



Memorandum

Date November 29, 1982

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Division of Reproductive Health (DRH), Center for Health Promotion and
Education (CHPE)

Subject Foreign Trip Report (AID/RSSA): Ghana, October 17-28, 1982--Evaluation of
Ghana Ministry of Health Family Planning Supply and User Reporting Systems

To William H. Foege, M.D.
Director, Centers for Disease Control
Through: Dennis D. Tolsma
Acting Director, CHPE

SUMMARY

- I. PLACES, DATES, AND PURPOSE OF TRAVEL
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SUMMARY

This consultation was a followup to my March 1982 consultation during which I assisted the Ministry of Health (MOH) in designing a contraceptive supply system and a user reporting system. Implementation of these systems began in September of this year. During field trips to five of Ghana's nine health regions, I found that implementation of these systems was not complete, especially at the clinic level. However, the MOH should be congratulated on its progress to date given the poor communication infrastructure of the country.

During the field evaluation, I also identified problems associated with contraceptive stock levels and reporting. Before I departed Ghana, I wrote a report outlining the problems and possible solutions. This report was presented to the MOH, which concurred in my findings and recommendations. Highlights of that report are presented in this report. The entire preliminary report is available upon request.

At the request of the Mission I analyzed data from the 1978-79 Ghana Fertility Study in preparation for a Project Paper which the Mission will prepare in January 1983. I also prepared a list of tables the Mission could request from the Ghana Census Office if additional data are required. The last section of this report summarizes data on current use, knowledge of and source of contraceptives in Ghana. Briefly, only 7.2 percent of "exposed" women were using an efficient method of contraception at time of interview. Knowledge of efficient methods ranged from 4 percent (vasectomy) to 47 percent (pills), and only 44 percent knew at least one source of an efficient method of contraception.

I. PLACES, DATES, AND PURPOSE OF TRAVEL

At the request of USAID/Ghana and S&T/POP/FPSD, Richard S. Monteith, M.P.H., Program Evaluation Branch, DRH/CHPE, assisted USAID/Ghana in evaluating Ministry of Health progress in implementing recommendations on contraceptive supply management and user reporting made by FPED/CDC in March 1982. Mr. Monteith also analyzed data from the 1978-79 Ghana Fertility Study for the development of a Project Paper (PP) for the FY 1983-84 Contraceptive Supply Project. 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. USAID/Ghana

1. Mr. Larry Sairs, Acting Mission Director
2. Mr. Lawrence Eicher, Chief, Health, Population, and Nutrition Division (HPN)
3. Ms. Joanna Laryea, Population Coordinator, HPN

B. Ministry of Health

1. Mrs. Arde-Acquah, Deputy Director, Nursing Services (Public Health)
2. Ms. Victoria Assan, Public Health Nurse, Maternal/Child Health and Family Planning Division

C. Ghana Census Office

1. Mr. Emmanuel Okang Tawiah, Director
2. Ms. Rebecca Appiah, Deputy Director, Ghana Fertility Study

D. Other

1. Ms. Carol Dabbs, AID/POP/AFR/DR
2. Mr. William Bair, Population Advisor, REDSO/WA

III. EVALUATION OF THE MINISTRY OF HEALTH CONTRACEPTIVE SUPPLY AND USER REPORTING SYSTEMS

The evaluation of the MOH contraceptive supply and user reporting system, which I helped design in March of this year (see FPED/CDC Foreign Trip Report: Ghana, dated April 8, 1982), was conducted in five of nine health regions of the country: Central, Eastern, Ashanti, Brong Ahafo, and Greater Accra. In addition to the regional level, the evaluation was also conducted at district and clinic levels.

Implementation of these systems began in September 1982. In some of the regions I visited, implementation is not complete, particularly at the clinic level. However, in general, the MOH should be congratulated on its progress

to date given the inherent communications difficulties in the country. I was particularly impressed with the commitment of field personnel to the MOH Maternal-Child Health/Family Planning Program, their interest in wanting to improve it, and their understanding of the new systems.

