Reserves</u>
	State Requirements (No. Cartons) x (Units/Carton)	Feb. 1, 1988	to Send to States	To States	For Reserves	Total	
Copper "T" IUD	485 (x 200 units)	21 <sup>1</sup>	20 <sup>1</sup>	465	120	585	121
Oral Pills	Femena1 <sup>2</sup>	145 (x 1200 cycles)	145	145	0	0	0
	Lo Femena1	482 (x 1200 cycles)	129	69	413	90	503
Condoms	608 (x 6000 "pieces)	284 <sup>3</sup>	184 <sup>3</sup>	424	60	484	160
VFT (Conceptrol)	217 (x 4800 tablets)	173 <sup>4</sup>	80	137	23	160	116

Notes: <sup>1</sup>The indicated AAO reserve for Copper "T" IUCDs includes 20 cartons of 200 devices each which are to be returned from an excessive shipment of reserve stocks to one State (Benue) in November 1987. In addition, one carton of 1000 Lippes Loop "D" will be sent from AAO reserves to each of 5 States, leaving 10 cartons (10,000 Loops, all "D" size) in AAO reserves.

<sup>2</sup>The entire remaining stock of Femena1 from AAO reserves will now be shipped to the various States. Only Lo-Femena1 will be ordered henceforth for the Public Sector program.

<sup>3</sup>The AAO condom reserves include 52 cartons of "Tahiti" brand condoms, due to expire in May 1989. These have all been scheduled for early shipment to the 6 States we have assessed as being in most urgent need of condoms.

<sup>4</sup>The listed reserve of 173 cartons of Conceptrol may somewhat overstate actual reserves.

TABLE 3

Public Sector IUCD Requirements, In Cartons of Copper T 380-A, and Lippes Loop "D"

State	Immediate Shipments from AAO Reserves/Existing Stock <sup>1</sup>		Additional 1988 Shipments of Cu"T" 380-A	Total 1988 Requirements of Cu"T" 380-A
	Lippes "D" <sup>2</sup>	Cu"T" 380-A		
Abuja			1	1
Akwa Ibom			5	5
Anambra	1	5	33	38
Bauchi	1	2	8	10
Bendel			10	10
Benue			10	10
Borno			12	12
Cross River	1	3	17	20
Gongola			5	5
Imo			30	30
Kaduna			10	10
Kano			30	30
Katsina			10	10
Kwara			12	12
Lagos			50	50
Niger			10	10
Ogun			100	100
Ondo			15	15
Oyo	1	8	62	70
Plateau	1	2	18	20
Rivers			10	10
Sokoto			5	5
State Subtotal	5	20	465	485
AAO Reserves	10	1	120	121
Totals	15	21	585	606

<sup>1</sup>Attachment contains recommendation for withdrawing 20 cartons x 200 units Cu"T" from Benue, to redistribute as here indicated to five states facing imminent Cu"T" stockouts. AAO reserve currently contains only 1 carton of Cu"T".

<sup>2</sup>The AAO reserves contain 15 cartons of Lippes Loops, all size "D". While no new stocks of Lippes Loops will be ordered, these reserves can be used to supplement and conserve Copper T stocks where shortages may occur.

TABLE 4  
Public Sector Oral Contraceptive Requirements Estimates  
(In Cartons of 1200 Cycles), for States + AAO Reserves

State	Immediate Shipment From AAO Reserves		Additional 1988 Shipments of Lo-Femenal	Total 1988 Requirement (Net)
	Femenal	Lo-Femenal		
Abuja	0	0	0	0
Akwa Ibom	3	2	7	12
Anambra	4	3	9	16
Bauchi	9	5	26	40
Bendel	5	2	13	20
Benue	12	6	32	50
Borno	6	3	16	25
Cross River	5	3	14	22
Gongola	3	2	9	14
Imo	0	0	0	0 (substantial excess)
Kaduna	7	3	20	30
Kano	6	3	16	25
Katsina	7	3	20	30
Kwara	12	5	33	50
Lagos	16	7	47	70
Niger	8	4	23	35
Ogun	17	8	50	75
Ondo	8	3	22	33
Oyo	2	1	7	10
Plateau	15	6	49	70
Rivers	0	0	0	0
Sokoto	0	0	0	0
State Subtotal	145	69	413	627
AAO Reserves	0	60	90	150
Totals	145	129	503	877

TABLE 5  
Condom Shipments Required by States (Cartons of 6000 Units)

