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**EVALUATION
OF THE
FAMILY HEALTH INTERNATIONAL
COOPERATIVE AGREEMENT**

by

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Fieldwork
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Glossary

A.I.D.	Agency for International Development
AAAS	American Association for the Advancement of Science
AIDSTECH	AIDS Technical Support (Project)
APHA	American Public Health Association
AVSC	Association for Voluntary Surgical Contraception
CA	Cooperating Agency
CDC	Centers for Disease Control
CONRAD	Contraceptive Research and Development Project
CRI	Clinical Research International
CT	Clinical Trials (Division)
CTO	Cognizant Technical Officer
EFCS	Egyptian Fertility Care Society
FCO	Final cost objective
FDT	Field Development and Training (Division)
FHI	Family Health International
FHRC	Family Health Research Center
FP	Family planning
FY	Fiscal year
ICCR	International Committee on Contraception Research (Population Council)
IDE	Investigational Device Exemption
IEC	Information, education, and communication
IFRP	International Fertility Research Program
IRB	Institutional Review Board
ISTI	International Science and Technology Institute, Inc.
IUD	Intrauterine Device

LDC	Less developed country
NDA	New Drug Application
NIH	National Institutes of Health
NORPLANT [®]	Registered trade name for subdermal contraceptive implant system developed by The Population Council
OC	Oral contraceptive
PE	Program Evaluation (Division)
PHSC	Protection of Human Subjects Committee
PIACT	Program for the Introduction and Adaptation of Contraceptive Technology
PID	Pelvic inflammatory disease
PMA	Pre-Marketing Approval
RAMOS	Reproductive Age Mortality Study
RE/STD	Reproductive Epidemiology/Sexually Transmitted Diseases (Division)
STD	Sexually transmitted disease
TAC	Technical Advisory Committee
TBA	Traditional Birth Attendant
USAID	United States Agency for International Development (mission)
WHO	World Health Organization

Project Identification Data

1. Project Title: Family Health International
2. Project Number: 936-3041
3. Cooperative Agreement: DPE-0537-A-00-4047-00
4. Critical Project Dates:
Cooperative Agreement Signed October 1, 1984
End Date September 30, 1990
5. Project Funding:
Authorized LOP Funding \$63,400,000
Funding to Date 51,706,869
6. Scope: Worldwide
7. Mode of Implementation: Cooperative Agreement between S&T/POP and Family Health International.
8. Grantee: Family Health International, Research Triangle Park, N.C.
9. Major Activities:
 - Research to evaluate currently available fertility control methods
 - Developing and evaluating new fertility control methods
 - Maintaining a network of international investigators
 - Disseminating information on the fertility control methods
 - Training
 - Assessing programmatic use of fertility control methods
 - Assessing long-term safety and non-contraceptive effects of fertility control methods

Executive Summary

Overview

For over 15 years, Family Health International (FHI), through Cooperative Agreements and other administrative arrangements with the Office of Population, has been A.I.D.'s premier resource for carrying out large-scale clinical trials of contraceptive methods. The scope of the efforts under the most recent Cooperative Agreement has expanded and now covers almost every aspect of contraceptive research. This expansion is in part a result of major growth within FHI itself. From depending almost entirely on the Office of Population for its funding five years ago, FHI now receives half of its income from other sources: in particular, from Clinical Research International (CRI), a for-profit organization that conducts clinical trials for private organizations, and from the AIDSTECH Cooperative Agreement with the Office of Health.

Overall, A.I.D. values FHI's work highly and intends to continue its relationship with this organization for another five years. Among its few concerns is whether, with its growth in recent years, FHI is at risk of being spread too thin. This is a major issue that is reflected in many of the findings and conclusions in this evaluation, written for A.I.D. as it prepares for renewal of its current five-year Cooperative Agreement with FHI.

Accomplishments and Issues by Division

This evaluation found no major flaws in FHI's operations under the Cooperative Agreement and many areas of excellence. In general, the work is innovative, useful and of high quality. Moreover, in every avenue pursued, FHI has been able to document observable impact for many individual projects. With respect to the work of the four major technical divisions, major conclusions were as follows:

- In the **Clinical Trials Division** (which absorbs about half the budget), the change of focus, including lessening of emphasis on assessing and evaluating existing methods in country settings and increasing efforts in development and introduction of new methods, was considered appropriate. In the case of several methods (IUDs and pills), it was felt that most of the useful avenues of research had been well explored. Some of the new products under development were found very promising: NET-90 injectable, plastic condoms, D-propranolol, and iodine delivery for non-surgical female sterilization. There was some concern that FHI needed to define more specifically its role in the drug development business -- in particular, to find an appropriate level of involvement, given its resources and cost implications, and to coordinate better with CONRAD, the A.I.D. project designed to focus on the early stages of contraceptive development. Mechanisms are in place to assure the safety and rights of volunteers who participate as study subjects, although more effort may be needed to impress on host country investigators the significance of adverse events.
- Through the **Field Development and Training (FDT) Division** (representing about a quarter of expenditures), FHI has maintained its well-earned reputation as the manager of a unique network of some 200 clinical centers stretching over some 50 countries. Although these centers relate primarily to the Clinical Trials Division, FDT deserves credit for training many of their researchers. More important, it is FDT's role to support and improve research capabilities of the Family Health Research Centers (FHRC) located in nine LDCs, which in turn often identify, train and support many of the host country researchers. These centers are developing the ability to analyze and interpret data themselves, but fully institutionalizing them remains, at best, a long-term goal for FHI. A

concern is that the other aspects of the Division's work -- responsibility for coordinating introduction of new methods, for disseminating research findings, and for providing monitoring and other support to the other divisions -- are likely to expand in the near future. Already, given its current staffing levels, the Division is unable to provide the complete support needed by other divisions. Moreover, although FDT continues to make valiant efforts to alert audiences worldwide to the policy and programmatic implications of research findings, and though it is expanding its information dissemination activities, it is not clear whether -- even with an expanded staff -- it can do justice to this herculean task.

- The **Program Evaluation (PE)** Division (whose relatively low share of project funding has been cut in half over the past four years) has done some excellent project-specific work. Its overall portfolio, however, divided among eight only loosely related categories, could be strengthened if it were better focused. To some degree, the dispersion of effort results from PE's need to rely on mission add-ons for a substantial portion of its funding. The tension between being responsive to the field and maintaining integrity of goals, an agency-wide issue, is perhaps most pronounced in this division.

- The **Reproductive Epidemiology and Sexually Transmitted Disease (RE/STD)** Division (whose relatively low proportion of the budget has also fallen) was judged to have made important contributions, particularly in leading the FHI efforts to respond to recent fears about a possible relationship between the pill and cancer. This Division was also given high marks for its realistic appreciation of its limitations and its decision to focus its resources more sharply in future. If anything, the judgment was that some areas were being short-changed.

Management

Coordination and Internal Management Mechanisms

Managing a 200-person staff of talented researchers involved in hundreds of separate projects in several discrete but overlapping research areas is obviously a challenging task. FHI received particularly high marks for its ability to coordinate efforts among divisions. Its efforts to introduce NORPLANT® have to some degree involved nearly every FHI division, unit, program and task force and the result has been exemplary. The issue is whether -- particularly if the organization grows -- it will be possible to preserve the combination of formal mechanisms, easy collegiality among staff, and a common vision throughout the agency that now make this coordination possible. Signs of overexpansion are already evident in that junior staff traveling abroad are not always able to represent FHI-wide concerns adequately.

FHI was found to have several excellent internal control mechanisms, including an organization with well-defined lines of authority and responsibility, superior databases, and clearly written policies and procedures for virtually every activity that takes place under the Cooperative Agreement. These mechanisms, together with a highly sophisticated financial management system that tracks all staff time according to project, contribute to a smoothly run organization characterized by high staff morale and good internal communication.

Planning and Evaluation

Using its excellent set of procedures for development, review and approval of proposed research, FHI tends to make all its planning decisions primarily at the project level. Neither divisional agendas nor FHI's portfolio as a whole are set in the context of

articulated, long-term goals. Rather, a number of influences -- country needs, A.I.D./W concerns, the scientific interests of FHI based on internal dynamics of a given research project and new developments in the health field -- compete in shaping divisional agendas. A.I.D.'s role involves both participating in an annual budget review, during which it reacts to individual project proposals, and suggesting project areas for FHI to pursue.

Although each division was able to document impact for a number of its activities, FHI does little in the way of systematic evaluation of projects. Therefore, its plans are based more on prospective hopes of those proposing various activities than of any certainty of their payoff. Doubtless, there will always be a high degree of uncertainty about outcomes of research endeavors. Nonetheless, with some better understanding of what has worked, FHI might be in a stronger position to make sound strategic decisions for the future.

Staffing Issues

FHI, located in private-sector rich Research Triangle Park, has in most cases successfully competed in attracting and keeping competent staff. Thanks to its own expansion into privately funded clinical research activities, together with its success in winning a second major A.I.D. project -- AIDSTECH -- FHI has been able to offer in-house promotion opportunities to selected staff. Furthermore, the few lateral moves that have occurred do not appear to have had a deleterious effect on the work undertaken through this Cooperative Agreement.

The only vacancy with significant policy implications is that of Vice President for Research. FHI maintains that failure to have kept this position filled has not adversely affected operations to date. A stronger advocate for FHI's efforts in the areas of clinical, preclinical and epidemiological research may be needed in future.

Relationship with A.I.D.

A.I.D.'s oversight of the FHI Cooperative Agreement appears excellent, despite major time and travel constraints. A.I.D. may be somewhat at a disadvantage, however, because it has little or no opportunity to engage in strategic-level planning discussions early in the planning process with FHI staff. Links with USAID missions are in general satisfactory and in some cases excellent.

Adequacy of Funding

FHI has widened the scope of its efforts under this Cooperative Agreement over the past five years while remaining at approximately at the same expenditure level -- \$8 million a year from FY86 to FY89. Funding shortages appear to have caused few if any appreciable problems during this period. Rather, typical of setbacks that can plague research, postponement of NET-90 injectable and NET pellet clinical trials has resulted in some unexpected additional funds having become available within the last year. Thus, at the time of the evaluation, divisions had few research proposals which could not be funded.

For FY90, in part because of carry-overs related to the clinical trial delays mentioned above, FHI's budget shows an overall 50 percent increase over the previous three years. Even if these very ambitious plans are realized, at the end of the Cooperative Agreement, FHI will have underspent its five-year \$51.7 million funding by \$3 million. Moreover, it is unlikely that the divisions will be able to spend the budgeted increases that have been earmarked for them. This year in particular, the divisions appear loath to take

on the added staff implied by the new plans, (because of the uncertainties related to the new Cooperative Agreement) since agency policy is not to offer positions contingent on short-term external funding.

Future Directions

Divisional Activities

Although few funding constraints have been evident to date, some of the new directions being pursued by FHI -- contraceptive introduction is an example -- are potentially of such a size and scale that FHI may have to begin to make difficult choices as to what program activities it will pursue; which it might have to phase out; and which it could pursue in collaboration with other agencies. Along these three lines, the evaluation makes the following recommendations:

Activities Warranting Continued or Expanded Support

1. The Clinical Trials Division should remain willing to respond to USAID mission and LDC requests for clinical trials of existing products so long as these are of genuine national importance and fit into the Division's overall strategy. It should also be encouraged to pursue extensive secondary analysis of some of the large data bases already accumulated. The importance of adverse events in monitoring safety should be stressed to host country investigators.
2. FDT should pursue its plans to expand its capabilities in the area of information dissemination and to support contraceptive introduction activities. It needs also to add staff to do a more adequate job of monitoring and otherwise supporting activities of other divisions.
3. PE should allocate more resources to sub-Saharan Africa and should devote more attention to monitoring ongoing studies, even if this comes at the expense of launching new research.
4. STD-related research should remain the number one priority of the RE/STD Division, but RE/STD should also increase its emphasis on research studies on contraception for women with special needs. The computer model to assess the risk/benefit of contraception should be applied in as many countries as possible.

Opportunities to Resist Pressure for Expansion or Transfer of Activities

1. The Clinical Trials Division should undertake a policy review of its overall strategy in relation to drug development through pre-clinical and clinical phases. The Division should resist any temptation to expand in-house skills of pharmacology, toxicology or pharmaceutical formulation to support contraceptive development work and should not feel pressured to hurry into Phase III trials of a new product until pharmaceutical tests have satisfactorily determined its viability.
2. FDT should accept mission requests for technical assistance only if these are consonant with current Division priorities. It should continue to strengthen LDC capabilities

to carry out research and should examine a way to establish a local presence that could undertake specialized projects although continuing to restrict the number of countries in which it attempts to have a major impact at any given time.

3. PE should enter new research areas only with great caution and should accept mission requests for research only if these are consonant with current PE priorities. PE should also expand efforts to strengthen LDC research capacities.
4. RE/STD should continue to focus on fewer, properly designated areas of research.

Activities Appropriate for Coordination with Other Agencies

1. A management plan should be developed for contraceptive development that specifies the complementary roles for FHI and CONRAD, and includes collaboration with other agencies.
2. FDT should coordinate information dissemination plans with other agencies.
3. PE should consider whether some of its research activities, particularly new activities that are proposed at the country level, could be undertaken by other CAs.

Planning and Management

The recommendations above are not intended to constitute a blueprint for FHI's program activities but rather to be used as one input in a strategic planning process that should get under way as part of the next full yearly cycle of program and budget planning. It is the institution of this planning process that is the major recommendation of the report. Specifically,

FHI should prepare each year an annual strategic plan and budget, as well as a three-year tentative plan and budget, for presentation to A.I.D. Plans should normally cover all proposed FHI activities, with greater detail on those proposed to be funded under the Cooperative Agreement. As part of the process, FHI management should review the adequacy of its staffing in relation to current and planned workloads.

Several other recommendations were also offered to improve management:

1. FHI should carefully nurture the infrastructural mechanisms that promote effective communication and cooperation among divisions.
2. Locus for program support and monitoring in all FHI Divisions should be reconsidered. Where necessary for adequate project monitoring, limited numbers of staff with the required skills should be added within appropriate divisions, since technical needs will vary by division.
3. FHI should consider developing an internal evaluation system for its projects, wherever feasible.
4. FHI should redouble its efforts to fill the position of Vice President for Research.
5. In order to maintain its ability to attract and hold highly qualified and motivated staff, FHI should continue to review periodically the adequacy of compensation and benefits for staff.

6. FHI staff traveling to developing countries should be better briefed on all areas needed to represent adequately FHI's interests.

1. Introduction

1. Introduction

1.1 Family Health International's Cooperative Agreement with A.I.D.

Family Health International (FHI) views itself as "an international non-profit biomedical research and technical assistance organization dedicated to improving reproductive health, contraceptive safety, and health service delivery."¹ With an operating budget in fiscal year 1989 of over \$15,000,000, a staff of over 200 housed at its own modern headquarters in North Carolina's Research Triangle Park, and a network of collaborating scientists currently stretching across more than 50 countries, FHI is one of the largest private sector family planning/reproductive health research organizations in the world.

FHI has been supported by the Agency for International Development's (A.I.D.) Office of Population through a series of grants, contracts, and Cooperative Agreements since July 1971, when it was established as the International Fertility Research Program (IFRP) -- officially changed in 1982 to Family Health International.

In 1984, A.I.D. extended its 13-year relationship with FHI through Cooperative Agreement No. DPE-0537-A-00-4047-00. In brief, the Agreement called for:

...a program directed toward fostering the development and introduction of methods of fertility control, the assessment and evaluation of fertility control technologies, and the strengthening of such capabilities on an international basis. The Recipient shall use its established research system and network of clinical investigators to evaluate, on an international basis, the safety, effectiveness and acceptability of methods of fertility control and the delivery systems through which they are made available.

The contractual details are contained in the Program Description, attached as Attachment 2 to the Cooperative Agreement (and attached as Appendix A to this evaluation).

This report constitutes the final evaluation of A.I.D.'s current five-year Cooperative Agreement with FHI. The Agreement funded to date at \$51.7 million (compared with an authorized life-of-project funding of \$63.4 million) is scheduled to end September 30, 1990. The project was authorized on the basis of a 10-year Project Paper and the assumption is that a second five-year Cooperative Agreement will be authorized, with a project completion date of September 30, 1996 (see Appendix B for scope of work for this assignment and Appendix C details on the preparation of this evaluation report).

1.2 Historical Overview

1.2.1 FHI's Evolution

FHI has changed appreciably since it began in July 1971 with an A.I.D. mandate to conduct field trials related to new contraceptive technologies in developing countries. Its mission includes a major focus on contraceptive development and introduction, and it continues to stand

¹Family Health International: Meeting the Challenges of the 1990s," a brochure published by FHI; no date.

as one of the best organizations in the world conducting large-scale Phase III clinical trials in less developed countries (LDC). Beyond this, however, FHI has expanded its horizons in response both to rapid new developments in the field of reproductive health and to the continuing needs voiced by developing countries for safe and effective family planning services. Recognizing the importance not only of developing fertility regulating technology but introducing it to populations, FHI has increased its strength in areas essential to the improvement of family planning programming: psycho-social and service delivery research, institution strengthening, and dissemination of results.

From an organizational standpoint, FHI has grown considerably since October 1984, the beginning of the funding period for this Cooperative Agreement. In 1986 FHI established a for-profit organization, Clinical Research International (CRI), to conduct clinical trials for private organizations both within and outside the field of contraception. FHI, as a major shareholder, receives dividends that are used to support new interventions and research initiatives and meet other corporate needs.

Signaling a major extension beyond family planning research, FHI in 1988 established AIDS Technical Support (AIDSTECH) as a new division of the organization. AIDSTECH, funded by an A.I.D. Cooperative Agreement from the Office of Health, focuses on slowing the heterosexual transmission of AIDS, preventing the transfusion of contaminated blood, and evaluating through surveys the prevalence and scope of HIV.

The funding pattern at FHI has also changed significantly. Over the five-year period 1985-1989, the total corporate expenditures doubled, and are expected to have more than tripled in FY90 (see Figure 1 and Table D-1 in Appendix D).

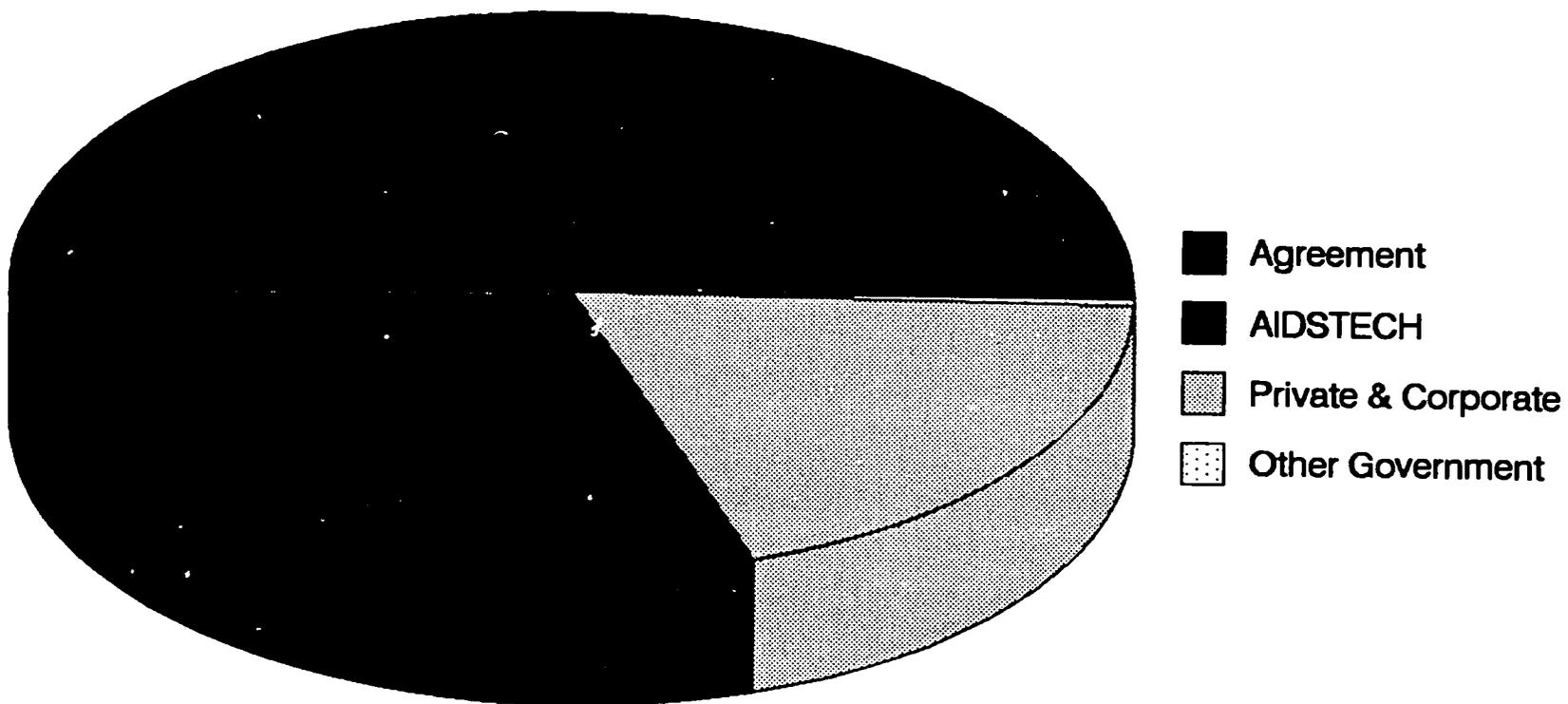
As shown below, during this period, the organization has become far less dependent on the Office of Population for funding:

Fiscal Year	Proportion of Total FHI Expenditure Provided by A.I.D./S&T/POP
1985	92.4 %
1986	88.9 %
1987	83.8 %
1988	57.6 %
1989	50.1 %

Thus, in 1989, only half of FHI's budget was coming from the Office of Population while the other half was coming from new sources: The AIDSTECH contract accounted for 30.2 percent and private and corporate sources -- including contributions from CRI -- provided 19.3 percent. This compares with an overview of fiscal years 1985 through 1990: during this period, total FHI expenditures were estimated at \$79,000,000, of which 65.3 percent (nearly \$52,000,000) came from the Office of Population or United States Agency for International Development (USAID) missions.

The growth of its corporate and financial structure has served to strengthen and stabilize FHI, and as such has resulted in a more effective and dependable organization to implement the Cooperative Agreement under review here.

Figure 1
FHI: FY 1989 Expenditures by Source



Between 1985 and 1989, FHI's work on this Cooperative Agreement was even more directly affected, though, by other changes in management structure, modifications in inter-divisional funding patterns, and transformations in the configuration of program activities.

The modification of the management structure in 1987 (described in Chapter 5) established a level of Vice Presidents directly above the Directors of operational divisions (also sometimes called Departments), and reorganized the divisions. Following the suggestion of the 1984 evaluation, the Biostatistical Unit and the Department for Quality Assurance were combined into a single division. The Division of Reproductive Epidemiology was expanded to include sexually transmitted diseases (STDs) (though separate from AIDSTECH activities), and in 1989 a Division of Regulatory Affairs was created to focus efforts for obtaining FDA investigational and marketing approval of fertility regulating methods ready for clinical trials.

1.2.2 Evolution of Cooperative Agreement

Although there have been substantial increases in non-project funding, central funding of the Cooperative Agreement has remained stable between FY 1984 and 1989: After the first year (funding level \$4.9 million), A.I.D. has provided incremental funding at an annual level ranging from \$7.5 to \$9 million (see Table 1, next page). F.H.I.'s expenditures of central funds have come close to the levels allocated, with the exception of FY89, when the unexpected termination of Phase III Trials of the NET-90 injectable resulted in underspending that year (see Table 2 and Section 2.1.2).

Over the project period, funding to the Cooperative Agreement has also been provided through USAID mission add-ons to cover costs of specific projects in those countries (see Table 1). These funds represent an increasing proportion of total annual expenditures under the Agreement (from 1.7 percent in FY 1986 to an estimated 15.6 percent in FY 1990) and thus indicate an important level of A.I.D. support for the project (see Table 2).

Although overall funding has held steady, balance among the four main divisions responsible for implementing research under the Cooperative Agreement has changed considerably (see Figure 2).

The Division of Clinical Trials (CT) spent nearly twice the amount of the next biggest division between 1985-1989. Although its budget more than doubled between 1985 and 1989, its proportion of the total increased only slightly over the five-year period. The Division of Field Development and Training (FDT), the second largest division, expanded significantly in the first years of this Agreement, but has remained at roughly 25 percent of the total expenditures for the past four years. Both the Divisions of Program Evaluation (PE) and of Reproductive Epidemiology and Sexually Transmitted Diseases (RE/STD) have seen their budgets cut by half from a high position in FY86 to FY89 (see Table 3).

The CT division underwent a shift in emphasis, from conducting studies aimed at providing LDCs with data to evaluate existing methods in specific country settings, to conducting the necessary studies on new contraceptive approaches in order to provide the Food and Drug Administration (FDA) data to evaluate the safety and efficacy of these new methods and grant U.S. regulatory approval. While this involved a centralization of efforts within the CT division, work in the other divisions underwent a de-centralization process: greater attention devoted to training local specialists to handle their own research, training, and other needs. A greater proportion of FHI time and money was devoted to Africa (see Table D-2).

Today, nearing the end of its second decade, FHI has earned a reputation as one of A.I.D.'s most well-established and prestigious collaborators in the field of population and family

Table 1
Central and Add-on Funding to FHI's Cooperative Agreement
(FY 1984 - 1989)*
(Dollars)

	1984	1985	1986	1987	1988	1989	Total
Central	4,900,000	8,700,000	7,680,000	7,535,000	9,136,000	8,061,201	46,018,201
Add-ons	_____	_____	<u>1,082,774</u>	<u>1,816,396</u>	<u>2,434,928</u>	<u>354,570</u>	<u>5,688,668</u>
Total	4,900,000	8,700,000	8,762,774	9,351,396	11,570,928	8,421,771	51,706,869

Source: FHI

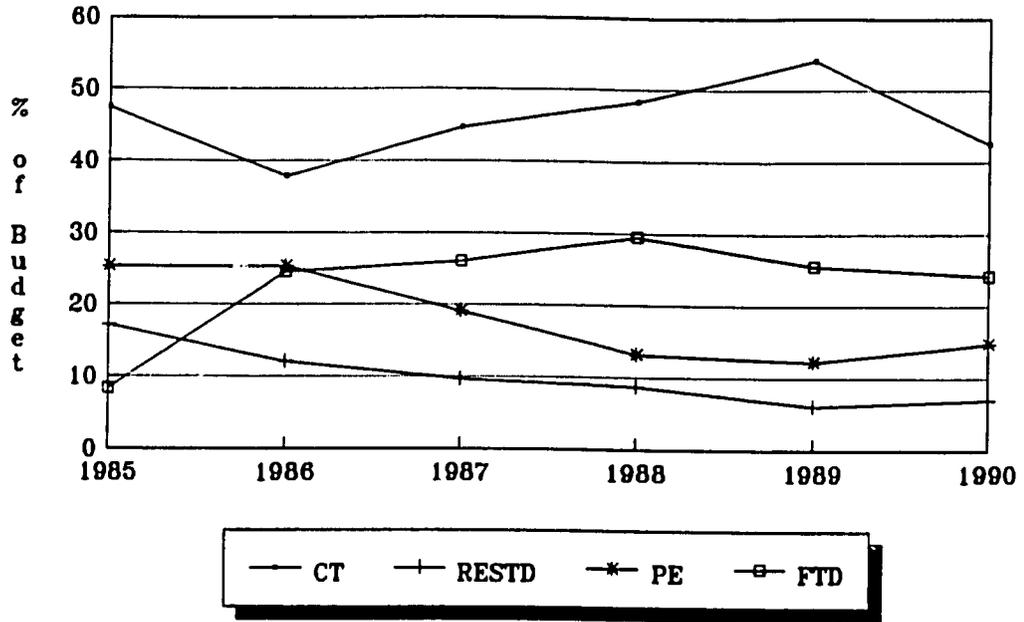
*The funding in any fiscal year should roughly correspond to the expenditures in the following fiscal year (see Table 2).