Problems were identified during the course of the evaluation. Some are minor, e.g., stacking of contraceptives against exterior walls, and others are major e.g., low stock levels. Before I departed Ghana, I wrote a preliminary report outlining the problems and possible solutions. This report was presented to the MOH which concurred in my findings and recommendations. Highlights of the preliminary report are summarized below. The entire preliminary report is available upon request.

Highlights of Preliminary Report

1. Low stock levels and/or stockouts (zero balances) of one or more contraceptive types were found in each of the regional warehouses I visited and at district levels (see Tables 1 and 2). Factors associated with this problem include:
 - (a) Data on balances on hand and quantities dispensed to users were not available to the MOH when the MOH assumed control of contraceptive supplies from the Ghana National Family Planning Program Secretariat (GNFPP). In the absence of these data, the MOH could only estimate contraceptive requirements of the regions. In general, their estimates were conservative.
 - (b) The MOH inherited condoms from the GNFPP that were out-of-date, i.e., manufactured as early as 1971. I recommended that condoms which were manufactured in 1975 or earlier be destroyed, leaving some warehouse without condom supplies. The existence of expired stocks demonstrates that the GNFPP did not practice the supply management principal of "First-In-First-Out" (FIFO) in recent years.
 - (c) Stock imbalances (under- or overstocking) of Emko foam is a result of the failure of the GNFPP to recognize these imbalances and transfer unused stocks from regions where it was not popular to regions where it was popular. I recommended the transfer of Emko stocks to regions where it could be used.

I recommended that each region be sent an emergency shipment of contraceptive supplies equivalent to up to four times the amount the MOH originally issued to the regions in September, depending on balances on hand and method. In addition, I recommended that the regions initially submit supply status reports on a monthly rather than on a quarterly basis in order to quickly identify and resolve supply imbalances in the field. Based on these monthly reports, maximum and minimum stock levels for each item of supply can begin to be established for each level of the program before the end of the year.

2. Since my last consultation, the MOH developed two forms to collect and report numbers of users served and contraceptives dispensed to users by method. At the time of my evaluation, the forms had not been implemented at all program levels and, in some instances, it did not appear that field personnel fully understood how to complete the forms. I recommended that

the reporting system be implemented immediately and that a manual of written instructions on how to complete the forms be developed and sent to all program levels. I also recommended that each form be redesigned to facilitate its completion and to record data that were recommended in February but missing on the current forms.

3. Forms developed by the GNFPP were still in use in the MOH clinics. I recommended that use of these forms cease at the end of October since they provide no useful management tool to the MOH. With the elimination of these forms, some MOH personnel were concerned that there would be no permanent record of visits of users. In response, I recommended a tickler file system and left written instructions on the design and use of such a system.
4. Storage space in the MOH Central Medical Stores located in Tema is limited. Presently, existing contraceptive stocks occupy approximately 75 percent of available space. Table 3 shows balances on hand as of October 25, 1982. A shipment of 3 million units of condoms is scheduled to arrive no later than January 31, 1983. It is imperative before this shipment arrives, that the MOH make plans to transship existing stocks to the regions and/or secure additional storage space at the Central Medical stores. Shipping commodities to the regions would be preferable because of the low stock levels in the field.
5. Revenue collected from the sale of contraceptives is currently being sent to the GNFPP. I feel that the MOH rather than the GNFPP should be the beneficiary of this revenue. The money could be placed in a special account to purchase supplies and equipment that are not routinely available through the MOH supply system, to finance training courses, and/or to pay transportation costs and per diem of program personnel. I recommend that the MOH take the necessary steps to place sales revenue under its control.