<u>State</u>	<u>"Urgent"</u> <u>(From Reserves)</u> <u>(Tahiti)</u>	<u>From AAO</u> <u>Reserves:</u> <u>(Sultans)</u>	<u>Additional</u> <u>Requirements</u> <u>(Sultans)</u>	<u>Total Required</u>
Abuja		1	1	2
Akwa Ibom		3	12	15
Anambra	8	8	19	35
Bauchi	3	1	2	6
Bendel		0	2	2
Benue		3	9	12
Borno		0	6	6
Cross River		5	20	25
Gongola		4	14	18
Imo		10	40	50
Kaduna		1	3	4
Kano		5	20	25
Katsina	3	1	0	4
Kwara		12	48	60
Lagos	15	12	33	60
Niger		0	3	3
Ogun	15	35	110	160
Ondo		0	0	0 (Have some excess stock.)
Oyo		15	60	75
Plateau		2	3	5
Rivers		7	9	16
Sokoto	8	7	10	25
State Subtotal	52	132	424	608
AAO Reserves	0	100	60	160
Totals	52	232	484	768 (States + Reserves)

TABLE 6

Vaginal Foaming Tablets Shipments Required By States,  
In Cartons Of 4800 Conceptrol Tablets. (Public Sector/MOH)

<u>State</u>	<u>To Ship Soon From AAO Reserves</u>	<u>Additional 1988 Shipments</u>	<u>Total Required</u>
Abuja	0	0	0
Akwa Ibom	2	3	5
Anambra	5	5	10
Bauchi	5	0	5
Bendel	4	4	8
Benue	0	4	4
Borno	3	3	6
Cross River	4	3	7
Gongola	0	2	2
Imo	6	20	26
Kaduna	0	0	0
Kano	0	7	7
Katsina	2	3	5
Kwara	6	9	15
Lagos	4	8	12
Niger	0	0	0
Ogun	20	20	40
Ondo	4	4	8
Oyo	1	38	50
Plateau	0	2	2
Rivers	3	2	5
Sokoto	0	0	0
State Subtotal	80	137	217
AAO Reserves	93*	23	116
Totals	173*	160	333

\*While a preliminary inventory of AAO reserves indicated up to 173 cartons of public sector Conceptrol, these had become mixed with private sector supplies, and the actual count may be somewhat lower, resulting in a lower reserve stock after the initial distribution of 80 cartons to the indicated states.

TABLE 7

Public Sector Injectables Requirements Estimates, by State,  
in Doses, for Additional Supplies

<u>State</u>	<u>Urgent/ASAP Requirements</u>	<u>Additional 1988 Requirements</u>	<u>Total 1988 Requirements</u>
Abuja		200	200
Akwa Ibom		3,000(?)	3,000(?)
Anambra	1,200	7,200	8,400
Bauchi		4,200	4,200
Bendel		2,000	2,000
Benue	3,000	14,000	17,000
Borno		3,000	3,000
Cross River	1,000	3,000	4,000
Gongola		4,600	4,600
Imo		5,200	5,200
Kaduna	2,000	5,000	7,000
Kano		7,000	7,000
Katsina	1,000	2,000	3,000
Kwara	3,000	9,000	12,000
Lagos	4,000	14,000	18,000
Niger	2,000	12,000	14,000
Ogun		2,000(?)	2,000(?)
Ondo	3,000	17,000	20,000
Oyo		8,000	8,000
Plateau	3,000	15,000	18,000
Rivers		2,000	2,000
Sokoto		4,000	4,000
States Totals and Reserves	23,200 --	143,400	166,600 43,400(?)
Total			210,000

Note: The "urgent" requirement is based on indications that the State is already out of Depo/Noristerat supplies, or has less than a 2 month supply, as of the last date for which we have data. In some cases, UNFPA may already have provided additional stocks subsequent to those dates, but several are based on stock levels at start of 1988.

TABLE 8

Comparison of 2 Approaches to Estimating Annual Public  
Sector Requirements for Nigeria for 1988, 1989, 1990 (x1000)

Method of Projection	IUCDs			Orals			Condoms			VFTs		
	1988	1989	1990	1988	1989	1990	1988	1989	1990	1988	1989	1990
1) Extrapolation of State Aggregates	117	179	270	604	2109	3163	2904	7487	11231	768	1936	2905
2) National CPTs	136	175	225	748	2165	3050	3596	8300	12500	650	2250	3150

TABLE 9

CPT ANALYSIS  
(IN 1000'S)

DATE 03/04/88

FY 1990 CPT  
 COUNTRY: NIGERIA  
 PROGRAM: MOH  
 PROJECT: MOH-Pub  
 PRODUCT: CT38 - COPPER T IUDS - MODEL TCU380A  
 SOURCE OF DATA FOR BEGINNING-OF-YEAR STOCK: Johnson/Atkinson Records Review  
 TABLE YEAR: 1988  
 START NET DEFICIT YEAR: 1988

