



Memorandum

Date September 29, 1981

From Richard S. Monteith, M.P.H., Program Analyst
Program Evaluation Branch, Family Planning Evaluation Division, CHPE

Subject Foreign Trip Report (AID/RSSA): Contraceptive Forecasting - Ecuador,
August 25-27, 1981

To William H. Foege, M.D.
Director, Centers for Disease Control
Through: Horace G. Ogden, Director
Center for Health Promotion and Education (CHPE) *HGO*

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SUMMARY

At the request of AID/DS/POP/FPSD I reviewed the procedures used to forecast contraceptive requirements by USAID/Ecuador and two family planning programs in Ecuador: the Center for Medical Orientation and Family Planning (CEMOPLAF) and the Armed Forces' Department of Preventive Medicine and Family Welfare (FFAA). I found that contraceptive forecasting could be refined if all family planning programs in Ecuador systematically collected and reported uniform data on active users and contraceptives dispensed to users. In addition, data from the National Fertility Study conducted in 1979 and the scheduled Contraceptive Prevalence Survey that will be conducted later this year should also be used in the forecasting process.

Interest in conducting Patient Flow Analysis (PFA) studies was expressed by the FFAA. I sent materials on PFA to the FFAA after I returned to Atlanta. In addition, the FFAA requested assistance in data processing of service statistics data on new users. Additional information is being requested from the FFAA in order to further define the scope of work.

Samples of oral contraceptives with manufacture dates of 1974 and 1975 were obtained in Ecuador by a FPED/CDC consultant in January and sent to AID/DS/POP/FPSD to be assayed. Thus far the mission has not received the results of the assay. If the results show the inventory to be inadequate, the stocks should be replaced.

I. PLACES, DATES, AND PURPOSE OF TRAVEL

Ecuador, August 25-27, 1981, at the request of USAID/Ecuador and AID/DS/POP/FPSD, to review methods used to forecast contraceptive requirements. This consultation was provided by Richard S. Monteith, M.P.H., of the Program Evaluation Branch, FPED/CHPE/CDC. This travel was in accordance with the Resource Support Services Agreement (RSSA) between the Office of Population, AID, and FPED/CHPE/CDC, and was combined with travel to Peru.

II. PRINCIPAL CONTACTS

A. USAID/Ecuador

1. Dr. Kenneth Farr, Chief, Office of Health, Nutrition and Population.
2. Mr. Manuel Rizzo, Coordinator for Population

B. Armed Forces (FFAA)

1. Dr. Eduardo Cevallos, Chief, Department of Preventive Medicine and Family Welfare

C. Centro Medico de Orientacion y Planificacion Familiar (CEMOPLAF)

1. Lic. Teresa de Vargas, Coordinator

III. CONTRACEPTIVE FORECASTING

The private and public institutions in Ecuador that provide family planning services receive their contraceptive supplies from international donors such as the International Planned Parenthood Federation (IPPF), Family Planning International Assistance (FPIA), The Pathfinder Fund, and the United Nations Fund for Population Activities (UNFPA). Since these donors are funded in part by AID, and to facilitate central procurement and shipment of contraceptives to Ecuador, I was requested by AID/DS/POP/FPSD to review methods used by the USAID Mission and the several family planning programs in Ecuador to forecast contraceptive requirements. Although I was in Ecuador only 1 1/2 working days, there was enough time to contact two programs, and to review the system used by USAID/Ecuador.

A. USAID/Ecuador

The method used by USAID/Ecuador is based on method-specific 12-month continuation rates that were obtained from a clinic-based study conducted in Ecuador in 1972. The average number of active users expected per year by method is estimated by multiplying the method specific continuation rate for a given year by the projected number of new acceptors of a given method (first year) and by the number of

continuing users of that method (for subsequent years), and then by summing the products. Contraceptive requirements are then determined by multiplying the number of active users of a given method by the number of units of that method that would be required to provide one Couple Year of Protection (CYP), e.g. 13 cycles of oral contraceptives.

Although scientific, the method used by USAID/Ecuador to forecast contraceptive requirements may underestimate these requirements if continuation rates have improved in Ecuador since 1972. Also, the method does not take into account the additional quantities of contraceptives that would be required to fill the "pipeline." Data from the National Fertility Survey (NFS) conducted in Ecuador in 1979 show a decline in the Total Fertility Rate from 6.8 in 1970 to 5.2 in 1978. An improvement in continuation rates or an increase in active users with no change in continuation rates could be consistent with this decline.

On the other hand, the method may overestimate contraceptive requirements if the number of new acceptors projected by a program for a given year is inflated. This was the case with the Ecuadorian Family Welfare Association's (APROFE) project proposal for a community-based distribution program which estimated that 60,000 active users would be served by 1,300 new distributors during the initial year (1981) of the program. In my professional judgment, the program's budget and design are insufficient to reach this goal.

I recommend that USAID/Ecuador consider supplementary methods to forecast contraceptive requirements in addition to the method it is currently using. They may include:

1. Determining contraceptive prevalence by method and by source of contraception from the 1979 NFS. This can be done by requesting these data from the World Fertility Survey counterpart agency in Quito. If computer time is not available, FPED/CDC could process these data if a tape can be made available.

Similarly, these same data should be requested and analyzed next year when the results of the Contraceptive Prevalence Survey scheduled for later this year become available.