Table 2
Expenditures by Division
(FY 1985 to 1990)

Department	FY85		FY86		FY87		FY88		FY89		(Est) FY90		Total	
Clinical Trials														
Central	2,235,869	47.9%	2,880,739	35.9%	3,388,540	41.7%	3,095,195	42.4%	3,472,016	44.1%	4,872,221	37.8%	19,944,580	40.8%
Add-on			325	0.0%	77,137	0.9%	190,938	2.6%	219,658	2.8%	214,260	1.7%	702,318	1.4%
Reproductive Epidemiology														
Central	764,436	16.4%	936,911	12.0%	787,115	9.7%	600,888	8.2%	556,443	7.1%	886,901	6.9%	4,559,694	9.3%
Add-on			0		0		50,000	0.7%			201,692	1.6%	251,692	0.5%
Program Evaluation														
Central	1,252,292	26.8%	2,098,887	26.2%	1,622,714	20.0%	939,933	12.9%	706,645	9.0%	1,525,573	11.8%	8,146,844	16.7%
Add-on			4,844	0.1%	171,695	2.1%	327,944	4.5%	317,747	4.0%	488,899	3.8%	1,311,129	2.7%
Field Development & Training														
Central	324,365	6.9%	1,873,920	23.4%	1,724,837	21.2%	1,578,790	21.6%	1,820,013	23.1%	3,419,382	26.5%	10,741,307	22.0%
Add-on			128,064	1.6%	342,495	4.2%	512,265	7.1%	656,065	8.4%	1,102,761	8.6%	2,745,650	5.6%
Regulatory Affairs														
Central	0		0		0		0		94,930	1.2%	172,349	1.3%	267,279	0.6%
Add-on													0	0.0%
Other														
Central	93,548	2.0%	60,763	0.8%	18,727	0.2%	6,610	0.0%	25,159	0.3%	5,830	0.0%	210,637	0.4%
Add-on													0	0.0%
Total Central	4,670,510	100.0%	7,878,220	98.3%	7,541,933	92.7%	6,221,416	85.1%	6,675,206	84.8%	10,882,256	84.4%	43,869,541	89.7%
Total Add-on	0		133,233	1.7%	591,327	7.3%	1,085,147	14.9%	1,193,470	15.2%	2,007,612	15.6%	5,010,789	10.3%
Totals	4,670,510	100.0%	8,011,453	100.0%	8,133,260	100.0%	7,306,563	100.0%	7,868,676	100.0%	12,889,868	100.0%	48,880,330	100.0%

Source: FHI

Figure 2
Percentage of FHI Budgets by Division*



*Source: Table 2

Table 3
Expenditures by Division and Program
(FY 1985 to 1990)

Division/Program	FY'85	FY'86	FY'87	FY'88	FY'89	(Est) FY'90	Total
Clinical Trials							
Barrier Methods - Other	318,506	133,190	109,977	114,716	171,893	244,678	1,092,960
Condoms	0	1,511	17,638	286,827	706,531	1,990,707	3,003,214
IUDs	319,879	419,222	564,522	448,266	327,176	302,231	2,381,296
Male Sterilization	29,740	34,219	33,325	38,999	67,587	136,528	340,398
NET 90 Injectables	53,489	225,397	803,451	662,545	766,582	539,804	3,051,268
NET Implants	0	14,790	24,524	144,374	14,541	334,130	642,359
Non-Surgical Female Sterilization	179,000	82,089	46,831	33,690	35,322	220,081	597,013
NORPLANT®	322,385	450,031	470,399	493,184	557,096	523,574	2,816,669
Oral Contraception	405,802	481,255	426,613	268,677	154,907	140,520	1,877,774
Spermicides	6,565	175,403	175,977	90,009	45,651	75,961	569,566
Surgical Female Sterilization	358,559	567,205	552,036	548,035	514,852	247,359	2,788,046
Other	241,944	296,752	240,384	156,811	219,536	330,980	1,486,335
Total Clinical Trials	<u>2,235,869</u>	<u>2,881,064</u>	<u>3,465,677</u>	<u>3,286,133</u>	<u>3,691,674</u>	<u>5,086,481</u>	<u>20,646,898</u>
Reproductive Epidemiology & STDs							
Contraception and Cancer	166,400	152,250	90,077	218,573	234,060	81,226	942,586
Contraception and Sexually Transmitted Disease	196,537	175,684	262,711	186,875	108,891	617,109	1,547,807
Contraception for Women with Special Needs	29,379	25,156	29,203	34,053	51,789	57,104	226,684
Maternal Morbidity and Mortality	0	69,055	67,587	52,965	399	138,939	328,945
Reproduction and Environmental & Behavioral Exposure	82,396	152,682	34,844	413	0	0	270,335
Risk/Behavior Analysis of Contraception	160,201	218,375	254,458	151,402	156,409	184,040	1,124,885
Other Studies of the Effects of Contraception	129,523	170,708	48,235	6,607	4,895	10,176	370,144
Total Reproductive Epidemiology & STDs	<u>764,436</u>	<u>963,910</u>	<u>787,115</u>	<u>650,888</u>	<u>556,443</u>	<u>1,088,594</u>	<u>4,811,386</u>
Program Evaluation							
Acceptability of Contraceptive Methods	2,283	38,558	101,892	56,395	124,134	438,845	762,107
AIDS and Family Planning	0	0	14,911	26,896	86,849	181,547	310,203
Breastfeeding	220,202	160,203	147,828	190,273	162,713	238,944	1,165,163
Family Planning Service Delivery	337,636	305,546	158,086	76,581	94,060	638,485	1,610,394
Maternal and Child Health	3,003	336,444	401,437	207,074	138,811	40,619	1,127,388
Multi-purpose Demographic Surveys and Secondary Analyses	110,893	406,014	367,664	347,487	171,183	50,850	1,454,091

Table 3
Expenditures by Division and Program
(FY 1985 to 1990)

Division/Program	FY'85	FY'86	FY'87	FY'88	FY'89	(Est) FY'90	Total
Natural Family Planning	578,275	745,411	491,937	234,527	116,343	56,810	2,223,303
Quality of Services	<u>0</u>	<u>111,555</u>	<u>110,654</u>	<u>128,641</u>	<u>130,299</u>	<u>323,372</u>	<u>804,524</u>
Total Program Evaluation	1,252,292	2,103,731	1,794,409	1,267,877	1,024,392	2,014,472	9,457,173
Field Development & Training							
Contraceptive Introduction	2,620	177,722	209,979	164,190	104,434	594,924	1,253,869
Information Dissemination	68,955	218,088	287,358	370,671	401,060	1,126,071	2,472,203
Institutional Development	59,502	1,186,951	1,300,638	1,196,314	1,594,936	2,250,263	7,588,604
Training	<u>193,288</u>	<u>419,223</u>	<u>269,357</u>	<u>363,880</u>	<u>375,648</u>	<u>550,885</u>	<u>2,172,281</u>
Total Field Development & Training	324,365	2,001,984	2,067,332	2,095,055	2,476,078	4,522,143	13,486,957
Regulatory Affairs	0	0	0	0	94,930	172,349	267,279
Other	93,548	60,763	18,727	6,610	25,159	5,830	210,637
Total for Cooperative Agreement	<u>4,670,510</u>	<u>8,011,452</u>	<u>8,133,260</u>	<u>7,306,563</u>	<u>7,868,676</u>	<u>12,889,869</u>	<u>48,880,330</u>

Source: FHI

planning. Its principal mission continues to be to foster the development and introduction of fertility regulation, the assessment and evaluation of contraceptive technologies, and the strengthening of such capabilities on an international basis. With the onset of AIDS, however, together with growing concerns about the links of contraceptives and reproductive disease, and dwindling resources in the face of increasing needs, the FHI portfolio today has been stretched to include an extraordinarily broad range of activities.

1.3 Response to the 1984 Evaluation

FHI's program has been evaluated at regular intervals during the past 20 years: in 1977 A.I.D.'s Research Advisory Committee reviewed IFRP's renewal proposal; in 1980 the American Public Health Association (APHA) reviewed IFRP and its programs, following up in 1981-82 with a more in-depth evaluation; and in 1984 a team assembled by International Science and Technology Institute, Inc. (ISTI) conducted an interim evaluation of FHI. All have been very positive.

The 1984 evaluation, like this one, focused on FHI's organizational decision-making and research management practices, explicitly avoiding attempts to evaluate scientific details or interpretations of research output.

The evaluation was strongly positive. Of its 25 recommendations, many simply reflected concurrence with already occurring trends at FHI, in particular with the procedures relating to priority-setting, research management, relationships with other organizations and dissemination of research findings.

The 1984 team noted that its recommendations regarding staffing (Nos. 1-8) were of special importance, particularly the suggestion (No. 2) that priority attention should be given to filling the top-level vacancies including the Vice-President for Medical Affairs (or VP for Research), the Medical Director, and the Director of Quality Assurance.

At the time of this evaluation, all but one of these staffing recommendations had been satisfactorily addressed, largely through FHI's establishment in 1987 of a new management structure and the recruitment of qualified staff for the senior positions. The remaining outstanding issue is the continuing vacancy in the position of Vice-President for Research. The recent expansion of FHI's research interests and programs make it desirable to fill the position as soon as a qualified individual can be found (see Section 5.3 for a full discussion).

Other recommendations about staffing at FHI headquarters were followed, though there was somewhat less success in setting up "new ways to assure increased field participation, perhaps through individual country representatives or regional meetings" (No. 7). FHI currently has no country representatives (see Section 5.3 for more details), but it has created a Latin America Advisory Committee to guide FHI priorities and programs in the region. The FHI network of Family Health Research Centers (FHRC), as well as other collaborating national or regional institutions, is used to help define local research needs, develop research methodologies, analyze and disseminate results, etc. FHI has also increased its use of resident professionals in LDCs to work as consultants and local technical advisors.

The 1984 recommendations about the decision-making process (Nos. 9-12, all of which urge that FHI "should continue...") have been followed satisfactorily, although a brief comment is in order about recommendation No. 11 encouraging the organization "to increase its capabilities to conduct trials from the pre-clinical phase through post-marketing surveillance...". FHI

has indeed increased this capability, to the point that there is a risk that the organization might soon, if present staffing and funding levels hold constant, be spread a little thin.

The five recommendations about research management (Nos. 13-17) have been satisfactorily met, and the two about relationships with other organizations (Nos. 18-19) have led to more effective communication networks and mechanisms -- though continued efforts should be made in this area.

The three 1984 suggestions about dissemination of research findings (Nos. 20-22) have been adopted, although there has been only limited expansion of "FHI-sponsored research conferences, perhaps regional in scope..., held on a regular basis as a means of influencing public policy" (No. 22) (see Chapter 3 for more detail).

Regarding the recommendations about evolution into new areas of research (Nos. 23-25): the suggestion that FHI direct "more attention...toward male methods of fertility regulation" (No. 23) has been met through increased attention to condom product development and acceptability studies (especially timely in view of the growing need for AIDS prevention), and in the evaluation of a new no-scalpel technique vasectomy.

New models of research on family health issues in Africa (recommendation No. 24) are reflected in the increased proportion of FHI's budget devoted to studies in Africa, in growing efforts to strengthen the research infrastructure in selected African countries, and in a broadened range of research topics (adolescent sexuality, antibiotics to prevent pelvic inflammatory disease [PID], NORPLANT® in women with sickle-cell disease, etc.).

The final 1984 recommendation (No. 25) was that for non-family planning studies, FHI should seek ancillary funding from A.I.D.'s Office of Health and/or of Nutrition. FHI's success two years ago in obtaining major support from the A.I.D. Office of Health, and its creation of a new AIDSTECH Division, testifies that it has addressed the recommendation.

2. Program Performance

2. Program Performance

2.1 Clinical Trials Division (CT)

2.1.1 Overview

The CT Division is oriented toward the study of efficacy and safety of new and established contraceptive methods through large-scale trials. The Division was set up originally to conduct late-stage clinical trials of approved contraceptives in developing country settings. Over time, it has increasingly shifted its resources to trials geared to development and evaluation of new products. Overall, the Division divides its portfolio into three categories:

1. trials that provide local information on safety and efficacy of approved contraceptives;
2. trials of marketed contraceptives designed to facilitate their introduction into new programs and countries; and
3. trials for development and evaluation of new contraceptives that provide information suitable for submission to the FDA.

Contraceptive development has absorbed nearly half the Division budget over the past five years; programmatic information nearly one-third; and research geared to introduction less than one-eighth (see Figure 3). With regard to trends over this same period, the emphasis on development has quadrupled (mostly as a result of efforts to develop plastic condoms, the NET-90 injectables, and NET implants), expenditures for introduction have increased by over one-third, whereas the funds spent on programmatic information have dropped by nearly one-quarter (see Table D-3).

The impact of the sharp expansion of work in contraceptive development on costs of data handling capacity can be gauged from Table 4, which shows the sharp differences in the number of follow-up forms required for an OC Comparative (non-FDA) study, and a NET-90 Phase III FDA study. It follows that the expansion into FDA-quality trials has meant a considerable increase in costs (in-house and field costs) per subject. For example, for one year follow-up of one case in a local information type trial, the cost in 1989 was \$112, whereas an overseas FDA trial cost \$803 and an FDA trial in the U.S. cost \$2,257. This compares with average industry costs of about \$2,600 per subject for a U.S.-based trial. It should be emphasized that all clinical trials are carried out to FDA standards from the patient's point of view, but there is less meticulous collection of documented data, storage and analysis in the non-FDA trials.

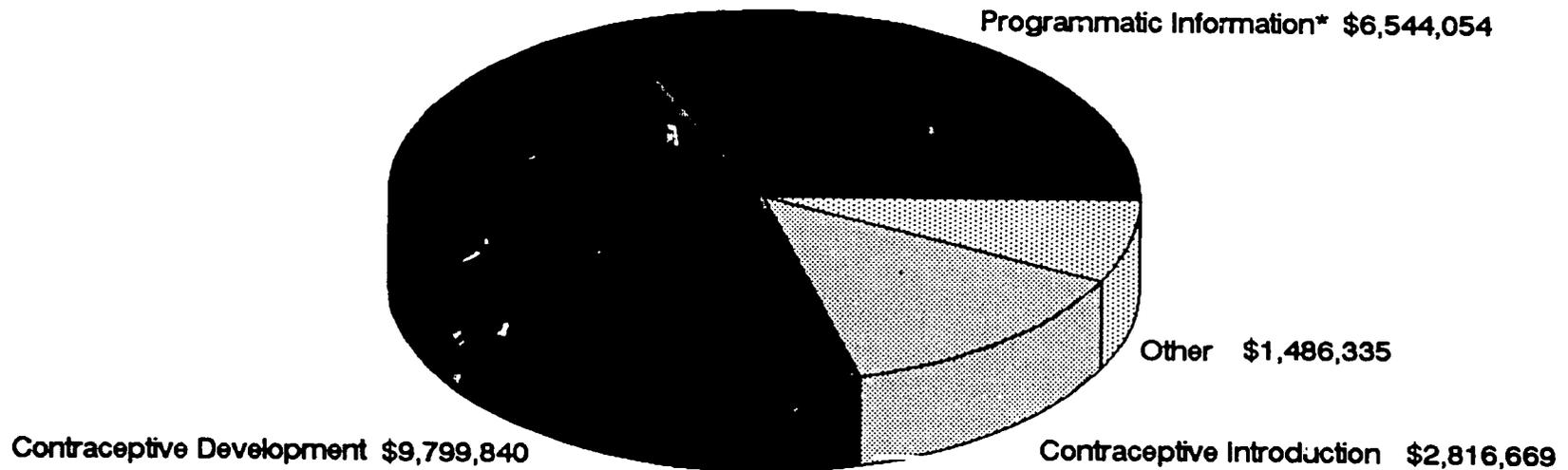
Table 4
Number of Case Report Forms of Clinical Trials

	No. FFEs* Received Per Subject	No. FFEs* Per 1500 Subjects	No. FFEs* Per 1500 Subjects Per Year
<i>OC Comparative</i>	5	7,500	7,500
<i>NORPLANT* Introduction</i>	14	21,000	4,200
<i>NET-90 Phase III</i>	18	27,000	13,500

* Full Form Equivalent (FFE) is a form or combination of forms containing about two computer cards (160 columns of data)

Figure 3

Distribution of Funding for Contraceptive Trials Division FY 1985 to FY 1990



Source: POPTECH

**Information* includes information primarily of local interest, information of general and scientific interest, and information with both local and general applicability.*

Considerable expansion of this Division has occurred in the past five years. In 1985, studies were ongoing in 122 centers (3 in U.S.), whereas in 1989 the number had risen to 202 (7 in U.S.). It is anticipated that only about 160 centers will be utilized in 1990, partly because of deferment of the Phase III study of NET-90 microspheres (see Section 2.1.2).

The evolution of this Division has resulted in the creation of the Regulatory Affairs Division (see Section 2.5.1 below), the Market Research Unit (which looks at marketing issues like condom color preference) and the Unit for Contraceptive Introduction (see Section 5.2.2 below).

2.1.2 Current CT Portfolio

Trials of Approved Methods

With respect to approved methods, FHI has sought answers to a number of questions:

- the acceptability of progestogen-only pills to breast-feeding women;
- the effectiveness of the TCu380A intrauterine device (IUD) compared with the standard IUDs in use in a given country;
- the efficacy of spermicides and condoms as a means to prevent STDs;
- the effect of various storage conditions and aging on quality of condoms; and
- the effectiveness of giving a prophylactic antibiotic as a means of reducing the chance of infection at the time of IUD insertion.

The clinical trials of progestogen-only pills and the TCu380A have involved thousands of women at scores of sites in many countries. Both efforts are encouraging and should result over time in increased use and availability, on the one hand, of a superior IUD and, on the other of a pill, that can be taken during breastfeeding with no decrease of the milk supply.

The other major efforts with standard methods have not been directed primarily at increasing use of a given method, but rather at providing a broader understanding of these methods. For example, studies on barrier methods and spermicides as a means to prevent STDs, although they will certainly provide information on the contraceptive merits of these products, are addressed mainly at a non-family planning issue. Likewise, condom quality studies, although long overdue, should result not in introduction of new products but rather in a better understanding of why old products don't always work. The effectiveness of giving a prophylactic antibiotic addresses the safety issue of IUDs, always a prime concern of FHI, but does so in a new way, looking at an outside medical intervention to improve that safety.

The phasing down in this area has to some degree been justified by the level of knowledge already accumulated. FHI has amassed vast quantities of data, in particular on the progestogen only pill, which -- although reflective of use conditions in a given setting -- have potential applicability on a wider scale. The need now is to undertake secondary analysis for wider dissemination to other populations with similar questions to those investigated in the study sites (see Appendix E). Stepping up its involvement in secondary analysis would involve a new departure for this Division, but it is a direction that could be very valuable. It is appropriate, however, that the CT Division also continue to maintain the flexibility to address new issues about old methods as they arise.

Many of the studies of marketed products have been undertaken in response to mission requests, but the change in emphasis towards new products means fewer discretionary funds available for field-generated ideas. Over the years, the Division has completed an extensive range of high-quality studies of existing products (including those on oral contraceptives and IUDs mentioned above plus studies on male and female sterilization) (see Table 2). Such studies can now be undertaken generally only when add-on funds are provided directly by Missions. The

Division, however, still sees itself as having a very important, if different, role -- namely, to shift the execution of the actual studies to LDC researchers while providing advice and expertise as well as some direct help in the setting up, execution and analysis of these studies.

Introduction of New Methods

The only aspect of its work that the CT Division technically categorizes as introduction of new methods is the clinical trials of NORPLANT®. It is significant that the trials of this one product, with more than 8,000 women involved at 43 clinical trial sites in 12 countries, have ranked as the second or third largest line item in the CT budget in all but one fiscal year since 1985. The budgetary implication is clear if any other products now being developed reach the introductory stage.

Development of New Products

Over the past few years, the CT Division has invested a considerable proportion of its hopes and resources in attempts to bring NET-90 injectables and NET implants to the stage that they can be presented to the FDA for approval -- about one-sixth of the CT's total five-year budget. Outside of this major focus, the Division has strictly limited itself to a few specific approaches: The Filshie Clip for female sterilization, D-propranolol as a spermicide, plastic condoms, and iodine delivery for non-surgical female sterilization, female condoms, and Lea's Kap. Research in some areas is very promising (see Appendix E).

Issues

Although the investment in the NET products appears to be justified, difficulties that have arisen demonstrate the pitfalls of research at these earlier stages. Specifically, the extensive ongoing clinical trials planned for the NET-90 injectables had to be terminated suddenly in 1989 when serum levels were found to be unacceptably low. The problem stemmed from the inability of manufacturers to reproduce clinical performance when manufacturing had been scaled up. Over the last 15 years, other organizations have encountered similar problems with several bioengineering companies, and it is probably over-optimistic to assume that Stolle, the pharmaceutical company working on the formulation for NET-90 microspheres, will solve this latest problem at one stroke.

From a management and planning standpoint, this sudden halt in clinical trials was quite disruptive: A number of personnel and financial commitments depend on the reinitiation of the Phase III trials of this method in FY90. Nonetheless, the organization deserves considerable credit for having resisted the temptation to continue with trials and risk an unacceptably high failure rate for the product. It has indicated that the NET-90 injectables will continue to receive highest priority in FY90, and this too is the correct course of action (see Appendix E).

Like the NET products, the Filshie Clip, a mechanical device for blocking the Fallopian tubes, has been undergoing large-scale trials and as a result of clinical experience with some 9,000 women, the device has been introduced into 25 LDCs. The data from the trials will be used for submission of a Pre-Marketing Approval (PMA) to the FDA for approval of marketing in the U.S. This a priority for FY90.

By contrast, two other new methods -- D-propranolol and the iodine formulation for the Femcept device for non-surgical female sterilization -- are examples of products at a far earlier stage of research. D-propranolol has undergone pre-clinical trials which have demonstrated its safety and efficacy. As with the NET products, however, formulation problems have delayed the start of Phase I trials. FHI points to the considerable personal commitment that characterized staff work on this project, suggesting that without such individual motivation, FHI's work with D-propranolol

might have foundered. At this point, however, the product continues to hold good promise in the search for a more effective spermicide (see Appendix E).

Development of plastic condoms falls in yet another category: an improved version of an old product. Again, FHI's initial experiments have been imaginative and well-managed. In particular, the interdivisional effort to establish acceptability has demonstrated forethought about what may become a major issue with this product. With the stage now set for a range of appropriate clinical testing, FHI foresees placing a continued high priority on this area of research (see Appendix E).

Issues

The branching into new method development has implications with respect to skills needed to carry out these new tasks. The CT Division does not have the formal expertise in-house in most aspects of pharmacology, toxicology and pharmaceutical formulation that are germane to pre-clinical and Phase I work. It does, however, appear to have sufficient experience spread through a number of individuals to be able to identify problems and communicate with appropriate consultants or external contract organizations. This is probably sufficient, given the expected continued low profile of FHI at this early stage. Although FHI wishes to continue some early development work, it does not ever intend to establish any "wet lab" capability. This plan is consistent with A.I.D.'s vision of FHI's activities.

A.I.D. also has designated another project, the Contraceptive Research and Development (CONRAD) Project prime responsibility in the areas of pre-clinical and Phase I trials and CONRAD has already demonstrated a high level of capability in both activities. Communication between the two projects has improved since CONRAD was established three years ago, but there is room for additional efforts to plan jointly. FHI needs to know what new products are coming along in order to plan for their later clinical development. FHI has offered to share its knowledge and skills of drug regulatory affairs with CONRAD, which is unlikely to develop specialized skills of its own in this area. Ideally, FHI would like to see a continuity of management of new product development extending from pre-clinical (with CONRAD) through Phase I and into later clinical testing (with FHI).

Although FHI has looked at marketing issues with respect to the plastic condom, it has not seen marketing as an issue for other products as yet. As they get closer to FDA approval, however, it would be prudent for FHI to direct some attention to how these new products might be presented to potential new consumers.

2.1.3 Quality of Work

Internal Operations

CT is a high quality, professional and innovative Division, which has demonstrated an ability to execute large-scale Phase III studies to the highest standard. The management structure may at first appear cumbersome, but is well thought out and not too bureaucratic to prevent flexible response to unexpected and serious problems (see Figure D-1).

One reason for the consistently high quality of CT's research efforts is the existence of clearly indicated procedures for initiating and maintaining projects. These are applied throughout the organization, and allow for thorough examination of all scientific issues combined with relatively swift action, when necessary (see Sections 4.1.2 and 5.2, Section [2]). FHI's procedures for dealing with specific or serious situations that arise in a particular trial were well illustrated by the handling

of the decision to discontinue the Phase III trial of NET microspheres. The organization was commended by the FDA on its handling of this situation (see Appendix E).

CT's staff strength has been improved by the implementation of FDA guidelines in several large-scale trials (see Section 2.5.1). The meticulous attention to detail required of the collaborating network of centers around the world, and of the central administration at FHI, appears to have been well accepted (after a little initial resistance at some centers) and integrated into their overall approach. In turn, however, this has put extra pressure on the data processing part of Scientific Support Services.

Quality assurance procedures for FDA-orientated studies have strictly followed the requirements of the FDA regulations, and this appears to have been an important learning exercise in meticulous attention to detail for some parts of the clinical trials system. Some of the centers in the network have already been inspected by FDA officials, and FHI has produced a thoughtful document to help investigators prepare for such inspections.

This Division has attempted to develop a five-year plan, an effort for long-term allocation of time and other resources that is to be commended.

Network of Clinical Centers

Part of this Division's capability for high quality research has been a result of FHI's extensive network of over 200 clinical centers in developing and developed countries. This network -- developed over the years and maintained by the FDT Division -- is recognized as one of the strengths of the organization; scientists in the individual centers have been well trained to provide high quality, reliable data. The network is kept at considerable cost and Phase III trials are expensive, but FHI is one of the few organizations world-wide that has this capability.

The Investigator Needs Network (INN) is an important component of this. The INN strategy continues to represent an important means to recruit and train new investigators and to make available advanced training and assessment of future capabilities for more experienced investigators. FHI has initiated studies with 12 new investigators during this Cooperative Agreement. A series of clinical trials workshops organized by FDT, with facilitators from CT and Biostatistics, has been very popular and successful with 12 having been held in the past 5 years. These have always taken place in appropriate geographical areas and have sometimes been presented in Spanish or Portuguese. Effective teaching modules have been developed for use in this course.

Site selection for clinical studies depends on a wide range of practical considerations. These include previous performance of the center; local resources; motivated individuals; association with local ministry, university or other organization; expressed local interest; organized family planning activities; health structure; patient load; clinic and laboratory facilities; established local Institution Review Board (IRB); overall strategy; A.I.D. interest at local and central level; demographic characteristics; geographic and developing/developed country representation; and global and local politics.

The presence of an FHRC within the country is also important. FHRCs may carry out clinical research themselves, or they may coordinate research of local interest through a variable sized local network of clinical centers.

Communication with centers and investigators is sometimes slow but this is apparently more often due to mail delays than investigator delays. Since the Division of Scientific Support Services is currently assisting with the introduction of new communication and data-

management technologies in some overseas centers, opportunities may exist for improving transmission of communication.

Recommendations:

1. **CT should be encouraged to pursue extensive secondary analysis of large databases accumulated, particularly in the progestogen-only pill studies of lactating women.²**
2. **FHI should remain willing to respond to USAID mission and LDC requests for clinical trials of existing products of national (not merely international) importance, provided the trials can be adequately funded, are scientifically valid, and do not overextend the resources of the Division.**
3. **FHI should develop a clear and realistic policy on the handling of manufacturing issues related to clinical study of the NET-90 microspheres, as well as the NET subdermal implants.**
4. **The existence of plans for Phase III trials of a new product should not force CT into hurrying through necessary pharmaceutical tests to determine its viability. Consideration should be given to much more rigorous testing of the reproducibility of several successive batches before introductory trials are initiated.**
5. **FHI should not expand in-house skills in pharmacology, toxicology and pharmaceutical formulation, but formalization of the expertise in toxicology through a toxicology planning group might be valuable.**
6. **FHI should undertake a policy review of its overall strategy in relation to drug development through pre-clinical and clinical phases. Planning should be on a broad five-year rolling plan basis, with reserve projects available when inevitable delays occur in the progress of priority projects. This strategy should include collaboration with other agencies.**
7. **A.I.D. should increase its efforts to bring FHI and CONRAD together to create a management plan for new products which may move from early development at CONRAD to large-scale clinical testing at FHI. In preparation for this, A.I.D. should decide what role, if any, it wants FHI to play in pre-Phase-II stages of contraceptive development research. Special attention should be given to division of labor and coordination of the management of regulatory affairs matters and of matters relating to pre-clinical toxicology (including teratology) and pharmaceutical formulation.**
8. **The role of marketing should be considered early in their development of all CT leads. This calls for continued close collaboration with PE, and the design of acceptability and/or market studies at an early stage.**
9. **FHI should continue to maintain its invaluable network of overseas centers representing all geographical/ cultural regions and to involve them in clinical trials research from the initial planning of a project through the final information dissemination phase. For centers at which communication delays are frequent or where the need for rapid communication is especially important, consideration should be given to the installation of FAX machines.**

²Recommendations in **boldface** are repeated or paraphrased in Chapter 6 as principal recommendations of this report.

