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**AN ASSESSMENT OF DISCREPANCIES
BETWEEN THE FAMILY PLANNING
LOGISTICS MANAGEMENT INFORMATION
SYSTEMS AND THE
FAMILY PLANNING PERFORMANCE
MANAGEMENT INFORMATION SYSTEMS**

by

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Glossary

BFPA	Bangladesh Family Planning Association
BFRP	Bangladesh Fertility Research Programme
BDG	Bangladesh Government
CPR	Contraceptive Prevalence Rate
CPS	Contraceptive Prevalence Survey
CYP	Couple Years of Protection
DD	Deputy Director: the District level supervisor of family planning in the Family Planning Directorate
DD, L&S	Deputy Director for Logistics and Supplies
FDSR	Family Development Services and Research
FP	Family Planning
FPA	Family Planning Assistant: male supervisor of the family planning field operation
FPLM	Family Planning Logistics Management Project
FPSTC	Family Planning Services Training Center
FRO	Field Research Observer
FWA	Family Welfare Assistant: Female village worker of the Family Planning Directorate
FWRS	Field Worker Registration System
FWV	Family Welfare Visitor: Female paramedic assigned to Union Clinics and H&FWCs
ICDDR/B	International Centre for Diarrhoeal Disease Research, Bangladesh
IRS	Integrated Reporting System
IUD	Intra-Uterine Device
JSI	John Snow, Inc.
LMIS	Logistics Management Information System
MCH-FP	Maternal-Child Health - Family Planning
MIS	Management Information System

MOHFP	Ministry of Health and Family Planning
M/S	Multisectorial
NGO	Non-Governmental Organization
NPI	National Physical Inventory
QAC	Quality Assurance Cell
RIG	Regional Inspector General (of USAID)
RFP	Request for Proposal
RKB	Record Keeping Book
SMP	Social Marketing Program
SRS	Sample Research Survey
UFPO	Upazila Family Planning Officer
USAID	United States Agency for International Development (mission)

Executive Summary

The following report reviews discrepancies between contraceptive logistics data as reported by the Logistics Management Information System (LMIS) and the service delivery performance data reported by the Management Information Systems (MIS) Unit of the Ministry of Health and Family Planning. The proposed implementation of the Field Worker Registration System (FWRS) is analyzed, and recommendations suggested.

Two particular differences are identified and analyzed in greater detail. The difference between the number of contraceptives arriving in country and the number of contraceptives reported to have been issued to family planning clients is labeled, for the purpose of the report, the "Loss Gap". The gap is quantified by organizational level and, although various explanations of this gap are discussed, the conclusion is that it arises largely from a combination of under-reporting and "acceptable" logistical loss at each level of warehousing.

The difference between LMIS and MIS data on the number of contraceptives issued to family planning clients is similarly examined. For the purpose of the report, this difference is labeled the "MIS/LMIS Discrepancy" to distinguish it from the "Loss Gap". The discrepancy is quantified, and the possible causes examined.

Particular attention is given to IUD data. Like other methods, the number of IUDs reported as being distributed to clients is much lower than the numbers arriving in country. However, the number reported as inserted is higher than the number reported as being available to clinicians. The report discusses the likelihood of alternative uses of IUDs and the risks involved in the context of the maternal-child health situation. The loss gap and the discrepancy are quantified, and the possible causes examined.

Finally, the proposed Field Worker Registration System (FWRS) is reviewed, and the planned implementation of the system analyzed. A brief discussion of an implementation proposal is included.

A list of recommendations on improvements in the LMIS, MIS and the FWRS suggests ways in which these systems might be strengthened to provide better service to managers without significant increments in the time required to complete reports.

1. Introduction

The following text examines discrepancies between and within two contraceptive databases in Bangladesh. The Logistics Management Information systems (LMIS) database includes data on contraceptive inventories, receipts, and distributions. The database is maintained on personal computers at the Central Warehouse with the technical assistance of the John Snow Family Planning Logistics Management (FPLM) project.

The Management Information Systems (MIS) database is maintained by the MIS Unit of the Ministry of Health and Family Planning (MOHFP) and focuses on performance data on forms separate from those used by LMIS, using procedures parallel to those used by LMIS.

In addition, there is a third database that includes results of the United States Agency for International Development (USAID)-supported Contraceptive Prevalence Surveys (CPS) performed at two-year intervals by an external research firm.

Together, these databases provide an extensive, and at times inconsistent, quantified description of the logistical and performance aspects of MOHFP and non-governmental organization (NGO) family planning services.

Apparent inconsistencies in the data on prevalence rates arising from the CPS on the one hand, and the LMIS and MIS on the other, have been the subject of considerable debate. Although the following text refers to this debate when applicable, the prevalence rate gap is not the subject of this report.

Instead, this report will define and attempt to explain two other issues:

1. The GAP between the number of contraceptives arriving in Bangladesh and the number of contraceptives issued to family planning clients, and
2. The DISCREPANCY between the performance data reported by the MIS Unit database and the issuance data reported by the LMIS database.

The intrauterine device (IUD) gap and discrepancy are given particular attention.

In addition, recommendations suggest how the LMIS, MIS, and Field Worker Registration System (FWRS) can be modified to better describe the movements of contraceptive commodities and the clinical performance of the project.

2. The Loss Gap

2.1 Quantifying the Loss Gap

The definition of the "loss gap" is the difference between the number of contraceptives arriving in the country and the number recorded as having been given to family planning clients.

Using the National Physical Inventories (NPI) conducted annually, it is possible to calculate the loss gap as the number of contraceptives in inventory at the beginning of the inventory year, plus receipts, minus issuances, minus what remains in inventory at the end of the inventory year:

LOSS GAP equals INVENTORY beginning of year (all levels),
plus RECEIPTS at Central Warehouse during year,
minus ISSUANCES (distributions) to family planning clients during the year,
minus INVENTORY end of year (all levels).

Applying this equation to LMIS data suggests that the following number of contraceptives are NOT reported as having reached family planning clients:

	1985	1986	1987
Condoms	10,895,765	4,502,368	18,594,024
Oral Pills	3,329,674	1,103,455	7,341,317
IUDs	108,788	129,395	97,538
Injectables	281,715	255,896	183,275

Dividing these figures by the total number of contraceptives that must be accounted for in each of these years produces the following percentages:

	1985	1986	1987
Condoms	19%	7%	19%
Oral Pills	24%	8%	29%
IUDs	26%	28%	21%
Injectables	56%	48%	34%

In short, approximately the following proportion of each type of contraceptives is unaccounted for:

- 1/5 of the condoms,
- 1/4 of the oral pills,
- 1/4 of the IUDs, and
- 1/3 to more than 1/2 of the injectables.

2.2 Factoring the Loss Gap by Organizational Level

It is instructive to investigate the loss gap at the various levels, an exercise that can be carried out by applying the same equation (NPI + Receipts - Issuances - NPI at close of year) to District warehouses and Upazila stores. Assuming that loss at the Central Warehouse is minimal, the breakdown of the loss gap in 1987, for example, would be as follows:

	Condoms	Orals	IUDS	Injectables
District	2%	2%	1%	3%
Upazila	5%	4%	13%	11%
Field	12%	23%	7%	20%
Total	19%	29%	21%	34%

This breakdown of loss presented graphically on the following pages indicates the percentages, both national and by organizational level, for 1987.