	CALENDAR YEARS					
	1988	1989	1990	1991	1992	1993
1. BEGINNING-OF-YEAR STOCK (PLEASE READ INSTRUCTIONS TO FILL IN THIS LINE ITEM)	39	75	100	125	156	
PLUS						
2. NEW SUPPLY OF SAME PRODUCT						
(A) AID SUPPLIES RECEIVED 1988 TO DATE						
(B) ADDITIONAL AID QUANTITIES SCHEDULED FOR SHIPMENT BUT NOT YET RECEIVED						
(C) OTHER SOURCES OF SUPPLY OF SAME PRODUCT (HOST COUNTRY/OTHER DONORS)						
MINUS						
3. ESTIMATED PRODUCT USE/SALES/DISTRIBUTION	100	150	200	250	312	390
EQUALS						
4. END-OF-YEAR STOCK	-61	-75	-100	-125	-156	
MINUS						
5. DESIRED END-OF-YEAR STOCK LEVEL (EQUAL TO 50% OF ESTIMATED USE IN SUBSEQUENT YEAR)	75	100	125	156	195	
EQUALS						
6. NET SUPPLY SITUATION/AID REQUIREMENT (NEGATIVE NUMBER SIGNIFIES ADDITIONAL SUPPLIES REQUIRED FROM AID; POSITIVE NUMBER SIGNIFIES NO AID REQUIREMENT)	-136	-175	-225	-281	-351	

25

TABLE 10

CPT ANALYSIS  
(IN 1000'S)

DATE 03/04/88

FY 1990 CPT  
 COUNTRY: NIGERIA  
 PROGRAM: MOH  
 PROJECT: MOH-Pub  
 PRODUCT: LFMP - DC LO-FEMENAL BLUE LADY PKG.  
 SOURCE OF DATA FOR BEGINNING-OF-YEAR STOCK: Johnson/Atkinson Records Reviews: Orals  
 TABLE YEAR: 1988  
 START NET DEFICIT YEAR: 1988

	CALENDAR YEARS					
	1988	1989	1990	1991	1992	1993
1. BEGINNING-OF-YEAR STOCK (PLEASE READ INSTRUCTIONS TO FILL IN THIS LINE ITEM)	1077	865	1300	1750	2100	
PLUS						
2. NEW SUPPLY OF SAME PRODUCT						
(A) AID SUPPLIES RECEIVED 1988 TO DATE						
(B) ADDITIONAL AID QUANTITIES SCHEDULED FOR SHIPMENT BUT NOT YET RECEIVED						
(C) OTHER SOURCES OF SUPPLY OF SAME PRODUCT (HOST COUNTRY/OTHER DONORS)						
MINUS						
3. ESTIMATED PRODUCT USE/SALES/DISTRIBUTION	960	1730	2600	3500	4200	5000
EQUALS						
4. END-OF-YEAR STOCK	117	-865	-1300	-1750	-2100	
MINUS						
5. DESIRED END-OF-YEAR STOCK LEVEL (EQUAL TO 50% OF ESTIMATED USE IN SUBSEQUENT YEAR)	865	1300	1750	2100	2500	
EQUALS						
6. NET SUPPLY SITUATION/AID REQUIREMENT (NEGATIVE NUMBER SIGNIFIES ADDITIONAL SUPPLIES REQUIRED FROM AID; POSITIVE NUMBER SIGNIFIES NO AID REQUIREMENT)	-748	-2165	-3050	-3850	-4600	

TABLE 11

CPT ANALYSIS  
(IN 1000'S)

DATE 03/04/88

FY 1990 CPT  
 COUNTRY: NIGERIA  
 PROGRAM: MOH  
 PROJECT: MOH-Pub  
 PRODUCT: 52CS - CONDOM 52MM COLORED SULTAN  
 SOURCE OF DATA FOR BEGINNING-OF-YEAR STOCK: Johnson/Atkinson Records Review: Condoms  
 TABLE YEAR: 1988  
 START NET DEFICIT YEAR: 1988