2.2 Reproductive Epidemiology and Sexually Transmitted Diseases Division (RE/STD)

2.2.1 Overview

This Division was established in 1983 primarily to research noncontraceptive effects of fertility regulating methods, and its primary goal was to learn how to make contraception as safe as possible for those using it.

Its original name -- The Division of Contraceptive Safety -- was changed in 1985 to the Division of Reproductive Epidemiology, reflecting a decision to enlarge the scope of the Division to include rare and/or delayed events that might be traceable to contraceptive use (e.g., the risk of contracting cancer). In 1987, the name changed again, this time to the current Division of Reproductive Epidemiology and Sexually Transmitted Diseases, this time to accord greater visibility to work in the areas of STDs and spermicides.

Allocation of funds to RE/STD under the Cooperative Agreement reached a pinnacle in FY86, after which funding has declined steadily, with the FY89 funding level just over half of the 1986 level. Fund allocation for FY90 is expected to double, in part representing held-over studies, but also signaling a new expansion of the Division's activities in the area of contraception and STDs.

2.2.2 Current RE/STD Portfolio

Focus of activities

The Division breaks its activities into seven categories: contraceptive safety: i.e., risk/benefit analysis of contraception; maternal morbidity and mortality; contraception for women with special needs; contraception and cancer; contraception and sexually transmitted disease; contraception and other diseases; and reproduction and environmental and behavioral exposure.

Since 1985 (including the estimated budget for FY90), the Division expects to have spent nearly three-quarters of its total funding in three areas: contraception and STDs (nearly one-third), contraceptive safety (nearly one-quarter) and contraception and cancer (nearly one-fifth). The remaining quarter will be divided roughly equally among the other four activities.

In FY90, the focus will be narrower yet, with 87 percent of the budget going to three areas: contraceptives and STDs (57 percent), contraceptive safety (17 percent) and maternal mortality and morbidity (13 percent). The proportion of spending for contraceptives and STDs represents a major increase from previous years: 57 percent of the total compared to a five-year (FY85 through FY89) average of 25 percent. Likewise, the proportion for funding of maternal morbidity and mortality is rising, expected to represent 13 percent of the total in FY90, compared to an average of 5 percent over the preceding five-year period. Funding for contraceptive safety -- although down as a proportion of the budget -- is being funded at approximately the same absolute level as in previous years.

Falling trends have been most notable for contraception and cancer, which is anticipated to decline to 7.5 percent of the total budget, compared with a five-year average of 23 percent. Two other areas -- reproduction and environmental and behavioral exposure and contraception and other diseases -- have virtually been phased out (see Tables D-2 and D-4).

Accomplishments

The Division, although small, has undertaken a number of ground-breaking research projects in areas that had previously been all but ignored.

In contraceptive safety, for example, the Division has developed a computer model to evaluate the risks and benefits of pill use, which has shown that, in the U.S., the sum total of benefits and risks just about balance out. It is expected that, when the model is applied to developing countries, the benefit/risk ratio will be more favorable than in the U.S. Efforts to disseminate and apply this model are high on RE/STD's list of priorities, although they will require considerable staff time, more than is currently available given the many other efforts in which the Division is engaged.

FHI's work on contraception for women with special needs is another area in which RE/STD has made a unique contribution (e.g., women with rheumatic heart disease and sickle cell disease and older women who have limited contraceptive options). This has tended to be a neglected area for research, in part because conducting studies on these groups involves an array of difficulties including problems in selection, compliance and follow-up and the difficulty of finding appropriate end-points. Such difficulties have the effect of slowing down the work, but when the Division perceives a problem as urgent, it will undertake research despite the problems. FHI deserves much credit for efforts in this area.

FHI is also in the forefront of groups undertaking studies with regard to HIV and other STDs, and the Division's new emphasis on this area reflects the major threat to developing countries posed both by the AIDS epidemic and by the re-emergence of the classic STDs (e.g., chlamydia trachomatis infections). This focus is highly appropriate within the scheme of FHI's other major activities: clinical trials, condom development, and AIDSTECH.

In two other areas -- maternal mortality and morbidity and contraception and cancer -- FHI has taken a position in the forefront, not only of research, but also of enlisting the international community in efforts to address an important international public health problem.

In the sphere of maternal mortality and morbidity, during the early and mid-1980s, the Division made important pioneering contributions, having demonstrated that the risks of contraception must also be placed in the context of the consequences of no contraception (pregnancy) and having developed and applied a methodology that helped document this actuality (the Reproductive Age Mortality [RAMOS] studies). More recently, it helped spearhead an increased international awareness of the inadequacy of a methodology to conduct research in the area of maternal mortality, and morbidity. Its research fed into the growing worldwide concerns about maternal mortality and morbidity that culminated in the Safe Motherhood Conference in Nairobi in 1987.

The Division also should be credited with leading an excellent response to a recent crisis of confidence in hormonal contraception, occasioned by the appearance of a variety of new findings, some of which were reassuring but others of which pointed to possible increased risk in some user subgroups. Aware of the devastating potential of the spread of "incorrect," "biased" or "partial" information on the subject, FHI moved quickly to establish an interdivisional Breast Cancer Task Force and to develop an institutional strategy to deal with the relationship of cancer of reproductive organs (including the breast) and hormonal contraception.

The major components of this strategy included making a summary analysis of the existing knowledge and disseminating this analysis to USAID missions; participating in the international effort to interpret the often conflicting data; playing an active role in the design and

implementation of large studies on this issue (e.g., the Centers for Disease Control's Cancer and Steroid Hormones [CASH] Study); and developing a methodology to study the relationship between breast-feeding and cancer of the breast. The FHI effort culminated in the publication of an issue of its journal *network* dedicated to the problem of breast cancer and hormonal contraception.

Overall, the response demonstrated FHI's keen alertness to potentially dangerous problems, its skill in responding quickly and appropriately, and its ability to enlist others in a coordinated, global effort to attack a problem that requires a far-reaching response.

The strategy also demonstrated FHI's realization and acceptance of its own limitations, specifically the understanding that with its limited resources, the Division could not by itself deal with the large-scale epidemiological studies that would be needed to develop meaningful information in this area. It realized that its resources would be better utilized if it joined others in the effort to design protocols and studies that would provide a more realistic chance to resolve the issue.

Planning

RE/STD's planning process is similar to that of other Divisions, although its decisions are perhaps driven more by the evolution of scientific knowledge than are those of any other Division. The staff is well attuned to developments in the entire field of reproductive epidemiology and STDs and takes pride in having anticipated the emergence of problems and having responded early (e.g., HIV infection and contraception). RE/STD is careful, however, not to become involved in a new public health problem unless it is of relevance to countries in the developing world (e.g., some staff are interested in the potential relationship between oral contraception and lupus, but the Division is not expected to pursue studies in this area unless it is determined to be a public health problem in the developing world).

Senior staff -- with the concurrence of A.I.D./W -- have played the key role in shaping the Division's portfolio; for example, the selection of maternal mortality and morbidity and of STDs reflects interests of in-house staff. The reverse side of this is the almost negligible role played by USAID missions, perhaps because missions have little or no knowledge of what the Division does. At least three of the Division's research areas -- maternal mortality and morbidity, contraception for women with special needs, and contraceptive safety -- are very relevant to developing country needs, however. In particular, when the new computer model that will demonstrate the risks versus benefits of contraception becomes available, missions may be very eager to apply it in the countries using local data.

In general, given that this relatively small but essential Division will absorb about the same proportion of FHI resources in future as it has in the past, it appears to have chosen its priorities in a generally appropriate manner. The only issues are that it may not be putting sufficient emphasis on women with special needs and that there will not be sufficient resources to provide benefit/risk analyses to all missions in those countries that have the necessary data inputs for the computer program.

2.2.3 Quality of Work

The Division has correctly identified as its major strength its small but highly skilled staff. The areas of expertise of the four professionals who make up its staff include most aspects of contraceptive epidemiology. In addition, staff possess a good knowledge of different parts of the world. This means that they have quickly come to realize areas where they could not make effective field contributions and have instead looked for innovative research approaches to fulfill the needs of developing countries.

In view of the budget constraints, the Division has raised funds from sources other than A.I.D. (e.g., AIDSTECH, the National Institutes for Health [NIH], the World Health Organization [WHO], the Ford and Rockefeller Foundations, and industry). These efforts have enabled the Division to pursue studies on reversible contraception and susceptibility to HIV in women (cofunded by WHO, NIH, industry, and A.I.D.); a prevalence study on maternal morbidity (support from the Ford Foundation); and Thailand-based follow-up studies of babies exposed in utero to DepoProvera (Ford and WHO participation).

RE/STD has also done an excellent job in collaborating with the international community. It has helped create a positive climate in the area of international cooperation, thanks to its readiness to participate in international studies and in panels and committees created by other organizations. This accomplishment marks a departure from the 1970s, when scientists and scientific organizations were considerably less generous about sharing their research ideas and implementation tools. It has the added advantage of making FHI's work more cost-effective through the sharing of finite resources.

Most difficulties experienced by RE/STD can be traced to its small staff. Delays in completing projects, for example, are in part attributable to lack of manpower. Delays also occur because of the Division's need to get outside funding and inherent difficulties in some research activities. The Division is also concerned with its low visibility among missions, and again one explanation is that staff have little time to alert missions as to the kind of help it might provide. Some Division staff also expressed the view that they have been unsuccessful at convincing A.I.D. to approve some of their priority projects.

Recommendations

10. Given the small staff and limited resources available, **RE/STD should continue to focus on fewer, properly designated areas.**
11. **STD-related research should remain the number one priority for the remainder of the contract period**, with studies focusing on evaluating the protective role of specific contraceptive methods (e.g., condoms) against STDs. The Division should also continue to play an advocacy role in the area of the relationship between cancer and hormonal contraception, as this is the single most important question facing the family planning community today.
12. **Studies on contraception for women with special needs should be expanded**, with efforts made to overcome difficulties inherent in this type of research.
13. **The computer model to assess the risk/benefit ratio of contraception in individual countries should be applied in as many countries as possible.** Since this task will require additional staff resources, the RE/STD Division will need to decide whether it wishes to reduce its efforts in other areas or instead to request additional staff resources.
14. Studies in the area of maternal mortality and morbidity should continue but should be placed in the context of consequences of non-contraception/pregnancy. Since the consequences of non-contraception/pregnancy vary considerably depending on the country, studies in this area must continue to provide as many countries as possible with an assessment of their specific situation.

2.3 Program Evaluation Division (PE)

2.3.1 Overview of PE

The Program Evaluation (PE) Division examines specific elements of programs that could affect their success. The broad goal of PE is to throw light on the various factors associated with contraceptive acceptance and continuation within the general (i.e. non-clinical) population; this focus complements FHI's clinic-based research in other Divisions. Most studies in PE are designed to provide information to improve service programs, and most use social science approaches, though not exclusively.

Responding to the huge range of issues affecting contraception in the general population, the research agenda of this Division has spanned a wide spectrum over the five years of the Cooperative Agreement: (a) service delivery and acceptability research, (b) AIDS prevention and family planning projects, (c) maternal and child health/family planning, (d) natural family planning, and (e) breastfeeding studies. For management purposes, the Division has divided its work into eight separate categories (see Tables D-2 and D-4).

The category of "service delivery and acceptability research" covers many topics. Some projects assess the family planning knowledge and attitudes of providers (such as physicians) or commercial distributors. Others focus on acceptability of services, acceptability of new methods, program impact, family planning needs, or family planning knowledge and attitudes of special segments of the population (e.g., adolescents or males). The breadth of topics is matched by the variety of methodological approaches, from in-depth interviews and focus groups to hospital-based studies and large household surveys. Even demographic projects are noted in PE's section of the FHI annual report.

PE's rationale for its current system of categorization of the quite disparate research issues it covers is not entirely clear.³ This Division is relatively new, created in 1986 as a merger of existing programs in "Reproductive Health" and in "Natural Family Planning and Breastfeeding," and it is still in the process of reordering its goals. The difficulty of this task is compounded by the broad scope and complexity of PE's portfolio.

The geographic spread of PE projects is appropriate, with one apparent exception. PE staff explain that the Division is trying to give special attention to sub-Saharan Africa, and it has succeeded in locating roughly one-quarter of its studies funded in 1989 (excluding those labeled "global") in this area. The level of funding, however, does not reflect the actual number of studies in place; rather, the PE budget in Africa has been steadily and significantly dropping in the past three years: from 28.5 percent (\$512,000) in 1987 to 14.9 percent (\$152,000) in 1989, and to an estimated 5.8 percent in 1990.

2.3.2 Current PE Portfolio

The period 1985-1989 witnessed significant changes in the balance of activities within PE (see Tables D-2 and D-4). Studies of AIDS and family planning, and of the quality of services (including pill compliance), grew from zero in 1985 to 22 percent of the Division's budget in 1989; research on acceptability of contraceptives (primarily condoms and NORPLANT[®]) increased from

³Projects are organized differently in various reviews of this Division's work. For example, the 1988-89 Annual Report provides one framework for presenting PE's activities; a somewhat different structure appears in the summary prepared by FHI for this evaluation; yet another framework is presented in a Table of Expenditures by Division and Program.

1 percent to 12 percent of the funds committed. During the same five-year period the budget for research on natural family planning and on breastfeeding fell from 64 percent of the total to only 27 percent, and research on obstacles to sterilization from 27 percent to 9 percent. At this point work in maternal and child health and in natural family planning is being phased out.

The five-year trends in PE's activities are reasonable, reflecting (a) changing perceptions (by LDCs, A.I.D., and FHI) about research needs and (b) the existence of other organizations with special strengths to work on certain topics. In the coming years PE intends to place more emphasis on breastfeeding promotion (following up the consensus of the Bellagio conference⁴), informed choice, and cost analyses (which will be incorporated into other programmatic and evaluative research projects). Most of these appear to be logical extensions of current work. On the other hand, some of these activities, particularly those that border on operations research, appear to overlap work being done by other CAs -- although there is not yet evidence of unnecessary replication of research. Perhaps more than other divisions, however, PE risks going off in too many directions at once. It has already done at least one study in the field of demography, and proposes, using funds from the Buffett Foundation, an increased emphasis on cost analyses.

Proposals in PE are developed and reviewed much as in other divisions, though possibly a larger proportion of PE studies are either initially identified at the country level or reflect the individual scientific interests of staff. PE staff report that one-third of their studies originate in-country (from USAID missions, regional offices, or local program managers), one-third from A.I.D./Washington, and one-third at FHI. PE research activities in each country are determined, in part, by the stage of the family planning program in that country: an LDC with no organized program needs different data than a country with a fledgling program, which in turn has different needs than a mature program.

Not only do many ideas for PE projects come from the LDCs; so too, much of the funding of PE projects comes from country missions. During fiscal years 1988 and 1989, 23.9 percent of PE's expenditures came from this source (i.e., \$646,000 out of a two-year expenditure total of \$2,292,000 -- see Table 2). This proportion exceeds that of any other division, though FDT with 25 percent is close (CT received only 5.6 percent of its budget from add-ons, and RE/STD only 3.3 percent).

This high percentage of add-on funding suggests that PE projects are particularly attractive to country missions. The Division notes that its emphasis during the past four years has shifted toward in-country research priorities, although the work on contraceptive acceptability is still largely designed to meet A.I.D./Washington's needs.

The reverse of this coin is that PE, to obtain add-on funds and to avoid alienating USAID mission staff whose approval is necessary for any FHI project or travel in the country, feel pressed to respond to country mission requests even when such research does not coincide with immediate priorities of FHI. PE has turned down such requests (e.g., the Philippines, Egypt) but the risk remains that, by acceding to mission requests, the original focus of research activities may become blurred and carefully thought-out priorities distorted. The very broad scope of topics and methodologies covered by PE research projects suggests this risk is more than hypothetical.

Related to the shift toward recognizing in-country research priorities and to PE's growing reliance on local mission add-on funding, another trend reflects decentralization: the

⁴The 1988 A.I.D.-sponsored Bellagio Conference on Breastfeeding as a Family Planning Method developed a consensus on the limitations and potential of breastfeeding as a protection against pregnancy.

admirable effort to strengthen local research capacities. Each PE project includes formal or informal training of local investigators and increasingly, the role of the Division has become one of providing technical assistance designed to help LDCs become self-reliant in evaluating their own programs. To the extent to which this trend indeed exists (it was not possible to measure it at the field level), it is to be applauded and encouraged. Achievements in this area are not easy, in view of the sometimes conflicting goals of a) doing high quality research in LDCs and b) training LDC nationals to do the research themselves.

Another step in this direction would be for PE to make a greater effort to identify and hire LDC consultants to supplement FHI staff. Though PE staff say they try to do this, the current Division's list of paid consultants contains few LDC nationals.

2.3.3 Quality of Work in PE

The quality of research in PE is excellent, a result --among other things -- of highly qualified staff, appropriate methods of selecting and/or developing new projects, and good principal investigators in the field. The topics selected for attention are central to FHI's goals and to PE's objective of understanding and improving reproductive health programs.

Although it is difficult to identify a single PE activity for special commendation, the Division's work on pill compliance deserves praise. The research provides high quality and unexpected data on an important but neglected issue. Future PE studies of the topic, using Ortho's new pill pack with a microchip that records the time each pill is taken, will certainly produce new insights on the issue of pill compliance.

A possible threat to the quality of research in PE is its inability, due to its limited staff, to monitor carefully and consistently all the work in progress; this risk would likely become greater if PE were to attempt to increase its research activities without expanding its staff.

In FY89, PE provided financial support to 50 projects (many continued from the previous year) and developed a number of new projects that would begin receiving support in 1990. Effective monitoring of this many studies in a wide range of countries imposes a large burden for a relatively small staff: the Director of the Division observes that most of the travel by PE is done by half a dozen people. PE staff express concern that there are occasional delays in getting projects completed, and that they are simply unable to spend more time in the field.

FHI documents imply that the budget of PE will increase to over \$1,900,000 in fiscal year 1990, an increase of 40 percent from the 1989 budget of \$1,360,000; the budgeted add-ons would grow 46 percent, from \$495,000 to \$725,000 (see Table 2, above). Without significant additions to the PE staff at the Research Associate and Research Analyst levels, it is difficult to imagine how the proposed additional budget could be absorbed without negatively affecting the quality of work.

Recommendations

15. PE should decide on how it will classify its studies so that it is clear over time what lines are being emphasized and de-emphasized.
16. PE should allocate more resources to projects in sub-Saharan Africa.
17. PE should enter new research areas with great caution, balancing the desirability of meeting new requests with the danger of being spread too thin.

18. **PE should accept mission requests for research only if these are consonant with current PE priorities. It should also consider whether some research activities, particularly new activities that are proposed at the country level, could be undertaken by other CAs.**
19. **PE should continue and expand efforts to strengthen LDC research capacities (in conjunction with FDT -- see Section 2.4) by equipping LDC scientists with the knowledge and skills to design and implement family planning research themselves. When consultants are needed, it should try to identify qualified LDC nationals. PE should also attempt to draft an explicit -- though flexible -- policy on the issue of when research responsibilities can and should be shifted to LDC researchers.**
20. **PE should devote more attention to monitoring ongoing studies in the field, even if this activity comes at the expense of launching new research. PE's budget for projects should be increased in the coming years only if additional Research Associates and Research Analysts are added to the staff so that the new projects can be adequately followed up.**

2.4 Field Development and Training Division (FDT)

2.4.1 Overview

The activities of the Field Development and Training Division (FDT) complement the work of the other divisions, focusing on the development of the infrastructure needed for in-country research and on the dissemination and utilization of research findings. The general goal of the Division is to increase the capacity of individuals and organizations in the field to conduct research that will result in effective policies and programs in reproductive health. FDT also provides service functions for other divisions: helping to maintain the investigator network for clinical trials, for example, or assisting all divisions with dissemination of information and development and monitoring of projects in the field.

The FDT program has four components that receive budget allocations -- institutional development, training in research methods, contraceptive introduction, and information dissemination. The support it provides to the other divisions for many of their program activities, although time-consuming, does not show up as a budget line item (see Table 2).

1. **Institutional development provides sustained support (over a period of 5 to 15 years) to 10 organizations throughout the developing world. Five of these FHRCs receive comprehensive core support, while five others (including the Indonesian center, which has recently "graduated" from the core support program) receive substantial support for research and institutional strengthening activities (see Appendix G). Some of FHI's multi-centered clinical trials are carried out through this network of FHRCs.**

FDT's institutional development program, begun in the 1970s, is one of FHI's largest and -- in conjunction with the clinical trial network -- best-known activities. The program attends not only to the relatively glamorous issue of upgrading biomedical research skills (and more recently to other kinds of research skills), but to the more prosaic aspects of maintaining and strengthening the organizational infrastructure so that each FHRC is well managed and securely funded.

2. Training in research methods increases the capability of LDC investigators and organizations to design, conduct, manage, and analyze both biomedical and programmatic research projects and then to disseminate the results. The focus of FDT has been on clinical trials research methods, analysis of clinical trials data, and epidemiological research methods, although many other topics (including research utilization, library services, program planning, and scientific writing) have been covered in the more than 70 training programs conducted since 1985.

FDT's work in planning and managing research training has involved the development of specific curricula and translation of these curricula into French, Spanish and Portuguese; conducting workshops in the field; developing in-country capacity to conduct future workshops; and funding country-run workshops.

3. Contraceptive introduction, the newest program unit in FDT (although based on long-standing activities), assists developing country service delivery staff to provide the full range of contraceptive methods. Thus far the concentration has been on setting up organizational systems for trials of NORPLANT® and the TCu380A IUD. The program in the future expects to help introduce such methods as the NET-90 microspheres, Annuelle biodegradable implants, and plastic condoms, among others. The program includes activities to determine potential demand for a new method, to assist in obtaining government approval, to familiarize providers and policy-makers with it, to strengthen training capabilities for all levels of health care providers involved with it, to develop country-specific information education and communication (IEC) materials, to ensure method availability, and to identify research needs. FDT has also trained physicians in clinical techniques such as surgical sterilization using minilap, and through conferences and seminars has updated LDC health practitioners and policy-makers on the latest contraceptive techniques.
4. Information dissemination/research utilization provides non-technical medical and policy impact information on the range of reproductive health topics to FHI investigators, national health ministries, USAID missions, universities, the news media, and other organizations. FDT distributes 11,000 copies its newsletter, *network*, in English, French, and Spanish; maintains a specialized library and database; provides country-specific information packets on timely subjects; places stories in the media; translates key articles into Spanish and French for distribution in Africa and Latin America; and, although it has stopped editing the *International Journal of Gynecology and Obstetrics*, still sends free copies to over 300 LDC addresses. This Division also convenes population- and reproductive health-focused workshops in LDCs on journalism, on information dissemination, and on scientific paper writing (see Section 3.2 for additional details).
5. Program development and support is offered to other FHI divisions, particularly to assist in identification and development of new projects and investigators, management and monitoring of ongoing field projects, liaison with USAID missions and other donors, coordination of institution-wide reports, and official representation of field investigators on the Protection of Human Subjects Committee (PHSC). These activities consume a great deal of FDT staff time.

Geographically, FDT activities are evenly distributed among LDCs, though the Latin America/Caribbean region is slightly under-represented. Involvement in Africa has grown steadily from 7.1 percent of expenditures in fiscal year 1985 to 23.4 percent in 1989 (see Table D-2).

It is evident that, without the contributions of FDT, research activities of other divisions would be much more difficult to conduct and would have less impact. It might even be argued that some of the work of FDT, particularly in training and institutional strengthening, will have a greater long-term impact on LDC health care programs than some of the specific research projects of other divisions.

2.4.2 Current FDT Portfolio

During the period 1985-1989, the need for FDT's services has increased as FHI has made changes that required a greater field presence. With more extensive in-country programmatic research activities, however, there has been a need for more field involvement and monitoring. Though FDT's share of the total FHI budget has remained at about 26 percent for the past four years, the dollar amount has grown in the same period (see Tables D-2 and 2).

The balance among the main components of FDT has changed little between 1986 and 1989: institutional development has consumed roughly 60 percent of the divisional budget, training and information dissemination each took about 15 percent, and contraceptive introduction accounted for a little less than 10 percent (see Table D-2). There have, however, been changes in the personnel needs: FDT staff who have specialized in program management and clinical trials monitoring must now increase their technical skills to meet the needs of maturing FHRCs and newly developed or expanded FDT and FHI programs such as those in contraceptive introduction and information dissemination.

FDT, like the other divisions, is anticipating a significant budget increase in FY90 - an increase of over \$2 million or 83 percent above its FY89 level (see Table 2). The vastly expanded 1990 proposed expenditures would increase the amount for information dissemination nearly threefold, reflecting a growing staff and the increased awareness that research results must be appropriately diffused if they are to have an impact. Work on contraceptive introduction would increase more than fivefold, a result of the decision in mid-1989 to launch the new Contraceptive Introduction program. Institutional development would grow by a relatively modest 40 percent, though the actual dollar increase would be \$650,000; much of the additional funding would aim at strengthening African centers. With FHI's reduced need for clinical trials methods training in the coming years, more attention will be given to training in qualitative research methods, rapid survey methodology, operations research, and strengthening information dissemination and research utilization.

The Division has firm plans for spending these monies, including increasing staff, holding additional workshops, shifting the library budget to FDT, and increasing FHRC activity. Given the size of the increase, however, it is unlikely that the full projected 1990 budget can be spent without added staff.

Like PE, FDT has relied significantly on add-on funding from USAID missions in the past two years. For 1988 and 1989, about one-quarter of FDT expenditures -- amounting to \$1,172,000 -- came through add-ons, nearly all of which was to support FHRC activities (see Table 2). Also like PE, the need to obtain external add-on funds can distort internal divisional priorities and affect its ongoing field activities. For example, after eight years of core support FHI decided to phase out core support from the Egyptian Fertility Care Society (EFCS) while continuing technical assistance and considerable funding for other earmarked projects. USAID/Egypt preferred a slower phase out and has assumed funding for the EFCS core support.

A commendable trend toward decentralization -- also observed in other divisions -- is evident in FDT's operations in several forms. One manifestation is that FHRCs no longer automatically send their clinical trial data to FHI for analysis and report writing; FDT has begun

strengthening the FHRCs' ability not only to collect the data but to analyze and interpret them. It is now apparent that scientific writing skills also need upgrading, and therefore FDT has begun a series of appropriate workshops. The first, for four health professionals from Asian FHRCs, led to three papers that were accepted for publication.

To decentralize without sacrificing the present quality of research, FHI must focus on strengthening a wide range of skills of LDC colleagues. FDT and FHI staff are aware that, at least in the short term, it is more difficult to equip others to undertake research projects than to do them oneself. The upgrading process, initially involving intensive input and supervision at the sites of the research, will require a greater field presence than FHI currently maintains.

Establishing an appropriate field presence is difficult and expensive, but probably an essential early step in the successful decentralization of research and other activities.

2.4.3 Quality of Work

FDT has displayed imagination and competence in identifying and meeting needs, effectiveness in working with other FHI divisions and other organizations, and apparent success in developing strong reproductive health organizations and skilled investigators in LDCs. The staff has strong LDC field experience, extensive language skills, and dedication to the aims of FHI and the Division. Criteria for identifying potential FHRCs and for discontinuing existing ones are reasonable. FDT has been particularly creative in its attempts to decrease FHRC reliance on annual core funding grants from FHI and encouraging the centers to develop a wider range of funding sources. Through one project, for example, FDT subcontracted a financial management and accounting firm (Delotte, Haskins and Sells) to train selected staff of three mature FHRCs (Bangladesh, Egypt, and Indonesia). As a result, the centers have become familiar with an accounting and reporting system which can be run on a personal computer with commercially available software. FHI claims the FHRCs have become more financially self-reliant, but no objective evaluation of the impact of this intervention has yet been done.

One area in which FDT is doing less than in former years is in providing program support to other FHI divisions, a herculean task in view of the size and complexity of FHI's activities. It has been able to scale back its efforts because other divisions have increased monitoring of their own activities. FDT acknowledges that it is presently having difficulty fulfilling its assigned task of managing and monitoring other divisions' field projects; there simply is not enough staff time to do so as effectively as it would like. Other program support responsibilities could also be undertaken better if more time were available. As FHI expands in the coming years and the agenda of the organization becomes more complex, it will be increasingly difficult for FDT to provide adequate program support to other divisions.