Figure 1

**Distribution of Loss Gap by Organizational Level:
Condoms, Orals, IUDs, Injectables for 1985-1987**

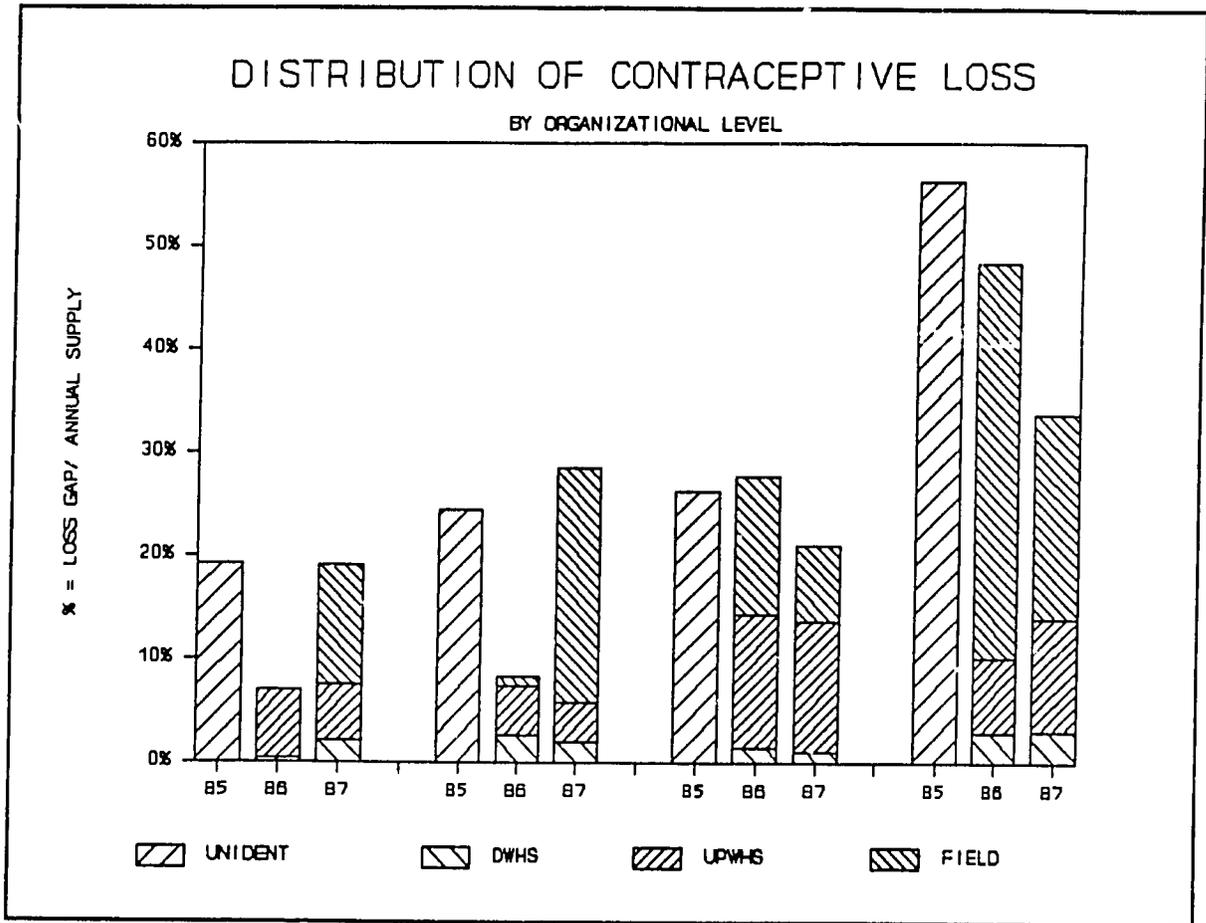


Figure 2

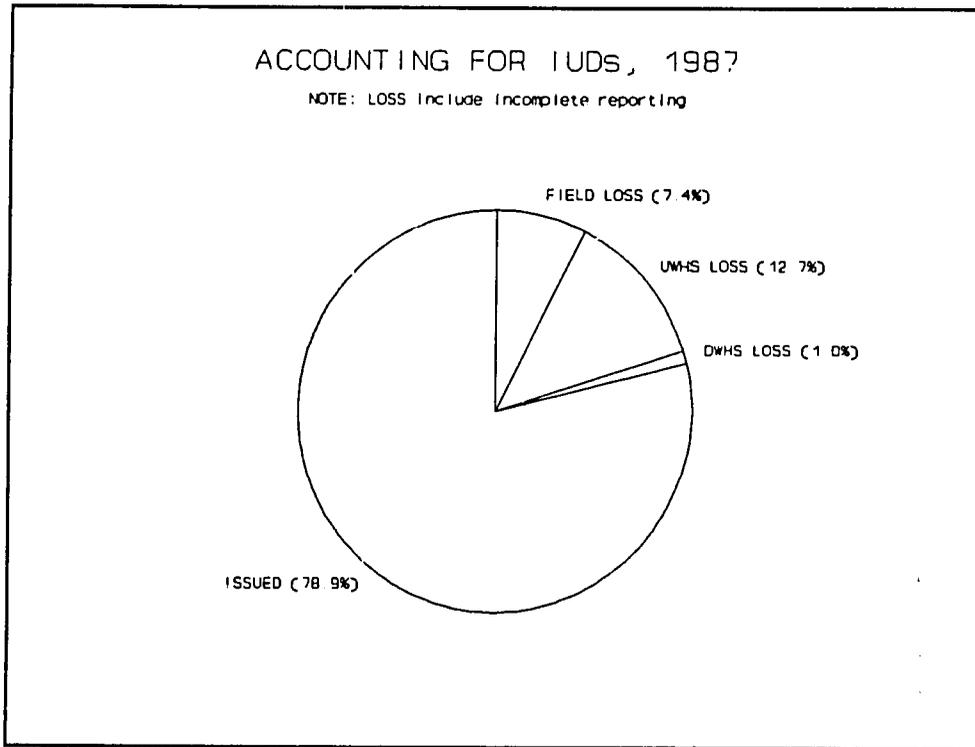


Figure 3

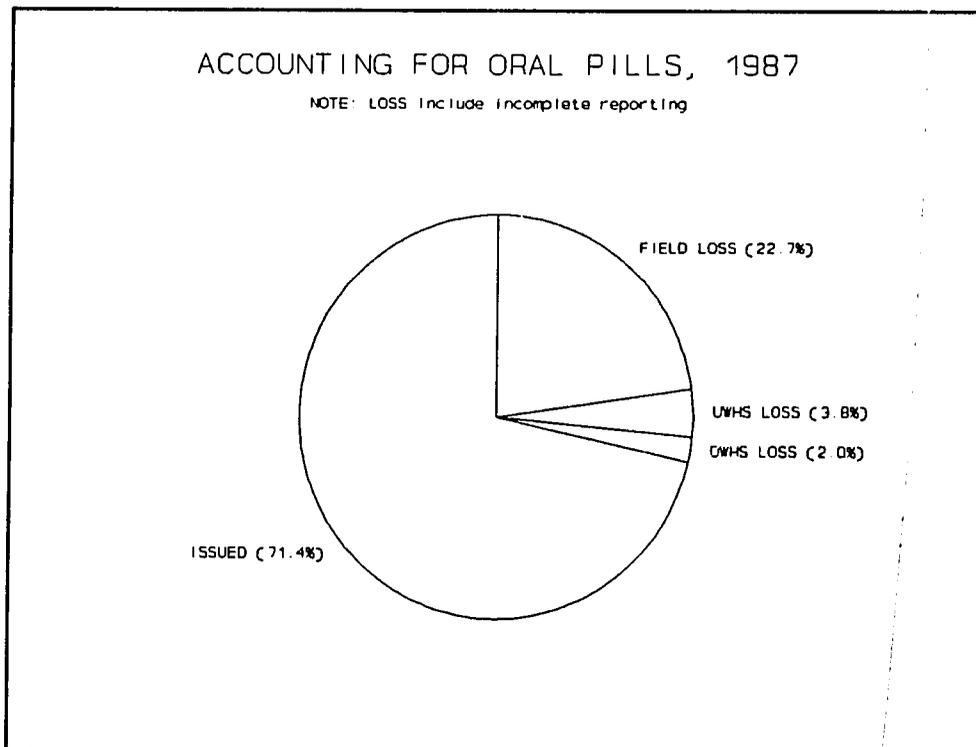


Figure 4

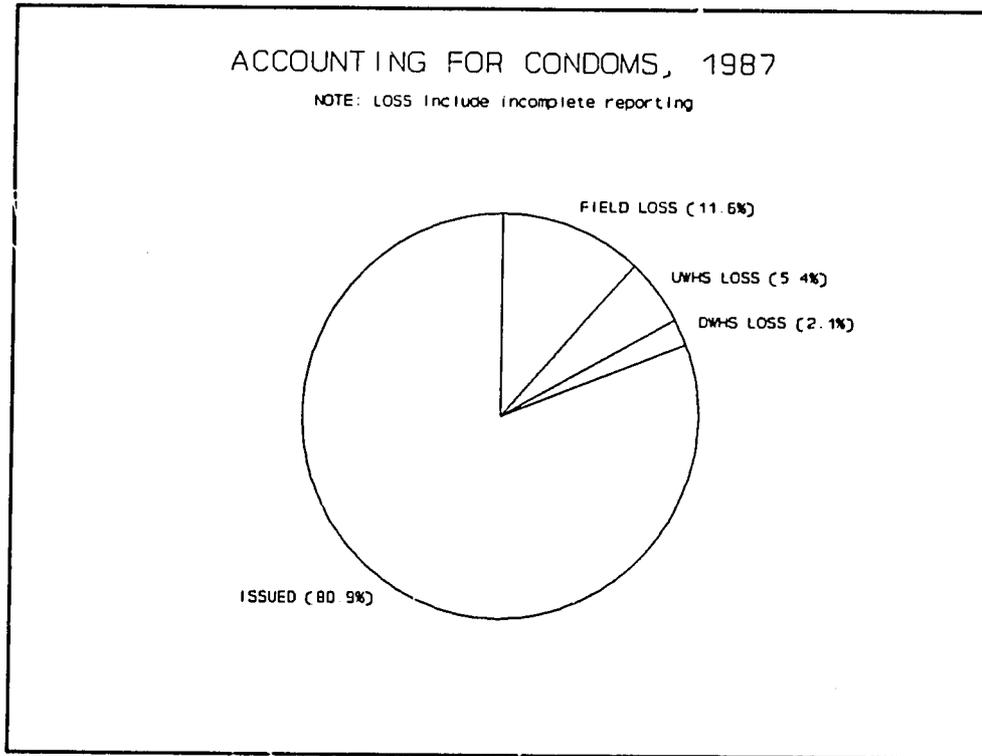
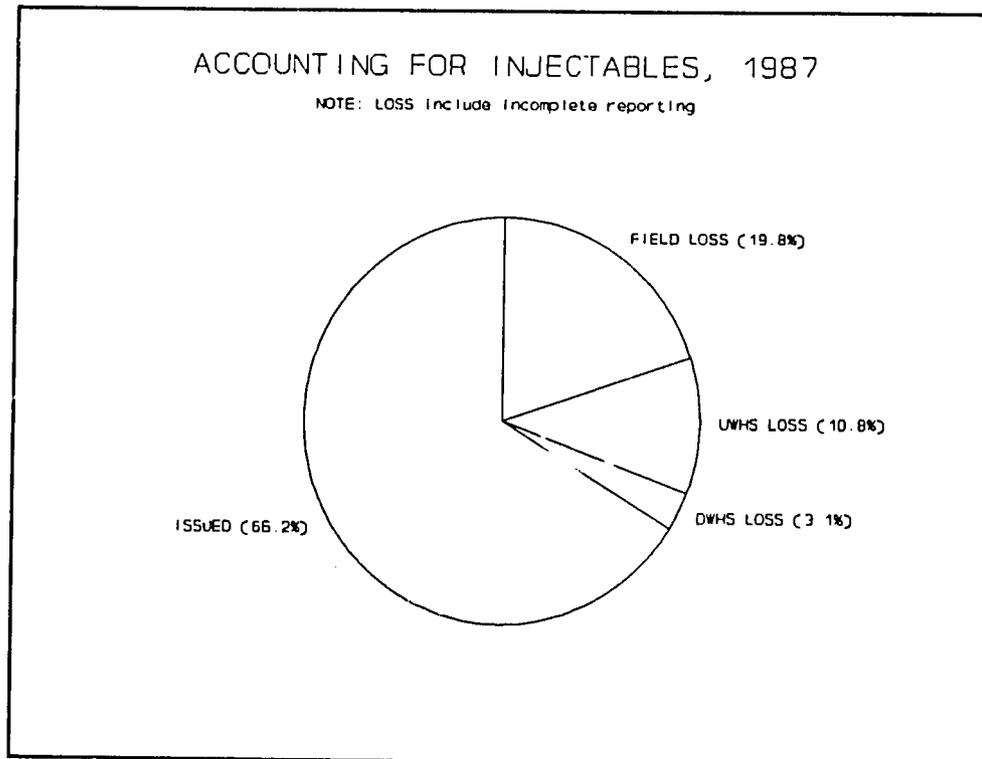


Figure 5



2.3. Possible Causes

2.3.1 Background

There is a considerable literature on the "condom gap" that attempts to explain the difference between the number of condoms distributed by the Social Marketing Program (SMP) and the number of condoms accounted for by prevalence rates reported in the CPS. Prominent among the hypotheses proposed are the following:

- diversion of stocks for non-contraceptive purposes, including use by children as balloons,
- diversion through cross-border smuggling, in particular to Burma and India, and
- statistical skewing due to "pipeline" effects.

Several other factors need to be taken into account in order to explain the loss of MOHFP and NGO contraceptives, including

- errors in record keeping,
- incomplete reporting,
- the impact of performance targets,
- theft of contraceptives for sale in markets or to clients,
- loss and damage during storage and transport, and
- problems uniquely related to injectables.

For the sake of completeness, each explanation is examined below. In summary, though, incomplete and inaccurate reporting and record keeping probably account for the major portion of the loss gap. Far less important are the hypotheses proposed to explain the "condom gap" and the following other factors listed above -- predictable loss and damage during storage and transport, theft, and performance targets (except for IUDs--see Chapter 4). Injectables are subject to some unique problems and will be discussed separately.

2.3.2. Three Hypotheses for SMP Contraceptives

Diversion: Balloons et al.

It is reportedly common in Bangladesh for condoms to be used as balloons by children. A 1982 "Condom User Survey" reported that half of the respondents referred to condoms being used as balloons. Approximately a quarter of respondents claimed to have specific recall of having seen condoms being used as balloons during the month preceding the survey. A 1985 "Retailer Opinion Survey" reported that retailers estimate that, in rural areas in particular, a quarter of all condoms sold may be used as balloons. Flanagan and Rahman in the Deloitte, Haskins and Sells study estimate that as many as three million SMP condoms were used as balloons.

If this many SMP condoms are being purchased for use as balloons, it is probable that some portion of MOHFP and NGO condoms are being similarly used; and that among those being used for balloons and toys, some portion is not being reported as issued to clients by field

staff. Nevertheless, it would be very difficult to estimate this number, and to do so does not seem necessary since other explanations seem adequate to explain the 19 percent condom loss gap.

Diversion: Cross-Border Smuggling and Theft

This is another popular explanation for the difference between the number of contraceptives distributed and the prevalence rate reported in the CPS. A December 1983 document reports three million Bangladeshi condoms in Burma. Flanagan and Rahman use the figure of six million, or 11 percent of the SMP condoms crossing into Burma, to help explain the condom gap. They claim no evidence of SMP oral pills being diverted in this way except for Combination-5, the MOHFP brand; but they offer no estimate of quantities. John Laing (Oct. 1986) is willing to assume a diversion of three million SMP condoms to India.

If SMP contraceptives, which must be purchased, are indeed finding their way into Burma and India in such quantities, most probably MOHFP contraceptives, distributed free by a larger number of persons who are more in need of supplemental income than are SMP distributors, are also being similarly diverted. These contraceptives are more likely to be sold on local markets than smuggled out of the country. A portion of this diversion is probably not being reported as distributed to clients, and could explain part of the loss gap.

Again, however, smuggling or theft explanations may have some degree of veracity but should not be relied on to the degree that they diminish attention to the more likely, more documentable, and more resolvable problems arising from incomplete and inaccurate reporting and record keeping.

Pipeline

Flanagan and Rahman were willing to assume 48 percent of the SMP gap was due to condoms counted by the SMP as distributed but not yet used by acceptors. John Laing (Oct. 1986) indeed suggests that "some condoms that enter the pipeline probably never emerge. . ." (page 9).

The pipeline explanations are not relevant, however, to the loss gap for the government and NGO contraceptives. This is because contraceptives in warehouses and stores, even at the Family Welfare Assistant (FWA) level, are included in the NPI calculations. Contraceptives in the homes of clients are counted as having been issued.

In short, the calculation "NPI + Receipts - NPI (next) - Distribution (issuance)" eliminates the relevance of pipeline to the loss gap.

2.3.3 Explanation with Relevance for MOHFP and NGO Products

Record Keeping

Many of the MOHFP and NGO contraceptives (condoms and oral pills) are distributed at the community level by FWAs who have limited educational backgrounds and operate without pre-printed registers. In the absence of such registers, the MOHFP suggests that FWAs manually draw the appropriate format in an exercise book. Informants familiar with field-based distribution under the MOHFP program describe FWAs who distribute contraceptives during home visits and wait until they return to their own homes to enter the day's activities, sometimes with the assistance of a more literate husband or child.

Clearly, this is a situation that could easily lead to inaccurate reporting of contraceptives issued to family planning clients. Interestingly enough, though, statistics indicate a

greater loss gap for clinic-based methods, such as IUDs and injectables, than for pills and condoms distributed by FWAs.

Incomplete Reporting

Incomplete reporting, which is closely related to inaccurate record keeping, probably explains the greatest portion of the loss gap. In each of the past three years, a proportion of the reports from the district to the Central Warehouse were not received, as follows:

Percent of District Reports NOT Received by Central Warehouse*

1986	2%
1987	6%
1988	9%

** These figures are cumulative: i.e., figures for 1986 reflect late reports for 1986 that were received in 1987 and 1988. Therefore, it is likely that over time the figures for 1987 and 1988 will improve.*

Currently, it is not possible to generate reporting rates for Upazilas or for the field (FWAs and Family Welfare Visitors [FWV]). The text on reporting systems (see Chapter 5) suggests techniques to resolve this; but for the present, it is probably safe to assume that reporting rates from the Upazilas to the Districts, and from the field to the Upazilas, are no better than those listed above.¹

It would therefore be safe to assume for 1987 a similar non-reporting rate (6 percent) at each of these 2 levels. This suggests that a considerable proportion of the gap for all methods can be accounted for by incomplete reporting.

	Original Gap	Incomplete Reporting		Remaining Gap
		Upazila	Field	
Condoms	19%	6%	6%	7%
Oral Pills	29%	6%	6%	17%
IUDs	21%	6%	6%	9%
Injectables	34%	6%	6%	22%

Small modifications in current reporting processes would enable more exact calculations of the underreporting due to reports not being submitted at the Upazila and field levels. The same modifications would allow the Central Warehouse and FPLM staff to identify

¹The LMIS data used in this report have been justified for missing District reports. Average data for the non-submitting Districts have been entered when reports are missing. It is not possible to do this for missing Upazila reports or for field reports to the Upazilas.

specific Upazilas that have not reported, and Upazilas in which FWAs and FWVs have poor reporting records. These alterations are discussed in Chapter 5.

Lost or Damaged Contraceptives

It is reasonable to expect that a certain percentage of contraceptive stocks is lost or damaged at each level of storage and transport. It is not uncommon for even the best-run warehouses to report 1 or 2 percent wastage. If an estimate of 2 percent were used as an average for each organizational level of transport and storage (Central, District, Upazila and field), this alone would account for 8 percent of all contraceptives or, in the case of 1987 condoms, all of the condoms unaccounted for after justifying for non-reporting.