	CALENDAR YEARS					
	1988	1989	1990	1991	1992	1993
1. BEGINNING-OF-YEAR STOCK (PLEASE READ INSTRUCTIONS TO FILL IN THIS LINE ITEM)	3004	3300	5000	7500	10000	
PLUS						
2. NEW SUPPLY OF SAME PRODUCT						
(A) AID SUPPLIES RECEIVED 1988 TO DATE						
(B) ADDITIONAL AID QUANTITIES SCHEDULED FOR SHIPMENT BUT NOT YET RECEIVED						
(C) OTHER SOURCES OF SUPPLY OF SAME PRODUCT (HOST COUNTRY/OTHER DONORS)						
MINUS						
3. ESTIMATED PRODUCT USE/SALES/DISTRIBUTION	3300	6600	10000	15000	20000	24000
EQUALS						
4. END-OF-YEAR STOCK	-296	-3300	-5000	-7500	-10000	
MINUS						
5. DESIRED END-OF-YEAR STOCK LEVEL (EQUAL TO 50% OF ESTIMATED USE IN SUBSEQUENT YEAR)	3300	5000	7500	10000	12000	
EQUALS						
6. NET SUPPLY SITUATION/AID REQUIREMENT (NEGATIVE NUMBER SIGNIFIES ADDITIONAL SUPPLIES REQUIRED FROM AID; POSITIVE NUMBER SIGNIFIES NO AID REQUIREMENT)	-3596	-8300	-12500	-17500	-22000	

27

TABLE 12

CPT ANALYSIS  
(IN 1000'S)

DATE 03/04/88

FY 1990 OPT  
 COUNTRY: NIGERIA  
 PROGRAM: MOH  
 PROJECT: MOH-Pub  
 PRODUCT: VFTP - VAG FOAM TAB CONCEPTROL  
 SOURCE OF DATA FOR BEGINNING-OF-YEAR STOCK: Johnson/Atkinson Records Review, Feb. '88  
 TABLE YEAR: 1988  
 START NET DEFICIT YEAR: 1988

	CALENDAR YEARS					
	1988	1989	1990	1991	1992	1993
1. BEGINNING-OF-YEAR STOCK (PLEASE READ INSTRUCTIONS TO FILL IN THIS LINE ITEM)	1250	900	1350	1800	2250	
PLUS						
2. NEW SUPPLY OF SAME PRODUCT						
(A) AID SUPPLIES RECEIVED 1988 TO DATE						
(B) ADDITIONAL AID QUANTITIES SCHEDULED FOR SHIPMENT BUT NOT YET RECEIVED						
(C) OTHER SOURCES OF SUPPLY OF SAME PRODUCT (HOST COUNTRY/OTHER DONORS)						
MINUS						
3. ESTIMATED PRODUCT USE/SALES/DISTRIBUTION	1000	1800	2700	3600	4500	5400
EQUALS						
4. END-OF-YEAR STOCK	250	-900	-1350	-1800	-2250	
MINUS						
5. DESIRED END-OF-YEAR STOCK LEVEL (EQUAL TO 50% OF ESTIMATED USE IN SUBSEQUENT YEAR)	900	1350	1800	2250	2700	
EQUALS						
6. NET SUPPLY SITUATION/AID REQUIREMENT (NEGATIVE NUMBER SIGNIFIES ADDITIONAL SUPPLIES REQUIRED FROM AID; POSITIVE NUMBER SIGNIFIES NO AID REQUIREMENT)	-650	-2250	-3150	-4050	-4950	

TABLE 13.

DFT ANALYSIS  
(IN 1000'S)

DATE 03/04/86

FY 1990 DFT

COUNTRY: Nigeria

PROGRAM: MOH

PROJECT: MOH-Pub

PRODUCT: Depo -

SOURCE OF DATA FOR BEGINNING-OF-YEAR STOCK: Johnson/Atkinson Records Review: DepoPro

TABLE YEAR: 1988

START NET DEFICIT YEAR: 1988

	CALENDAR YEARS					
	1988	1989	1990	1991	1992	1993
1. BEGINNING-OF-YEAR STOCK (PLEASE READ INSTRUCTIONS TO FILL IN THIS LINE ITEM)	40	120	180	270	360	
PLUS						
2. NEW SUPPLY OF SAME PRODUCT						
(A) AID SUPPLIES RECEIVED 1988 TO DATE						
(B) ADDITIONAL AID QUANTITIES SCHEDULED FOR SHIPMENT BUT NOT YET RECEIVED						
(C) OTHER SOURCES OF SUPPLY OF SAME PRODUCT (HOST COUNTRY/OTHER DONORS)						
MINUS						
3. ESTIMATED PRODUCT USE/SALES/DISTRIBUTION	120	240	360	540	720	900
EQUALS						
4. END-OF-YEAR STOCK	-80	-120	-180	-270	-360	
MINUS						
5. DESIRED END-OF-YEAR STOCK LEVEL (EQUAL TO 50% OF ESTIMATED USE IN SUBSEQUENT YEAR)	120	180	270	360	450	
EQUALS						
6. NET SUPPLY SITUATION/AID REQUIREMENT (NEGATIVE NUMBER SIGNIFIES ADDITIONAL SUPPLIES REQUIRED FROM AID; POSITIVE NUMBER SIGNIFIES NO AID REQUIREMENT)	-200	-300	-450	-630	-810	