Recommendations

21. **FDT should accept mission requests for technical assistance only if these are consonant with current Division priorities.**
22. **FDT should continue, and expand where possible, its efforts to strengthen FHRC staff capabilities to undertake research and research-related activities.**
23. **In LDCs of particular interest, FHI should once again examine ways to establish a local presence whose primary objective would be specialized training to undertake projects funded by FHI. Ideally, but not necessarily, a national of the LDC should be recruited as the FHI local representative.**

24. To hold down the costs of maintaining a local presence, **FHI should consider restricting the number of countries in which it attempts to have a major impact at any given time.** In selected countries, FHI should aim to reach a critical mass of projects and collaborating researchers, but in other countries FHI should be content with only the most modest input, if any.
25. **Locus of responsibility for program support and monitoring in all FHI divisions should be reconsidered. Where necessary for adequate project monitoring, limited numbers of staff with the required technical skills should be added within appropriate divisions since technical needs will vary by division.**

2.5 Support Services

2.5.1 Regulatory Affairs Division

Evolution and Overview

FHI's expansion into FDA-quality trials (see Section 2.1) was in part triggered by a requirement in the U.S. law that a new drug, if manufactured in the U.S., could be distributed worldwide only after it had received approval by the FDA. Now, FHI also looks to its ability to respond to requirements posed by other regulatory authorities around the world. FHI's new attention to FDA requirements does not imply a "higher" standard of clinical research with regard to the safety of a product or risks to participants in a research study; it has, however, resulted in a heavier workload in terms of reporting, filing, and of other generally bureaucratic work.

To meet this increasing workload, the Regulatory Affairs Section was established in 1986 within the Clinical Trials Division. This became, in 1988, an autonomous division, budgeted for FY89 at \$95,000,⁵ with doubling envisioned for FY90.

Performance

Regulatory activities began at FHI in 1981 with the transfer of the Notice of Claimed Investigational Exemption for a New Drug (IND) for Norethindrone 90-day microsphere injectable and the filing of an IND for quinacrine pellets. In 1982, the IND for subdermal norethindrone pellets was transferred and maintained active at FHI. Between 1984 and 1987, four additional INDs were filed by FHI including norinyl 1+35 in sickle cell women, Gyne-AT[®] postpartum IUD, iodine formulation for non-surgical sterilization, and D-Propranolol spermicide. In addition, between 1986 and 1989, FHI sponsored three Investigational Device Exemptions (IDE) which included Lea's Kap, the IUD string retriever, and the intravaginal pouch.

To facilitate internal management of FDA-quality trials, the Division has prepared a series of written policies and procedures outlining documentation required for various submissions and methods to be followed when initiating and conducting clinical trials of drugs and devices. These appear to have been well followed and the technical quality of the papers submitted also appears to be excellent (e.g., an FDA field audit of the Lea's Kap IDE found no deficiencies in any of the files pertaining to this device).

The Division is staffed by three individuals who have extensive experience in the field of regulatory agencies. Its computer capabilities, in terms of information retrieval capability and record-keeping, are fully adequate for the task of responding to FDA requirements. The small

⁵Some staff costs are apportioned among other divisions, in accord with use.

size of its staff does not appear to constitute a bottleneck in the Division's ability to file needed papers with the FDA in a timely manner, although FDA does not always respond with equal speed.

On the other hand, the Division does not have sufficient manpower to keep FHI staff, IRB members and investigators regularly informed of the numerous day-to-day regulatory changes, both in the FDA and in other countries, that occur with regard to clinical studies of devices and drugs. Policies and procedures require periodic review to assure consistency and compliance with current regulations, guidelines, good manufacturing practices and good clinical practices. Better understanding of these requirements would help investigators tailor their research to avoid problems at the regulatory approval stage.

Safety Aspects of Regulatory Affairs

FHI's external advisory committee, the Protection of Human Subjects Committee (PHSC), meets quarterly to assure that all FHI-supported research is carried out with consideration for the safety and rights of volunteers who participate as study subjects. Over the year ending August 1989, the PHSC reviewed 75 research proposals.

The PHSC's prime task is to review all proposed studies and to ensure that they comply with U.S. government and FDA regulations. If a study is to be carried out in a center in which there is no local equivalent to the PHSC, or if the local ethical review board does not comply with existing regulations, the PHSC will assume that function.

A major concern has been to ensure that informed consent forms for studies are simple enough that subjects with little education can understand the risks and benefits of their involvement. The tendency in developing country institutions has sometimes been to view these consent forms as just another U.S. regulation that must be fulfilled if funds are to be received, and to prepare forms that are acceptable according to U.S. standards. Over the years, the PHSC has required compliance with federal regulations while also attempting to meet the needs of host country subjects. It recently endorsed the use of a simplified model consent form developed by FHI staff which contains the essential elements required by federal regulations.

The PHSC is also charged with reviewing all serious and unexpected adverse events that occur in studies conducted by FHI. An FHI staff member who sits on the committee has responsibility for following up on any information of this sort. In addition, FHI has set up a system whereby all forms received from principal investigators are scrutinized by the project monitor prior to being entered into the computer program. This procedure ensures that serious adverse events are recognized. Although these central controls have helped to minimize risks to subjects involved in studies, individual principal investigators are not always as aware as they should be of the significance of adverse effects. Within FHI, the process tends to be too reactive, with too little effort made by monitors to communicate to principal investigators the importance of monitoring adverse effects and too little communication between PHSC and the local IRB stressing the issue. This educational process is essential, but it will take years of constant attention to yield fruit.

Recommendations

26. To enable FHI to maintain a current understanding of FDA regulations and guidelines, as time permits, the Regulatory Affairs Division staff should attend pertinent meetings, seminars, and symposia.
27. The Division must continue to train all staff in policies and procedures, not only those enacted by the FDA but also those enacted by host country entities, to assure consistency and compliance.

28. The Division should continue its efforts to impress on regulatory agencies, in particular the FDA, that consent forms must be appropriate to the cultural context in which they are to be used, while still ensuring the highest ethical standards. It is essential that the consent form convey to persons of all cultures that the procedure is to ensure their safety and rights.
29. **The importance of adverse events in monitoring safety must be stressed to host country investigators.** The Division should encourage widespread communication on this issue between project monitors and principal investigator on the one hand and between PHSC and the local IRB on the other.
30. The Division should coordinate with FDT and also with A.I.D. its efforts to establish ethical review boards in all centers in which it conducts research that do not already have such bodies. The composition and functions of these board should be acceptable to PHSC and to the regulatory authorities concerned. These boards need to understand that their task should go beyond simply complying with conditions to obtain financial support; it should also include a concern with the ethics of the research carried out.

2.5.2 Scientific Support Services

Evolution and Overview

This large Division provides the data management and computer back-up skills for the whole organization. Since FHI moved to a new building, this Division has provided a superb service, not only in providing appropriate hardware and software, but also by thinking ahead to ensure that every room in the building can be connected to the data processing network. The Division has benefited from the formation of CRI, in that more attention has been paid to the safety and security of stored data.

This Division has obtained state-of-the-art computer hardware and network facilities. The conversion to Digital Equipment Corporation VAX computer systems (of which there are four) and DECNET networking systems has provided the latest tools for solving data management and communication problems. This conversion has provided access to the SAS family of products as well as an integrated office automation system from DEC ("All-In One"). The network provides each user the ability to access all of the computers and peripheral terminals on the network, within security constraints, from a single terminal or personal computer (PC) in each office.

The Division participates in the development of all protocols and the design of all forms to ensure that they are compatible with the data management process. Forms are standardized as much as possible. This Division has the responsibility for final signing off on every protocol.

Performance

The Division has competent and flexible personnel of whom eight have worked with FHI for more than 10 years. All appear to have an excellent sense of teamwork and pride in the job, with a willingness to provide extra effort whenever required. This allows maximum flexibility in a steadily growing organization. The staff has also developed the capability to work with PCs, minicomputers and mainframes and to integrate all three when appropriate.

A range of training programs has been instituted to ensure that all staff have the possibility to utilize their software to an optimum level. Their participation is encouraged at all levels in the organization.

Weaknesses are seen to include difficulty in recruiting since qualified technical staff are a scarce resource in the Research Triangle Park area and salaries required to attract these individuals are high. This has sometimes led to considerable delay in making appointments. Because this Division is overcommitted, there have been occasional delays and problems with the handling of very large data processing operations. Some of these large operations take hours to execute on current equipment and must often be run at night or weekends. Problems do not occur frequently enough to justify the expense of much faster equipment, however.

2.5.3 Biostatistics and Quality Assurance Division

Evolution and Overview

This is a newly reorganized Division, which has grown from one person in November 1988 to four persons in February 1989 with plans for further expansion in the near future. Its primary function is to assist the other divisions in such areas as design of studies, protocols/case report forms, quality assurance of data, analysis and interpretation of data, and writing of reports for submission to regulatory agencies or for publication in reproductive health journals. This consulting is the most crucial part of the work of this Division: The Division's involvement at an early stage in protocol planning, and FHI's institutional policy that each final protocol be signed by the Division before implementation, guarantee that appropriate heed is given to statistical and quality assurance issues.

The Division is also responsible for providing training in statistical methods and data analysis to collaborating investigators in the developing world. The Division operates a biostat lab where SAS/PC and SPSS/PC, training or consultation is provided to FHI researchers or those visiting FHI for such training. The Division's ability to provide training both in-house and to visiting overseas scientists is a valuable asset.

The Division could easily expand further to enable FHI to take full advantage of statistical resources for its increasingly complex projects.

Performance

Among its strengths, this Division has several excellent biostatisticians with an understanding of clinical and biomedical problems and a willingness to consult on the whole range of design and analysis problems. This is a difficult skill to attract in Triangle Research Park, where the private sector is highly competitive. Nonetheless, this type of consultation is essential to ensure appropriate distinction between statistical and clinical significance.

The rapid increase in consulting work, and the preparation of FDA and non-FDA reports, have led to some unavoidable delays and the risk that quality of work may suffer. This Division and in turn FHI can use additional help in this area.

3. Impact and Dissemination

3. Impact and Dissemination

3.1 Impact

A high proportion of FHI's work leads to an observable impact and the organization makes an effort to document the most obvious instances of this impact.⁶ FHI's clinical studies have led to policy changes in some LDCs and ultimately to changes in the mix of contraceptives offered in some national programs (e.g., NORPLANT[®], oral contraceptives, IUDs). Research in PE has affected (among other things) the content of sex education courses, traditional birth attendant (TBA) reporting systems, and evaluation methods. RE/STD's studies have also affected host country programming (e.g., in Kenya, the government liberalized its policy on IUDs on the basis of an RE/STD study on using antibiotics after IUD insertion to prevent PID) and its quick response to concerns about breast cancer and OCs should help millions of women make better choices about the pill. FDT, whose efforts in institutionalization, training and dissemination virtually imply having impact, has documented its successes extensively. In institutional development, impacts cited range from the graduation of the FHRC (BKS PENFIN) in Indonesia as an independent research organization, to information sharing among family planning colleagues in Latin America and computer training in The Gambia, which enabled the activation of unused computer equipment. In training, FHI can point to substantial numbers of individuals trained and skills learned. In contraceptive introduction, the most obvious example is the inclusion of NORPLANT[®] in the family planning programs of Bangladesh, Haiti, Nepal and Sri Lanka.⁷

Although all FHI divisions can draw up an impressive list of accomplishments, the organization has not developed an explicit definition of impact nor is the cost-effectiveness of FHI activities regularly examined. For example, although the management and accounting training of staff for the three most mature FHRCs had every appearance of a successful endeavor, no effort has been made to evaluate it (see Section 2.4.3). For other activities, the full impact, if any, is less self-evident. For instance, in 1988 an eight-day training workshop was conducted at FHI headquarters on management of IEC programs for FHRCs; in Honduras FHI provided technical assistance for the 1987 Maternal and Child Health/Family Planning (MCH/FP) Survey; under FHI's INN strategy in 1989, CT undertook a surveillance study of 204 sterilization patients in Nigeria.

Although these and other FHI projects are probably useful and well executed, FHI is unable to evaluate, for each activity, the immediate and the longer-term impact of the input in relation to the costs (including opportunity costs). Such feedback would allow FHI to refine its priorities, increase its overall usefulness, improve management decisions, and spend its money even more effectively.

Recommendations:

31. **FHI should consider developing an internal evaluation system for its projects, whenever feasible.** The system should require that as each new project is developed, (a) measurable objectives and times needed to achieve them are determined in advance, (b) a methodology is stipulated for determining if the objectives have been met, and (c) funds for the evaluation are built into the project budget.

⁶See the "Achievements and Impacts," sections in the briefing books prepared by PE, RE/STD, and FDT for this evaluation, dated November 27, 1987.

⁷Ibid, the nine-page, single-spaced "Achievements and Impacts" section in FDT's briefing book.

32. This internal project evaluation system should begin with a pilot program in a single division. If the internal evaluations in this pilot project are judged to be worth the cost and effort, activities in other divisions should also receive internal evaluations. Accountability for the evaluation should be made clear.
33. Collaborating LDC scientists, starting with those at FHRCs, should be trained to undertake internal evaluations of their own projects.
34. Evaluations should look at long-term impact. To ensure this, they should not start until one year after the completion of the project and should continue over a period of at least one year, allowing funds and staff to track activities over this extended period.
35. For project evaluations, one or more evaluation specialists should be added to FHI's staff. The specialists should have experience with "quick and dirty" evaluation methods (e.g. Rapid Rural Assessment) or with assessments of training courses.

3.2 Dissemination

The utilization of findings in FHI projects is ordinarily good. In PE, for example, it is FHI's policy to design activities in a way that ensures they will provide policy- or program-relevant data, training, or other outputs. Also, FHI makes an effort to see that the results of activities tend to reach the people who make program and policy decisions, a process well illustrated by FHI's widespread and rapid dissemination of the consensus of the Bellagio meeting.

In many cases, the budget of FHI projects will contain a line item for information dissemination, to provide for seminars, meetings, and/or publications that will bring study results to the attention of appropriate audiences.

All divisions routinely include a final report as an essential part of any project design, and the organization has an excellent record of documenting its research in American scientific literature (and, to a lesser degree, in host-country journals). Typically, but not necessarily, an end-of-project seminar is convened in the host country to inform interested scientists and/or decision-makers about the findings; the results are also often reported at professional meetings in the country.

In one of its most imaginative efforts, FDT has attempted to enlist LDC journalists in the process of information dissemination. This approach was highly appropriate since often LDC health authorities do not see themselves as disseminators of information, and LDC media experts do not have enough relevant and accurate information about health to disseminate. FDT began with the observation that health journalists in LDCs could, if they simply knew more, play an important role in modification of attitudes about family planning, STDs, and other issues in reproductive health. FDT, responding to requests from six African and Asian countries, has planned a series of workshops aimed at increasing journalists' knowledge about reproductive health issues, improving their journalism skills, and examining ways to systematize coverage of family planning issues. One has been held so far. The training is a hands-on experience for participants, with publishable articles as the product. Resource people for demography, STDs, etc. are local, not foreign, experts. In planning the workshop, as well as developing the curriculum and other training material, FDT has cooperated with over a dozen other agencies with experience on the topic.

Although information dissemination has greatly improved in the last two years, this essential element of FHI's applied activities still has some weak links. For example, while PE designs activities to ensure program-relevant data, there is less evidence that the Division consistently takes steps to ensure that, for each study, appropriate decision-makers have access to a layman's version of the results and implications. Nor are scientists responsible for final reports taught how best to reach policy-makers with their findings: findings from a pill compliance study in Colombia were provided in a 12-page executive summary -- hardly likely to appeal to a busy bureaucrat.

In addition, most divisions do not ordinarily play a role in attempting to have research results picked up by the media. Rather, because FDT is the designated dissemination arm of FHI, the other divisions tend to rely on FDT to take the initiative vis-a-vis the media.

FHI's recent decision to increase staff working on dissemination is witness to a heightened awareness within the organization of the critical importance of dissemination to its overall mission. FDT publications, workshops, and translations clearly help to fill the need for accurate information about reproductive health to reach LDC decision-makers, but much remains to be done. The recently increased FDT staff working on information dissemination may already be too small, however, if FHI intends to take this task seriously.

Other agencies -- private, national, international -- recognize the importance of information dissemination in reproductive health. Many have recently entered the field, representing a number of potential partners to FHI in its effort to publicize newsworthy research findings.

Recommendations:

36. When a study is completed, the responsible division should devote more attention, in collaboration with FDT, to helping principal investigators prepare brief and effective executive summaries (and other appropriate documents) and ensuring that they reach the appropriate audience. One option might be that FDT be asked to help design the information dissemination efforts of each FHI project and that this be implemented before any project is considered officially completed.
37. **The capacity of FDT to (a) disseminate information and (b) train LDC nationals to disseminate information should continue to expand, following current models.** Efforts should be increased to target specific groups of LDC decision-makers for particular kinds of information, and market segmentation techniques used to design made-to-order information packages.
38. **FDT should continue to share and coordinate its information dissemination plans, methods, and strategies with other agencies working in the field.** Private sector lobbyists might also be contacted to see what can be learned from them about influencing decision-makers.

4. Planning and Budgeting

4. Planning and Budgeting

4.1 Planning

4.1.1 Selection of Project Ideas/Priority Setting

Priority setting at FHI is a highly complex process, with at least five factors at work that influence the decision-making process:

- The activity must be seen as responding to developing country needs as opposed to needs of developed countries.
- The appearance of health problems has an effect. Thus, the spread of HIV has resulted in increased efforts in barrier methods of contraception and spermicides.
- The scientific evolution of the field of contraception can trigger FHI involvement: The development of NORPLANT® by The Population Council resulted in a major expansion of the work of the CT Division.
- FHI's perception as to the range of activities that are necessary for it to be effective in its fields of interest has propelled it into new areas: the CT Division has acquired skills in pre-clinical and Phase I contraceptive method development and FDT has expanded its work in information dissemination.
- Availability of funding can influence the activities undertaken.

The picture becomes more complex when the various players are included. FHI, with its divisions and individual staff members, A.I.D./W with its own priorities, and USAID missions which interpret LDC needs, all have inputs. Thus, ideas arise from

- feedback from A.I.D., both the central office and USAID missions;
- ideas generated in-house;
- contacts with the field -- investigators, administrators, ministry officials;
- contacts with other organizations -- collaborating agencies, international organizations, national organizations both informally and by attendance as invitees at each others meetings; and
- contacts with private industry, which frequently has ideas or items of potential interest to FHI.

There is some variation among the divisions in the balance of these sources; CT, for example, gets a number of ideas from private industry, RE/STD tends to be attuned to developments in the scientific community, and PE is more likely to hear about needs through contacts in the field.

A number of mechanisms help ensure that FHI's work responds to national program needs and to A.I.D. priorities: (1) the Cooperative Agreement spells out A.I.D.'s major priorities and procedures, and this assures "substantial involvement" by A.I.D.; (2) FHI staff are in very frequent communication by phone and mail with the Cognizant Technical Officer (CTO); (3) FHI staff have frequent contact with developing country researchers and program managers; (4) the add-on mechanism helps to assure FHI response to country and USAID mission priorities; and (5) the Cooperative Agreement procedures require that all proposed FHI activities in a country be approved by the USAID mission there.

Finally, a formalized decision-making process exists, involving staff at all levels of the organization and a number of external bodies, and these all assure programming decisions will tend to reflect the best judgment of a consensus of individuals with a good overview of FHI's mission.

There is no *a priori* setting of priorities among FHI divisions or activities. Rather, priorities are worked out among divisions, and activities (e.g., clinical research, institution building, training) by the factors and mechanisms described above. Because FHI is characterized by a notable lack of interdivisional rivalry and a strong commitment to interdivisional collaboration, this process appears to be notably without acrimony (see Section 5.2.1).

4.1.2 Planning Process

Although project ideas and proposals originate from a variety of sources, FHI has a relatively standard procedure for project development. The first step is preparation of a concept proposal and the assignment of a project number -- termed a Final Cost Objective (FCO) for budgetary purposes. The concept proposal is discussed within the originating division and can be approved by the division director if the budget does not exceed \$25,000. Projects in excess of \$25,000 are reviewed by FHI's Scientific Projects Committee, which meets monthly to assess appropriateness and methodology and to coordinate across divisions. (The committee is composed of the division directors and a representative of senior management. Projects under \$25,000 are reported on to this committee.) If the committee's review of projects over \$25,000 is favorable, the concept is cleared with A.I.D., the protocol is drafted (with budget) and circulated for review by relevant FHI units (other program divisions, administration, division of Biostatistics/Quantitative Analysis, Regulatory Affairs, Scientific Support Services, the PHSC, etc.). Following necessary revisions, the project is approved in-house and sent to the CTO and, where appropriate, to USAID missions for approval.

As required, general scientific directions are reviewed by (1) the Quarterly Scientific Committee, which meets quarterly and is chaired by FHI's President; and (2) the Technical Advisory Committee (TAC), which meets annually.

Decisions to discontinue activities are made in conjunction with discussions with A.I.D. and can be at the initiative of A.I.D. or FHI. Thus, at A.I.D.'s initiative, there has been a phasing down of work in MCH in the PE division on the ground that the priority ought to be family planning research with new family planning programs in Africa and not the needs assessments represented by maternity case monitoring studies. Likewise, RE/STD, with A.I.D.'s concurrence, opted to move away from work in the area of reproduction and environmental and behavioral exposure on the ground that the Division had neither the manpower nor the funds to conduct useful studies in this area. A.I.D. and FHI have also agreed to discontinue work in some geographical settings, either because political instability in a country impeded institution building or because of concern over quality of work undertaken by a collaborating institution. There do not appear to have been any problems between FHI and A.I.D. in this area.

4.2 Budgeting

4.2.1 Budgeting Process

The budgeting process is initiated in June of each year with the preparation by division staff of a list of proposed activities for the following year. The cost (excluding salaries) and time requirements of each proposed project are specified. The approximate amount expected to be available for each division through the Cooperative Agreement is known to FHI as of July or earlier and serves as a budgetary guide in developing a proposed set of activities.

Proposed activities are discussed among the division director and his or her staff. The director then presents a proposed list (with partial budgets) to FHI's senior management. Proposed projects of each division are reviewed by senior management with each division director and senior management then makes decisions about the total proposed list or projects for the next fiscal year. This process takes approximately six weeks.

Total proposed projects presented by divisions represent approximately 125 percent of the funds likely to be available under the Cooperative Agreement. In terms of makeup of the budget, roughly 15 percent is available for new starts and the remaining 85 percent for support of ongoing activities.

When the proposed annual budget is prepared, the list of proposed projects is presented to the Office of Population, and A.I.D. assigns a grade or rank to each study area. This ranking exercise constitutes the main formal mechanism by which A.I.D. indicates to FHI the priority it attaches to FHI's many activities. Because FHI staff are in continuing touch with A.I.D. regarding ongoing and prospective projects, FHI staff indicate that there are relatively few surprises in the A.I.D. grading exercise. On the other hand, this process has considerable drawbacks as a planning tool, which it -- in fact -- represents (see Section 4.3 below).

4.2.2 Role of Other Funding Sources

In addition to central funding, activities related to the Cooperative Agreement may be funded by add-ons or, to a lesser extent, funds received from foundations, corporations, or CRI (see Appendix H and Sections 1.2.1 and 2.2.3). FHI can use such funds to support activities that are not a high priority for A.I.D. It can also use its own funds to initiate activities that it considers to be of high priority, with a view to seeking other support when it has demonstrated the importance of the work and FHI's capability to carry it out. The establishment of the AIDSTECH Division is frequently cited as an example of this strategy.

Add-ons represent an increasingly significant component of FHI's budget under the Cooperative Agreement, now representing just over 15 percent of total Cooperative Agreement funds (see Table 2). FDT and Program Evaluation understandably receive the largest share of add-on funds -- given that these two divisions are most closely linked to developing country family planning programs (see Sections 2.3.2 and 2.4.2).

Although add-ons may affect the direction of some of FHI's activities, projects supported by add-ons are typically developed collaboratively by the mission, country personnel, and FHI staff. Further, FHI is not required to accept an add-on if in FHI's judgment the project is not well-conceived or if it does not fit into current FHI program interests. These safeguards have proved fairly successful, although both PE and FDT are very conscious of the potential for distortion of priorities.

Add-ons represent additional work for FHI staff. FHI's response has been to hire additional staff and in some cases to use additional consultants. Although a new add-on activity may initially result in staff's being stretched thin, this does not seem to be an ongoing problem. Inasmuch as add-ons fall within the total Cooperative Agreement, there should not in theory be a problem of too rapid a rate of growth in add-on funds and activities. On the other hand, looking to the future, A.I.D. and FHI need to address the issue of growth and expansion of FHI and A.I.D.'s role therein.

4.2.3 Adequacy of Funding

Project cycles and the annual budget cycle usually do not coincide, and new priorities may emerge in the course of a given year. When this occurs, FHI reviews its existing and planned activities and its budgets and expenditures to determine whether the new priority can be

accommodated. Given that FHI has resources of its own and given that for a variety of reasons, projects can experience delays and expenditures can therefore lag behind budgets, newly emerging priorities usually can be accommodated. FHI staff note, however, that the process of securing funds from other sources can be a long drawn-out process and that it can interfere with development of activities that FHI considers to be priorities.

Regarding the existence of proposals that cannot be implemented because of lack of funding, the numbers do not seem to be excessive. FHI uses its other sources of support effectively to initiate or support activities that it considers important, and FHI divisions seem to have been able to secure funding for almost all activities that they rank as high priority (e.g., FDT staff estimate that 75 percent of the proposals that they propose receive funding). Moreover, the very process of setting priorities and making choices is desirable if done effectively because it tends to result in funding of the most important activities. Another consideration: FHI has grown at a substantial pace during the past six years and the question arises: What continuing rate of expansion and what ultimate size are desirable and manageable? (see Chapter 6).

In conclusion, A.I.D. funding can be judged as having been fully adequate over the course of the Cooperative Agreement. Not only has there been the normal lag between funding and expenditures (see Section 1.2.2); it is unlikely that the divisions will be able to spend the steep budgeted increases allocated to them in the FY90 budget (see Table 3). With the uncertainties related to a new Cooperative Agreement, senior FHI staff are reluctant to hire the new people who are implied in the increased budgets. Even if these ambitious plans are fully realized, FHI will have spent only \$48.9 million by September 1990, nearly \$3 million below the \$51.7 million authorized in the Cooperative Agreement. This pipeline will necessitate a no-cost extension to allow for full expenditure of funds.

4.3 Long-term Strategic Planning

As described in Section 4.1.2, FHI has an excellent set of procedures for development, review and approval of proposed research and other activities. FHI also has in its annual "Directions" document, a clear narrative statement of program priorities and proposed activities for the next year. FHI does not, however, prepare what might be termed a strategic annual plan and budget and a longer-term more tentative rolling plan and budget. Presented annually only with a list of proposed projects, A.I.D. is being asked to pass judgment on a lengthy list of projects without the benefit of FHI's thinking on the strategic context.

These procedures appear to have certain limitations from A.I.D.'s point of view -- and perhaps for FHI: (1) review of projects that are not in the context of a strategic plan can make the decision process more difficult (and perhaps somewhat arbitrary); (2) the absence of an annual and a longer-term tentative plan and budgets means that the CTO has less understanding of (a) the relationship of Cooperative Agreement-supported activities to other FHI activities (which may well be related) and (b) the planned evolution of FHI as an organization and the likely impact of Cooperative Agreement-funded activities on the future of the institution; and (3) the lack of an annual plan can make it more difficult to have periodic assessments of progress and to identify areas in which there are shortfalls.

From FHI's point of view, presentation of an annual strategic plan and budget to A.I.D. could offer the following advantages: It could (1) result in FHI's receiving an earlier indication of A.I.D.'s reactions to proposals; (2) reduce the number of projects that receive lower grades from A.I.D. since all proposals would be set in a strategic context; and (3) provide an opportunity to identify additional projects that could be undertaken in the event that some project activities encounter delays and/or difficulties. Further, preparation of longer-term rolling plans

would help to illuminate the longer-term organizational, staffing and budgetary implications of decisions made in annual plans. Finally, given the close relationships inherent in this Cooperative Agreement, A.I.D. and FHI should benefit jointly from a planning exercise that would enable both organizations to see more clearly the proposed evolution of FHI as an outstanding organization in the field of reproductive, family, maternal and child health. This exercise could also facilitate better understanding of existing and possible future collaborative relationships between FHI and other Cooperating Agencies and other organizations working in this field. The changing and expanding role of FHI, for example, into earlier phases of contraceptive development and into contraceptive introduction, makes this all the more important.