	Remaining Gap*	Lost & Damaged	Remaining Gap
Condoms	7%	8%	-1%
Oral Pills	17%	8%	9%
IUDs	9%	8%	1%
Injectables	22%	8%	14%

* See Table 4, last column

Impact of Performance Targets

The assessment of performance in comparison to targets could conceivably encourage MOHFP to exaggerate the numbers of contraceptives distributed. Inflating the numbers of contraceptives issued, however, would lead to an underestimation of the loss gap, rather than causing a portion of it. It seems unlikely that performance targets are having any effect on figures for condoms, oral pills or injectables: For the years described here, performance data for these three methods are equal to or lower than the LMIS data. On the other hand, targeting may be affecting MIS data for IUDs (see Section 4.3.2).

2.3.4 Unique Problems Related to Injectables

It is important to explain the relatively large number of injectables unaccounted for under the heading of "loss gap," since there is very little MIS/LMIS discrepancy involved. There are probably several reasons for the loss:

- Two different injectables are provided: Depo-provera and Noristerat (trade names);
- These two injectables are administered according to two different schedules: Depo-provera -- one dose every 3 months; Noristerat -- one dose every 2 months for the first 3 or 4 doses, then one dose every 3 months;
- Each injectable requires a different gauge needle for injection (one is viscous and oily, the other non-viscous); and
- Syringes are not provided with the contraceptives; they are purchased separately, and are not accounted for by the family planning LMIS system.

The reporting and logistical problems created by these four factors are probably responsible for a significant part of the loss.

Two other explanations are possible causes of the loss of injectables:

- There are a very few medical indications other than contraception for these two drugs; and
- Injectables are becoming very popular in Bangladesh, but clients must go to the clinic to receive them (except in the ICDDR/B MCH-FP Extension Project areas and many NGO project areas, where home delivery is an option).

Of these two explanations, the first (medical indications) is probably of minimal importance. The issue of home delivery, however, is probably responsible for a significant loss.

Most rural women are unable to attend a family planning clinic due to cultural and economic constraints. In their spare time, however, Family Welfare Visitors (FWV) (and other clinicians already trained to give injections) may be providing injectables to women at home, using Project stocks. They would probably not report these stocks as issued, since the number of clients attending the clinics would not justify the use of as many doses as are being administered and they are not meant to be giving this service in the home.

When the "doorstep injectable" program now being tested in the MCH-FP Extension areas is expanded to the other Districts, the loss gap of injectables will probably decrease. Until the logistical problems caused by the two brands currently available are resolved, a percentage of the gap will remain.

Recommendations²

1. The "doorstep injectable" program should be expanded to the other Districts as soon as possible.
2. A decision should be made to use one kind of injectable only.

²Recommendations are numbered consecutively throughout the report and are given in this sequence in Appendix I.

3. The MIS vs. LMIS Discrepancy

3.1 Introduction

This section examines the difference between the number of contraceptives issued to family planning clients as recorded through the LMIS system and the number according to the MIS system.

In principle, "performance" data reported by the MIS Unit of the MOHFP and "distribution" (issuance) data at the field level reported by the LMIS (i.e., contraceptives distributed to clients by FWAs and FWVs) should be the same. Both are based on reports made out by fieldworkers (FWAs) and clinicians (FWVs) on numbers of condoms and pills (FWAs), and IUDs and injectables (FWVs) actually issued to clients at the field level.

The immediate supervisor is required to enter the raw data on two separate sets of forms to serve the purposes of the two information systems. For the LMIS, the purpose is to collect logistical information on opening balances, closing balances, receipts and issuances (distribution) in order to assure a reliable supply. For the MIS Unit, the purpose is to collect information that will provide a basis on which to assess staff performance. At the District level, all LMIS data are entered on Form 7, on which the LMIS database relies exclusively.

Table 6 on the following page illustrates the extent of the variance between the MIS Unit database and the LMIS database during 1985 - 1987. With the exception of IUD data, LMIS data (from Form 7, Column 18) exceed MIS Unit data. The variance in IUD performance data is unique in being the only method for which MIS data exceed LMIS data (see Chapter 4).

3.2 Causes

A number of possible explanations for the MIS/LMIS discrepancy have been put forward, as follows:

- Impact of performance targets
- Data collection procedures that may result in inaccurate reporting
- Incomplete reporting
- Failure to report NGO data
- Failure to report multisectorial issuances

None of these is possible to quantify, but the most important appear to be targeting, incomplete reporting, and duplicate NGO data. Targeting may contribute to overreporting of MIS data; incomplete reporting may result in underreporting of MIS data, as it does with LMIS data; and the failure to include NGO data in MIS and LMIS reports has resulted in underreporting for both databases.

Table 6
Comparison of Discrepancy Between MIS Performance Reporting
and LMIS/NGO Data from Form 7 Column 18

	<u>Year</u>	<u>MIS Rpt'd Performance</u>	<u>LMIS/NGO F.7, Col.18</u>	<u>Variance</u>	<u>% VAR</u>
Orals	1985	9,679,110	10,288,326	609,216	6%
	1986	11,197,831	12,210,545	1,012,714	9%
	1987	19,402,135	19,932,572	530,437	3%
Condoms	1985	41,707,753	45,653,976	3,946,223	9%
	1986	50,668,000	60,599,178	9,931,178	20%
	1987	79,585,329	91,243,102	11,657,773	15%
Inject's	1985	190,195	217,865	27,260	15%
	1986	268,236	272,063	3,827	1%
	1987	498,083	438,991	(59,092)	-12%
IUDs	1985	385,479	304,105	(81,374)	-21%
	1986	412,297	335,030	(77,267)	-19%
	1987	506,342	413,249	(93,093)	-18%

% Variance = (LMIS/NGO - MIS) / MIS

Data Source: LMIS, JSI/FPLM

Impact of Performance Targets

Family planning staff view LMIS data as strictly stock reporting. LMIS is never used to assess the performance of family planning field staff and officers. MIS reports provide the data which are measured, often against predetermined targets, to judge performance. What is more, these targets are displayed quite publicly, highlighting the quality of the individual fieldworker efforts: for example, large, colored wall charts are displayed in Upazila offices showing monthly target and performance figures for family planning activities. This targeting may at times provide motives for altering the MIS data to show more contraceptives distributed than actually were issued.

Incomplete Reporting

Actual reporting rates were not available for the MIS data, but it is generally agreed that the number of missing reports is small. MIS reporting is done according to a strict schedule: MIS data are due at the MOHFP MIS Unit about two weeks after the end of the month, allowing very little time for the preparation and transmission of reports from level to level. The pressure of time might induce the preparation of complete but inaccurate reports, perhaps with average figures substituted in cases in which actual data are not available. This could cause a percentage of the discrepancy, although it is not possible to estimate this percentage.

Unlike the LMIS data, which have been justified to correct for missing reports from Districts, the MIS data have not been corrected at any level for missing reports. Thus, if any errors occur, they will appear in any analysis of the MIS/LMIS discrepancy.

Data Collection Procedures

LMIS data are nested inside of an equation:

$$\text{Opening balance} + \text{Receipts} - \text{Issuances} = \text{Closing balance}$$

Inaccurate reporting of issuances would skew closing balance information, which is used again the following month as the opening balance. Because the closing balance must be verified yearly by the NPI, any inaccurate reporting of issuances will be detected on a regular basis.

For MIS data, collection from non-standardized, handwritten registers does not include any comparable verification within the process. Without these internal checks to offset any tendency to over-report distribution to meet performance targets, it would seem that data would be consistently higher than LMIS data. In fact the opposite is true, with the exception of IUD data which may be influenced by compensation payments (see Chapter 2). The conclusion is that inaccuracies that arise as a result of data collection procedures have a negligible effect on MIS data.

Multisectorial Data

A small number of contraceptives are distributed at family planning service delivery sites in various agencies of the BDG. Data on this distribution are collected by the MIS under the heading of "Multisectorials." The LMIS does not contain comparable data because there is no direct issuance of contraceptives to multisectorials. It is not known how these agencies receive contraceptives. It is likely, however, that they are issued indirectly (to the Dhaka District, for example) and included in the database under Dhaka issuances. If this were true, the issuances would appear in the LMIS database, although the destination would be incorrect.

Impact of NGO Data

NGOs have not been well integrated into the reporting systems of the LMIS and the MIS. At first, they were included only minimally in both databases; then, for a period, they provided reports to the LMIS; and now, they have begun to report to the MIS, but their reporting to the LMIS appears to have fallen off.

The impact of NGO reporting on both databases is considerable: During the last six months, for example, the contribution of the estimated 500 NGO service delivery sites to service delivery has ranged as high as 50 percent (see Table 7, following page).

About 85 percent of the sites (439 out of 500) receive their contraceptives from two NGOs: Bangladesh Family Planning Association (BFPA) and the Family Planning Services Training

Table 7
Contraceptive Performance by Method:
Government, Multisectorial Agencies and NGOs
July, 1988 to December, 1988

	Government	M/S Agency	NGOs	Total
IUDs	95,602	3,126	97,052	195,780
Orals	6,348,222	158,478	2,725,650	9,232,350
Condoms	16,739,390	698,400	10,429,350	27,867,140
Injectibles	139,480	3,424	114,564	257,568
	Government	M/S Agency	NGOs	Total
IUDs	49%	2%	50%	100%
Orals	69%	2%	30%	100%
Condoms	60%	3%	37%	100%
Injectibles	54%	1%	44%	100%

From MIS Unit Monthly Progress Report, December, 1988

Center (FPSTC).³ Thus, the first efforts to include this important segment of data involved installing or upgrading computer systems at headquarters of these two NGOs, with technical assistance provided by JSI/FPLM. The result was that a considerable body of NGO data began to be included in the LMIS database as of 1985, when the installation took place.

Inclusion of the NGO data in the LMIS database presumably made the LMIS database significantly more complete -- at least for 1985-87 -- than the MIS database. In March 1988, in a parallel move, the MOHFP advised NGOs to report their performance at the Upazila level for inclusion into the MIS reporting system, and, at the same time, LMIS reporting began to decline.

Anecdotal information suggests that fewer data were being reported to the LMIS as a result of this directive. In Khulna, for example, prior to March 1988, one NGO site was reporting to the MIS while 12 project sites were included in the LMIS. More recently, MIS reported 13 NGO project sites in Khulna, whereas the LMIS showed none.

³ BFPA distributes to 56 of its own sites, 113 Family Planning International Assistance (FPIA) project sites, 65 Pathfinder Fund project sites, and 71 Asia Foundation project sites. The FPSTC distributes contraceptives to about 53 project sites.

Because of the precipitous reduction in the level of NGO data being provided to the LMIS database, it is difficult to assess the completeness of NGO reporting to the MIS. Without NGO data on balances, receipts and issuances of contraceptives, it is impossible for the Central Warehouse to fulfill its logistics and supply responsibilities.

The computer systems in use at the BFPA and the FPSTC make it relatively easy to resume NGO reporting to the Central Warehouse. Central Warehouse staff should also be able to design a simple format to facilitate reporting from the other NGOs.

Recommendation

3. The MOHFP should require NGOs and Multisectorials to report logistical data to the Central Warehouse and use these data to assess completeness of NGO reporting to the MIS Unit; it should also require NGO and Multisectorial service delivery sites to continue to report performance data to the MIS through local Upazila offices.

4. The IUD Gap

4.1. Introduction

The IUD is discussed in a separate chapter because of the many features unique to it, and to the IUD program, in Bangladesh. This chapter will address the following topics:

- The IUD in the context of maternal-child health and family planning in Bangladesh;
- The IUD loss gap: quantification, distribution by organizational level, and causes; and
- IUD performance data: the MIS vs. LMIS discrepancy, quantification and causes.

When the findings and conclusions of Chapters 2 and 3 are relevant to the issues presented here, these earlier sections will be referred to and the text appropriately abbreviated.

4.2. The IUD in the Context of Maternal-Child Health and Family Planning in Bangladesh

The context of any family planning program is the maternal-child health situation. In less developed countries (LDC), where maternal and infant mortality is high, family planning is an intervention to improve maternal-child health as well as a means of controlling population growth (and thereby improving health for all).

The IUD has been a popular contraceptive in developing countries because it offers safe, long-term contraception with very little investment (money, motivation, time, travel, etc.) by the client. It is also easily reversible, making it popular for short-term contraception. It is particularly appropriate for women who cannot use hormonal contraception (oral pills, injections, implantations) and for whom pregnancy would be very high risk (diabetics, hypertensives, women over 40 and/or with more than 5 births, etc.).

In this context it is not surprising that the BDG would like to promote use of the IUD by setting targets and compensating clients for travel to clinics to obtain the IUD. These practices, coupled with data on the contraceptive loss gap, have led some observers to warn against abuses, including multiple insertions into the same client, encouraging clients to accept the IUD against their actual preference, and defrauding the system of compensation payments. Each of these possibilities will be addressed in this chapter.

The risk of abuses in an IUD program must always be weighed against the risk of pregnancy, especially for women who are contraindicated for other methods. In Bangladesh, childbearing is a serious health risk for all women of reproductive age and for the infants they bear. The infant mortality rate is at least 125/1000 live births; the maternal mortality rate is 6/1000 live births. In real numbers, this means that in 1986 approximately 4.9 million infants and 237,000 mothers died as a result of childbirth. Part of the goal of any family planning program is to save the lives of mothers and children.

4.3 The IUD Loss Gap: Quantification, Distribution by Organizational Level, and Causes

4.3.1 Quantification, National and by Organizational Level

The quantification of the loss gap and its distribution by organizational level for all methods including the IUD is treated in Chapter 2, and, because the methodology for the IUD alone is identical, the conclusions only will be repeated here.