2. Requiring that the five service programs in Ecuador systematically collect and report uniform data on contraceptives dispensed to users and number of active users. Data on contraceptives dispensed to users by method could be reported by the CEMOPLAF and FFA programs since they now routinely collect these data. FPED/CDC consultants could assist any of the service programs in redesigning their respective reporting systems so that data on active users and contraceptives dispensed to users would be available to the Mission on a periodic basis.

B. CEMOPLAF

As mentioned above, CEMOPLAF routinely collects data on the number of contraceptives by method dispensed to users. In addition, CEMOPLAF's clinics report balances on hand monthly to CEMOPLAF's central office in Quito. If these data were reported to USAID/Ecuador they would be valuable in completing the Contraceptive Procurement Tables and in forecasting contraceptive requirements.

My review of CEMOPLAF's service statistics revealed probable overreporting of active users. Thus, statistics on active users as they are currently reported are not useful in forecasting contraceptive requirements. A user in the CEMOPLAF program is defined as active if she makes at least one visit to the program in a calendar year. Thus, according to this definition, a user who visits the program, for example, in March, and receives three cycles of oral contraceptives but does not make a revisit during the remainder of the calendar year, is considered active from the date of her visit to the end of the calendar year.

The reporting of active users could be improved if:

1. A tickler file was adopted, and
2. Date of next visit was based on the number of months of protection of contraceptives dispensed to users at the time of last visit to the program.

Because of time constraints we did not complete our discussion of what constituted CYP by method. From our experience in Central America we recommend the following CYP equivalents be adopted:

- without counting wastage, it takes 13 cycles of oral contraceptives to cover a couple for one year. Thus, one application or one cycle is equivalent to $1/13$ or 0.0769 CYP.
- On the average couples use 100 condoms per year. Thus, condom is equivalent $1/100$ or 0.01 CYP.
- On the average, one tube of cream, jelly, or foam confers three months of protection. Thus, one application is equivalent to $3/12$ or 0.25 CYP.
- On the average, one tube of NeoSampoon confers two months of protection. Thus one tube is equivalent to $2/12$ or 0.1667 CYP.
- Each contraceptive injection confers three months of protection. Thus, each injection is worth $3/12$ or 0.25 CYP.

The average number of years of protection one application of a method confers may vary in Ecuador. If this is the case, CEMOPLAF should use CYP equivalents based on local experience.

In discussing CYP with CEMOPLAF personnel I learned that CEMOPLAF sometimes prescribes two local methods, e.g. condoms and cream, to couples. In this case, calculating date of next visit should be based on the method that confers the most protection. I also learned that users of NeoSampoon are encouraged to use two tablets per coitus rather than one. If this practice continues, two tubes of NeoSampoon would confer two months of protection rather than one tube.

C. Armed Forces (FFAA)

Like CEMOPLAF, the FFAA probably overreports active users. A user is considered active in the FFAA program until she is visited twice by a social worker following her failure to appear for her last appointment. If the "user" declines to return to the program at the time of the second visit by the social worker, she is considered inactive. The interval between visits by the social workers may be as much as six months. Thus, FFAA statistics on active users are currently of little use in forecasting contraceptive requirements. I recommend that the FFAA adopt the same system of determining the number of active users as was recommended for CEMOPLAF.

The FFAA routinely collects data on the number of contraceptives dispensed to users. These data, if reported to USAID/Ecuador, would be valuable in completing the Contraceptive Procurement Tables.

D. Conclusions and Recommendation

Forecasting contraceptive requirements in Ecuador could be refined if all family planning programs systematically collected and reported to AID uniform data on active users and contraceptives dispensed to users. This will require the adoption by all of the programs of a standard definition of an active user and uniform reporting procedures. I recommend that USAID/Ecuador convene a meeting of representatives from the various programs to pursue this end. In addition, data discussed earlier in this report from the NFS and the CPS which will be conducted later this year should be used in the forecasting process. FPED/CDC consultants are available to assist the Mission in improving reporting of active users and supply data in Ecuador.

IV. OTHER ACTIVITIES

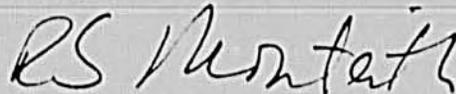
In my discussions with FFAA personnel interest was expressed in conducting Patient Flow Analysis (PFA) studies in its 32 facilities. In fact, the FFAA had already developed a simple technique to study waiting time. I described PFA as it is conducted by FPED/CDC, and sent PFA materials to the FFAA after I returned to Atlanta. FPED/CDC can assist the FFAA in conducting these studies, if requested.

FFAA personnel also requested assistance in data processing assistance for their program acceptor data. FPED/CDC can provide technical

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assistance in data processing and management of service statistics data. A letter was sent to the FFAA requesting additional information on the scope of work that the FFAA is considering.

Finally, when Dr. Mark Oberle, of the FPED/CDC staff, was in Ecuador in January 1981, he found that most of the oral contraceptives in the FFAA warehouse had manufacture dates of 1974 and 1975 (see FPED/CDC Foreign Trip Report, Ecuador, dated March 31, 1981). Samples were sent from Atlanta to DS/POP/FPSD on February 3 to be assayed. Thus far the Mission has not received the results of the assay. If the FFAA's stocks are inadequate the stocks should be replaced.



Richard S. Monteith, M.P.H.