In conclusion, the MOH is well on its way toward implementing a system that will monitor program performance in terms of contraceptives dispensed to users and users served. It should not be forgotten that implementation began in September of this year. Problems were identified during the evaluation, and the MOH recognizes the need to resolve them quickly. The MOH is also aware that the supply reporting system is the key to insuring adequate inventories at all levels of the program and that the data reported through this system will be critical in the preparation of the Contraceptive Supply Project Paper (PP) which is scheduled to be written in January 1983. However, AID should anticipate that MOH reporting may not be complete by January and only 1 or 2 month's of data may be available at that time; the communications infrastructure of the country and the lack of transport, petrol and spare parts will continue to be an impediment to the implementation of any program in Ghana. The PP should, in addition to providing adequate contraceptive stocks to the MOH program, identify activities and resources that will strengthen program supervision and reporting. The PP should also allow the MOH flexibility in adjusting its future contraceptive requirements based on program performance. In the meantime, the MOH and USAID/Ghana should devote their resources to completing the implementation of the supply and user

reporting system and to "filling the pipeline " as quickly as possible. This will include supervisory trips to all regions, the printing and distribution of sufficient quantities of forms and records for the two systems, the development of an instruction manual, and the establishment of maximum and minimum stock levels.

IV. ANALYSIS OF GHANA FERTILITY SURVEY DATA

As mentioned earlier in this report, USAID/Ghana is in the process of preparing a Project Identification Document (PID) for a Contraceptive Supply Project which, if approved, will be implemented in CY 1983. In January 1983 a Project Paper (PP) is scheduled to be prepared for this project. At the request of the Mission, I visited the Ghana Census Office to obtain computer output from the Ghana Fertility Survey (GFS) and developed tables relevant to the preparation of the PID/PP. I also prepared a list of tables that the Mission could request from the Census Office if additional data are required. The survey was conducted in 1978-1979.

The following is a presentation of selected tables which briefly summarizes current use and knowledge of and source of contraception in Ghana.

A. Current Use of Contraception

Results of the GFS show that only 12.4 percent of "exposed" women age 15 to 49 were using any form of contraception (Table 4). Of these married, fecund, nonpregnant women who were living with their husbands, only 7.2 percent were using an efficient method, i.e., orals, IUD, vaginal methods, condoms, injection, and sterilization. The most prevalent efficient method was orals (3.1 percent) followed by vaginal methods (2.1 percent). The percentage of "exposed" women who were using an efficient method was highest among women age 25-34 (9.3 percent) followed by women age 35-44 (6.2 percent).

Table 5 shows prevalence of use of all methods for "exposed" women by selected characteristics. The use of contraception was highest in large urban areas (20.1 percent) which include the cities of Accra, Kumasi, Sekondi, and Takoradi. Half as many rural women (9.9 percent) were contracepting than women living in large urban areas.

The second panel of Table 5 shows that contraceptive use varied considerably by region of the country. The highest prevalence was recorded for the Greater Accra Region which includes Accra, the capital of the country, and the lowest prevalence rates were recorded for the Northern and Upper Regions, which are predominantly rural and Muslim.

The third panel of Table 5 shows that prevalence of use increases with education. For women with no education (approximately 90 percent of the female population), 7.7 percent were contracepting compared to 45.1 percent who had completed 11 or more years of schooling.

The fourth panel of Table 5 shows that there is little variation in the use of contraceptives by number of living children, except for women with none or more than seven living children. However, the relatively high rates among

women with two to four children is encouraging in that they indicate that some low parity women are childspacing.

Working status is clearly associated with contraceptive use. The fifth panel of Table 5 shows that 28.5 percent of employed women were contracepting compared to 6.2 percent of unemployed women. The respondent's husband's occupation is also associated with contraceptive use (sixth panel). This panel shows that women who are married to professional men or to men who have clerical jobs were more likely to contracept than other categories.

Finally, Table 6 shows that only 16.9 percent of "exposed" women who want no more children were using an efficient method of contraception. It should be noted that the urban-rural differential in this table is not great.

B. Knowledge of Contraceptives and Source of Contraception

Table 7 shows that more than two-thirds (68.0 percent) of all women who were interviewed in the survey had heard of any method of contraception. A greater proportion of urban women (77-78 percent) than rural women (63 percent) had heard of any method. Table 7 also shows that the likelihood that a woman knows any method decreases from south to north: The lowest percentages were recorded for the Ashanti, Brong Ahafo, Northern and Upper Regions. Knowledge of any method also increases with education: 95 percent of women with 11 or more years of schooling had knowledge of any method compared to 57 percent of women who had not attended school.