Loss Gap in Numbers of IUDs

Calculating the loss gap for IUDs (i.e., the difference between the number of IUDs that arrived in Bangladesh in 1985 - 1987 and those recorded as having been given to family planning clients in those years) suggests that the following numbers of IUDs were NOT reported as having reached family planning clients:

	1985	1986	1987
Number of IUDs	108,788	129,395	97,538

Loss Gap as Percent of Total

This represents the following percentages of the total number of IUDs distributed, or the percent NOT accounted for:

	1985	1986	1987
Percentage of IUDs	26%	28%	21%

Loss Gap by Organizational Level

Factoring the loss gap by organizational level, the breakdown of the lost IUDs in 1987 is as follows (review also pie chart in Section 2.2).

Percentage of IUDs Lost

District	1%
Upazila	13%
Field	7%
Total	21%

4.3.2 Causes

Overview

Chapter 2 listed possible causes for the "loss gap" for all contraceptive methods. Explanations that are put forward to explain the "condom gap" for SMP products (use for balloons and smuggling) are not viewed as relevant for IUDs. Most other theories offered to explain the "loss gap," however, are also proposed as hypotheses to interpret the "loss gap" for IUDs. In addition, it is sometimes suggested that clinicians are making multiple insertions and removals in the same client. Specifically,

Hypotheses Proposed to Explain Loss Gap for All Methods

- lost and damaged contraceptives,
- errors in record keeping,
- incomplete reporting,
- statistical skewing due to "pipeline" effects, and
- theft by clinical staff to use in private practice on a fee-for-service basis.

Hypothesis Proposed Uniquely to Explain IUD Loss Gap

- multiple insertions and removals in the same client to obtain extra compensation payments.

As for other types of contraceptives, the first three hypotheses probably account for the major portion of the loss. With respect to the second three, all would appear to have a negligible effect. The pipeline effect can be discounted for IUDs for the same reason that it is irrelevant for other methods (see Section 2.3.2.). Theft by clinical staff for various reasons (e.g., for use in private practice as may occur with injectables) could account for a very low 1 percent. Multiple insertions appear to be very unlikely, and at any rate, would not logically feed into a "loss gap": If FWVs were reporting these insertions to obtain extra compensation payments, the record of those insertions would not be "lost" to the reporting system.

Loss and Damage

The conclusions with respect to loss and damage of IUDs are identical to those that pertain to other types of contraceptives: It appears certain that a small percentage of contraceptive stocks are lost or damaged at each level of storage. For 1987, this would suggest that 8 percent of the 21 percent loss gap for IUDs for that year can probably be traced to normal loss and damage (see Section 4.3.1.):

Percentage of IUDs Lost to Damage and Loss: 1987

Original Gap	21%
Lost & Damaged	8%
Remaining Gap	13%

Errors in Record Keeping and Reporting

Using Chapter 2 Approach

As with non-clinical methods (condoms and oral pills), a considerable percentage of the loss gap can probably be traced to errors by fieldworkers in record keeping and reporting. Here, however, the record keepers are not the FWAs, but the Family Welfare Visitors (FWV) who keep records on the IUDs they insert at Health and Family Welfare Clinics at the Union level and at other health facilities at the District level. Although the FWVs should have preprinted clinic

registers to do this, they often have to make these registers by hand in a notebook, copying format from printed forms no longer available. This leads to errors in record keeping, and then to production of incomplete and inaccurate reports.

The consultant's own clinical experience suggests that clinicians are notoriously poor record keepers, insisting that the burden of clinical work is so great, and so important, that they have no time for record keeping. Experience in other LDCs indicates that even professional midwives with 3 years of education beyond secondary school keep such disorganized records that management staff often have to make periodic inventories of medical records to have reasonably complete data on clinic activity.

Although different fieldworkers are involved, their reports are included in the amalgamated LMIS reports that are used for other methods. Thus, the proportion of district reports on IUDs not received by the central warehouse is the same as that for all methods.

Percent of District Reports not Received by the Central Warehouse (as with other methods, these are current reports, including late reports collected in subsequent years)

1986	2%
1987	6%
1988	9%

As in Section 2.3.3, it is assumed that reporting rates for Upazilas and the fieldworkers are no better than those from districts to the Central warehouse. Repeating the approach above, an equal non-reporting rate (6 percent) is assumed at each of the 2 lower levels. The analysis of the 1987 data is then continued with the following results:

Remaining Percent of IUDs not Accounted for:*	13%
minus INCOMPLETE REPORTING at the UPAZILA LEVEL	6%
minus INCOMPLETE REPORTING at the FIELD LEVEL	6%
leaves REMAINING GAP	1%

* See summary listing above headed "Percentage of IUDs lost to damage and loss: 1987"

In short, it is possible that loss and damage (through which 8 percent of IUDs are not available for distribution), together with errors in record keeping and reporting (as a result of which 12 percent of the IUD issuances are not reported), may result in a total of 20 percent of IUDs not being reported as issued. This is about the same as the 21 percent that could not be accounted for by comparing the number of IUDs arriving in country and the number as recorded as having been given to family planning clients. The importance of this remaining 1 percent discrepancy will become clear in Section 4.4, which deals with the MIS/LMIS discrepancy.

Special Analysis for IUDs: Record Keeping and Reporting

In an attempt to shed some light on the extent and complexity of the reporting problem, a small sample of Central Warehouse District reports on IUDs was examined.

LMIS data from 5 Districts were analyzed to estimate the various discrepancies in reporting among the three levels that could affect the IUD loss gap. One purpose of this exercise was to substantiate the assumptions about the proportion of the gap that might be attributable to problems within the reporting and recording system prior to investigating other explanations for the gap (e.g., theft, unnecessary insertions, etc.).

The Districts were selected from the Region of Dhaka. District folders were pulled randomly; however, this tactic did not provide enough Districts with records in English. Finally, all Districts recording data in English were surveyed, a total of 5, or about 8% of the 64 Districts.

The following is a summary of the number and magnitude of the discrepancies. A detailed analysis for each District can be seen on Tables 8 through 12 on the following pages. These discrepancies are only indications of magnitude, not of the direction or the cause of the discrepancies.

Total discrepancies	22
Total IUDs involved	27,656
Total missing reports	9

Although it is risky, an extrapolation to estimate the magnitude of the problem nationally, from an 8 percent sample, shows the follow-up:

13* x 22	=	286	discrepancies nationwide
13 x 27,656	=	359,520	IUDs involved
13 x 9	=	117	missing reports

* 13 x 8 percent of the districts approximately = 100 percent of the districts

Omitting the District of Dhaka, which seems to have an inordinate number of errors involving a huge number of IUDs, leaves a sample of only 6 percent:

Total Discrepancies	10
Total IUDs Involved	3,744
Total Missing Reports	9

and extrapolating:

17* x 10	=	170	discrepancies nationwide
17 x 3,744	=	63,648	IUDs involved
17 x 9	=	153	reports missing

* 17 x 6 percent of the districts approximately = 100 percent of the district

Recall that 97,538 IUDs were not accounted for in 1987 (see Section 4.3.1.). The above analysis suggests that there are discrepancies in the LMIS reporting system that possibly involve 63,648 IUDs of the 97,538 that were not accounted for, or two-thirds of the total. This conclusion, however, cannot be drawn from the brief preliminary analysis presented here.

Most discrepancies show more IUDs issued by the Districts than received by Upazilas. Can we surmise that the same would be true at the field level, that is, more IUDs issued by the Upazilas than received by the field? One can only speculate as to whether the discrepancies are errors by the issuer, or by the receiver, to what extent they are data entry errors, and how much might be explained by the missing reports. In the case of these 5 Districts, a significant amount of NGO data is actually being counted twice, once on the NGO database added at the Central Warehouse, and again at the District level. One can thus only conclude that there are many discrepancies in the LMIS data system often related to incomplete or inaccurate reporting or recording. Although there is not enough information here to conclude that these kinds of discrepancies explain 18 percent of the loss gap (see above in this Section), there is enough to surmise that this is possible.

Table 8

Discrepancies in Reporting between Central, District and Upazila Warehouses
Narsinghdi District
July 1987 to June 1988

	Issued Central	Received District	Discrep	Issued District	Received Upazila	Discrep	Upazilas Reporting	NGO's Reporting
July	0	0	0	0	0	0	6	0
August	4000	4000	0	400	600	-200	5	0
September	0	0	0	600	600	0	6	0
October	1600	1600	0	2000	2000	0	6	0
November	0	0	0	0	0	0	6	0
December	0	0	0	200	200	0	6	0
January	0	0	0	200	800	0	6	0
February	0	0	0	800	800	0	6	0
March	0	0	0	400	200	200	5	0
April	0	0	0	200	200	0	6	0
May	0	0	0	1000	1000	0	6	0
June	0	0	0	0	0	0	6	0
Total Discrepancies:		2						
Total IUD's Involved:		400 (Note: Cancel out)						
Monthly Reports Missing:		2						

Table 9

**Discrepancies in Reporting between Central, District and Upazila Warehouses
Jamalpur District
July 1987 to June 1988**

	Issued Central	Received District	Discrep	Issued District	Received Upazila	Discrep	Upazilas Reporting	NGO's Reporting
July	0	0	0	200	0	200	7	1
August	0	0	0	0	200	-200	*	0
September	0	0	0	600	600	0	*	0
October	600	600	0	100	100	0	7	1
November	0	0	0	700	700	0	7	1
December	0	0	0	200	200	0	7	1
January	0	0	0	40	40	0	7	2
February	1600	1600	0	0	0	0	7	2
March	0	0	0	1000	1000	0	7	3
April	0	**	0	**	**	0	*	0
May	1000	**	1000	**	**	0	*	0
June	1000	1000	0	800	800	0	7	3
Total Discrepancies:		3						
Total IUD's Involved:		1400						
Monthly Reports Missing:		2						

* *Wrong form*** *No report*

Table 10

Discrepancies in Reporting between Central, District and Upazila Warehouses
Gopalganj District
July 1987 to June 1988

	Issued Central	Received District	Discrep	Issued District	Received Upazila	Discrep	Upazilas Reporting	NGO's Reporting
July	0	0	0	400	200	200	5	0
August	0	0	0	400	400	0	5	0
September	1800	1800	0	200	200	0	5	0
October	0	0	0	1000	1000	0	5	0
November	0	0	0	200	200	0	5	0
December	0	0	0	0	0	0	5	0
January	0	0	0	0	0	0	4	0
February	800	800	0	0	0	0	4	0
March	0	0	0	200	200	0	5	0
April	1000	1000	0	800	800	0	5	0
May	0	0	0	0	0	0	5	0
June	0	0	0	200	200	0	5	0
				400	400	0	5	0
Total Discrepancies:		1						
Total IUD's Involved:		200						
Monthly Reports Missing:		0						

Table 11

**Discrepancies in Reporting between Central, District and Upazila Warehouses
Gazipur District
July 1987 to June 1988**

	Issued Central	Received District	Discrep	Issued District	Received Upazila	Discrep	Upazilas Reporting	NGO's Reporting
July	0	0	0	400	200	200	6	0
August	1000	1000	0	100	100	0	5	0
September	1000	1000	0	744	600	144	6	0
October	0	0	0	400	0	400	6	0
November	0	0	0	0	0	0	6	0
December	0	0	0	600	600	0	6	3
January	1000	1000	0	200	200	0	6	2
February	0	0	0	400	400	0	6	3
March	4000	4000	0	1400	1400	0	6	3
April	0	0	0	0	0	0	6	1
May	0	0	0	0	0	0	6	2
June	1000	*	1000	*	*	0	6	1
						0	0	0
Total Discrepancies:		4						
Total IUD's Involved:		1,744						
Monthly Reports Missing:		1						

Table 12

**Discrepancies in Reporting between Central, District and Upazila Warehouses
Dhaka District
July 1987 to June 1988**

	Issued Central	Received District	Discrep	Issued District	Received Upazila	Discrep	Upazilas Reporting	NGO's Reporting
July	0	0	0	2192	200	1992	7	0
August	8000	8000	0	2140	640	1500	7	0
September	0	0	0	3640	1100	2540	7	0
October	6000	6000	0	2380	600	1780	7	0
November	0	0	0	1200	200	1000	7	0
December	2000	2000	0	2800	1000	1800	7	0
January	0	0	0	2360	300	2060	7	0
February	4000	4000	0	1880	600	1280	7	0
March	0	0	0	4240	1100	3140	7	0
April	6000	6000	0	4380	1050	3320	7	0
May	0	0	0	1500	200	1300	7	0
June	6000	6000	0	2360	160	2200	7	0
Total Discrepancies:		12						
Total IUD's Involved:		23,912						
Monthly Reports Missing:		0						

It is useful to keep in mind that discrepancies between the stock issued by the Upazila stores and received by the field staff are NOT included in this analysis. It is likely that there are more discrepancies at that level than at higher levels, since more transfers of stock and more people are involved. Likewise, no account has been taken of the varying level of NGO reporting at the Upazila level (see Section 3.2).

Recommendation

4. FPLM should consider designing and implementing a small quality assurance project to evaluate the quality of data collected by the LMIS during the course of its regular work. Such a study could consist of the analysis of a 10 percent sample of data to determine the number and character of the discrepancies in data submitted on movement of commodities within the system.

4.4 IUD Performance Data: the MIS vs. LMIS Discrepancy, Quantification and Causes

4.4.1 Quantification of the Discrepancy

As described in Chapter 3, more condoms, oral pills, and injectables are reported as having been issued by the LMIS than are reported in the MIS to have been distributed to clients by fieldworkers (see Table 6). The opposite is true for IUDs. More IUDs are reported as being distributed to clients than are reflected as issuances in LMIS reports.

Table 13 below, which is derived from Table 6, suggests that, on average in 1985-87, about 1/5th more IUDs were reported as being provided to clients than would have been expected from the LMIS data.

Year	Issued (LMIS) F7 & NGO Data	Performance MIS Data	Discrepancy	%
1985	304,105	385,479	81,374	21%
1986	335,030	412,297	77,267	19%
1987	413,249	506,342	93,093	18%

4.4.2 Causes of the Discrepancy

Three main causes of the MIS/LMIS discrepancy with respect to the IUD have been identified:

- targeting by the MOHFP to encourage increased use of this method;
- compensation payments made to overcome barriers to accepting this method (e.g., the fact that it is unacceptable for a woman in purdah to go alone to a family planning clinic, the cost of transportation, etc.); and

- duplicate reporting of IUD acceptors by the NGOs and Government clinics.