Recommendation:

39. **FHI should prepare each year an annual strategic plan and budget, as well as a three-year tentative plan and budget, for presentation to A.I.D. Plans should normally cover all proposed FHI activities, with greater detail on those activities proposed to be funded under the Cooperative Agreement.**

5. Organization and Management

5. Organization and Management

5.1 Organizational Overview

FHI is governed by an international Board of Directors which meets semi-annually to review FHI activities and provide direction for future programs and goals. The organization's senior management includes a President, Senior Vice President, Vice President for Programs, Vice President for Research, Vice President for Administration, and a Corporate Director for Medical and Regulatory Affairs (see Figure 4). FHI has four operating divisions whose work has been described in Chapter 2 -- CT, RE/STD, PE, FDT -- plus the newly established AIDSTECH (see Section 1.2.1). That the Vice President for Programs has added AIDSTECH to her sphere of responsibility does not seem to have had any negative repercussions for Cooperative Agreement activities undertaken by PE and FDT. The vacancy in the position of the Vice President for Research has not hampered operations in the three divisions in that line of command in any observable way, although this remains an issue (see Sections 1.3 and 5.3.3.). FHI support units are Regulatory Affairs, Scientific Support Services, Biostatistics/Quality Assurance and Administration (see Section 2.5).

5.2 FHI's modus operandi

FHI's modus operandi is characterized by

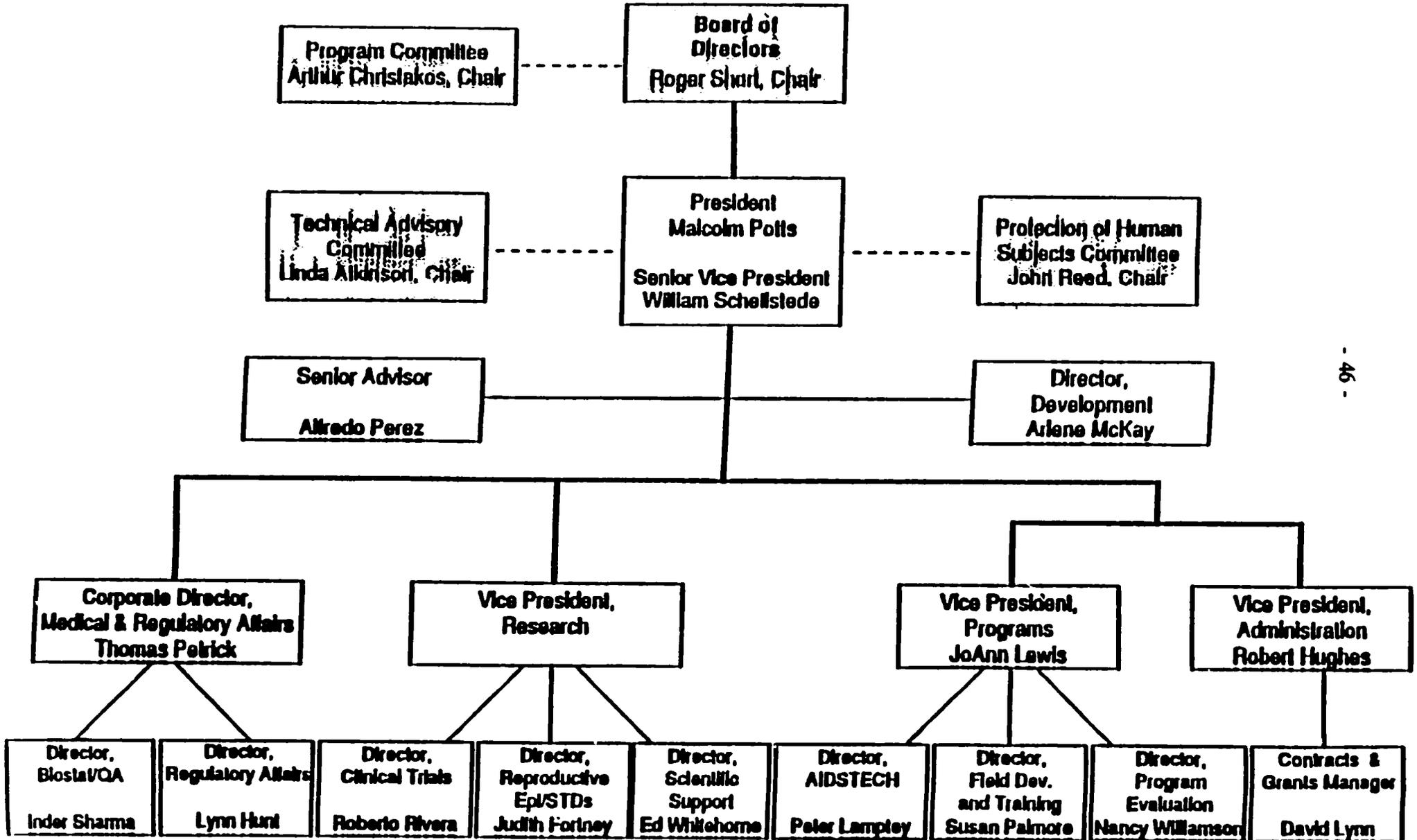
1. effective interdivisional communication and collaboration;
2. a well-defined project monitoring system with effective budgetary control;
3. good internal control mechanisms including
 - a functional organization with well-defined lines of authority and with reasonable delegation of authority;
 - excellent data bases and reporting systems; and
 - a set of appropriate written policies and procedures.
4. continuing successful efforts to develop communications and collaborative relationships with other relevant organizations;
5. good working relationships with the Office of Population and USAID missions.

These characteristics have been touched on in previous sections of this report and are discussed in full below.

5.2.1 Interdivisional Collaboration

One of the most impressive aspects of this large and complex organization is that the component parts -- the divisions -- work well not only individually, but together. Interdivisional collaboration is the norm for most FHI activities. Indeed, it is virtually inconceivable that any single division could monopolize any single project from its inception all the way through to the dissemination and use of the project's results.

**Figure 4
Organizational Chart**



Some FHI activities are, of course, more interdivisional than others. Work on NORPLANT[®], begun by the organization in 1985, has to some degree involved nearly every FHI division, unit, program, and task force -- and spawned some new ones. An *ad hoc* NORPLANT[®] Task Force, including staff from CT, FDT, and PE, was created to coordinate the wide range of activities that included, among others, clinical trials in 12 countries with 8,104 women (CT and FDT), half funded by add-ons from USAID missions; standard provider guidelines (inter-agency team, including FHI); requests for FDA approvals (Division of Regulatory Affairs); training programs at FHRCs for trials and other NORPLANT[®]-related studies (FDT); acceptability and programmatic research (PE); cohort studies/post marketing surveillance (CT); epidemiological studies of safety, long-term follow-up (RE/STD); cost analyses (FHI Office of the President); and dissemination of results (FDT). All these activities were backed up, when necessary by Scientific Support Services and by the Division of Biostatistics/Quality Assurance.

The NORPLANT[®] project is the first activity in FHI's new Contraceptive Introduction program (see Section 2.4.1). The introduction program was conceived in mid-1989 by the NORPLANT[®] interdivisional task force, which recommended that a program unit be formed in FDT that would assume responsibility for developing and implementing a strategy to help countries integrate new contraceptives into national family planning programs. FHI considers itself well-placed to offer a more comprehensive -- and less fragmented -- approach because of its expertise and experience in clinical trials, acceptability and programmatic research, training, institutional development, information dissemination, and development of educational materials. Further, in order to avoid interagency duplication of effort, the program will foster collaborative relationships with other organizations working in these fields. The NORPLANT[®] activities will provide a model for introduction of other new products, when they are ready (see Section 2.4.1 [3]).

Interdivisional task forces and *ad hoc* planning groups exist to tackle issues wider than a single division; there are even interdivisional divisions, the most conspicuous being Scientific Support and Biostatistics/Quality Assurance, and -- the largest -- FDT (see Chapter 2 for discussion of support provided by these units to other Cooperative Agreement-supported activities).

At the project level, cooperation is built in through the team approach to project management. Many projects are run by teams and many will have staff assigned from various divisions, according to skill needs. These teams meet regularly once a month to review project progress. Project review meetings, which occur at similar or less frequent intervals, help provide additional coordination across divisions and with related programs.

The high degree of interdivisional cooperation arises from a number of factors, for which FHI deserves considerable credit. First, several formal mechanisms exist to bring the divisions together, including the planning process (see Section 4.1.2), the team approach, the annual discussion of priorities with A.I.D., monthly lunchtime meetings of directors of divisions, and others. Second, an easy collegiality exists among FHI staff that allows -- indeed, encourages -- informal exchanges among those in various divisions about proposed and on-going collaboration. Finally, cooperation is enhanced because the staff share a common vision of what FHI aims to accomplish, and they recognize that each division comprises only a part of the whole. The existence of this broader view is particularly notable when it is realized that the breadth of FHI projects makes it virtually impossible for anyone except senior staff -- regardless of interdivisional communication and cooperation -- to know everything that is happening within the organization.

The erosion of any one of these three characteristics might undermine the current atmosphere and reduce the probability of effective interdivisional cooperation. Probably the greatest risk is that as FHI grows, qualitative changes could occur that would change the way people at FHI communicate with one another.

FHI would be a very different organization -- and doubtless a less effective one -- if interdivisional coordination did not occur as smoothly as it does today (see Chapter 6).

5.2.2 Project Monitoring System

Each FHI project has an assigned manager and, for budgeting and financial control purposes, the FCO number assigned when the project is initiated. The manager has sign-off responsibility for all expenditures charged to the FCO. The costs for all persons who work on a given project are charged to its FCO number. The project manager has continuing responsibility for reviewing project progress, ensuring that the project is properly monitored, identifying problems and monitoring expenditures in relation to budget. The manager receives a monthly printout showing staff time and expenditures charged to the FCO. Printouts go also to the division director and to senior management.

Monitoring and ongoing review of active projects are also provided on a regular basis at several levels in the organization, and have been strengthened considerably since the last evaluation. The monthly team meeting and the staff project review meetings ensure regular oversight (see Section 5.2.1). In addition, FHI's senior management meets with each division director monthly to review division portfolios, and *ad hoc* groups are constituted and meet as necessary. Where appropriate, in the absence of a Vice President for Research, there is regular monitoring by senior staff of the CT division, and the support from Biostatistics/Quality Assurance and, where necessary, Regulatory Affairs add to the excellent supervision. Finally, an Executive Projects Review Committee consisting of senior management, the director of CT, and the relevant project manager can be convened when specific or serious situations arise in a particular trial and require rapid and appropriate action at a high level. This was the mechanism that came into play when problems arose with the Phase III trial of NET microspheres, earning the praise of the FDA for its timely decision (see Section 2.1.3).

5.2.3 Internal Control Mechanisms.

Functional Organization

With respect to the issue of authority, the specific responsibilities of each staff member are set forth in FHI documents. In addition, written policies and procedures exist for all FHI committees.

Databases and Reporting Systems

FHI's database systems are in general superior. The Regulatory Affairs Division's capability for rapid retrieval of relevant data and its enhanced record keeping system together provides a base for effective reporting (see Section 2.5.1). The CT division in its work with NORPLANT[®] has developed the largest and one of the best managed data bases on this product in the world. The RAMOS study, led by RE/STD, represented the first significant large-scale effort to collect data on the causes of death to women in traditional societies. Overall, these excellent databases have been an important factor in its scientific reporting, both in formal scientific studies and in its reports designed for wider audiences (e.g., in regular publications such as *Directions* and *network*)

Policies and Procedures

FHI maintains written policies and procedures relating to personnel, FHI committees that have been established for various purposes, documentation required for various submissions (for example, NDAs), and methods to be followed when initiating and conducting trials of drugs

and devices. Some of the procedures have been established in response to the previous evaluation. In general, policies and procedures are clear, appear to be understood by FHI staff, and guide the operation of the organization.

5.2.4 Coordination with Other Agencies.

FHI management seems to place almost as much emphasis on collaboration with other organizations as it does on interdivisional collaboration within FHI, and with good reason. With new players continually entering an already large field, there is a growing risk of unnecessary duplication of effort. Interagency coordination can avoid this problem, as well as ensuring that new projects build on what others have done and learned by a continuing exchange of information on activities and plans.

The mechanisms for communication and collaboration with other agencies are legion, and all are employed by FHI. At the most formal end of the spectrum, FHI staff sit on the Boards and Steering Committees of other organizations (and vice versa); FHI scientists also serve as consultants or advisors for other agencies (and vice versa). FHI staff often meet colleagues from other organizations at conferences and professional meetings and share with them membership in expert groups and on panels. Frequently, FHI staff meet with staff of other agencies to discuss topics of common interest such as actual or potential joint research projects, common methodological or technical problems, plans and strategies for future activities, or analysis and interpretation of data.

A large number of U.S. agencies are involved in the fields of contraceptive development, reproductive health, and family planning services; every other country, too, has its own array of public and private sector organizations in these fields. FHI makes heroic efforts to coordinate with them. On NORPLANT[®] introduction alone, FHI cooperated with The Population Council, the Association for Voluntary Surgical Contraception (AVSC), the Program for Appropriate Technology in Health (PATH), Johns Hopkins Program for International Education in Gynecology and Obstetrics (JHPIEGO), Leiras (the manufacturer of NORPLANT[®]), many national regulatory agencies, and a host of local organizations in the LDCs where the project operates. Lists of the organizations and agencies with which each FHI division has collaborated in the past five years cover all the USAID CAs and read like a "Who's Who" of donors, research and action organizations, university centers, international and national agencies in the field of population and family planning.⁸ The lists take pages, even for the African organizations with which FHI collaborates.

FHI is very successful in avoiding unnecessary overlap for its projects and also builds on what others have done and learned. FHI staff are ordinarily aware of what other agencies are doing that relates to their work, or how to find out when they do not know.

Other agencies that were contacted (see Appendix C, Attachment 2) were generally satisfied with FHI's coordination-communication-collaboration efforts. These organizations note that FHI is more open and forthcoming than it was five years ago about its own research, although some feel that there remains room for improvement (e.g., FHI did not collaborate to the extent that it might have with the Program for the Introduction and Adaptation of Contraceptive Technology [PIACT] on its condom testing).

⁸Source: Divisional briefing books prepared for evaluation

5.2.5 Relationship between FHI and A.I.D.

FHI staff is in general very satisfied with A.I.D./W's administration of the Cooperative Agreement. FHI believes that it has reasonable autonomy in planning, design and implementation, even though A.I.D. must approve each project. A.I.D. does not try to micromanage activities under the Agreement, but rather raises questions and issues that are appropriate and useful. A.I.D. is recognized to provide constructive input both substantively and operationally, particularly in terms of helping FHI coordinate with other organizations. The pace of action by A.I.D. has been appropriate, and there have been no undue delays.

FHI's satisfaction with A.I.D.'s handling of the Agreement is due largely to the CTO's scientific, administrative, and interpersonal skills, enhanced by her having handled this Cooperative Agreement since its beginning. Recently, however, as a result of staff changes in the Office of Population, the CTO has had to spend part of her time on other A.I.D. projects. FHI staff say that as a result there has been a perceptible slowing of A.I.D. responses to some of their questions.

A.I.D. funds are not available for the CTO to make sufficient trips to FHI headquarters in North Carolina to monitor this Cooperative Agreement appropriately. Particularly in view of the large size and complexity of this Agreement, this policy could hamper the ability of the CTO to deal quickly and thoroughly with FHI program issues.

The approval ceiling for the CTO has been increased substantially with the result that relatively few items now need to go to A.I.D.'s Contract Office. FHI noted that at present A.I.D. approval must be sought for commodities and equipment that exceed \$10,000 in cost, a change from the previous \$1,000 limit that caused unnecessarily frequent requests to A.I.D.

As a result of two central add-ons, FHI must coordinate with three persons in A.I.D. rather than with the CTO alone. Some FHI staff observe that it would be administratively more efficient if they could deal with just one person, preferably the current CTO. On the other hand, the two central add-ons are relatively small and this does not appear to be a major issue.

FHI is satisfied with its relationships with other staff of S&T/POP, the Office of Procurement, and the Office of Financial Management.

FHI has not encountered significant problems in working with mission staff, including interactions in conjunction with add-ons. Comments from a small sample of mission population officers indicate that missions are in general satisfied with the professionalism and competence of FHI, although there are occasional exceptions: one population officer felt that the initial staff person sent for an FHI project lacked the appropriate technical skills; another voiced frustration when the continuity of an on-going field project was disrupted by the sudden appearance of a new FHI monitor inexperienced with that project. In the absence of a pattern of complaints of this sort, it can be assumed that FHI-USAID mission links are adequate.

5.3 FHI Staff

5.3.1 Performance

A major strength of FHI, which is recognized and commented on within the organization and by outsiders, is its staff. FHI staff are typically competent technically, highly motivated, and cooperative with one another. Most staff have extensive experience working in the developing world and many have relevant foreign language competence. A number of the staff

spend substantial amounts of time each year in developing countries where FHI has program activities. As FHI has expanded in recent years into the earlier stages of contraceptive product development, it has hired some staff whose experience has been predominately in industry, rather than in the developing world.

A review of data on the length of time staff have been in position suggests that there is reasonable stability and mobility within the organization. When staff move from one division to another, promotion is usually the reason. Movement among divisions also gives staff the opportunity to learn more about other parts of the institution.

The establishment of the AIDSTECH Division does not appear to have had adverse effects on staff attention to activities funded under the Cooperative Agreement. Three staff members ultimately moved to the new division; their transfers represented promotion opportunities. Currently, staff of PE spend from zero to one-fifth time on AIDSTECH. The PE Director spends less than 10 percent of her time on work of the AIDSTECH Division. FDT staff spend roughly 5 percent of their time on AIDSTECH activity related to Africa and less than 5 percent in relation to Asia and Latin America. In addition, FHI sells computer services to CRI, with about 50 percent of both the facilities and staff of its Scientific Support Services dedicated to CRI work.

FHI has an orientation program for new employees. The relatively rapid expansion into new activities, however, has resulted in many staff not being sufficiently informed about the organization as a whole. This can be disruptive in situations in which staff are perceived as representing the institution, as during overseas travel. FHI senior management is aware of the need to improve staff knowledge about FHI and its activities, including through development of better, readily accessible orientation materials.

Related to this issue is the need for staff on duty travel to be familiar with the situation in LDCs they visit. Several staffers acknowledged that they would have been more effective during short-term field assignments if they had been better prepared. This is likely to be an increasingly important issue as FHI does more work that requires highly specialized technical skills or specific product knowledge, e.g., for monitoring FDA clinical trials or AIDSTECH interventions. This shift in focus will result in an increasing proportion of trips being made by narrowly focused staff rather than by FDT program staff.

FHI provides training opportunities for staff -- ranging from strengthening skills needed for better job performance to job-related training. Staff are also allowed to take some time off to pursue graduate degrees. Written policies exist in relation to staff training.

5.3.2 Administrative Issues

FHI senior management periodically contracts for salary and benefit surveys in the geographic area in which it is located. These surveys reportedly indicate that FHI is competitive with other non-profit organizations, although not competitive with for-profits. FHI also has more than one set of salary scales in order to compete effectively in different areas of work. Two examples are the computer field and physicians who are clinically oriented. FHI has policies and procedures for annual review of performance and awarding of merit and cost of living increases. Staff can also receive salary increases in grade, through promotion to higher positions, or through reclassification where an individual's responsibilities have increased.

5.3.3 Vice President for Research

Since the 1984 evaluation team recommended that high priority should be given to filling the position of Vice President for Research (see Section 1.3), two individuals have been

hired, but each stayed in the job only a short time and it has been vacant since 1988. Although this absence has not overtly affected the functioning of the organization or its research strategy up to the present time, the situation has changed with FHI's recent growth and changing basis of funding, and widening interests and priorities. The present strengths of FHI in clinical, pre-clinical and epidemiological research call for a dedicated and full-time advocate at the level of seniority of Vice-President, in order to help determine and maintain the long-term role of such research among the priorities of FHI -- particularly in view of the increasing role being accorded to FDT. Senior management is currently seeking candidates for the position; since the organization has been able, over the years, to attract a series of gifted individuals with a wide range of skills, it should be able to identify a similarly talented person for this position.

5.3.4 Field Offices

FHI established two field offices in recent years, but these have both been closed because of events in the two countries that were unconnected with FHI's activities. FHI does not plan to open field offices or to appoint full-time regional or country representatives. Factors that have influenced FHI's current position are (a) the substantial costs of such an action; (b) the improbability that any individual would have the qualifications required to carry out or manage the range of activities that FHI is likely to have in any country that would warrant such a presence. FHI staff believe, appropriately, that to the extent additional positions could be created, they should be used to strengthen those areas in which staff are stretched too thin.

5.3.5 Expansion of Current Staff

Because FHI has expanded the scope of its work significantly in the past several years, staff resources have in some instances been stretched very thin. Although FHI has used consultants and hired additional staff to help handle the increased workload, there has been an understandable reluctance to put too much emphasis on hiring new staff in this last year of the Cooperative Agreement -- particularly given FHI's policy of hiring virtually all staff as core staff as opposed to a policy of employment that is conditional on the availability of contracts. This policy puts into question many of the initiatives envisioned in the expanded FY90 divisional budgets. As noted earlier, these increases are unlikely to be spent without additional FHI staff to develop, implement and monitor the activities planned.

Recommendations:

40. FHI should continue to nurture the infrastructural mechanisms that promote effective communication and cooperation among divisions, and attend quickly to any evidence that the mechanisms are not working well.
41. To ensure continuation of the mutually satisfactory relationship between A.I.D. and FHI, monitoring of this project should be the full-time responsibility of one individual.
42. A.I.D. should consider recruiting an American Association for the Advancement of Science (AAAS) Fellow (or other low-cost intern) to help the CTO monitor this Cooperative Agreement.
43. A.I.D. should immediately provide sufficient funds for the CTO to make an appropriate number of visits to FHI headquarters so that the Agreement can be optimally monitored.

44. **FHI staff travelling to developing countries should have better orientation and more information regarding individuals, activities and institutions in those countries that are relevant to FHI's interests and activities. To this end, FHI should develop and maintain improved data bases on countries so that FHI staff and consultants travelling to particular countries can readily be supplied with relevant data. FHI should also explore ways to tap the database that John Snow, Inc. coordinates for A.I.D.**
45. **In order to maintain its ability to attract and hold highly qualified and motivated staff, FHI should continue to review periodically the adequacy of compensation and benefits for staff.**
46. **FHI should redouble its efforts to fill the position of Vice President for Research.**
47. **As part of its next planning exercise, FHI management should review the adequacy of its staffing in relation to current and planned workloads.**

6. Future Directions and Principal Recommendations

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6.1 Future Directions

A number of factors are currently operating to promote the growth and expansion of FHI. The organization's good track record results in increasing demands on it, as the growth of add-on funding demonstrates. FHI's own evolving strategy for growth in such areas as contraceptive development and contraceptive introduction represent, *inter alia*, a better understanding of what is required to be more effective in the area of contraceptives. The establishment of the AIDSTECH Division is both a response to a newly identified need and a decision to move into a problem area in which FHI perceives itself to have substantial relevant knowledge and experience. The formation of CRI -- although formally not a part of FHI -- is attractive because it draws upon FHI's success in contraceptive development work and it has increased and diversified FHI's resources, thus enhancing its capability to define and pursue an evolving agenda.

The direction of FHI's growth in recent years appears to be logical both from the perspective of FHI experience and capability and in terms of priority needs of the programmatic and geographic areas in which FHI works. In general, the growth does not appear to have had any adverse effects on FHI's work under the Cooperative Agreement. To the contrary, FHI's capability has undoubtedly increased for the reasons set forth above and in other chapters of this reports. The growth does, however, present several issues that FHI should address within the near future:

1. What should be the future direction of development of FHI?
2. What rate of growth is desirable and manageable?
3. What is an optimum size for FHI -- a size that preserves the collegiality and high staff morale that currently characterize its operations?

It would be useful if FHI began to address these questions in the course of preparing the strategic plans recommended in Chapter 4. This action seems to be particularly important because some of the most exciting and important new directions -- contraceptive introduction is an example -- are potentially of such a size and scale that FHI may have to begin making some difficult choices as to which program activities it will pursue; which it can carry out in collaboration with other agencies; and which it may have to phase out. Because A.I.D. represents a large source of funding for FHI, A.I.D. clearly has an interest in these issues.

A first planning session to determine major priorities should be held as part of the next full yearly cycle of program and budget planning.

6.2 Principal Recommendations

The recommendations proposed earlier in this report are directed in part to feed into the strategic planning process and in part to address management issues observed in the course of the evaluation.⁹

⁹See Appendix I for a list of all the recommendations contained in this report.

6.2.1 Strategic Planning for Divisional Portfolios

With respect to strategic planning for the work of the four divisions, these recommendations have been organized below to accord to three strategic questions: 1) which activities warrant continued or expanded support; 2) which activities should remain at current levels, despite pressures for increases, or be reduced; and 3) which activities could be transferred to or shared with other CAs.

Principal recommendations for the four divisions are as follows:

Activities Warranting Continued or Expanded Support

1. The Clinical Trials Division should remain willing to respond to USAID mission and LDC requests for clinical trials of existing products so long as these are of genuine national importance and fit into the Division's overall strategy. It should also be encouraged to pursue extensive secondary analysis of some of the large data bases already accumulated. The importance of adverse events in monitoring safety should be stressed to host country investigators.
2. FDT should pursue its plans to expand its capabilities in the area of information dissemination and to support contraceptive introduction activities. It needs also to add staff to do a more adequate job of monitoring and otherwise supporting activities of other divisions.
3. PE should allocate more resources to sub-Saharan Africa and should devote more attention to monitoring ongoing studies, even if this comes at the expense of launching new research.
4. STD-related research should remain the number one priority of the RE/STD Division, but RE/STD should also increase its emphasis on research studies on contraception for women with special needs. Its computer model to assess the risk/benefit of contraception should be applied in as many countries as possible.

Opportunities to Resist Pressure for Expansion or Transfer of Activities

1. The Clinical Trials Division should undertake a policy review of its overall strategy in relation to drug development through pre-clinical and clinical phases. The Division should resist any temptation to expand in-house skills of pharmacology, toxicology or pharmaceutical formulation to support contraceptive development work and should not feel pressured to hurry into Phase III trials of a new product until pharmaceutical tests have satisfactorily determined its viability.
2. FDT should accept mission requests for technical assistance only if these are consonant with current Division priorities. It should continue to strengthen LDC capabilities to carry out research and should examine a way to establish a local presence that could undertake specialized projects. It should also continue to restrict the number of countries in which it attempts to have a major impact at any given time.
3. PE should enter new research areas only with great caution and should accept mission requests for research only if these are consonant with current PE priorities. PE should also expand efforts to strengthen LDC research capacities.
4. RE/STD should continue to focus on fewer, properly designated areas of research.

Activities Appropriate for Coordination with Other Agencies

1. A management plan should be developed for contraceptive development that specifies the complementary roles for FHI and CONRAD, and includes collaboration with other agencies.
2. FDT should coordinate information dissemination plans with other agencies.
3. PE should consider whether some of its research activities, particularly new activities that are proposed at the country level, could be undertaken by other CAs.

6.2.2 Planning and Management

The recommendations above are not intended to constitute a blueprint for FHI's program activities but rather to be used as one input in a strategic planning process that should get under way as part of the next full yearly cycle of program and budget planning. It is the institution of this planning process that is the major recommendation of the report. Specifically,

FHI should prepare each year an annual strategic plan and budget, as well as a three-year tentative plan and budget, for presentation to A.L.D. Plans should normally cover all proposed FHI activities, with greater detail on those proposed to be funded under the Cooperative Agreement. As part of the process, FHI management should review the adequacy of its staffing in relation to current and planned workloads.

Several other recommendations were also offered to improve management:

1. FHI should continue to nurture the infrastructural mechanisms that promote effective communication and cooperation among divisions.
2. Locus for program support and monitoring in all FHI Divisions should be reconsidered. Where necessary for adequate project monitoring, limited numbers of staff with the required skills should be added within appropriate divisions, since technical needs will vary by division.
3. FHI should consider developing an internal evaluation system for its projects, wherever feasible.
4. FHI should redouble its efforts to fill the position of Vice President for Research.
5. In order to maintain its ability to attract and hold highly qualified and motivated staff, FHI should continue to review periodically the adequacy of compensation and benefits for staff.
6. FHI staff traveling to developing countries should be better briefed in order to represent adequately FHI's interests.

Appendices

Appendix A
Cooperative Agreement

Appendix A

Cooperative Agreement

PROGRAM DESCRIPTION

A. Objective

The Recipient shall perform a program directed towards fostering the development and introduction of methods of fertility control, the assessment and evaluation of fertility control technologies, and the strengthening of such capabilities on an international basis. The Recipient shall use its established research system and network of clinical investigators to evaluate, on an international basis, the safety, effectiveness and acceptability of methods of fertility control and the delivery systems through which they are made available.