Knowledge of efficient methods of contraception varied from 47 percent of all women knowing the pill to only 4 percent knowing male sterilization (Table 8). Encouragingly, this table shows that a larger proportion of women 20-29 years of age, the prime childbearing years, have knowledge of specific methods than women over 30 years of age.

Knowledge of a source of contraception was only available for "fecund" women, a different denominator from that used in previous tables. Table 9 shows that only 44.2 percent of currently "fecund" women know at least one source of an efficient method of contraception. Knowledge of source varies by desire for more children. The interesting statistic in this table is that 40 percent of women who want no more children do not know where they can obtain an efficient method of contraception.

C. Discussion

Given the low prevalence of use of efficient methods in Ghana, it is safe to say that the unmet need for family planning services is great for all subgroups. However, the GFS data suggest that the need for family planning services is greatest among rural women, high parity women, uneducated women, nonworking women, low income women, and women who live in the northern half of the country.

However, data appearing in Tables 9 and 10 suggest that program efforts initially may be more successful if these efforts are directed toward urban, young, low parity women who have had some schooling. In general, these women

desire to have one to two less children than their counterparts and would probably be the most responsive to program efforts to increase prevalence of use of contraceptives in Ghana.

The Contraceptive Supply Project will be an "interim" project designed principally to provide contraceptive supplies to the MOH during FY 1983 and part of FY 1984. In FY 1984 a new project will be implemented that will strengthen primary health care, including family planning, nationwide. If knowledge of contraceptives and family planning services are to improve in Ghana, efforts should begin during the Contraceptive Supply Project. The focus of these efforts should be on developing effective messages to increase awareness of family planning services and in developing low-cost delivery modes that will be accessible to the majority of the population. At the same time, MOH clinical services and service support should also be strengthened. This would include training of paramedical personnel in family planning service delivery, the development and dissemination of IE&C materials, and in-country training of key MOH personnel to improve their managerial and supervisory skills. Eventually, a microcomputer may be appropriate for the MOH to monitor the status of contraceptives supplies at all levels of the program. Currently, the MOH provides services through 144 facilities. However, this number is unlikely to increase much unless the MOH changes its policy on the types of personnel eligible to provide family planning services. In order to influence a policy change, a study on the efficacy of family planning services provided by paramedicals may be appropriate during the "interim" project.



Richard S. Monteith, M.P.H.

Table 1

Balances On Hand by Method
Selected Regional Warehouses
Ghana Ministry of Health
October 19-25, 1982

<u>Method</u>	<u>Central</u>	<u>Eastern</u>	<u>Ashanti</u>	<u>Brong Ahafo</u>	<u>Greater Accra</u>
Orals (Cycles)	3,000	21,600	3,600	12,600	2,400
Colored Condoms (Units)	6,000	12,000	0*	6,000	0
Plain Condoms (Units)	0	3,800	0	24,000	0
New Sampooon (Tablets)	0	0	0	8,640	0
Emko Foam (Tubes)	0	252	0	1,152	0

*Excludes 230,400 condoms which were manufactured in 1975.

Table 2

Balances on Hand By Method
Selected District Warehouses and Clinics
Ghana Ministry of Health
October 19-25, 1982

<u>Method</u>	<u>Winneba District Warehouse</u>	<u>Mampong District Warehouse</u>	<u>District Warehouse/Clinic</u>		<u>Sunyani District Warehouse</u>	<u>Techiman District Warehouse</u>	<u>Accra City District Warehouse</u>
			<u>Koforidua Hospital Clinic</u>	<u>Kumasi District Warehouse</u>			
Orals (Cycles)	2,400	6,000	0*	4,800	600	540	1,200
Colored Condoms (Units)	0	12,000	0	6,000**	0***	11,800	6,000
Plain Condoms (Units)	6,000	0	2,400	0	12,000***	0	0
Neo Sampooon (Tablets)	0	0	1,152	0	5,760	2,736	0
Emko Foam (Tubes)	0	252	144	0	144	0	0

*Excludes 2,400 cycles of Norinyl 1+50 that were manufactured in April 1975.