All three causes contribute to the over-reporting of IUD insertions by the MIS.

By contrast, of the causes associated with the loss gap (targeting, incomplete reporting, inaccurate reporting, and the failure to include some multisectorial and NGO data), only one would result in over-reporting -- targeting. The other influences would generally result in under-reporting. Those resulting in under-reporting may also affect the performance data for IUDs, but it is likely that the more important influences are the three causes listed above. The conclusion is that MIS reporting on IUDs is likely to be inflated, whereas MIS reporting on other methods is not.

Each of the causes identified is examined more closely below.

Targeting

The BDG would like to promote increased use of the IUD for the good reasons previously mentioned. As with other methods, targets are set for each District and Upazila to encourage field workers to recruit IUD clients. This tactic may have the effect of encouraging inflated reporting for IUDs.

IUD Compensation Payments

Compensation payments are applicable only to IUDs. Prior to December 1988, these payments amounted to about 35 Taka, including 15 Taka for the person recruiting the IUD client and accompanying her to the clinic. Some observers have theorized that this sum of money may have encouraged workers to defraud the system in various ways, e.g., through over-reporting, inserting new IUDs in the same client year after year, or encouraging women to switch methods inappropriately or otherwise exerting pressure upon them to accept an IUD.

Because of the possibility of such abuses, various studies of the IUD program have been carried out by independent contractors at the request of USAID. IUD Program Evaluation studies were done in 1984, 1985 and 1986. These studies found that the MIS Unit was over-reporting IUD acceptors by 9 percent, 14 percent, and 8 percent, respectively, in these years.

A 1988 study by Family Development Services and Research (FDSR), Dhaka, investigated the role of compensation payments in the IUD program. Focus group discussion revealed that cash payment did not play any role in IUD client decision making, but facilitated implementation of the decision by reimbursing transport costs. Only 5 to 6 women out of 76 stated that they had not received compensation payments. Further, most clients in the study knew when their IUDs had been inserted and the duration of action of the IUD, and so could not later be told that they needed a new IUD every year.

Based on these studies, BDG discontinued the 15 Taka payment to the person motivating and accompanying the client, leaving in place the 15 Taka to reimburse the client for transportation to the clinic, and 5 Taka for the clinician inserting the IUD (not a very tempting amount of money). It is likely that a further 12 months of data collection will show a decrease in the MIS Unit over-reporting as a result of this change.

NGO Reporting of IUD Data

Many NGOs report IUD insertions for clients who have been referred to a Government clinic for the actual insertion. NGO workers believe that educating the client about the IUD as a method, accompanying her to the clinic and doing all follow-up care entitles them to report ("take credit for") the client as a new acceptor for the NGO. At the same time, the

Government clinic must also report the insertion in its performance statistics, as well as accounting for an IUD issued to it by the LMIS. This means that a significant number of IUD insertions are being reported twice.

It is certainly true that education, support of the client for the insertion, and follow-up visits comprise a large percentage of the care required for a successful IUD acceptor. It is also true that the clinic inserting the IUD must report this as a new IUD insertion. (The other problems with NGO data that are discussed in Section 3.2. are also at issue for IUDs -- as for other methods -- but are not repeated here.)

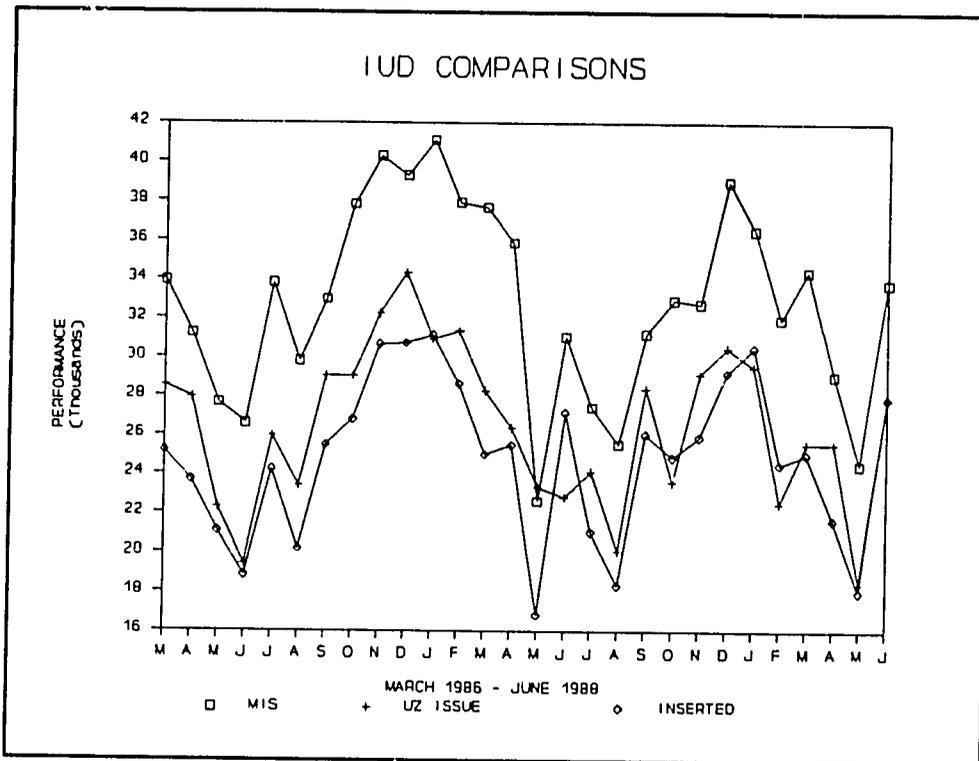
In conclusion:

- The IUD loss gap equals 21 percent of the IUDs arriving in-country. These are not accounted for by the LMIS/NGO issuance figures. Section 4.3.2 accounts for this gap by showing that reasonable estimation for loss and damage could account for 8 percent and that poor reporting and record keeping probably accounts for the remaining 13 percent.
- The discrepancy between MIS and LMIS figures shows that more IUD insertions were reported to MIS than there were IUDs issued by LMIS (see Figure 6 - IUD Comparisons, next page). Therefore, the hypothesis that any significant number of IUDs were being used inappropriately cannot be true, since there were not enough IUDs to account for the MIS performance figures. Since compensation payments were based on MIS performance figures, it is not surprising that these figures appear inflated. The 18 to 21 percent over-reporting of discrepancies (see Table 13) is almost certainly due to the causes cited in Section 4.4.2 (targeting, compensation, and duplicate reporting of NGO clients).

Recommendations

5. IUD performance data (insertions) should be reported to the MIS Unit only by the clinic FWV actually inserting the IUD.
6. All clinics, NGO and MOHFP, should report not only delivery of contraceptives, but also other family planning activities carried out at the clinic, such as group talks, numbers of clients followed who have had IUDs inserted elsewhere, publicity activities in the community, and so forth.
7. A new evaluation of the IUD program should be carried out as planned, based on the Bangladesh Fertility Research Programme (BFRP) IUD Study findings and USAID RFP (Request for Proposals) No. Bangladesh-89-001. A consultant with a strong clinical background in family planning/IUD practice should participate in the study.

Figure 6



5. Reporting Systems

5.1 Field Worker Registration System

5.1.1 Overview

FWAs and FWVs are responsible for recording information on contraceptives issued to clients and reporting this to field level supervisors who in turn submit reports which flow from the Upazila level up to the district and central levels where they are entered into the MIS and LMIS data systems. Currently there is no pre-printed register for the FWA and many workers scribble the information on scraps of paper or record it from memory at a later date.

The MCH-FP extension project has developed a field worker record keeping system (FWRS) using a pre-printed register which is scheduled for nationwide implementation over the next four years. The FWRS, based on an earlier register (the Record Keeping Book - RKB) developed by ICDDR/B for use in its MATLAB project, has been extensively tested in the field and has been in use for a number of years in the extension project's two intervention sites. This system will progressively meet the need for MIS and LMIS data collection and analysis at various levels as it is phased in. USAID plans to provide technical assistance to this process through a project entitled "Strengthening MIS" and through continued support to the extension project.

The process currently used by FWAs -- the use of exercise books into which they handwrite a format determined by a local family planning officer -- is described in Section 2.3.3, as is the possibility that this procedure decreases the accuracy of data coming from service delivery sites. Other problems that presumably arise from use of these informal recording systems are (1) burdening FWAs with the extra work that arises from inefficient formats, and (2) inhibiting the managerial use of data by field staff.

5.1.2 Managerial Use of Data

The Extension Project FWRS and RKB systems include forms and supervisory procedures that ensure field staff use the data for management purposes. For example, FWAs were able to discuss the following issues for their service areas:

- trends in the contraceptive prevalence rate (CPR) over time, and
- trends in method mix.

FPAAs and UFPOs were able to compare these same indicators for different FWAs and different Unions.

The ability of field staff at various levels to understand and calculate the CPR can strengthen a service delivery activity as it can help workers understand what is going on in their services areas.

On the other hand, this capability is not without problems. Under the Extension Project reporting system, CPR is calculated using observed eligible couples as a denominator. Eligible couples not at home or missed for any reason do not diminish the prevalence rate. This could encourage poor coverage if FWAs attended to acceptors and skipped non-acceptors in order to assure a high CPR.

If Extension Project staff were to observe poor coverage, they could compensate through the supplementary periodic use of a coverage indicator. Even if this were not to be a

problem in Extension Project Upazilas, it could, however, arise in other Upazilas where the FWRS is implemented under conditions of reduced supervision. Officers responsible for training in the use of the FWRS might be alert to this.

Recommendation

8. The MIS Unit and the Extension Project should assure that training accompanying implementation of the FWRS produces family planning staff competent in the use of indicators at the field level and that supervisors learn to verify the data periodically.

5.1.3 The Prevalence Gap: Calibrating the CPR

Extension Project Upazilas periodically report FWRS CPRs calculated from service delivery data every 4 - 6 weeks and CPRs resulting from Sample Research Surveys (SRS) quarterly. Informants familiar with the data suggest that these two figures, the FWRS CPR and the SRS CPR, move in tandem with a consistent disparity between them.

This phenomenon should be documented and explored for at least the following reasons:

- This Extension Project gap is conceptually parallel to the gap between the Contraceptive Prevalence Survey (CPS) rate and the national service delivery CPRs, and may add to understanding of the national gap.
- Consistency in the magnitude of the Extension Project gap is a measure of the reliability of the FWRS system.
- Factors causing the Extension Project gap should be identified and, if possible, quantified.
- Documentation and analysis of the Extension Project CPR gap will demonstrate analytic skills that can be transferred to the MIS Unit.

Recommendation

9. Extension Project staff should examine the gap between SRS CPR and FWRS CPR in a manner that models this analytic process.

5.1.4 Loss and Damage Reporting

An earlier section of this report lists unreported loss and damage of contraceptives as a possible explanation of the gap between the number of contraceptives arriving in country and the number issued to clients. Reporting of loss and damage should commence with the FWA and the FWV.

FWAs interviewed by the consultants admitted to some limited loss of contraceptives. Informants suggest that the current practice is to use the "Opening Balance + Receipts - Issued = Closing Balance" equation to predict a theoretical balance, while the physical stock is always the closing stock minus whatever loss or damage has occurred over time. Such a discrepancy, between physical stock and closing balance, defeats the intent inherent in the process. It also risks leaving the FWA with the impression she is being asked to lie about her stock levels.

Some informants contended that adding categories that allow for the reporting of loss and damage would only encourage misuse. This consultant's experience in other countries has been that such a category is used sparingly at the field level and that field staff take their logistical responsibilities very seriously indeed, often writing extensive notes to document the cause of every entry.

Recommendation

10. Field level family planning staff need a reporting category for lost and damaged contraceptives.

5.2 The Logistics Management Information System

The LMIS collects data monthly on opening and closing balances, and on receipts and issuances of contraceptives. Field level data, Upazila data, and District data are aggregated up the reporting chain but never merged one with another. This provides the opportunity for a number of internal checks for accuracy.

At each level, for example, staff must assure that opening balance + receipts - issuances (stock distributed) = physical stock at the end of the month. Annual National Physical Inventories (NPIs) independently confirm the accuracy of this process. Supervisory staff are able to compare the stocks distributed during the month with the aggregate stock received by the next organizational level (e.g., the aggregate stock receipts reported by the Upazilas must equal the total stocks issued by the District).

5.2.1 Feedback

Internal checks not only serve to increase accurate reporting, but also provide the mechanisms for identifying the location of errors. LMIS has planned to increase the accuracy of its data and involve family planning managers more closely in examining their own performance by sending periodic feedback to Districts and, perhaps less frequently, to Upazilas. At a minimum, this feedback would identify incomplete reporting and receipt vs. distribution discrepancies. In the future such feedback could be incorporated into or joined with the feedback mechanisms instituted at the MIS Unit under the anticipated USAID funded technical assistance project.

Recommendation

11. LMIS should implement the planned feedback system that involves at least District family planning staff in improving the reliability of data on contraceptive logistics.

5.2.2 Loss and Damage Reporting

The importance of reporting lost and damaged stock is discussed in previous sections. LMIS Forms 4 and 4A must be altered to allow for the reporting and aggregation of data on the loss and damage of contraceptives.

Recommendation

12. LMIS Forms 4 and 4A should be altered to allow for reporting of lost and damaged contraceptives.

5.2.3 Inclusion of Upazila Level Data

The LMIS database currently relies exclusively on data submitted from the Districts (Form 7). The reverse side of this form (Form 7A) lists closing balances for each brand of contraceptive for each Upazila in the District. A 1988 Regional Inspector General's (RIG) report suggested that Form 7Bs, from Upazilas to Districts, be submitted to the Deputy Director for Logistics and Supplies (DD, L&S) for inclusion in the LMIS.