In this connection, the Recipient shall serve as a center for: (1) maintaining a network of international investigators; (2) developing study designs and research data collection instruments to study various means of fertility control under use conditions and to determine long-term effects; (3) analyzing and evaluating research data which is collected from various countries and cultural settings by contributors who are conducting field trials; (4) conducting studies to evaluate fertility control methods and develop fertility control methods to the level where clinical trials are appropriate; and

developing prototypes of equipment which show promise as being useful in the field of fertility control; (5) disseminating information and technology on methods of fertility control; and (6) training and other capability strengthening activities related to the assessment, development and introduction of fertility control technology.

B. Plan of Work

1. Study Areas

The program shall focus on studies and other activities related to the assessment, development and introduction of fertility control technology. These studies shall concentrate on clinical trials and field studies (particularly so-called Phase III studies on the order of fifty to several hundred subjects) but also include earlier phase developmental studies, and postmarketing studies. The program shall focus on (but not be limited to) the following areas: (1) intrauterine devices; (2) systemic contraceptives; (3) female sterilization; (4) male sterilization; (5) barrier contraceptives; (6) natural family planning; (7) equipment integral to fertility control technology; (8) appropriate special studies including developmental research; and (9) postmarketing studies including epidemiologic safety studies. As appropriate, the work shall include the following:

(a) Intrauterine Device Studies

Data shall be collected on an international scale under use conditions and analyzed on IUDs utilizing new material, chemicals and/or physical shape. Performance of new IUDs shall be compared with older generation IUDs. Double-blind techniques shall be used when appropriate and the number of insertions shall be established for each device studied which will allow for statistically significant calculation by lifetable techniques of: (1) continuation rates; (2) expulsion rates; (3) removal rates; (4) tabulation of side effects; (5) pregnancy rates; and (6) analyses of the above factors according to clinic, investigator, age and parity of acceptor and relevant personal and cultural factors.

(b) Systemic Contraceptive Studies

Straight and comparative studies of systemic contraceptives shall be conducted with data collected under use conditions in different cultural settings. These may include steroidal methods such as oral contraceptives, injectables, implants, vaginal rings, suppositories, intrauterine carriers, and "paper pills" or other new delivery techniques and patterns. The safety, effectiveness and acceptability of various systemic fertility control techniques in a variety of cultural and service delivery settings shall be evaluated.

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(c) Female Sterilization Studies

Evaluation shall be made of internationally comparable data obtained from clinical trials on new techniques for female sterilization to determine the efficacy of procedure, reversibility, side effects, correlated with information on age, parity, clinics, investigators and other relevant personal and cultural factors.

(d) Male Sterilization Studies

Evaluations shall be done of internationally comparable data obtained from clinical trials on new techniques for male sterilization, including reversible sterilization techniques, to determine efficacy of procedure, reversibility, side effects, correlated with information on age, parity, clinic costs, investigators and other relevant personal and cultural factors.

(e) Barrier Contraceptives

Straight and comparative studies of chemical agents (foams and creams, tablets and suppositories, both melting and foaming) as well as mechanical methods (diaphragms, natural and synthetic sponges, and intracervical devices) shall be conducted with data collected under use conditions. Data shall be analyzed and the method evaluated for safety, effectiveness and acceptability in a variety of cultural and service delivery settings. Evaluations may include evaluation of the agents for prevention of sexually transmitted diseases.

(f) Natural Family Planning

Evaluation shall be made of fertility control methods such as "natural" family planning methods (including total or partial reliance on periodic abstinence and lactation) to determine their safety, effectiveness and acceptability.

(g) Equipment Integral to Fertility Control Technology

Straight and comparative studies as well as other laboratory-type studies of fertility control devices and of surgical and other equipment used in the delivery of fertility control will be conducted with data collected under use conditions. Data will be analyzed and the equipment evaluated for safety, cost benefits and other factors present in service delivery systems.

(h) Special Studies and Activities

The program shall include special studies and other activities toward the development and advancement of fertility control technology including developmental research to: (1) bring specific methods to clinical trial state; (2) evaluate clinical use of methods under test in greater depth than provided for under the standard comparative studies protocol; and (3) determine acceptability of various techniques, methods and approaches to fertility control.

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(1) Postmarketing Studies

The program shall include postmarketing studies including epidemiologic safety studies and various survey techniques to determine the health effects, acceptability, availability and attitudes toward various methods of fertility control and various other reproductive events.

Conduct of the above studies shall include field trials at one or more centers from which data will be collected and loaded into computer banks. When sufficient data on each study has been collected, publications of findings shall be prepared by or for the Contributor(s) (collaborating investigators) in the center(s) conducting the field trials for dissemination. The Recipient shall analyze pooled data from two or more Contributors and disseminate findings in scientific journals, at international conferences and through other available avenues in order to assure, to the extent practicable, that program managers and technicians are informed of the relatively safety, effectiveness and acceptability of each fertility control-related technology.

2. Research Design and Methodology

Through organization, administration, coordination and general program direction, the Recipient shall assure that:

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(a) A network of study contributors from the U.S. and other countries is maintained to collect data under use conditions.

(b) A Technical Advisory Committee (TAC) is established, including technical experts in each of the fertility control methods, who may be drawn from the United States, other developed countries, and developing countries. This Committee is to be consulted at least annually concerning the overall direction of the program. Subcommittees of TAC and ad hoc advisory groups will provide further technical review and assistance to the research activities.

(c) Statistical and epidemiologic techniques are established which employ standardized data collection formats and control analyses of data, similar to the following: For each fertility control method area studies, uniform records shall be perfected which will allow a comparative trial of methods. Data on an appropriate number of cases shall be collected from contributors to allow accurate epidemiologic and statistical analysis of findings. The records shall be printed in a manner to provide an appropriate number of copies. A copy shall be kept with the clinic record. Generally, the original will be sent to the Recipient's headquarters for coding, coding check, punching and tabulation or, consistent with local

capability, data may be encoded in-country and provided to the Recipient in a machine readable form. Data analysis may also be performed in-country.

A standard statistical data analysis for the various studies shall be developed and carried out. The requisite logic and procedures shall be developed and the computer programs will be written and tested.

The data forms for each study shall pass through an edit process (including additional coding as required). The data shall be machine edited and then transferred to a storage file. Finally, the data for each study shall be generally run through the previously developed standard data analysis program to provide output for analysis of research results. In selected instances, data may be developed and refined in a manner suitable for presentation to regulatory bodies and submitted for regulatory approval of various fertility control technologies.

(d) The preliminary development of standardized, straight, comparative and special studies and improvements in the quality of data to be collected as these studies progress shall be initiated and monitored by the Recipient.

(e) The research design for epidemiologic studies, standardized comparative and special studies, the analysis of modular studies related to larger studies, and additional analyses, as needed, shall be carried out.

(f) A training program shall be established to train personnel from other countries in the use of new fertility control techniques including as needed to carry out research methodology.

(g) Preliminary studies shall be undertaken of selected new methods to help select those for more extensive trials.

(h) All research shall be conducted in accordance with A.I.D. policy governing human research after recommendation by the Technical Advisory Committee and approval by the A.I.D. Project Monitor.

(i) Short-term technical consultation and advice shall be provided to study contributors and others as needed to carry out research methodology.

(j) The Recipient shall seek full information and coordinate its activities concerning ongoing research programs of other donor agencies including A.I.D., NIH, WHO, the Population Council, Ford Foundation, PARFR, etc. in order to

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carry out a scientific program which complements, but does not unnecessarily duplicate, existing research programs. The Recipient shall coordinate with and utilize the resources of these other research programs as appropriate and respond to possible A.I.D. requests to concentrate research funds in specified research areas.

(k) The contributor network shall be continuously upgraded through training of appropriate Contributors in research technology, by dropping those Contributors from whom the quantity or quality of data submitted is below acceptable standards and by adding new Contributors, as replacements, who have the capability of generating adequate quantities of top quality research data.

(l) Dissemination of Findings - Findings made as a result of activity outlined above shall be given the widest practicable distribution. This shall include, but is not limited to, sponsorship or conduct of training programs, conferences and workshops, participation in conferences or workshops conducted by others, publication of reports and articles in appropriate journals (such as the "International Journal of Obstetrics and Gynaecology"), the preparation and distribution of monographs and the distribution of information through journals and publications such as "Network." The Recipient shall, in consultation with the A.I.D. Cognizant

Technical Officer (CTO), plan and implement dissemination strategies to maximally involve Contributors from developing countries and to rapidly disseminate research findings to scientific investigators, practicing clinicians and to program leadership and policymakers. The Recipient shall make his best efforts to disseminate important findings via public media.

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Appendix B
Scope of Work

Appendix B

Scope of Work

I. BACKGROUND PROJECT INFORMATION

Project Title	Family Health International
Project Number	936-3041
PACD	9/30/96
Cooperative Agreement No.	DPE-0537-A-00-4047-00
Current Funding Period	10/1/84 to 9/30/90
	Expenditures authorized through 3/31/91
Authorized LOP Funding	\$63,400,000
Funding to Date	\$51,706,869
CTO	Laneta Dorflinger, Ph.D. ST/POP/R Room 820B, SA-18 703-875-4676
Type of Evaluation	End of Project
Suggested Dates	December 11-15, 1989

II. PURPOSE OF THE EVALUATION

Broadly, the purpose of this evaluation is to determine how effectively FHI has addressed and met the following objectives set forth in the subject cooperative agreement:

- o conducting studies to evaluate currently available fertility control methods;
 - o developing and evaluating new fertility control methods;
 - o maintaining a network of international investigators;
 - o developing study designs and research data collection instruments to study various means of fertility control under use conditions and to determine long-term effects of these methods;
 - o disseminating information and technology on methods of fertility control; and
 - o training and other capability strengthening activities related to the assessment, development and introduction of fertility control technology.
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Specifically, there are several key issues which will be the major focus of attention: program planning and establishing priorities within the limits of staff and funding; the project review process; scientific approach; and the impact of specific activities.

The final report should be available before the end of January 1990. This evaluation report will be used to guide the development of future proposals and activities, and will be used to help in the design of the follow-on cooperative agreement which is scheduled to be in place by the end of FY 1990.

III. BACKGROUND

The FHI project was designed as a program directed towards fostering the development and introduction of methods of fertility regulation, the assessment and evaluation of contraceptive technologies, and the strengthening of such capabilities on an international basis.

FHI has been supported by A.I.D. through a series of grants, contracts and cooperative agreements since July 1971 when it was established as the International Fertility Research Program (IFRP). (In 1982, IFRP officially changed its name to FHI.) The last evaluation of this project was conducted in August 1984 and was used to guide the development of a new 10-year Project Paper under which the current cooperative agreement was authorized. That evaluation focused mainly on FHI's organizational decision-making and research management practices as they related to the goals set out by A.I.D. Concerns included the process utilized by FHI to (i) determine the broad base of its research priorities; (ii) implement, maintain, and evaluate research programs on a global scale; (iii) offer appropriate clinical support and training to project grantees; and (iv) develop systems geared toward overall clinical trial management, which could provide for FDA approval of new technology. That evaluation was highly complementary of the organization.

In the five years since that evaluation, FHI has continued to grow and expand into new areas. It has reorganized internally to increase its emphasis on contraceptive development and evaluation, and has markedly increased its capabilities to conduct FDA-quality research. The purpose of this final evaluation is to review the current administration, management and program in terms of several specific issues: program planning and priority setting; the project review process; scientific approach; staff expertise and constraints; and impact of FHI's programs. The report is expected to provide guidance to A.I.D. as to revisions that may be required regarding the project design, implementation, budget, administration and management for a potential follow-on cooperative agreement.

IV. STATEMENT OF WORK

A. REVIEW OF RESPONSIVENESS TO THE LAST EVALUATION

The Team should review, evaluate and comment on FHI's and A.I.D.'s responsiveness to the 25 recommendations made in the last evaluation. A written response from FHI will be provided as one of the background documents (see IX.A.1).

B. GENERAL RESEARCH AGENDA AND PROGRAM PROCESS

The Team should review, evaluate and comment on general, broad, institutional issues related to FHI's activities and the decision making process in FHI. Some questions/issues to be addressed in this general area are recommended below.

1. How does FHI as an organization establish program/project areas and set priorities?
2. What mechanism does FHI use to ensure that national program concerns and A.I.D. program priorities are considered during the development and design of studies and selection of study sites?
3. How are proposals developed and reviewed? What are the mechanisms for internal and external review of projects and activities e.g. peer review, TAC, other cooperating agency scientific staff, and A.I.D. staff? NOTE: Activities include technical assistance, workshops, institutional development programs, etc.
4. Review the funding trends by Division and specific programs. Discuss the effect of FHI's reorganization to increase emphasis and focus on capabilities for product development has had on the organization's overall program.
5. FHI is involved in a number of important issues related to contraception and reproductive health. The breadth of their activities has increased during the recent years. Examples include initiatives in condom testing, etiology of breast cancer, cost of family planning services, sexually transmitted diseases, and HIV and oral contraceptives. A balance must be struck between expanding organizational activities to encompass important new initiatives and spreading too thin in terms of staff or finances. In addition, from A.I.D.'s perspective, overlap with other cooperating agencies must be considered. In general, can the Team identify any areas where, given the current staff and finances, FHI might be spread too thin or overlapping with other CAs?
6. There is a tradeoff between conducting high quality, fairly complex, often costly, long-term studies and conducting studies of less complexity and quality both in terms of time, cost and impact. In some cases, getting rapid information which can be

used to develop broader interventions can be a strength of an organization. On the other hand, too many of those activities can dilute the efforts of a program. The Team should attempt to make a statement regarding the balance between these types of activities in the FHI portfolio.

7. Many of FHI's activities result from field-generated research ideas. Although FHI staff visit regions and countries to develop projects, the lack of formal in-country representation, such as through regional offices or representatives, may not always allow for establishment of priorities which truly reflect field needs. Does this team feel this is an issue?

C. SPECIFIC PROGRAM

1. Assessment of Selected Subprojects/Activities by Division

The Team should review and broadly comment on each Division's portfolio of activities. However, because of the large number of studies conducted under the FHI cooperative agreement, there will not be sufficient time during this evaluation to thoroughly review each and every activity. Rather, illustrative activities (ideally two or three projects from each Division) should be selected and reviewed in depth using the following topics as a guide.

- o how projects are developed and/or solicited;
- o how projects are critically reviewed citing examples of and stating reasons for unfavorable critiques;
- o methods for selection of study sites;
- o applicability/transferability of studies for specific developing countries;
- o mechanisms/policies for oversight or monitoring of projects;
- o systems in place for quality control and dealing with project issues;
- o how decisions are made to discontinue activities;
- o how research findings, conclusions and recommendations are disseminated; and
- o whether there has been an impact of individual projects or conversely, whether some activities have failed to produce results or have a sustained impact.

Based on the illustrative list given below which summarizes areas of work ongoing during the last funding year, A.I.D. and FHI will make recommendations for specific projects to be examined in depth.

- a. **Clinical Trials Division:**
 1. **New Products:**
 - NET Microcapsules
 - NET Pellets
 - Condom Development
 - Iodine Non-Surgical Sterilization
 - Propranolol
 - Filshie Clip
 2. **Evaluation Research:**
 - NORPLANT[®]
 - Oral Contraceptives
 - IUDs
 - Progestin-only pills for lactating women
 - Spermicides
- b. **Program Evaluation Division**
 1. Breastfeeding Projects
 2. Family Planning Program Evaluation Studies
 - i. Provider/Client Surveys
 - ii. Acceptability Studies
 - iii. Household Surveys
 3. Informed Choice Projects
 4. Macro and Microeconomic Consequences of Family Planning
 5. AIDS and Family Planning Projects
 6. Pregnancy Monitoring and Maternal Mortality Projects
 7. Natural Family Planning Projects
- c. **Field Development and Training**
 1. Institutional Development Activities
 2. Technical Assistance Activities
 3. Training Activities
 4. Contraceptive Technology Transfer
 5. Information Dissemination
- d. **Reproductive Health and Sexually Transmitted Diseases**
 1. Cancer and Hormonal Contraception
 2. Contraception and AIDS
 3. Contraception and Other Sexually Transmitted Diseases
 4. Contraception for Special Groups
 5. Maternal Health
- e. **Regulatory Affairs**
 2. Interdivisional Coordination

The Team should review and comment on the coordination between Divisions with regard to program activities, project monitoring,

etc. In addition, there are several categories of activities that are conducted by more than one division, e.g. acceptability research. How are decisions are made as to which Division takes the lead for various activities.

D. INFORMATION DISSEMINATION

The Team should review, evaluate and comment on FHI's information dissemination system. Specifically,

- o How well does FHI disseminate:
 - a. FHI-specific study information
 - b. Information on contraceptive development and reproductive health in general
- o Are the appropriate target audiences being reached?
- o What emphasis is given to publishing subproject activities?
- o What type of technical assistance is given to researchers to write-up and publish data? Where do studies get published?
- o How well does FHI share research findings of what works, what does not work, lessons learned in the process, etc. with A.I.D. staff, and others?

E. PERSONNEL AND MANAGEMENT ISSUES

The Team should review, evaluate and comment of FHI's personnel and management styles. Describe the management organization and reporting authority. The following are some specific issues for comments.

1. Are staff appropriate given the program direction in terms of qualifications, skills and experience? What has been the success in recruiting and retaining appropriate level personnel?
2. FHI has grown into a large, complex organization that, in addition to the Office of Population cooperative agreement, has a substantial ST/H cooperative agreement called AIDSTECH. Also, over the last several years Clinical Research International (CRI), a for-profit organization, was created by FHI. What is the interrelationship of these programs vis a vis staff, projects, time and commitment of key personnel? Has the focus of FHI as enunciated under ST/POP's cooperative agreement been changed or diluted by the wide range of activities the organization is now involved in?

3. There is the perception on the part of A.I.D. that staff turnover has been higher in recent years than previously. In a number of cases, FHI staff that were supported under the population project moved to AIDSTECH or CRI. For certain projects, there have been numerous changes in project monitors and the need for new people to continuously become acquainted with country programs and contacts. Review and comment on the rate of staff turnover? If it is considered high by the Team, recommend ways to improve this situation.

4. FHI is a large, complex and multifaceted organization. In general, what is the staff understanding of the overall scope of FHI activities? Are staff training and development programs conducted or promoted?

5. The position of Vice President for Research remains unfilled despite the recommendation of the last evaluation team to make this a priority. Has the vacancy in this position had any effect on the research program? Does the research program have a spokesperson?

F. BUDGET AND OTHER FUNDING ISSUES - RESOURCE ALLOCATION

1. Describe the annual budgeting process and the process by which Division budgets are established. What is the mechanism for redistribution of funds if new priorities come along during a given year?

2. Is current funding adequate to maintain the program and adequate to meet major new opportunities? Comment on differences between the negotiated level of the cooperative agreement and the actual level of funding received. As with the last evaluation, it would be helpful to focus on trends in program areas in terms of funding and regional priorities.

3. Comment on funding levels in each Division in relationship to their program effort or plans. What does the list of shelf-items look like? Does it appear that some divisions have excellent shelf items that fit within the scope of the program that have not been funded because of A.I.D.'s limited budget or are most priority areas being funded? If so, give specific examples. To a large extent, this issue should be addressed during the Division reviews.

4. Buy-ins: What percent of FHI's budget is covered by buy-ins? Is FHI considered responsive to mission needs? Have large buy-ins affected the direction of FHI activities, particularly in terms of stresses on staff time? This issue should also be addressed during conversations with mission staff.

G. FHI'S EVALUATION OF ITS RELATIONSHIP WITH A.I.D.

FHI's staff should be asked to provide an assessment of A.I.D. in administering this cooperative agreement vis-a-vis the CTO, other staff in ST/POP/R, other staff of ST/POP, A.I.D. mission staff, Office of Procurement staff, and Financial Management staff.

H. RELATIONSHIP WITH OTHER ORGANIZATIONS

FHI conducts a very broad range of activities including product introduction and post-marketing surveillance activities, acceptability research, and many projects that are largely operations research in their approach. How does FHI coordinate with other CAS to carry out such activities in an attempt to avoid duplication of effort? Describe the links with the service delivery or IE&C cooperating agencies (CAS) that have been established. What strategy could be used to ensure or improve coordination so as to minimize overlap with other CAS?

Specifically, comment on FHI's relationships with other programs in the area of contraceptive development and reproductive research (CONRAD, Population Council, Georgetown University, NICHD), service delivery and training CAS (Pathfinder, JHPIEGO, FPIA, SOMARC), other international programs (WHO, IPPF, others), private industry, private foundations and PVOs.

This area can be addressed from FHI's perspective during the evaluation and from the perspective of the other programs during the proposed phone interviews with some of the Directors of those other projects (see V.c).

I. MISSION APPRAISAL OF FHI ACTIVITIES

Selected members of the team, or perhaps the team leader, should contact by phone population staff at a number of missions selected because of the large amount of FHI activity in those countries.

Appendix C
Evaluation Background

Appendix C

Evaluation Background

This report constitutes the final evaluation of A.I.D.'s current five-year Cooperative Agreement with Family Health International (FHI). The Agreement, funded at \$51,706,869, is scheduled to end September 30, 1990. The project was authorized on October 1, 1984 on the basis of a 10-year Project Paper and the assumption is that a second five-year Cooperative Agreement will be authorized, with a project completion date of September 30, 1996.

The purpose of this evaluation was to judge how effectively FHI has addressed the objectives set forth in the agreement, namely:

- to maintain a network of international investigators;
- to develop study designs and research data collection instruments to study various means of fertility control under use conditions and to determine long-term effects of these methods;
- to analyze and evaluate research data collected from various countries and cultural settings by contributors who are conducting field trials and to develop prototypes of equipment that show promise as being useful in the field of fertility control;
- to disseminate information and technology on methods of fertility control;
- to conduct studies to evaluate currently available fertility control methods; and
- to undertake training and other capability strengthening activities related to the assessment, development and introduction of fertility control technology.

The evaluation scope of work called for special emphasis on several key issues, including program planning and establishment of priorities within the limits of staff and funding; project review process; the scientific approach; and the impact of specific activities. The report was expected to provide guidance to A.I.D. on revisions that might be needed regarding project design, implementation, budget, administration and management.

The evaluation was arranged by the Population Technical Assistance Project (POPTECH), which contracted a four-person team to carry out the research and prepare the evaluation report. Team members included

- John Marshall, social science consultant with expertise in contraceptive evaluation and operations research in family planning -- team leader
- Giuseppe Benagiano, Chairman of the Institute of Obstetrics and Gynecology, University of Rome and regional director for the Program for Applied Technology for Health (PATH) for Europe-Africa;
- Ian Fraser, Associate Professor, Department of Obstetrics and Gynaecology, University of Sydney, Australia. Extensive research experience in reproductive endocrinology and contraception. Most recently, on study leave at various centers in the United Kingdom, Europe and at the University of Utah; and
- Robert Wickham, management and training consultant with expertise in population and basic health programs.

In addition, Dorothy B. Wexler, senior editor, POPTECH participated in the assignment as report coordinator and Laneta Dorflinger, A.I.D. Cognizant Technical Officer (CTO), participated as a resource person.

Prior to the evaluation, FHI provided the team members with very comprehensive briefing books covering all aspects of the organization's activities. These represented the principal source materials for this evaluation (see Attachment 1).

The principal portion of the evaluation took place from December 11 through 15, 1989, and included a one-day briefing at A.I.D.'s Office of Population in Rosslyn, VA, followed by four days at FHI headquarters at Research Triangle Park, NC. The team was briefed by virtually all top - and mid-level FHI staff and in addition consulted individually with many staff members. After this field visit, team members contacted representatives of USAID missions and other Cooperating Agencies to discuss their contacts with FHI (see attachment 2 for persons consulted).

In addition, Dorothy B. Wexler, senior editor, POPTECH participated in the assignment as report coordinator and Laneta Dorflinger, A.I.D. Cognizant Technical Officer (CTO), participated as a resource person.

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Materials Reviewed

Annual Report, Cooperative Agreement, AID/DPE-0537-A-00-4047-00, October 1, 1988-September 30, 1989, Family Health International, Durham, NC, Cooperative Agreement No. DPE-0537-A-00-4047-00

Derman, Richard J., Greenslade, Forrest C., Rooks, Judith and Shain, Rochelle N., "Interim Evaluation of Family Health International," Report No. 84-02-002, August 19-24, 1984, Population Technical Assistance Project, Washington, D.C.

Family Health International: Meeting the Challenge of the 1990s. Undated brochure produced by FHI.