**Excludes 11,520 units of colored condoms which were manufactured in April 1975.

***Excludes 11,520 units of plain condoms and 11,520 units of colored condoms which were manufactured in 1971 and 1975, respectively.

Table 3

Balances on Hand By Method
 Central Medical Stores (Tema)
 Ghana Ministry of Health
 October 25, 1982

<u>Method</u>	<u>Balance On Hand</u>	<u>Couple Years of Protection (CYP)*</u>	<u>Date of Manufacture</u>
Orals (Cycles)	1,029,600	79,200	1980
Colored Condoms (Units)	210,000	1,458	1979
Plain Condoms (Units)	1,188,000	8,250	1980-81
NeoSampoon (Tablets)	368,640	2,560	UNK
Emko	0	0	NA

*Assumes that 13 cycles of orals and 144 condoms or foaming tablets is equal to 1 CYP.

Table 4

Percent Distribution of "Exposed"* Women Age 15-49
Currently Using Contraception, By Method and Age
1978-1979 Ghana Fertility Study

<u>Current Use And Method</u>	<u>Total</u>	<u>Percent Distribution By Age Group</u>			
		<u><25</u>	<u>25-34</u>	<u>35-44</u>	<u>45+</u>
<u>Currently Using Any Method</u>	<u>12.4</u>	<u>9.2</u>	<u>14.8</u>	<u>12.9</u>	<u>10.1</u>
<u>Currently Using Efficient Methods</u>	<u>7.2</u>	<u>5.5</u>	<u>9.3</u>	<u>6.2</u>	<u>5.3</u>
Orals	3.1	1.3	4.8	2.8	2.1
Vaginal Methods	2.1	2.5	3.0	0.6	0.5
Condoms	0.8	1.3	0.8	0.5	0.0
Sterilization	0.6	0.0	0.1	1.9	2.1
IUD	0.4	0.3	0.4	0.5	0.5
Injection	0.1	0.1	0.1	0.0	0.0
<u>Currently Using Inefficient Methods</u>	<u>5.2</u>	<u>3.7</u>	<u>5.5</u>	<u>6.7</u>	<u>4.8</u>
Abstinence	4.0	2.8	3.9	5.7	3.7
Rhythm	0.9	0.7	1.2	0.5	1.1
Withdrawal	0.3	0.2	0.3	0.5	0.0
Douche	0.0	0.0	0.1	0.0	0.0
<u>Not Currently Using</u>	<u>87.6</u>	<u>90.8</u>	<u>85.2</u>	<u>87.1</u>	<u>89.9</u>
Total	100.0	100.0	100.0	100.0	100.0

*Includes fecund, non-pregnant women whose husband or consensual partner were present.

Table 5

Percent of "Exposed" Women Age 15-49 Who Are
Currently Using Any Method of Contraception
By Selected Characteristics
1978-79 Ghana Fertility Survey

<u>Selected Characteristics</u>	<u>Percent Using</u>
<u>Total</u>	<u>12.4</u>
<u>Residence</u>	
Rural	9.9
Small Urban	15.1
Large Urban*	20.1
<u>Region</u>	
Western	9.1
Central	4.9
Greater Accra	25.6
Eastern	20.7
Volta	18.7
Ashanti	10.4
Brong Ahafo	9.2
Northern	0.8
Upper	2.1
<u>Education</u>	
None	7.7
1-6 Years	14.5
7-10 Years	17.7
11+ Years	45.1
<u>Number of Living Children</u>	
0	8.2
1	10.6
2	12.9
3	13.8
4	13.6
5	11.4
6	15.1
7	11.0
8	22.1
9+	7.9

Table 5 (Continued)

<u>Selected Characteristics</u>	<u>Percent Using</u>
<u>Respondent's Most Recent Work Status</u>	
Unemployed	6.2
Self/Family Employee	11.1
Someone's Employee	28.5
<u>Husband's Occupation</u>	
Unemployed	11.1
Professional/Clerical	24.5
Sales	15.3
Self-Employed (Agriculture)	7.1
Agricultural Employee	10.3
Service	15.6
Manual	13.1

*Includes the cities of Accra, Kumasi and Sekondi-Takoradi.