A memorandum to this effect has been sent from the DD, L&S and is awaiting action by the Director General (DG). The computer programming has been completed in anticipation of the submission of Form 7Bs. The additional data entry time required for Upazila reports is feasible. Submission of reports from Upazilas would increase the capacity of the LMIS to describe and control the supply of contraceptives.

Recommendation

13. LMIS Form 7Bs should be included in the LMIS database.

5.2.4 Calculating Field Reporting Rates Using Form 7B

The percentage of FWAs and FWVs submitting reports on the issuance of contraceptives is particularly important for providing information to determine the fate of donor supplied contraceptives. Earlier portions of this report suppose incomplete reporting from FWAs and FWVs to be the single greatest cause of the loss gap. If LMIS Form 7B were altered to include

- the number of FWAs and FWVs reporting, and
- the total number of FWAs and FWVs in the Upazila at the time of reporting,

the portion of the loss attributable to incomplete reporting from FWAs and FWVs could be calculated.

More important, identification of those Upazilas that characteristically have low field reporting rates will enable central level staff to exert pressure in an attempt to alleviate this problem.

Recommendations

14. LMIS Form 7B should be altered to include the number of FWAs and FWVs reporting, and the total number of each within the Upazila.
15. Information on FWA and FWV reporting rates from LMIS Form 7B should be reported, in turn, from the District to the Central Warehouse on LMIS Form 7A. This could be accomplished easily by changing the rows currently labeled "REPORT SUBMITTED" and "REPORT NOT SUBMITTED" to
 - Number of FWAs & FWVs Reporting, and
 - Number of FWAs & FWVs not reporting.

When and if LMIS Form 7B is included in the LMIS database, this change, and indeed all of Form 7A would become redundant and unnecessary.

5.3 The MIS Unit Reporting System

Whereas the LMIS collects logistical information on opening balances, closing balances, receipts, and issuance (distribution) of contraceptives in order to assure a reliable supply, the MIS Unit collects information that enables the assessment of performance by family planning staff. These performance data are collected on separate forms. At least in one Upazila visited by the consultants, the separate MIS forms commenced as low as the FPA level. This implies that, except for the collection by the FWA and FWV of source data serving both systems, the MIS is totally independent of LMIS reporting.

The MIS data include performance statistics from NGOs and multisectorial (M/S) agencies in addition to statistics from government field staff. As of December, 1988, the MIS Unit began reporting these statistics in a format that allows the user to distinguish between Government, NGO and M/S data. It is important to continue this format.

5.3.1 Reporting of Upazila Data

The MIS Unit has expressed an interest in collecting performance data from Upazilas. This would allow verification of the aggregate numbers reported by the Districts. Upazila performance data might be most easily passed to the MIS Unit if the District level aggregation of Upazila data were done on a preprinted format on the reverse side of the form submitted by the Districts to the Upazilas. Using an approach parallel to that proposed for the LMIS, such a tally sheet should include data on the number of FWAs and FWVs submitting reports.

Recommendation

16. An Upazila performance data tally sheet should be included on the reverse side of District reports to the MIS Unit.

5.3.2 Preprinted MIS Unit Reporting Forms

The accuracy of the performance data in the MIS reporting system would most probably improve if preprinted reporting forms were available.

Recommendation

17. The MIS reporting system requires preprinted reporting forms.

5.4 Strengthening Management Information Systems: USAID Project #388-0071

This \$1.36 million project has been proposed for implementation by the Population Service Statistics Cell of the MOHFP. Its goals are to replace the CYP (Couple Years of Protection) with the CPR as the principal indicator of performance, implement a new field worker record keeping system (FWRS), develop a Quality Assurance Cell (QAC) at the MIS unit, and offer supporting technical assistance to MOHFP officials in the use and interpretation of performance statistics.

The core of this project is the implementation of the FWRS for FWAs, as designed and tested by the MCH-FP Extension project. The consultants interviewed staff members at the Extension project, reviewed FWRS documents and data collection tools, and visited a FWRS test area.

It is clear that the tools will provide a wealth of family planning and health data that will meet the MIS/MOHFP need for better performance data. Moreover, the FWRS looks like a good field tool that is within the capabilities of the FWA to use. It is also well designed to serve as a field management tool, since data are retained by the FWA and she is able to analyze it and use it herself.

The key points for implementation are:

- adequate numbers of FWAs in a ratio of about 5,000 persons to 1 FWA;
- printing and distribution of all forms and data collection tools on a timely and regular basis;
- training and follow-up field assistance for field staff; and
- allocation of adequate time for a well-prepared process of phasing in the system.

It is extremely important to recognize that this project is attempting to implement a very complex new system of collection of vital demographic and health data. It may be tempting to rely on previous experience of the field staff with similar kinds of forms and registers, or to count on the quality of the tools to carry the project, but it would be unwise to do so.

Effective utilization of the data at all levels will require long-term technical assistance for training of middle and upper level managers and officials, in order to ensure adequate field support, and to establish the QAC.

The training plan in Section 4 of the proposal allows minimal margin for error. Training of the 27 trainers will require at least a month. It is estimated that the teams will need a total of 6-8 weeks in each District, but it takes that much time just to supervise the first complete round of field practice, which includes the crucial initial registration of couples. Eight to ten weeks would be a more realistic time frame. It may also be necessary to leave a counterpart Field Research Observer (FRO) in each District to assist with the second round of data collection (an additional 4-6 weeks).

Implementation of the new FWRS should be monitored carefully and not rushed. Adequate time should be allowed for training of trainers, FROs, supervisory and management staff, and field staff. Additional technical assistance should be provided in a timely fashion at crucial points in the implementation process. The MCH-FP Extension Project will continue to be a source of expert assistance to the implementation project.

Recommendation

18. National implementation of the new FWRS, a complex and important reporting system, should be accomplished gradually, allowing for adequate time and careful monitoring.

Appendices

Appendix A
Scope of Work

Appendix A

Scope of Work

A. Objective

To assist USAID Bangladesh in analyzing the reasons for existing discrepancies between contraceptive distribution and family planning service performance data, assess the likely impact of implementation of the proposed new field worker registers on this problem, and make appropriate recommendations for both the immediate and long-term.

B. Statement of Work

1. Background

In attempting to monitor the performance of the Bangladesh Family Planning Program USAID relies primarily on three data sets:

- Contraceptive Prevalence Surveys (CPS) performed at two year intervals by an experienced, external research firm.
- The Logistics Management Information System (LMIS) which records field-level distribution of contraceptive commodities by the Bangladesh Government (BDG) and non-government (NGO) organizations.
- The Government of Bangladesh Management Information System (MIS) which reports performance data from BDG and NGO organizations from the field level up. The current MIS has been the subject of numerous assessments and is generally held to be dysfunctional. For several years the USAID-funded MCH/FP extension project has been working with the MIS unit to develop a new, field-worker oriented record keeping system. This new system is now nearing nationwide implementation. However, implementation will be phased in gradually and may take as much as four years to be established in all upazilas.

In addition to the above (CPS, MIS, LMIS) are periodic surveys/studies done on particular topics, for example, two separate USAID-funded studies recently examined IUD continuation rates and follow-up of IUD acceptors.

Historically, LMIS and MIS figures have never matched. This discrepancy, sometimes referred to as the "condom gap" "the IUD gap" etc, is of concern to USAID as a major donor to the National FP Program and the leading supplier of contraceptive commodities.

Currently, the greatest discrepancy is seen in clinical methods of contraception. MIS reporting of IUD insertions exceeded LMIS distribution data by about 12 percent between 1985-1988. MIS reporting on injectables exceeded distribution figures by about 3 percent.

A variety of causes have been postulated: inaccuracies in the LMIS system, the known weaknesses of the MIS system, deliberate false reporting by field-workers, existence and use of "pipeline" stock supplies of contraceptives distributed in previous years, etc.

2. Specific Tasks

The Contractor's consultants shall make a thorough examination of the MIS and LMIS reporting systems at all levels in the system, and conduct interviews as necessary, including

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interviews with FP clients, field workers and upazila family planning officers at multiple sites. Focus group discussions and/or other qualitative research methods are to be used as necessary. The consultants shall review all pertinent literature, including recent CPSES, IUD studies, and Extension Project literature on the MIS. Based on their findings, they shall prepare a report which includes the following:

- Assessment of the accuracy of the LMIS reporting, with recommendations for change as appropriate.
- Assessment of the accuracy of the current MIS system and the proposed revised system, with recommendations, as appropriate, both for the short-term (improvements to the current system) and long-term (modifications in the planned new system.)
- A qualitative assessment of the major factors responsible for the LMIS - MIS gap, with appropriate recommendations.
- Recommendations for any quantitative research that may be indicated.

Appendix B
Persons Contacted

Appendix B

Persons Contacted

1. USAID

Sharon Epstein, Director, OPH
Gary Cook, Deputy Director, OPH
Sheryl Keller, Research and Evaluation Unit Coordinator, OPH
Dana Vogel, NGO Coordinator, OPH

2. MOHFP

S.R. Choudhuri, Director, MIS
Tofayel Ahmed, Deputy Director, MIS
A.Z. Nooral Islam, Sr. Systems Analyst
Anwar Hussain, UFPO, Palash, Narsinghdi
Dr. Md Nawab Ali Khan, Medical Officer, Narsinghdi
Md. Yasinmia, UFPA (stores), Sadar, Narsinghdi
Ms. Silina Akhtar, FWV, Sadar, Narsinghdi

3. JSI/FPLM

P.M. Jesse Brandt, Logistics Management Advisor
Milton D'Silva, Jt. Admin. & Finance Officer
Sikder Mizanur Rahman, Central Warehouse
Makhlukur Rahman Khaled, Central Warehouse
Shyam Lama, Logistics Training Advisor

4. ICDDR/B MCH-FP Extension Project

Maxine Whittaker, Acting Director
David Patterson, Overseas Population Fellow
Ali Ashraf, Senior Operations Researcher
Mahidul Islam
Mohammed Ali Bhuiyan, Field Research Manager
Mukhlesur Rahaman, Field Research Officer
Emdadur Rahaman, Sr. Health Assistant
Abdus Sattar Meah, Sr. Health Assistant
Gulnahr Begum, Sr. Health Assistant, LFPV
Janema Begum Fokul, Sr. Health Assistant, LFPV

Appendix C

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Appendix C

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Appendix D

Definition of Gap Using Three Sources for Performance

Appendix D

Definition of GAP Using Three Sources for Performance

	To be Accounted For	Gap if Using Form #7 Data	%	Gap if Using MIS Rpt'd Data	%	Gap if Using LMIS/NGO Data	%
Orals							
1985	13,618,000	6,777,072	50%	3,938,890	29%	3,329,674	24%
1986	13,244,000	5,498,432	42%	2,026,169	15%	1,013,455	8%
1987	25,704,000	12,938,438	50%	6,301,865	25%	7,341,317	29%
1988							
Condoms							
1985	56,549,741	25,805,686	46%	14,841,988	26%	10,895,765	19%
1986	65,101,546	31,152,547	48%	14,433,546	22%	4,502,368	7%
1987	97,213,435	47,592,790	49%	17,628,106	18%	18,594,024	19%
1988							
IUDs							
1985	412,893	135,897	33%	27,414	7%	108,788	26%
1986	464,425	157,776	34%	51,928	11%	129,395	28%
1987	510,787	123,449	24%	4,445	1%	97,538	19%
1988							
Injects							
1985	499,580	383,548	77%	309,385	62%	281,715	56%
1986	527,959	399,920	76%	259,723	49%	255,896	48%
1987	543,007	291,669	54%	44,924	8%	183,275	34%
1988							