Semi-Annual Report, Cooperative Agreement, AID/DPE-0537-A-00-4047-00, October 1, 1988-March 31, 1989, Family Health International, Durham, NC

Evaluation Briefing Books

Division of Clinical Trials Documents, Evaluation Team Briefing, November 28, 1989

Division of Field Development and Training, November 27, 1989

Division of Reproductive Epidemiology and Sexually Transmitted Diseases, November 27, 1989

Program Evaluation Division, October 1985-Present

Senior Management Scientific Services Regulatory Affairs Biostatistics/Quality Assurance Documents, November 28, 1989

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Persons Consulted

FHI

Office of the President

Malcolm Potts	President
William P. Schellstede	Senior Vice President
Robert W. Hughes	Vice President of Administration
JoAnn Lewis	Vice President of Programs
Thomas Petrick	Corporate Director of Medical and Regulatory Affairs
Arlene McKay	Director of Development
Barbara Janowitz	Evaluation Specialist
Albert Siemens	Senior Advisor

Clinical Trials Division

Roberto Rivera	Director
Gaston Farr	Research Associate
Deborah Gates	Research Associate
Gary Grubb	Associate Medical Director
Allen Rosman	Associate Director

Regulatory Affairs Division

William Lynn Hunt	Director
Carol Connell	Associate Director

Field Development and Training Division

Susan Palmore	Director
San Balogh	Associate Director, Contraceptive Introduction
Diane Catotti	Senior Program Officer
Karen Hardee-Cleaveland	Senior Program Officer
Kathy Jesencky	Senior Program Officer
Susan McIntyre	Program Officer
James McMahan	Senior Program Officer
Mark Robbins	Associate Director
Elizabeth Robinson	Associate Director, Information Dissemination

Program Evaluation

Nancy Williamson	Director
Carol Joanis	Associate Director for Market Research
Kathy Kennedy	Research Associate
Douglas Nichols	Associate Director
Linda Potter	Senior Research Associate
Shyam Thapa	Senior Research Associate

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Reproductive Epidemiology and Sexually Transmitted Diseases Division

Judith Fortney	Director
Paul Feldblum	Associate Director
Ron Roddy	Research Associate
Michele Bonhomme	Senior Research Analyst

Condom Unit

Robin Foldesy	Director
Eli Carter	Senior Project Manager
Charles Tanquary	Senior Project Director

Administration

David Lynn	Contracts and Grants Manager
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Scientific Support Services Division

Edward Whitehorne	Director
David Terwey	Deputy Director

Biostatistics and Quality Assurance Division

Inder Sharma	Director
--------------	----------

S&T/POP/R

Laneta Dorflinger	CTO
James Shelton	Chief
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USAID Missions

Terry Tiffany	USAID, Egypt
David Oot	USAID, Kenya

External Contacts

Forrest Greenslade	The Population Council
Peggy McEvoy	The Population Council
Elaine Murphy	Population Reference Bureau
Frank Webb	Human Reproduction Unit, World Health Organization
Margot Zimmerman	PATH/PIACT



Appendix D

Additional Tables and Figures

Appendix D

Additional Tables and Figures

Table D-1	FHI: Corporate Expenditures By Source (1985-1990)
Table D-2	Program Expenditure by Division and Program: Geographic Dispersion (Fiscal Years 1985 to 1990)
Table D-3	FHI: Corporate Expenditures by Source (1985-1990)
Table D-4	Percentage of Expenditures by Division and Program (Fiscal Years 1985-1990)
Figure D-1	Division of Clinical Trials Organization Chart

Table D-1
FHI: Corporate Expenditures By Source
(1985-1990)

	<u>1985</u>	<u>1986</u>	<u>1987</u>	<u>1988</u>	<u>1989</u>	<u>(Est)</u> <u>1990</u>	<u>Total</u>
Contraceptive Agreement	\$ 4,670,510	\$ 8,011,452	\$ 8,133,260	\$ 7,306,587	\$ 7,868,676	\$ 12,889,868	\$ 48,880,353
Contraceptive Contract	\$ 489,532	\$ 1,680	\$ 0	\$ 0	\$ 0	\$ 0	\$ 491,212
Contraceptive Grant	\$ 1,988,212	\$ 375,496	\$ 0	\$ 0	\$ 0	\$ 0	\$ 2,363,708
Aldstech:	\$ 0	\$ 0	\$ 0	\$ 2,546,425	\$ 4,735,365	\$ 7,502,639	\$ 14,784,429
Other Government	\$ 0	\$ 85,427	\$ 207,091	\$ 117,442	\$ 56,551	\$ 48,250	\$ 514,761
Private	\$ 392,143	\$ 817,987	\$ 1,089,906	\$ 2,114,232	\$ 2,118,988	\$ 2,250,000	\$ 8,783,256
Corporate	<u>\$ 196,491</u>	<u>\$ 139,453</u>	<u>\$ 295,341</u>	<u>\$ 594,908</u>	<u>\$ 914,399</u>	<u>\$ 1,268,000</u>	<u>\$ 3,408,592</u>
Corporate Total	<u><u>\$ 7,736,888</u></u>	<u><u>\$ 9,431,495</u></u>	<u><u>\$ 9,725,598</u></u>	<u><u>\$ 12,679,594</u></u>	<u><u>\$ 15,693,979</u></u>	<u><u>\$ 23,958,757</u></u>	<u><u>\$ 79,226,311</u></u>

Source: FHI

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Table D-2
Program Expenditure by Division and Program: Geographic Dispersion
(Fiscal Years 1985 to 1990)

Division/Program	FY'85	FY'86	FY'87	FY'88	FY'89	(Est) FY'90	Total
Clinical Trials							
Global	<u>100.00%</u>						
Total Clinical Trials	<u>100.00%</u>						
Reproductive Epidemiology and STDs							
Africa	7.37%	4.02%	5.35%	5.33%	1.19%	19.69%	8.16%
Asia	22.26%	17.63%	12.56%	10.51%	11.60%	48.64%	22.89%
Latin American/Caribbean	30.18%	21.97%	11.45%	28.97%	22.27%	12.56%	20.41%
Near East	7.00%	12.46%	3.71%	0.08%	0.00%	0.00%	4.23%
Europe/North America	16.62%	35.35%	26.42%	20.20%	16.49%	4.58%	19.72%
Global/Other Regions	<u>16.57%</u>	<u>8.58%</u>	<u>40.50%</u>	<u>34.90%</u>	<u>48.45%</u>	<u>14.53%</u>	<u>24.59%</u>
Total Reproductive Epidemiology & STDs	<u>100.00%</u>						
Program Evaluation							
Africa	7.65%	14.00%	28.53%	22.88%	14.87%	5.83%	15.46%
Asia	27.05%	23.22%	24.17%	20.43%	16.33%	21.72%	22.47%
Latin America/Caribbean	41.17%	33.94%	24.87%	24.26%	27.03%	2.17%	24.36%
Near East	2.12%	4.28%	2.21%	5.97%	8.83%	0.63%	3.54%
Europe/North America	4.74%	14.11%	8.45%	7.20%	3.31%	1.32%	6.97%
Global/Other Regions	<u>17.27%</u>	<u>10.45%</u>	<u>11.77%</u>	<u>19.25%</u>	<u>29.63%</u>	<u>68.32%</u>	<u>27.19%</u>
Total Program Evaluation	<u>100.00%</u>						
Field Development & Training							
Africa	7.14%	10.62%	11.13%	13.02%	23.36%	21.09%	16.84%
Asia	27.69%	28.13%	34.56%	22.16%	25.27%	21.75%	25.51%
Latin America/Caribbean	30.68%	15.76%	5.61%	11.66%	10.09%	10.53%	11.13%
Near East	1.04%	18.61%	24.67%	28.69%	21.42%	18.40%	21.13%
Global/Other Regions	<u>33.45%</u>	<u>26.89%</u>	<u>24.03%</u>	<u>24.47%</u>	<u>19.87%</u>	<u>28.23%</u>	<u>25.39%</u>
Total Field Development & Training	<u>100.00%</u>						
Regulatory Affairs							
Europe/North America	<u>100.00%</u>						
Total Regulatory Affairs	<u>100.00%</u>						
Other							
Global	<u>100.00%</u>						
Total Other	<u>100.00%</u>						

Source: FHI

**Table D-3
FHI Clinical Trials
CT Division Expenditures
(for Contraceptive Development, Programmatic
Information, and Contraceptive Introduction)
Fiscal Years 1985 to 1990**

Clinical Trials	Development						(Est) FY'90	Total
	FY'85	FY'86	FY'87	FY'88	FY'89			
Barrier Methods	63,701	26,638	21,995	22,943	34,379	48,936	218,592	
Condoms	0	1,511	17,638	286,827	706,531	1,990,707	3,003,214	
Net 90 Injectibles	53,489	225,397	803,451	662,545	766,582	539,804	3,051,268	
Net Implants	0	14,790	24,524	144,374	124,541	334,130	642,359	
Non-Surgical Female Sterilization	179,000	82,089	46,831	33,690	35,322	220,081	597,013	
Spermicides	657	17,540	17,598	9,001	4,565	7,596	56,957	
Surgical Female Sterilization	286,847	453,764	441,629	438,423	411,882	197,887	2,230,437	
Totals	583,694	821,729	1,373,656	1,597,808	2,083,802	3,339,141	9,799,840	

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**Table D-3
FHI Clinical Trials
CT Division Expenditures
(for Contraceptive Development, Programmatic
Information, and Contraceptive Introduction)
Fiscal Years 1985 to 1990**

Clinical Trials	Programmatic Information						Total
	FY'85	FY'86	FY'87	FY'88	FY'89	(Est) FY'90	
	<u>of General Interest</u>						
IUDs	63,976	83,844	112,904	89,653	65,435	60,446	476,258
	<u>of Local Interest</u>						
IUDs	255,903	335,378	451,618	358,613	261,741	241,785	1,905,038
Male Sterilization	29,740	34,219	33,325	38,999	67,587	136,528	340,398
Surgical Female Sterilization	71,712	113,441	110,407	109,607	102,970	49,472	557,609
	<u>of Both General & Local Interest</u>						
Barrier Methods	254,805	106,552	87,982	91,773	137,514	195,742	874,368
Oral Contraception	405,802	481,255	426,613	268,677	154,907	140,520	1,877,774
Spermicides	5,908	157,863	158,379	81,008	41,086	68,365	512,609
Totals	1,087,846	1,312,552	1,381,228	1,038,330	831,240	892,858	6,544,054

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**Table D-3
FHI Clinical Trials
CT Division Expenditures
(for Contraceptive Development, Programmatic
Information, and Contraceptive Introduction)
Fiscal Years 1985 to 1990**

		Introduction						
Clinical Trials	FY'85	FY'86	FY'87	FY'88	FY'89	(Est) FY'90	Total	
Norplant	322,385	450,031	470,399	493,184	557,096	523,574	2,816,669	
		Other						
Other	241,944	296,752	240,384	156,811	219,536	330,908	1,486,335	

Source: FOPTECH, based on FHI information.

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Table D-4
Program Expenditure by Division and Program
(Fiscal Years 1985 to 1990)

Division/Program	FY'85	FY'86	FY'87	FY'88	FY'89	(Est) FY'90	Total
Clinical Trials							
Barrier Methods - Other	14.25%	4.62%	3.17%	3.49%	4.66%	4.81%	5.29%
Condoms	0.00%	0.05%	0.51%	8.73%	19.14%	39.14%	14.55%
IUDs	14.31%	14.55%	16.29%	13.64%	8.86%	5.94%	11.53%
Male Sterilization	1.33%	1.19%	0.96%	1.19%	1.83%	2.68%	1.65%
NET 90 Injectables	2.39%	7.82%	23.18%	20.16%	20.77%	10.61%	14.78%
NET Implants	0.00%	0.51%	0.71%	4.39%	3.37%	6.57%	3.11%
Non Surgical Female Sterilization	8.01%	2.85%	1.35%	1.03%	0.96%	4.33%	2.06%
NORPLANT®	14.42%	15.62%	13.57%	15.01%	15.09%	10.29%	13.64%
Oral Contraception	18.15%	16.70%	12.31%	8.18%	4.20%	2.76%	9.09%
Spermicides	0.29%	5.09%	5.08%	2.74%	1.24%	1.49%	2.76%
Surgical Female Sterilization	16.04%	9.69%	15.93%	16.68%	13.95%	4.86%	13.50%
Other	10.82%	10.30%	6.94%	4.77%	5.95%	6.51%	7.20%
Total Clinical Trials	<u>100.00%</u>						
Reproductive Epidemiology and STDs							
Contraception and Cancer	21.77%	15.80%	11.44%	33.58%	42.06%	7.46%	19.59%
Contraception and Sexually Transmitted Disease	25.71%	18.23%	33.38%	28.71%	19.57%	56.69%	32.17%
Contraception for Women with Special Needs	3.84%	2.61%	3.71%	5.23%	9.31%	5.25%	4.71%
Maternal Morbidity and Morality	0.00%	7.16%	8.59%	8.14%	0.07%	12.76%	6.84%
Reproduction and Environmental & Behavioral Exposure	10.78%	15.84%	4.43%	0.06%	0.00%	0.00%	5.62%
Risk/Benefit Analysis of Contraception	20.96%	22.66%	32.33%	23.26%	28.11%	16.91%	23.38%
Other Studies of the Effects of Contraception	16.94%	17.71%	6.13%	1.02%	0.88%	0.93%	7.69%
Total Reproductive Epidemiology & STDS	<u>100.00%</u>						
Program Evaluation							
Acceptability of Contraceptive Methods	0.18%	1.83%	5.68%	4.45%	12.12%	21.78%	8.06%
AIDS and Family Planning	0.00%	0.00%	0.83%	2.12%	8.48%	9.01%	3.28%
Breastfeeding	17.58%	7.62%	8.24%	15.01%	15.88%	14.10%	12.32%
Family Planning Services Delivery	26.96%	14.52%	8.81%	6.04%	9.18%	31.69%	17.03%
Maternal and Child Health	0.24%	15.99%	22.37%	16.33%	13.55%	2.02%	11.92%
Multi-purpose Demographic Surveys and Secondary Analyses	8.86%	19.30%	20.49%	27.41%	16.71%	2.52%	15.38%

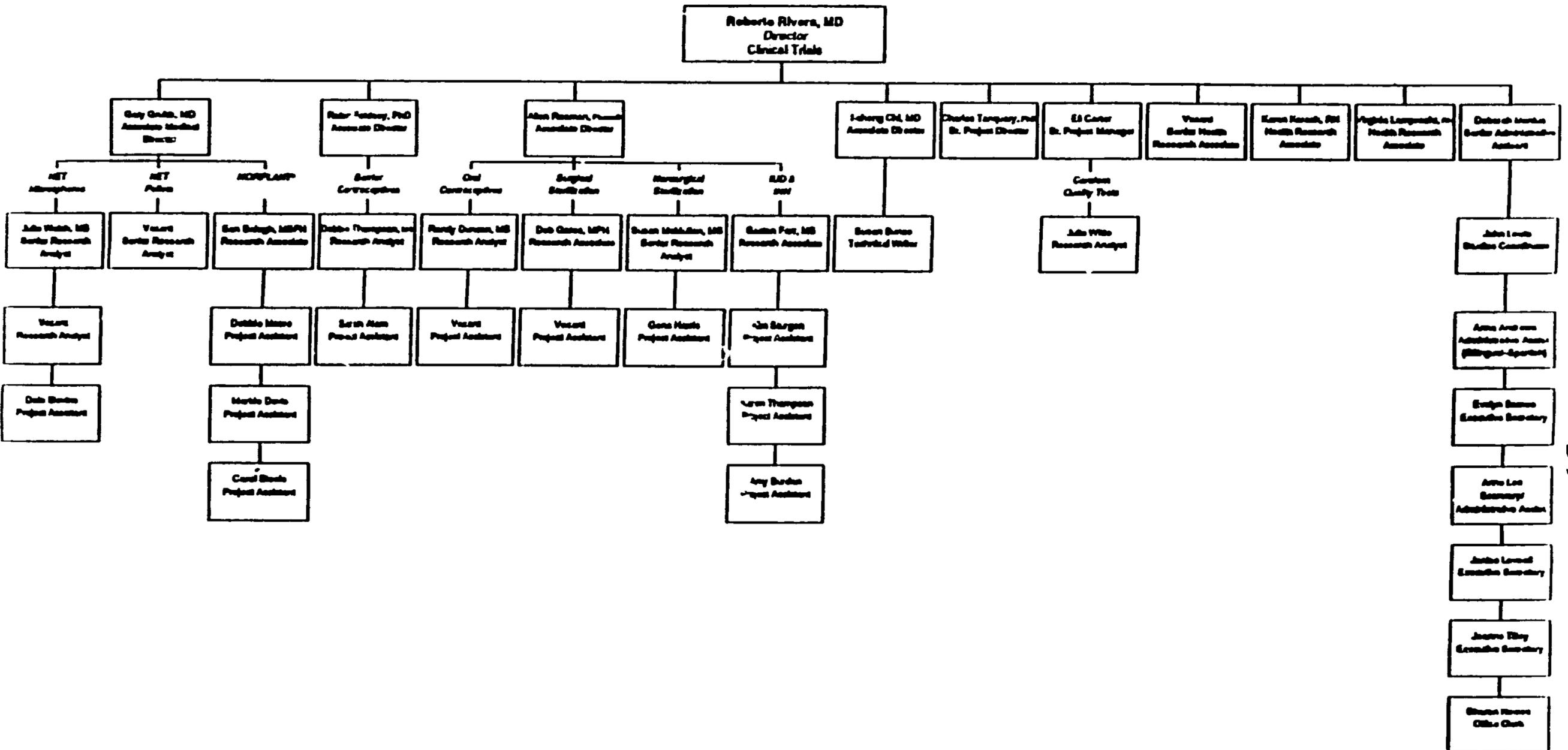
-D-7-

Table D-4
Program Expenditure by Division and Program
(Fiscal Years 1985 to 1990)

Division/Program	FY'85	FY'86	FY'87	FY'88	FY'89	(Est) FY'90	Total
Natural Family Planning	46.18%	35.43%	27.41%	18.50%	11.36%	2.82%	23.51%
Quality of Services	0.00%	5.30%	6.17%	10.15%	12.72%	16.05%	8.51%
Total Program Evaluation	<u>100.00%</u>						
Field Development & Training							
Contraceptive Introduction	0.81%	8.88%	10.16%	7.84%	4.22%	13.16%	9.30%
Information Dissemination	21.26%	10.89%	13.90%	17.69%	16.20%	24.90%	18.33%
Institutional Development	18.34%	59.29%	62.91%	57.10%	64.41%	49.76%	56.27%
Training	59.59%	20.94%	13.03%	17.37%	15.17%	12.18%	16.11%
Total Field Development & Training	<u>100.00%</u>						
Regulatory Affairs	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Other	<u>100.00%</u>						

Source: FHI

Figure D-1
Division of Clinical Trials Organization Chart



Appendix E

Five Illustrative Projects from the Clinical Trials Division

Appendix E

Five Illustrative Projects from the Clinical Trials Division

To understand the operation of CT, the evaluation team selected several illustrative projects in this division for special attention:

- (a) a study of a marketed product: Progestogen-only pills for lactating women
- (b) collaborative introductory studies of a new product: NORPLANT●
- (c) a Phase III study of a new product: NET-90 Microspheres
- (d) a new method: D-Propranolol
- (e) an improved method: plastic condoms

(a) Study of a Marketed Product: Progestogen-only Pills for Lactating Women

Progestogen-Only Minipills

Although the discovery that progestogens, given alone at low dose continuously without interruption, can inhibit fertility dates back to the late sixties, this method has not gained popularity, probably because of its somewhat lower efficacy compared to progestogen-estrogen combined pills.

Notwithstanding their recognized lower effectiveness, progestogen-only pills (POP) have several advantages; it was therefore interesting to see that FHI had decided to investigate an area of hormonal contraception that has certainly been neglected by many.

Rationale and Overall Strategy Overview

The estrogen component of combined oral contraceptives has been associated with suppression of lactation. Most progestogen-only pills have no significant adverse effect on breast-feeding, whether lactation performance is evaluated on the basis of infant weight, milk volume or quality or duration of lactation. The progestogen-only pills may even augment and/or sustain milk production.

Over a period of several years, FHI carried out a series of studies of Progestogen-only Oral Contraceptives in lactating women. The first two studies, carried out in Argentina and Egypt, compared POCs to non-hormonal methods, and assessed effects of POC use on duration and frequency of breastfeeding and on infants' weight gain. Findings showed no adverse effects and suggested that POCs might actually increase lactation.

The completion of these studies coincided with a growing body of FHI work on breastfeeding as a contraceptive, and extensive data collection through Maternity Care Monitoring studies on patterns of breastfeeding. With the addition of POCs to A.I.D.'s commodities program, FHI was requested to develop and implement introductory studies of POCs in countries where they were not being used. The resulting strategy, to be carried out in up to 20 centers and enrolling up to 4,000 women, was designed to meet two needs. These studies were designed, primarily, to determine the acceptability of POCs in lactating women, measured by continuation rates and reasons for discontinuation, and to familiarize developing country providers with this method particularly in countries where these pills were not available at the time the studies were initiated. The studies were not intended, nor were they designed, to collect endocrinological data on women enrolled in the studies; the previous studies had already assessed impact of POCs on lactation, and endocrine status was neither felt to be an issue nor was it possible to carry out studies of this nature in the sites proposed for the introductory studies. A total of 20 centers in Latin America, Africa and the Caribbean participated in this strategy.

Based upon the response to this initial introductory strategy, FHI developed an expanded strategy "to provide wider distribution of POCs in appropriate populations." This strategy was designed to

include up to 10,000 women, with sufficiently large numbers of women enrolled in each country to assure that findings would have programmatic relevance for the participating country. For reasons of financial limitations, only six centers participated in the expanded strategy, eventually enrolling 916 women. Both strategies are now closed, and consultant reports for all sites have been completed or are in progress.

Detailed evaluation of the study

The design of the study, its conduct and analysis, were evaluated in order to gain insight on the mechanisms utilized at FHI to identify priority areas, select the kind of studies capable of answering pertinent questions, design protocols to obtain specific information, properly conduct the study and analyze the results.

Identification of priority areas. FHI has had an interest in lactation both as a natural method of fertility control in the LDCs and as a means to improve child health. It was therefore very opportune that it decided to embark on studies aimed at investigating further the possibility of strengthening the contraceptive potential of breastfeeding by the use of a method that would not in any way impair either lactation or child growth and development.

Selection of studies best suited to answer the questions of safety and acceptability of POP. The sequence of events, namely comparative safety and efficacy studies at two sites in two countries followed by the introductory and expanded studies, is sufficient to ensure that proper consideration to safety aspects was given.

The overall validity of the program was also ensured by a proper geographical and cultural distribution of centers: 6 Latin American countries; 1 black Caribbean; 6 sub-Saharan countries; 2 North African and 1 of mixed population (Sudan). In addition, a special study in Thailand ensured testing in East Asia.

Design of protocols capable of specifically addressing the issues. The selection of a Phase IV type of protocol for the main study was appropriate. It enabled an evaluation of field conditions prevalent in the country at study. In particular selecting women using only very general criteria (age above 18 and currently breastfeeding) allowed a cross-sectional evaluation of the populations. Also the protocol was sufficiently loose to allow clinics to decide for themselves when to begin POP use on the basis of known patterns of lactation, the return of ovulation and likely pattern of compliance.

Proper conduct of the study. The information obtained from headquarters staff provided a clear image of how these studies were monitored both at the field level and centrally. With follow-up at 2, 6 and 12 months after commencement of POP and additional studies aimed at following groups of women beyond the first year, enough information could be collected.

Data analysis. The Division is aware that a loose protocol allows for a somewhat limited amount of information to be collected. For this reason, secondary and tertiary analysis of the data should and will be carried out in an attempt to answer as many questions as possible.

Criticism

These introductory studies did not focus on efficacy, since other studies reported in the literature had focused on this issue, although not in lactating or postpartum women. The introductory studies were not designed to address the question of whether the endocrine status of women at the time they initiate use of POCs may influence contraceptive efficacy.

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In hindsight, evaluating efficacy of POPs in lactating women would have provided important programmatic information. This criticism is strictly related to that of acceptability: a method that is not highly effective is less frequently accepted even by women who wish simply to space their children.

It seems that budgetary constraints will prevent further continuation of this line of research. Here again, it is difficult to evaluate the true priority of POP work. At the same time, in terms of impact, stopping mid-stream may limit the usefulness of the entire effort.

Conclusions

The detailed analysis of this study confirms that overall, CT's studies seem properly thought out, rationally designed and efficiently implemented.

(b) Collaborative Introductory studies of a new product: NORPLANT®

FHI has supported NORPLANT® clinical trials in 43 sites in 12 countries. This implant has been approved for programmatic use in 5 of these countries as a result of the FHI-conducted studies. The objectives of the FHI Phase III pre-introductory clinical trials of NORPLANT® were to introduce the method into countries with no previous experience in implantable contraceptives and to provide proper training to physicians in the insertion and removal techniques of the device. Data have been collected on over 7,000 insertions. The results of the studies have been the subject of more than 20 FHI publications and presentations, including national seminars aimed at family planning policymakers and health care providers. The introductory trials were initially conducted under FHI's cooperative agreement with A.I.D. In the last couple of years, however, an increasing number of USAID Missions have expressed their interests in introducing the product into the local countries. At the present, several NORPLANT® studies are being conducted with direct Mission support.

The work with NORPLANT® represents an excellent example of collaboration between divisions within FHI, as well as collaboration with other institutions. Moreover, it seems clear that FHI has developed the largest, and one of the best-managed, databases on this product in the world.

This project has involved close cooperation between all divisions within FHI, and has necessitated the creation of an ad hoc task force. It has also necessitated collaboration with the Population Council ICCR, AVSC, PATH, JHPIEGO, the manufacturer, (Leiras) and many local regulatory agencies. Introduction activities have included the pre-introductory clinical trials (with some new findings on clinical performance of the device), in-country training, development of IEC materials, the organization of national seminars, extensive acceptability and programmatic research, and activities to assist with government approval. A major additional component has been their involvement in the multi-institutional prospective cohort post-marketing surveillance study. Other projects have included safety and efficacy studies in risk groups.

FHI's work in introducing NORPLANT® is of the highest international standard, and their experience will be invaluable as other organizations become involved in introducing new products.

(c) Phase III Study of a new product: NET-90 microcapsules

The Phase III clinical trials with the NET-90 system were initiated in the fall of 1987. The first sites to initiate the trials were the international sites in Latin America followed by those in Southeast Asia. In the middle of 1988 the U.S. sites also initiated their respective clinical trials. In May of 1989, however, FHI received the first report of the NET serum levels from the subjects participating in the clinical trial at the in New York centers. These showed that NET levels were much lower than had been anticipated and were definitely below the levels that are necessary to inhibit ovulation. This information, coupled with higher than anticipated pregnancy rate in these studies, prompted a meeting of the Executive

Project Review Committee, which was called to review the problem. The decision of the committee was to put the trials on hold and call for a meeting with the manufacturer of NET-90, Stolle Research and Development Corporation. The meeting took place the same week and the manufacturers agreed that the NET levels were below those necessary for contraceptive efficacy; for the first time they showed results obtained with the same formulation in the baboon studies that had previously been requested by FHI, which confirmed that the product did not release NET at the desired levels. It was decided to report the situation to the A.I.D. and to Ortho Pharmaceutical, the organization providing product liability for these trials. A decision taken was to terminate the ongoing clinical trials before additional pregnancies occurred. It should be noted that the cut-off pregnancy rate preestablished by FHI had not been reached at the time these trials were terminated; however, given the blood level profiled on the product, it was clear to those who reviewed the data that more pregnancies would occur if the study continued. The trials were terminated in accordance with FDA guidelines and those of local review boards, both of FHI and the involved centers.

The failure in the release rates was attributed by the manufacturers to problems related with scale-up of the manufacturing process. Previously, all the microsphere formulations studied had been prepared on a small scale; the first need to manufacture microspheres on a large scale came when FHI's Phase III clinical trials were planned. The formulation problem seemed to be related to a higher than necessary content of the small size microspheres that produced a high initial release of NET and a relatively insufficient proportion of bigger size microspheres that would provide the release of NET in the second half of the anticipated contraceptive period.

Following termination of the Phase III study, a new formulation program was immediately initiated. This included the preparation of several different production batches which were then blended into formulations that contained different mixes of microsphere sizes. Eight formulations were injected into baboons in the months of August and September, 1989. The observation period in the baboon is planned for 100 days. At the end of this period, results will be analyzed to decide which formulation(s) will be studied in a Phase I clinical trial. It is anticipated that the Phase I trials will be initiated in April 1990, probably with three formulations or three doses of the same formulation -- the observation period being that corresponding to one injection. The preparation providing the best profile of release rate will be selected to initiate the Phase III trials.

It is likely that the new microspheres providing a better release of NET will allow FHI to initiate the Phase III trials with a lower dose than had been anticipated in the previous Phase III. FHI expects the dose will be between 65 and 100 mg, most likely around 80-85 mg for the 90-day period.

As a result of this experience, FHI now has put in place plans for a more stringent follow-up of the manufacturing process of the new microspheres and has set down certain conditions that must be met before they will re-initiate clinical studies with this injectable.

The clinical experience gained with the cancelled Phase III trials was valuable. The product proved to be very safe; no important adverse experiences were observed during these trials. It was also an opportunity to test the data collection materials, which worked very well both in the international and U.S. sites. Finally, all the sites had a very good follow-up rate and their collection of data was excellent. It is planned to use the same sites for the upcoming Phase III trial.

(d) New Method: D-PROPRANOLOL

This is a new lead in the search for a more effective spermicide, and is exciting for several reasons. It has a potent spermicidal action, and seems to be relatively long-acting. It penetrates effectively into cervical mucus from the vagina, and probably also from the blood stream. It has good preliminary clinical efficacy. It is a drug whose patent has expired, and some FDA toxicological exemptions have been obtained. The D-isomer carries the spermicidal activity, while the L-isomer carries the beta-blocking activity for which it is already marketed. The D-isomer also has some beta-blocking activity (100 times less than the L-isomer), but systemic beta-blocking activity has not been apparent to date at the concentrations being

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used intravaginally. Recent studies indicate inhibitory activity against some STDs. FHI assisted in the analysis of the original efficacy studies carried out by Dr. Jaime Zipper in Chile.

Under this Cooperative Agreement, FHI carried out a number of appropriate studies with joint funding from A.I.D. and NIH:

1. confirmed potency of DL and D-propranolol
2. demonstrated diffusion into cervical mucus *in vitro*
3. established dose-response in monkeys
4. compared cream and gel formulations
5. evaluated potential for vaginal irritation
6. measured beta-blocking potential
7. assessed mutagenic/carcinogenic potential *in vitro*
8. assessed activity *in vitro* against HIV and N. gonorrhea

Initial studies were disappointing, in that no advantage was demonstrated over nonoxynol-9 in any way. In particular, no anti-viral activity was demonstrated against HIV at normal doses. This led to a full reassessment of the program, and the decision to test anti-gonorrheal activity *in vitro*. These tests confirmed substantial activity against N. gonorrhea (greater than nonoxynol-9), and the decision was made to go ahead to Phase I study of spermicidal efficacy of the chosen formulation. Some activity has also been demonstrated against trichomonas and giardia. Chlamydia has not yet been tested. A patent has been filed related to its activity against N. gonorrhea.

Some problems encountered during the development of this product include difficulty in formulation (a cream formulation stable for 6 months has been prepared), and in achieving adequate cervical mucus concentrations. These are being further addressed.

Current and planned activities include:

1. Phase I post-coital evaluation of spermicidal properties of D-propranolol and nonoxynol-9 in women protected against pregnancy, with evaluation of the post-coital test after both early (10 minutes) and delayed (6 to 8 hours) intercourse following administration.
2. Phase I safety evaluation of D-propranolol
3. Phase I dose-response study of D-propranolol spermicidal properties
4. Phase II evaluation of the safety and contraceptive efficacy of D-propranolol. An IND was submitted to the FDA 2 years ago.

This is an exciting project which has reasonable prospects of eventually being brought to the market. Charts have been prepared of the time paths involved. Management of the project appears to have been appropriate at all levels.

(c) New Method: Plastic Condoms

This is another exciting area of activity of FHI which was found to be innovative and well managed.