Table 6

Percent of "Exposed" Women Age 15-49 Who Want No More
 Children Who Are Currently Using An Efficient Method,
 By Place of Residence
 1978-79 Ghana Fertility Study

<u>Residence</u>	<u>Percent Using Efficient Method</u>
Rural	15.3
Small Urban	19.7
Large Urban	19.1
TOTAL	16.9

Table 7

Percent Distribution of All Women Age 15-49
Who Have Heard of Any Contraceptive Method,
By Selected Characteristics
1978-79 Ghana Fertility Study

<u>Selected Characteristics</u>	<u>Percent Who Have Heard of Any Method</u>
<u>Total</u>	<u>68.0</u>
<u>Residence</u>	
Rural	63.1
Small Urban	77.4
Large Urban	78.0
<u>Region</u>	
Western	78.1
Central	77.4
Greater Accra	90.1
Eastern	84.9
Volta	93.0
Ashanti	59.7
Brong Ahafo	59.5
Northern	22.3
Upper	23.9
<u>Education</u>	
None	56.8
1-6 Years	74.2
7-10 Years	80.1
11+ Years	95.0
Not Stated	55.6

Table 8

Percent Distribution of All Women Age 15-49 Who Have
Ever Heard of Efficient Contraceptive Methods, By Age
1978-1979 Ghana Fertility Study
Percent Knowing Efficient Methods of Contraception

<u>Age</u>	<u>Condom</u>	<u>Pill</u>	<u>Injection</u>	<u>IUD</u>	<u>Vaginal Methods</u>	<u>Sterilization</u>	
						<u>Male</u>	<u>Female</u>
15-19	15.0	36.5	22.5	26.8	4.5	2.6	22.0
20-24	24.9	56.1	39.2	36.1	10.2	5.3	31.7
25-29	27.2	54.8	42.5	32.5	9.7	5.9	36.0
30-34	23.3	47.0	35.0	21.6	8.6	3.9	29.3
35-39	23.6	45.7	34.7	17.9	7.0	3.6	28.7
40-44	21.6	44.9	32.5	19.7	7.3	2.9	33.9
45-49	18.7	35.1	26.0	10.7	7.3	2.3	25.5
Total	22.0	46.6	33.4	26.1	7.8	4.0	29.4

Table 9

Percent Distribution of Currently Fecund Women Age 15-49
 Who Know Any Source of Supply of Efficient Methods
 of Contraception, By Desire For More Children
 1978-79 Ghana Fertility Study

<u>Desire For More Children</u>	<u>Knows At Least One Source</u>	<u>Knows Method But No Source</u>	<u>Knows No Methods</u>	<u>Total</u>
Total	44.2	16.3	39.6	100.0
Wants Future Birth	43.7	16.5	39.8	100.0
Wants No More Children	59.4	15.9	24.7	100.0
Undecided	29.7	15.0	55.3	100.0

Table 10

Mean Total Number of Children Desired By Currently
Married Women Age 15-49, By Selected Characteristics
1979-80 Ghana Fertility Survey

<u>Selected Characteristics</u>	<u>Mean</u>
<u>Total</u>	6.1
<u>Place of Residence</u>	
Rural	6.3
Small Urban	5.7
Large Urban	5.4
<u>Region</u>	
Western	5.8
Central	6.3
Greater Accra	4.9
Eastern	6.0
Volta	5.8
Ashanti	5.9
Brong-Ahafo	6.3
Northern	8.7
Upper	7.2
<u>Age</u>	
<25	5.2
25-34	5.9
35-44	7.0
45+	7.3
<u>Education</u>	
None	6.8
1-6 Years	5.8
7-10 Years	5.0
11+ Years	4.4
<u>Number of Living Children</u>	
0	5.3
1	5.0
2	5.3
3	5.7
4	6.2
5	6.9
6	7.4
7	8.1
8	8.7
9+	9.8