Distribution = NPI + Receipts - NPI Following Year

Gap = Distribution in First Col - Perf per Col Source

% = Gap / Distribution * 100

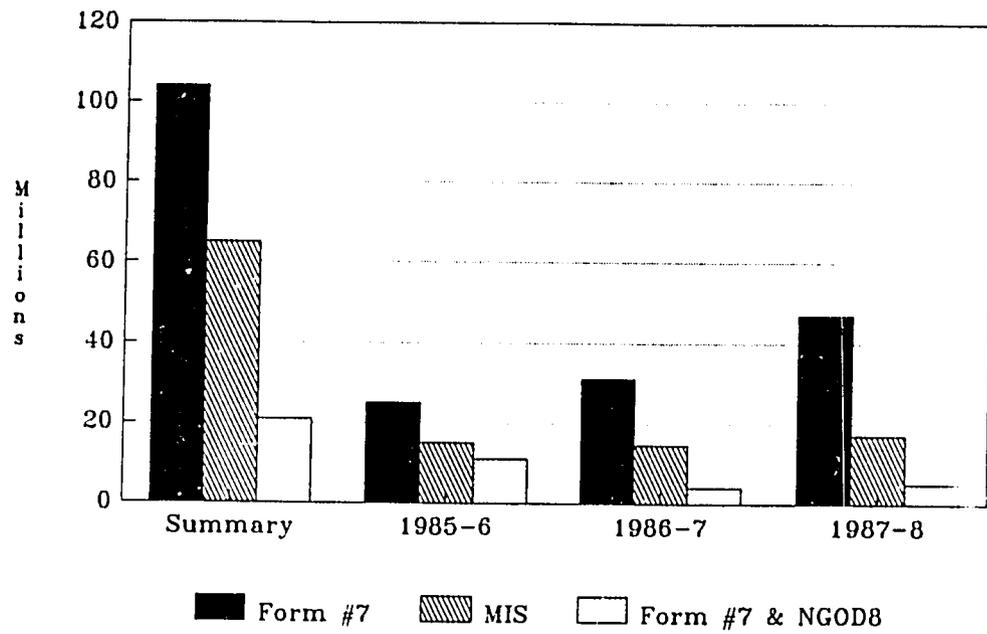
Data Source: J. Brandt, JSI/FPLM

Appendix E

Condom Gap, Summary and Year-Wise

Appendix E

CONDOM GAP: SUMMARY AND YEAR-WISE
CWH Records, NPI & MIS Records

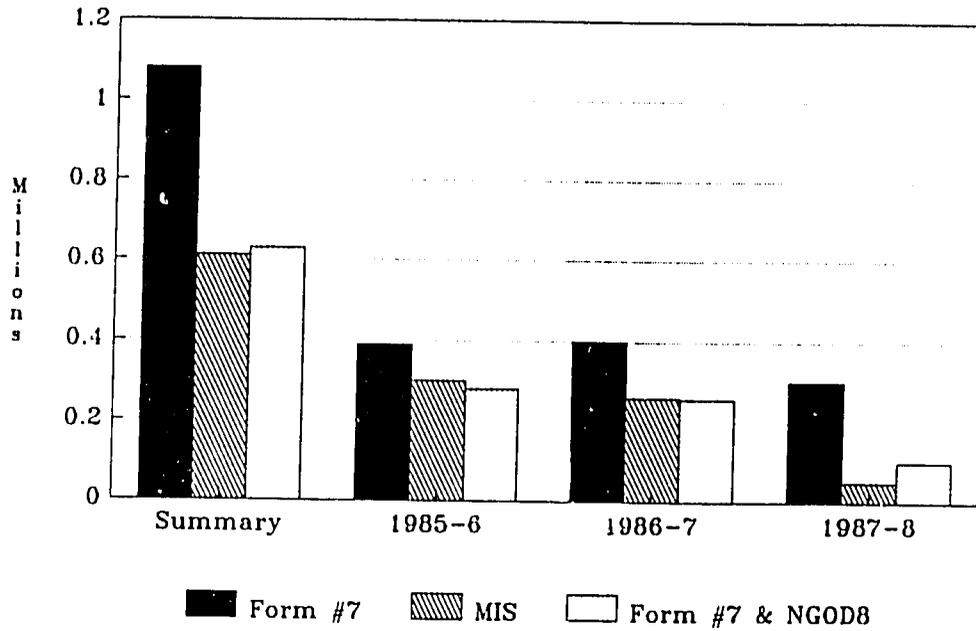


Appendix F

Injectables Gap, Summary and Year-Wise

Appendix F

INJECTABLES: SUMMARY AND YEAR-WISE
CWH Records, NPI & MIS Records

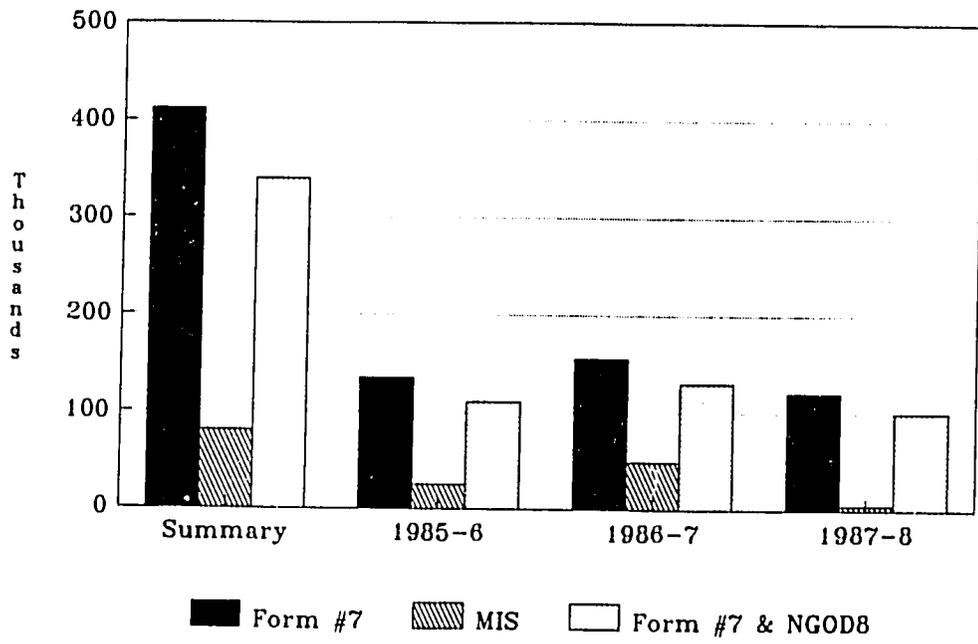


Appendix G

IUD Gap, Summary and Year-Wise

Appendix G

IUD GAP: SUMMARY AND YEAR-WISE
CWH Records, NPI & MIS Records

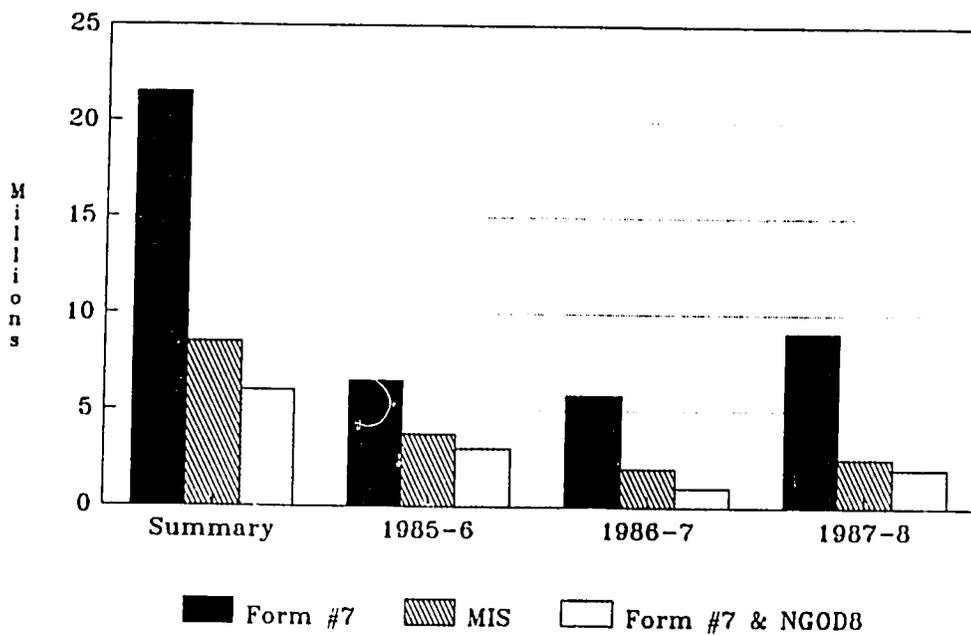


Appendix H

Oral Pill Gap, Summary and Year-Wise

Appendix H

ORAL PILL GAP: SUMMARY AND YEAR-WISE
CWH Records, NPI & MIS Records



Appendix I
Recommendations

Appendix I

Recommendations

1. The "doorstep injectable" program should be expanded to the other Districts as soon as possible.
2. A decision should be made to use one kind of injectable only.
3. The MOHFP should require NGOs and Multisectorals to report logistical data to the Central Warehouse and use these data to assess completeness of NGO reporting to the MIS Unit; it should also require NGO and Multisectorial service delivery sites to continue to report performance data to the MIS through local Upazila offices.
4. FPLM should consider designing and implementing a small quality assurance project to evaluate the quality of data collected by the LMIS during the course of its regular work. Such a study could consist of the analysis of a 10 percent sample of data to determine the number and character of the discrepancies in data submitted on movement of commodities within the system.
5. IUD performance data (insertions) should be reported to the MIS Unit only by the clinic FWV actually inserting the IUD.
6. All clinics, NGO and MOHFP, should report not only delivery of contraceptives, but also other family planning activities carried out at the clinic, such as group talks, numbers of clients followed who have had IUDs inserted elsewhere, publicity activities in the community, and so forth.
7. A new evaluation of the IUD program should be carried out as planned, based on the Bangladesh Fertility Research Programme (BFRP) IUD Study findings and USAID RFP (Request for Proposals) No. Bangladesh-89-001. A consultant with a strong clinical background in family planning/IUD practice should participate in the study.
8. The MIS Unit and the Extension Project should assure that training accompanying implementation of the FWRS produces family planning staff competent in the use of indicators at the field level and that supervisors learn to verify the data periodically.
9. Extension Project staff should examine the gap between SRS CPR and FWRS CPR in a manner that models this analytic process.
10. Field level family planning staff need a reporting category for lost and damaged contraceptives.
11. LMIS should implement the planned feedback system that involves at least District family planning staff in improving the reliability of data on contraceptive logistics.
12. LMIS Forms 4 and 4A should be altered to allow for reporting of lost and damaged contraceptives.
13. LMIS Form 7Bs should be included in the LMIS database.
14. LMIS Form 7B should be altered to include the number of FWAs and FWVs reporting, and the total number of each within the Upazila.
15. Information on FWA and FWV reporting rates from LMIS Form 7B should be reported, in turn, from the District to the Central Warehouse on LMIS Form 7A. This could be accomplished easily by changing the rows currently labeled "REPORT SUBMITTED" and "REPORT NOT SUBMITTED" to

- Number of FWAs & FWVs reporting, and
- Number of FWAs & FWVs not reporting.

When and if LMIS Form 7B is included in the LMIS database, this change, and indeed all of Form 7A would become redundant and unnecessary.

16. An Upazila performance data tally sheet should be included on the reverse side of District reports to the MIS Unit.
17. The MIS reporting system requires preprinted reporting forms.
18. National implementation of the new FWRS, a complex and important reporting system, should be accomplished gradually, allowing for adequate time and careful monitoring.

Appendix J
Field Trip Report

with Attachments:

Upazila MIS Performance vs Col #18 Form #7
FPA Format for Reporting FWA MIS Performance Data
Format for Reporting Upazila MIS performance Data
District FP MIS Report to MIS Unit
Sadar, Narsinghdi MIS Performance Data by Method by Month

Appendix J

Field Trip Report

Laura Evison, Cliff Olson, Anwar Hussain

Sadar, Narsinghdi

6 April 1989

PURPOSE. This single day trip is part of a two week consultancy during which Ms Evison and Mr. Olson examine aspects of the Family Planning MIS. The purpose of this field trip is to gather information regarding:

- (1) the gap between the number of contraceptives arriving in country and the number of contraceptives issued to acceptors, and
- (2) discrepancies between performance data reported to the MIS Unit of the MOHFP and LMIS data on the number of contraceptives issued by field staff to clients.

Mr. Anwar Hussain was kind enough to accompany Mr. Olson and Ms Evison. Mr. Hussain proved doubly helpful, being familiar from earlier discussion with the consultants' task, and having been the previous UFPO of the Upazila visited. Mr. Hussain is himself an expert informant on the reporting of contraceptive logistics and has often advised the JSI project in the organization of training on this subject.

Prior to the field trip, the staff at Central Stores provided historical performance statistics for the Upazila, and statistics on receipts and issuances by month by brand for the District. The field trip team reviewed the data before arriving at the Upazila.

ACTIVITIES, FINDINGS, AND RecommendationS.

FAMILY PLANNING CLINIC VISIT. The trip commenced with a visit to an FPC and discussions with the FWV, Ms Silina Akhtar. Ms Akhtar has served as a FWV at this FPC for three years. She informed us that she distributes 45 condoms (a three month supply) per visit by each condom acceptor. For oral pills, new and old acceptors alike receive three cycles. Injectables have been packaged in single vials during her three years at the clinic. She has experienced no wastage of contraceptives. She identified her desired stock level to be one month's supply (correct answer per MOHFP protocols is three month's supply). She claims to have never experienced an outage of contraceptive supplies. She verbally estimated her monthly issuance to be 200 cycles, 225 condoms, 10 IUD's. A quick review of her reports suggested these to be appropriate estimates. A more careful review of her recent FORM 4s indicated a single error in arithmetic. Ms Akhtar has been without preprinted FORM 4s since February 1988; and even though Ms Akhtar is obviously an exemplary FWV, she left off the "total" row in her manually produced form. Less exemplary FWVs must surely make more serious errors when manually producing forms.

Recommendation: Assuring the provision and distribution of preprinted FORM 4s would facilitate accurate reporting.

Ms. Akhtar uses a preprinted register to record her services to clients. This is not the national norm. The previous UFPO distributed preprinted registers to FWVs at a time when preprinted registers had not yet been depleted. Ms Akhtar uses this register accurately and probably produces fewer errors than might be expected from registers hand written into exercise books.

Recommendation: FWAs and FWVs should be provided with preprinted registers.

Ms. Akhtar seemed to have approximated most of her family planning targets. More relevant for the consultants, was the importance assigned to these targets. They were posted on a multicolored wall display, and Ms Akhtar's response seemed to confirm that she views meeting targets as the primary indicator of her performance. This observation is relevant to the hypothesis that the use of targets may skew performance reporting.

A physical count of inventory produced exact amounts of contraceptives. Storage conditions were appropriate.

UPAZILA STORES. The UFPO was not available during the visit to the Upazila offices. Md. Yasinmia, the stores officer was able to provide assistance. The team compared Upazila MIS performance data with LMIS column 18, Form 7 distribution data. Theoretically, the two should be same number. In fact, the team found that for pills and condoms the reported numbers varied for 83% and 64% respectively of the 24 months examined.

On the other hand, for IUDs, after correcting a few obvious clerical errors, all but one of the months showed identical numbers for MIS and LMIS. (see attached spreadsheet = UFPODATA)

If incentive payments for IUD insertions had affected reporting, the evidence would have been exactly the opposite of what the team found. That is, pills and condoms would have shown greater agreement of MIS and LMIS data, while IUD data would have been the more likely to diverge.