Concerns about the prevention of STDs, including AIDS, has called attention to the breakage of condoms during use and the need to develop stronger condoms. The deterioration of the rubber condom under common conditions of storage in many developing countries is also of concern. FHI has initiated an imaginative program to develop a new type of condom utilizing the latest plastics technologies. After an extensive search that included mechanically testing different materials, a thermo-plastic elastomer was selected as the material of choice. This material is less elastic than rubber and therefore will not fit tightly onto the penis. Hence, the concept of this product is different from the conventional latex condoms. It will be loose fitting and will need to be held in place by a flange at the base containing an aperture for

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the penis. It will probably be easier to use and remove than conventional condoms, and attention is being paid to the development of instructions for use. The elastomer material will have a longer shelf life than latex products, will be better able to withstand adverse storage conditions, will be compatible with any lubricant likely to be used and should be able to withstand greater stresses during use. A range of appropriate clinical testing studies have been designed.

The concept of this type of "condom" is so different from latex condoms that FHI possibly should consider ways in which it may change the "image" or generic name of this type of device.

This new product is an example of FHI's ability to move successfully into new product development.

STUDY STATUS LIST
PROGESTOGEN-ONLY OC VERSUS NON-HORMONAL METHODS

OCTOBER 1989

Description of Study: Progestogen-only Oral Contraceptive versus Non-Hormonal Methods in Lactating Women (Repeated Studies)

Study Number: 877, 878 FCO: 3133

Total Number of Cases: 800

Total Number of Studies: 3

Center	Investigator/ Country	Index Number	Date Init./Active	Date Expiration Date	Proposed No. of Cases	Forms Processed							Date Last Shipment	Date Last Site Visit	Status/ Comments	
						ADM	1mo FU	2mo FU	3mo FU	4mo FU	5mo FU	6mo FU				7mo FU
340	Etman/Mehalla- Kubra, Egypt	85/005	10/85	6/86	1/89	300	283	211	211	210	207	209	206	10/25/88	10/88	KAC Closed (CR in prog.)
871	Moggia/Buenos Aires, Argentina	85/004	10/85	10/85	4/87	300	300	250	210	231	219	221	246	3/9/87	4/87	CC Closed (CR in prog.)
871	Moggia/Buenos Aires, Argentina	86/001	8/86	11/86	4/88	200	196	158	136	151	131	142	163	1/15/88	10/87	CC Closed (CR in prog.)

THE TOTALS ON THIS LIST REPRESENT THE TOTAL NUMBER OF FORMS LOADED INTO THE COMPUTER.

**STUDY STATUS LIST
SYSTEMICS**

OCTOBER 1989

Description of Study: Progestogen-Oral Contraceptives in Lactating Women

Study Number: 8875 FCO: 3142

Total Number of Cases: 4000

Total Number of Studies: 20

Center	Investigator/ Country	Index Number	Date Init	Date Actv	Expiration Date	Proposed No. of Cases	Forms Processed				Date Last Shipment	Date Last Site Visit	Status/ Comments	
							ADN	2 mo FU	6 mo FU	12 mo FU				
084	Delgado/Mexico Villahermosa	84/034	11/84		11/87	200	199	198	195	192	12/9/87	5/87 CC	Closed	
102	Guzman/Peru Lima	84/018	7/84		11/87	200	199	148	112	75	11/4/87	1/87 CC	Closed CR in progress	
110	Nagahata/Peru Lima	84/014	3/84		9/87	200	193	191	187	190	1/15/87	1/87 CC	CR 597	
400	Gerai/Sudan Khartoum	85/002	2/85		2/87	200	200	200	186	174	5/21/86	3/87 PG	CR 596	
422	Broquet/Rwanda Gisenyi	84/004	6/85		3/87	200	18	11	1		5/20/86	5/86 RD	No CR to be written	
452	Doh/Cameroon Yaounde	84/030	12/84		1/87	200	228	128	98	91	1/6/87	2/87 RD	CR 587	
453	Wright/Nigeria Jos	84/035	3/86		7/88	100	101	82	58	43	6/28/88	6/87 SB	Closed	
483	Ndiaye/Senegal Dakar	84/004	11/84		10/88	200	140	115	84	61	4/5/88	9/87 RD	Closed	
831	Aranda/Costa Rica San Jose	84/019	9/84		9/86	200	169	115	71	53	2/19/86	1/86 CC	CR 578	
840	FEMAP/Mexico Cuidad Juarez	84/029	10/84		9/86	200	200	164	134	59	63	5/7/86	12/85 CC	CR 620

Center Investigator/ Country	Index Number	Date Init	Date Actv	Expiration Date	Proposed No. of Cases	ADM	Forms Processed			Date Last FU Shipment	Date Last Site Visit	Status/ Comments
							2mo FU	6 mo FU	12 mo FU			
841 Santiso/Guatemala Guatemala City	84/031	12/84		10/86	200	199	192	162	148		11/11/86	3/87 CC CR 606
843 Bomfim/Brazil Fortaleza	84/036	12/84		4/87	200	196	163	113	69	74	5/18/87	4/87 DB Closed (CR in review)
865 Barbosa/Brazil Santa Maria	84/038	2/85		7/88	200	197	132	82	44	25	3/8/88	4/87 DB Closed (CR in prog.)
869 Cetina/Mexico Merida	84/015	7/84		6/86	200	200	185	146	93		6/11/86	12/85 CC CR 588
871 Moggia/Argentina Buenos Aires	84/020	8/84		9/86	200	200	162	1	130		4/21/86	4/86 CC CR 579
893 Czeresnia/Brazil Sao Paulo	84/037	2/85		12/87	200	147	132	77	36	49	7/14/87	4/87 DB CR 630
8014 Iacoin/Haiti Port-au-Prince	84/016	8/84		6/86	200	199	170	109	79		2/28/86	9/85 KJ CR 575
8056 Oliveira/Brazil Londrina	84/039	2/85		4/87	200	196	158	92	46	18	4/14/87	8/86 DB Closed (CR in prog.)
8058 Andrade/Brazil Curitiba	84/041	5/85		4/87	200	205	158	97	44	54	5/5/87	4/87 DB CR 618
8059 Nunes/Brazil Porto Alegre	84/040	2/85		4/87	200	200	195	177	126	43	1/20/87	4/87 DB CR 609

The totals on this list represent the total number of forms loaded to date.
 Closed*-Closure form not complete.

**STUDY STATUS LIST
SYSTEMICS**

OCTOBER 1989

Description of Study: Expanded Strategy for Progestogen-only pills (either several centers per country or through CED programs)

Study Number: 8876 FCO: 3142

Total Number of Cases: 10,000

Total Number of Studies:

Center	Investigator/ Country	Index Number	Date Init	Date Actv	Expiration Date	Proposed No. of Cases	ADM	Forms Processed				Date Last Shipment	Date Last Site Visit	Status/ Comments
								2 mo FU	6 mo FU	12 mo FU	FT FU			
043	Gardiner/Ghana Accra	85/001	10/85		11/87	200	200	196	163	174		7/7/87	9/87 SM	CR 623
044	Klufio/Ghana Accra	84/003	10/85		7/87	200	199	191	185	168		6/22/87	6/86 PL	Closed
440	Doucoure/Traore Bamako/Mali	83/031	1/85		7/87	100	99	79	58	37		5/5/87	10/87 KJ	CR 629
457	Toure/Traore Kayes/Mali	84/002	9/85		4/87	200	76	22				7/7/87	8/86 KJ	No CR to be written
460	Sanku/Traore Bamako/Mali	85/003	9/85		9/88	200	196	155	66	42		9/28/88	12/87 KJ	Closed
8060	Russowsky/Brazil Porto Alegre	84/001	3/85		12/86	300	149	101	51	28		5/5/87	4/87 DB	No CR to be written

The totals on this list represent the total number of forms loaded to date.

Closed*-Closure form not complete.

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Appendix F

Clinical Trials: FY90 Studies, Ongoing and Planned

Appendix F

Clinical Trials: FY90 Studies, Ongoing and Planned

NORPLANT

NORPLANT Pre-introductory Clinical Trials
NORPLANT Expansion Studies
NORPLANT-2 Implants - Pre-introductory Clinical Trials

Systemics

Triquilar vs Lo-Femenal
Loestrin vs Lo-Femenal

Barrier Contraception

Diaphragm with Spermicide vs Diaphragm without Spermicide vs Spermicide Only (Delfen Foam)
Neosampoon vs Conceptrol Foaming Vaginal Contraceptive Tablets
Phase II Evaluation of the Contraceptive Efficacy and Clinical Acceptability of a Female Condom
Use of Condoms and Vaginal Spermicides by Women at High Risk of Contracting Sexually Transmitted Diseases
Phase I Comparison of the Spermicidal Activity of Vaginal Creams Containing D-Propranolol or Nonoxynol-9
Phase I Comparative Study of Lea's Kap and the Prentif Cap for Safety and Postcoital Testing

Investigator Network Needs

TCu 380A vs TCu 200
FS Surveillance
Noncomparative Study of Lo-Femenal
Triquilar vs Lo-Ovral
Local Projects Funding Program (studies to be determined)

IUD

Introduction of Postpartum IUD Insertion
Evaluation of TCu 380A vs TCu 200
Evaluation of TCu 380A vs MLCu250 vs LLD
IUD Surveillance Using TCu 200 and Lippes Loops
TCu 200 vs Adapted T

Female Sterilization

Filshie Clip vs Wolf Clip via Minilaparotomy

Male Sterilization

Standard Incision vs Puncture Method of Vasectomy

Nonsurgical Female Sterilization

Quinacrine Pellets, 250 mg, 3 Insertions, with Pentothal
Quinacrine Pellets, 250 mg, 3 Insertions, without Pentothal
Quinacrine Pellets, 100 Minute Release Rate, 250 mg, 2
Insertions

Transcervical Administration of Iodine Formulation

NET Microspheres

Phase I Evaluation of the Safety and Pharmacokinetics of
90-Day Injectable Norethindrone Microspheres

NET Pellets

Evaluation of the Safety and Pharmacokinetics of
Biodegradable Norethindrone Pellet Implants

Appendix G

Institutional Development Programs: FHRCs and Other LDC Organizations

Appendix G
Institutional Development Programs:
FHRCs and Other LDC Organizations

1. *FHRCs receiving comprehensive core support**

- *Thailand Fertility Research Association (TFRA)*
- *Bangladesh Fertility Research Programme (BFRP)*
- *Egyptian Fertility Care Society (EFCS)*
- *Family Planning Association of Sri Lanka (FPA/SL)*
- *University of Nairobi, Department of Obstetrics and Gynecology (UON/Kenya)*

2. *Organizations receiving substantial support for research and institutional strengthening*

- *Indonesian Fertility Research Coordinating Board (BKS PENFIN)***
- *Malian Association for Family Planning (AMPPF)*
- *National Center for Family Health of Niger (CNSF)*
- *Mexican Interuniversity Group for Epidemiologic Research in Reproductive Health (GIMIESAR)*
- *National Population Council of Egypt (NPC/Egypt)*

* See Attachment 1 for additional information on use of core funds.

** A recent graduate of core support program.

**Family Health International
FHRC Core Support Trends
(FY 1985 - 89)**

	1985	1986	1987	1988	1989	Total
<u>BFRP</u>						
- SIN 1203	47,000	9,149				56,149
- SAG 3535		45,851	20,992			66,843
- SAG 3576			56,035	52,000	86,894*	194,929
- SAG 5576			8,641			8,641
	47,000	55,000	85,668	52,000	86,894*	326,562
<u>BKS PENFIN</u>						
- SIN 1220	85,000					85,000
- SAG 3533		85,000	75,000	16,135		176,135
- SAG 3586				42,025	3,073	45,098
	85,000	85,000	75,000	58,160	3,073	306,223
<u>EFCS</u>						
- SIN 1259	96,812	26,893				123,705
- SAG 3532		119,369	118,954	34,594		272,917
- SAG 3586				7,500		7,500
- SAG 5586			38,854	54,362		93,216
	96,812	146,262	118,954	80,948	54,362	497,338
TOTAL (US\$)	228,812	286,262	279,622	191,108	144,329	1,130,133

*Includes a \$17,000 carry over from FY'88 and \$9,000 special payment for unanticipated expenses.

Notes: SIN = Grant funds
SAG = Cooperative Agreement funds
35xx = Centrally funded
55xx = Bilaterally funded (add-ons)

Bangladesh

Center/Study	Investigator	Study	Cost
723/Multi	Ahmed	Long-term FU of FS	\$ 450
<u>BFRP Studies</u>			
704/866	Begum	Pre-Introductory NORPLANT [•]	22,279
718/866	Chowdhury	Pre-Introductory NORPLANT [•]	21,075
721/866	Raham	Pre-Introductory NORPLANT [•]	22,670
166,167,766/ 1866	Satter, Raham Mosharraf	Expanded NORTHPLANT [•] at 3 Centers	51,012
704/1866	Begum	Expanded NORTHPLANT [•]	4,050
718/1866	Chowdhury	Expanded NORTHPLANT [•]	2,891
721/1866	Rahman	Expanded NORTHPLANT [•]	3,720
704/8856	Barua	OCs with vs without Iron	
707/5548	Shamsuddin	TCU 380A vs ML 375 at BFRP	
715/5548	Bhuiyan	TCU 380A vs ML 375 at BFRP	
721/5548	Rahman	TCU 380A vs ML 375 at BFRP	
725/5548	Chowdhury	TCU 380A vs ML 375 at BFRP	
716/535	Saida	TCU 200 with Iron vs Calcium vs Placebo Supplement	
721/535	Rahman	TCU 200 with Iron vs Calcium vs Placebo Supplement	

Egypt

Center/Study	Investigator	Study	Cost
356/8825	Rahman	Norinyl 1/35 vs Brevicon	\$ 798
370/8825,8850	Nada	Norinyl 1/35 vs Lo-Oval	5,848
358/8850	Shaaban	Norinyl 1/35 vs Norinyl 1/50	6,420
314/8820	Saleh	Loestrin vs Lo-Femenal	9,444
340/877,878	Etman	POC vs non-hormonal	8,638
363/550	Toppozada	Eval of TCu 380A vs TCu 200	4,704
<u>EFCS Studies</u>			
340/544, 521	Etman	Long-term FU of TCu 280 Ag vs MLCu 375 or Cu 7	
342/550	EFCS	Eval of TCu 380A vs TCu 200	45,763

Note: A 1500-case NORPLANT® clinical trial was initiated in July 1988 at five Egyptian university teaching hospitals located in Ain Shams, Al Azhar, Alexandria, Assuit and Mansoura. The study is coordinated locally by the Egyptian Fertility Care Society (EFCS) with technical assistance provided by the FHI staff. Funding for the study is provided directly to EFCS through a USAID/Cairo Mission buy-in. Local field cost are paid by EFCS, and all data processing, site monitoring, and analysis are performed as EFCS.

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Indonesia

Center/Study	Investigator	Study	Cost
683/8820	Lubis	Loestrin vs Lo-Femenal	\$ 695
683/8822	Lubis	Noncomparative Lo-Femenal	2,629
<u>BKS PENFIN</u>			
739/6103	Thouw	Eval of Femtest Pre-Sterilization	900
759/6103	Moeloek	Eval of Femtest Pre-Sterilization	900
739/6104	T w	Eval of Femtest Pre-Sterilization	900
759/6104	Moeloek	Eval of Femtest Pre-Sterilization	900
739/6265	Thouw	Laparoscopy-Filshie Clip vs Tubal Ring	9,960
759/6265	Moeloek	Laparoscopy-Filshie Clip vs Tubal Ring	8,828
621/8865	Soprapti	OCs with vs without Iron	248
BKS/5554	BKS PENFIN	Eval of TCU 380 vs MLCu 375 vs LLD	61,350

Sri Lanka

Center/Study	Investigator	Study	Cost
749/866	Chinnatamby	Pre-Introductory NORPLANT [®]	\$ 31,696
733/704	Beligaswatte	Standard Incision vs Puncture Method of Vasectomy	6,119
<u>FPA of Sri Lanka</u>			
779/553	Gunasekera	Tcu 380A vs MLCu 250	14,360
703/8850	Basnayake	Norinyl 1/35 vs Norinyl 1/50	13,342
703/8840	Basnayake	Triquilar vs Lo-Femenal	13,444
758/866	Vinithatne	Pre-Introductory NORPLANT [®]	46,361
703/1866	Basnayake	Expanded NORPLANT [®]	2,391
703/866	Basnayake	Pre-Introductory NORPLANT [®]	51,861
703/553	Basnayake	Eval of TCu 380A MLCu 250	23,915

Thailand

Center/Study	Investigator	Study	Cost
75/807,850	Suporn	Standard Dose vs Low Dose	\$ 6,409
679/8820	Boonsri	Loestrin vs Lo-Femenal	3,109
741/5544	Damrong	MLCu 250 vs TCu 200B	7,200
75/Multi	Suporn	Long-term FU of FS	4,500
75/6260	Suporn	Laparoscopy-Filshie clip vs Pomeroy	8,428
698/704	Apichart	Standard Incision vs Puncture Method of Vasectomy	7,738
741/553	Damrong	Eval of TCu 380A vs MLCu 250	56,285
698/534	Apichart	TCu 200 vs Adapted T	7,292
773/7798	Sumana	OVT-m vs OVT-n	3,750
75/854	Suporn	Net Microsperes	8,486
<u>TFRA Studies</u>			
75/6265	Suporn	Laparoscopy-Filshie Clip vs Tubular Ring	
741/6265	Koobchitt	Laparoscopy-Filshie Clip vs Tubular Ring	
112/8845	Kanchanasinith	Crossover-Noriday/Lo-Famenal	688
SA 3142-1	Somsak	Progestogen-only, Noncomparative	138,194
SA 3163	Somsak	Nurse-Midwives - FS	38,157

Appendix H

Private and Corporate Funding Awards

Appendix H
Private and Corporate Funding Awards
in support of the A.L.D. Cooperative Agreement,
Office of Population

<u>Donor</u>	<u>Sum</u>	<u>Years</u>	<u>Purpose</u>
Buffett Foundation	\$ 300,000	1989-91	Unrestricted funds/research on economic resources for family planning
Andrew W. Mellon	\$ 450,000	1989-91	Contraceptive development; fellowship program
	\$ 900,000	1986-89	\$ 400,000 Contraceptive development; \$ 500,000 NORPLANT [®] postmarketing surveillance (Pop Council WHO/FHI project)
William and Flora Hewlett Foundation	\$ 210,000	1986-89	Unrestricted core support for family planning activities
	\$ 80,000	1979	Disseminating birth control methods
International Center for Research on Women	\$ 120,000	1987-89	Secondary analysis of FHI sponsored morbidity/mortality data in Zaire
Rockefeller Foundation Bellagio Center	\$ 50,000 (in kind: facilities & accommodations)	1988	Support of consensus conference on breastfeeding and return to ovulation, Bellagio Center, Italy
EISAI Corporation	\$ 10,000	1987	Partial support for a clinical trials workshop in Singapore
	\$ 25,000	1981	Unrestricted funds
Rockerfeller	\$ 10,000	1986	Technical assistance - Sickle cell anemia/NORPLANT [®] in Nigeria
Compton Foundation	\$ 30,000 (Total of annual donations)	1983-88	Unrestricted funds
David and Lucile Packard Foundation	\$ 10,000	1985	Support of 12 clinicals' participation in a clinical trials workshop (1986) Panama
Noyes Foundation	\$ 25,000	1982	Training program for overseas clinicians
Ford Foundation	\$ 64,000	1982-88	Vasectomy and cardiovascular disease research

Appendix I
List of Recommendations

Appendix I

List of Recommendations

1. CT should be encouraged to pursue extensive secondary analysis of large databases accumulated, particularly in the progestogen-only pill studies of lactating women.¹
2. **FHI should remain willing to respond to USAID mission and LDC requests for clinical trials of existing products of national (not merely international) importance, provided the trials can be adequately funded, are scientifically valid, and do not overextend the resources of the division.**
3. FHI should develop a clear and realistic policy on the handling of manufacturing issues related to clinical study of the NET-90 microspheres, as well as the NET subdermal implants.
4. **The existence of plans for Phase III trials of a new product should not force CT into hurrying through necessary pharmaceutical tests to determine its viability. Consideration should be given to much more rigorous testing of the reproducibility of several successive batches before introductory trials are initiated.**
5. FHI should not expand in-house skills in pharmacology, toxicology and pharmaceutical formulation, but formalization of the expertise in toxicology through a toxicology planning group might be valuable.
6. **FHI should undertake a policy review of its overall strategy in relation to drug development through pre-clinical and clinical phases. Planning should be on a broad five-year rolling plan basis, with reserve projects available when inevitable delays occur in the progress of priority projects. This strategy should include collaboration with other agencies.**
7. **A.I.D. should increase its efforts to bring FHI and CONRAD together to create a management plan for new products which may move from early development at CONRAD to large-scale clinical testing at FHI. In preparation for this, A.I.D. should decide what role, if any, it wants FHI to play in pre-Phase-II stages of contraceptive development research. Special attention should be given to division and labor and coordination of the management of regulatory affairs matters and of matters relating to pre-clinical toxicology (including teratology) and pharmaceutical formulation.**
8. The role of marketing should be considered early in their development of all CT leads. This calls for continued close collaboration with PE, and the design of acceptability and/or market studies at an early stage.
9. FHI should continue to maintain its invaluable network of overseas centers representing all geographical/ cultural regions and to involve them in clinical trials research from the initial planning of a project through the final information dissemination phase. For centers at which communication delays are frequent or where the need for rapid communication is especially important, consideration should be given to the installation of FAX machines.
10. Given the small staff and limited resources available, **RE/STD should continue to focus on fewer, properly designated areas.**

¹Recommendations in **boldface** are the principal recommendations in the report.

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11. **STD-related research should remain the number one priority for the remainder of the contract period, with studies focusing on evaluating the protective role of specific contraceptive methods (e.g., condoms) against STDs. The Division should also continue to play an advocacy role in the area of the relationship between cancer and hormonal contraception, as this is the single most important question facing the family planning community today.**
12. **Studies on contraception for women with special needs should be expanded, with efforts made to overcome difficulties inherent in this type of research.**
13. **The computer model to assess the risk/benefit ratio of contraception in individual countries should be applied in as many countries as possible. Since this task will require additional staff resources, the RE/STD Division will need to decide whether it wishes to reduce its efforts in other areas or instead to request additional staff resources.**
14. **Studies in the area of maternal mortality and morbidity should continue but should be placed in the context of consequences of non-contraception/pregnancy. Since the consequences of non-contraception/pregnancy vary considerably depending on the country, studies in this area must continue to provide as many countries as possible with an assessment of their specific situation.**
15. **PE should decide on how it will classify its studies so that it is clear over time what lines are being emphasized and de-emphasized.**
16. **PE should allocate more resources to projects in sub-Saharan Africa.**
17. **PE should enter new research areas with great caution, balancing the desirability of meeting new requests with the danger of being spread too thin.**
18. **PE should accept mission requests for research only if these are consonant with current PE priorities. It should also consider whether some research activities, particularly new activities that are proposed at the country level, could be undertaken by other CAs.**
19. **PE should continue and expand efforts to strengthen LDC research capacities (in conjunction with FDT) by equipping LDC scientists with the knowledge and skills to design and implement family planning research themselves. When consultants are needed, it should try to identify qualified LDC nationals. PE should also attempt to draft an explicit -- though flexible -- policy on the issue of when research responsibilities can and should be shifted to LDC researchers.**
20. **PE should devote more attention to monitoring ongoing studies in the field, even if this activity comes at the expense of launching new research. PE's budget for projects should be increased in the coming years only if additional Research Associates and Research Analysts are added to the staff so that the new projects can be adequately followed up.**
21. **FHI should accept mission requests for technical assistance only if these are consonant with current Division priorities.**
22. **FDT should continue, and expand where possible, its efforts to strengthen FHRC staff capabilities to undertake research and research-related activities.**

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23. **In LDCs of particular interest, FDT should once again examine ways to establish a local presence whose primary objective would be specialized training to undertake projects funded by FHI. Ideally, but not necessarily, a national of the LDC should be recruited as the FHI local representative.**
24. **To hold down the costs of maintaining a local presence, FHI should consider restricting the number of countries in which it attempts to have a major impact at any given time. In selected countries, FHI should aim to reach a critical mass of projects and collaborating researchers, but in other countries FHI should be content with only the most modest input, if any.**
25. **Locus of responsibility for program support and monitoring in all FHI divisions should be reconsidered. Where necessary for adequate project monitoring, limited numbers of staff with the required technical skills should be added within appropriate divisions since technical needs will vary by division.**
26. **To enable FHI to maintain a current understanding of FDA regulations and guidelines, as time permits, the Regulatory Affairs Division staff should attend pertinent meetings, seminars, and symposia.**
27. **The division must continue to train all staff in policies and procedures, not only those enacted by the FDA but also those enacted by host country entities, to assure consistency and compliance.**
28. **The division should continue its efforts to impress on regulatory agencies, in particular the FDA, that consent forms must be appropriate to the cultural context in which they are to be used, while still ensuring the highest ethical standards. It is essential that the consent form convey to persons of all cultures that the procedure is to ensure their safety and rights.**
29. **The importance of adverse events in monitoring safety must be stressed to host country investigators. The division should encourage widespread communication on this issue between project monitors and principal investigator on the one hand and between PHSC and the local IRB on the other.**
30. **The division should coordinate with FDT and also with A.I.D. its efforts to establish ethical review boards in all centers in which it conducts research that do not already have such bodies. The composition and functions of these board should be acceptable to PHSC and to the regulatory authorities concerned. These boards need to understand that their task should go beyond simply complying with conditions to obtain financial support; it should also include a concern with the ethics of the research carried out.**
31. **FHI should consider developing an internal evaluation system for its projects, whenever feasible. The system should require that as each new project is developed, (a) measurable objectives and times needed to achieve them are determined in advance, (b) a methodology is stipulated for determining if the objectives have been met, and (c) funds for the evaluation are built into the project budget.**
32. **This internal project evaluation system should begin with a pilot program in a single division. If the internal evaluations in this pilot project are judged to be worth the cost and effort, activities in other divisions should also receive internal evaluations. Accountability for the evaluation should be made clear.**

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33. Collaborating LDC scientists, starting with those at FHRCs, should be trained to undertake internal evaluations of their own projects.
34. Evaluations should look at long-term impact. To ensure this, they should not start until one year after the completion of the project and should continue over a period of at least one year, allowing funds and staff to track activities over this extended period.
35. For project evaluations, one or more evaluation specialists should be added to FHI's staff. The specialists should have experience with "quick and dirty" evaluation methods (e.g. Rapid Rural Assessment) or with assessments of training courses.
36. When a study is completed, the responsible division should devote more attention -- in collaboration with FDT -- to helping principal investigators prepare brief and effective executive summaries (and other appropriate documents) and ensuring that they reach the appropriate audience. One option might be that FDT be asked to help design the information dissemination efforts of each FHI project and that this be implemented before any project is considered officially completed.
37. **The capacity of FDT to (a) disseminate information and (b) train LDC nationals to disseminate information should continue to expand**, following current models. Efforts should be increased to target specific groups of LDC decision-makers for particular kinds of information, and market segmentation techniques used to design made-to-order information packages.
38. **FDT should continue to share and coordinate its information dissemination plans, methods, and strategies with other agencies working in the field.** Private sector lobbyists might also be contacted to see what can be learned from them about influencing decision-makers.
39. **FHI should prepare each year an annual strategic plan and budget, as well as a three-year tentative plan and budget, for presentation to A.I.D. Plans should normally cover all proposed FHI activities, with greater detail on those activities proposed to be funded under the Cooperative Agreement.**
40. **FHI should continue to nurture the infrastructural mechanisms that promote effective communication and cooperation among divisions, and attend quickly to any evidence that the mechanisms are not working well.**
41. To ensure continuation of the mutually satisfactory relationship between A.I.D. and FHI, monitoring of this project should be the full-time responsibility of one individual.
42. A.I.D. should consider recruiting an American Association for the Advancement of Science (AAAS) Fellow (or other low-cost intern) to help the CTO monitor this Cooperative Agreement.
43. A.I.D. should immediately provide sufficient funds for the CTO to make an appropriate number of visits to FHI headquarters so that the Agreement can be optimally monitored.
44. **FHI staff travelling to developing countries should have better orientation and more information regarding individuals, activities and institutions in those countries that are relevant to FHI's interests and activities.** To this end, FHI should develop and maintain improved data bases on countries so that FHI staff and consultants travelling to particular

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countries can readily be supplied with relevant data. FHI should also explore ways to tap the database that John Snow, Inc. coordinates for A.I.D.

48. **In order to maintain its ability to attract and hold highly qualified and motivated staff, FHI should continue to review periodically the adequacy of compensation and benefits for staff.**
49. **FHI should redouble its efforts to fill the position of Vice President for Research.**
50. **As part of its next planning exercise, FHI management should review the adequacy of its staffing in relation to current and planned workloads.**