Recommendation: The effect of incentive payments on performance data at the Upazila and field level should be tested by comparing variance of MIS and LMIS data by method for a sample of Upazilas.

This test can be done electronically on data already entered at central warehouse. (NOTE: CONFIRM THIS WITH MIZAN AND KHALED!) Alternatively, an application of the same test to data for all Upazilas would identify those Upazilas where incentive payments were inappropriately affecting performance reporting and thereby inflating incentive payments. (NOTE: IF THIS IS DONE, WHO WILL USE IT AND HOW?)

In this case, a marked discrepancy in MIS and LMIS data for pills and condoms but not for IUDs might suggest that clinic-based vs community based distribution explains the variance.

The discrepancy probably results from distribution of pills and condoms

in households rather than at static sites,
by field workers who have significantly less training than the clinic based FWV,
by field workers who are without preprinted register, and from
the extra level of aggregation of these numbers by the FPAs before they reach the UFPO.

Mr. Yasinmia believed the discrepancy in pill and condom data (MIS vs Form 7) was due to the possible inclusion of NGO data; but he was unable to produce any NGO report. Moreover, Upazila MIS reports to district list government, multisector, and NGO data separately. Mr. Yasinmia sincerely requested additional training of all types.

Previously, informants in Dhaka said that performance data was collected solely in the monthly distribution column of MIS Form 4 (completed by FWAs and FWVs), and remained intact until the district level where storekeepers and statisticians report the same data separately to the Central Warehouse and the MIS Unit.

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In fact, in this district, MIS and LMIS data are reported separately from the FWA and FWV levels and aggregated separately at each level! These manually produced formats were copied by the team and are attached to this report. (see FWAMISRPT & UPMISRPT & hardcopy in Bangla)

The number reported on the LMIS forms as field level distribution reflects exactly the same activity as do the government performance numbers. On the LMIS forms the number is reported as part of the equation:

$$\text{opening balance} + \text{receipts} - \text{issued} = \text{closing balance}$$

On the MIS form, performance is an unsubstantiated number juxtaposed with a performance target number used to judge the workers performance. In most situations, were the two reported numbers to vary, an understanding of this process would suggest the LMIS number to be the more reliable.

Recommendation: Training for FP staff at every level should emphasize that the number reported on the LMIS forms as field level distribution is the same as government performance. Staff at every level should confirm these numbers to be identical throughout the aggregation process.

Recommendation: When LMIS field level distribution data and MIS performance data do not agree, the LMIS numbers are more likely to be correct.

The team noted that Mr. Yasinmia, and apparently Upazila FP storekeepers in general, do not have calculators. Hand held calculators purchased for similar level FP staff in other countries have been purchased for approximately six US dollars and have encouraged greater accuracy in reporting.

Recommendation: Calculators should be purchased for Upazila storekeepers.

DISTRICT FP OFFICES. A review of LMIS data by trip team members identified (N=__) points at which receipts and issuance data did not coincide. A review of these items with district staff indicated that most of these disparities resulted from incomplete reporting on the part of Upazilas. In addition, an error was found on central warehouse issues (Narsinghdi, aug '87, condoms should = 210,000), and a missing "issued by district warehouse line" was obtained (Aug '86 = 60,000 5460 5400 400 252 120 20).

The team noted that such a review of variances in receipt and issuance data for each District and Upazila could be done annually using the same or similar printouts as the one provided to the field trip team. In addition, Upazila reporting data from the reverse of FORM 7 (i.e. FORM 7a) allows the central warehouse to include in annual feedback to districts and Upazilas, a listing of missing reports by month by Upazila. It is these reports that most often explain the variance. District and Upazila officers would be asked to obtain missing reports and use vouchers to complete and correct variances.

Recommendation: Central warehouse / JSI staff should design annual feedback to District and Upazila FP staff on completeness of reporting and discrepancies between receipts and issuances.

Such additional efforts toward assuring complete reporting will diminish the unexplained gap between distribution and issuance data.

The team also noted the advantages that accrue at the central warehouse from the inclusion of Upazila stock information on the reverse side of FORM 7 (i.e. FORM 7a) and supposed that, similarly, the inclusion of FWA/FWV information on the reverse of FORM 7b (submitted from Upazila to District) would enable the strengthening of supervision from the District.

Recommendation: The reverse side of FORM 7b should be preprinted to enable entry of FWA/FWV contraceptive information.

As an interim measure, the lines entitled "Report Submitted" and "Report not Submitted" on FORM 7a should become:

Number of FWA/FWV reports submitted
Number of FWA/FWV reports not submitted.

By writing in digits rather than check marks on these rows, FORM 7a would enable the Central Warehouse to calculate monthly the completeness of reporting right down to the FWAs and FWVs our entire nation.

These last suggestions for feedback mechanisms and minor form modifications imply that the best way to improve the accuracy and completeness of the database is to encourage the managerial use of the data. The team anticipates, therefore, that these suggestions will be consistent with JSI's intention to expand training from storekeepers to FP managers.

Attachments to Appendix J

Upazila MIS Performance vs Col #18 Form #7
FPA Format for Reporting FWA MIS Performance Data
Format for Reporting Upazila MIS Performance Data
District FP MIS Report to MIS Unit
Sadar, Narsinghdi MIS Performance Data by Method by Month

UPAZILA MIS PERFORMANCE VS COL # 18 FORM #7
SADAR, NARSINGHDI

	PILLS MIS	PILLS FORM 7	PILLS VAR	CONDOM MIS	CONDOM FORM 7	CONDOM VAR	IUD MIS	IUD FORM 7	IUD VAR
86 JUL	15071	5867	9204	2087	43465	-41378	137	114	23
AUG	1624	3646	-2022	13307	21743	-8436	63	63	0
SEP	2042	2042	0	14678	14678	0	57	57	0
OCT	2843	2843	0	16821	16821	0	187	187	0
NOV	13655	3387	10268	2372	29357	-26985	170	180	-10
DEC	5139	2821	2318	30318	14096	16222	232	232	0
87 JAN	2730	2730	0	13566	13560	6	109	109	0
FEB	5341	1904	3437	21690	12126	9564	186	186	0
MAR	2532	2532	0	14089	14089	0	147	147	0
APR	3199	3199	0	16652	16652	0	122	122	0
MAY	2090	2090	0	11733	11733	0	50	50	0
JUN	4414	2456	1958	26417	16289	10128	88	88	0
JUL	6713	5867	846	45486	12774	32712	39	39	0
AUG	4269	3646	623	27872	27872	0	82	82	0
SEP	7497	2042	5455	53619	17509	36110	111	101	10
OCT	2902	2843	59	22397	22397	0	164	164	0
NOV	17854	3387	14467	2340	39058	-36718	163	163	0
DEC	2476	2821	-345	20348	20348	0	89	89	0
88 JAN	3034	2730	304	17299	24869	-7570	33	60	-27
FEB	4104	1904	2200	23945	17474	6471	60	33	27
MAR	2315	2532	-217	13827	14037	-210	122	122	0
APR	2822	3499	-677	18160	18160	0	68	68	0
MAY	2304	2090	214	20022	20022	0	125	125	0
JUN	3427	2466	961	20744	20744	0	121	121	0

MIS <F#7 4
MIS =F#7 4
MIS >F#7 16
TOTAL 24

MIS <F#7 6
MIS =F#7 11
MIS >F#7 7
TOTAL 24

MIS <F#7
MIS =F# 24
MIS >F#7
TOTAL 24
SEE NOTE

COMMENTS:

DATA ENTRY ERRORS EXPLAIN ALL IUD VARIANCE BUT ONE
JLY 86, NOV 86, NOV 87 MIS DATA SEEMS SWITCHED FOR PILLS & CONDOMS

CONCLUSION: CLINICAL DATA (IUDs) MORE RELIABLE THAN FWA/FFA DATA

FPA FORMAT FOR REPORTING FWA MIS PERFORMANCE DATA

	STERIL	IUD	INJ
	M F T		N D T
FPA			
FWA #1			
FWA #2			
FWA #3			
FWA #4			

	PILL	CONDOM	EMKO
	O C-S		
FPA			
FWA #1			
FWA #2			
FWA #3			
FWA #4			

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FORMAT FOR REPORTING UPAZILA MIS PERFORMANCE DATA

	STERIL			IUD	INJ		
	M	F	T		N	D	T
GOVT							
MULTISECTORAL							
NGO							
TOTAL							

	PILL		CONDOM	EMKO
	O	C-5		
GOVT				
MULTISECTORAL				
NGO				
TOTAL				

জেলায় নামঃ বরসিংদা
 মহসর নামঃ ৩০/১২/১৫

উপ-জেলা ওয়ারী মাসিক অগ্রগতির প্রতিবেদন
 জেলা পরিবার পরিকল্পনা অফিস, বরসিংদা।

MIS

ক্রমিক নং	উপজেলার নাম	বন্ধ্যাকরণ			আই, ইউ, ডি কয়েল			ইনজেকশন			এম, আর	কনডম	স্বাভাবিক বড়ি	এমসো	হোমসেট বন্ডেট	বি.সি.সি.সি.সি. ইন্সটলেশন		
		নং	মহিঃ	মোট	কয়েল	সিটি	মোট	জি.পি	বহিঃ	মোট						স্বঃ	মহিঃ	মহিঃ
১।	বরসিংদা	১	৩৬	৩৭	—	১৫৬	১৫৬	৪০	১৩	১০৬	২৭	৭৬৬৫	২০৭৩	২		১	২০	২০
২।	শ্রীমঙ্গল	—	৭	৭	—	১৫০	১৫০	১৭	১০	২৭	২৬	৪৯১০	২৪৪৫	—		—	১	১
৩।	মনোহরদী	—	৪৬	৪৬	—	১১৬	১১৬	২০	১৩	১৩	৪১	৭৫৯৪	১৫৫৬	—		—	—	—
৪।	শিবপুর	—	২৪	২৪	—	৩৯	৩৯	১১	—	১১	২২	৭০২৬	২৬০৪	—		—	২৬	২৬
৫।	পলাশ	—	২৬	২৬	—	১০৫	১০৫	১১	৫	১৬	—	১৬৪৫	৫৬৯	—		—	—	—
৬।	বেনাবো	—	৪৬	৪৬	—	১৩৬	১৩৬	১৯	—	১৯	৬	৯০৬	৫২৫	—		—	—	—
৭।	সর্বমোট সরকারী	১	১৭৯	১৮০	—	৫৫৫	৫৫৫	১১২	১২২	২৫৪	১১৯	২৯৭৪৬	১০২৫৫	২		—	—	—
৮।	সর্বমোট বহুমুখী	—	—	—	—	৬০	৬০	১৭২	—	১৭২	—	৪৭০৪৬	১৪৭৬৫	—		—	—	—
৯।	সর্বমোট বেসরকারী	১	৩৯	৪০	—	১৫	১৫	১০১	—	১০১	—	৬৫০	—	—		—	—	—
	সর্বমোট	২	২১৮	২২০	—	৬৩৬	৬৩৬	২১৩	১২২	৩৫৫	১১৯	৩৫০৫২	২১৭২১	২		—	—	—

- ১৭ -

পদ্ধতি	লক্ষ্যমাণ	অর্জন	হার
বন্ধ্যাকরণ	৬৬৬	২২০	৩৩%
আই, ইউ, ডি	১১৭০	৬৬৬	৫৬%
কনডম	১৪৬০	১১৯১ = ৮১%	
স্বাভাবিক বড়ি	২০৬৭	১০২৫ = ৪৯%	
ইনজেকশন	১৬	১০২ = ৬৩%	
হোমসেট বন্ডেট			
এমসো			

[Signature]
 উপ-পরিচালক
 পরিবার পরিকল্পনা অফিস, বরসিংদা।
 তারিখ: ৩০/১২/১৫

মাসিক অগ্রগতির প্রতিবেদন
জেলা পরিবার পরিকল্পনা অফিস, নরসিংদা।

মাসের নামঃ জুলাই ২০১৮

ক) কেসরকারী সংস্থা	পূঃ বন্ধ্যাঃ	মহিঃ বন্ধ্যাঃ	মোট	সি, টি	এম, আর	ইনজেকঃ	কনডম	খাঃ বড়ি	কোম্পো বন্ডেট এমবো
বি, এ, ডি, এস, নরসিংদা	১	৩১	৪০	১৫	-	১০১	৩৫৫	-	-
মোট বি, এ, ডি, এস,	১	৩১	৪০	১৫	-	১০১	৩৫০	-	-
১। পরিবার কল্যাণ প্রকল্প, নরসিংদা।	-	১২	১২	১	-	১৫	৪০	৬০	-
২। পুষ্টি সমাজ সেবা, নরসিংদা।	-	-	-	-	-	১৬	১৬০০	৬৫৬৫	-
৩। সমাজ কল্যাণ যুব সংঘে দর্শনিক, নরসিংদা।	-	১	১	-	-	-	৬১	১৫	-
৪। কোম্পালিশন ডিবি, নরসিংদা।	-	-	-	৩০	-	১১০	৭৫	১৪৭	-
৫। গুম্বিন পঃ পঃ প্রকল্প, নরসিংদা।	-	-	-	-	-	৪	১৫০	১৬৫	-
৬। সমাজ কল্যাণ প্রকল্প, নরসিংদা।	-	-	-	১	-	১৪	৬৪৪৪	৬৫৫	-
৭। পরিবার কল্যাণ সেবা ও গবেষণা, নরসিংদা।	১	-	১	১২	-	-	১১০০	৫৫৫	-

৬০

- ১১০ - ৪৭০৪৬ - ১৪৭৬৪

উপ-পরিচালক/১১-
পরিবার পরিকল্পনা, নরসিংদা।

স্বাক্ষর নং ১৭০৭/১৭/নরসিংদা/১৮৮/১৯/১(১)

তারিখঃ ৫/১১/১৮

সদ্য অগ্রগতি ও পুঙ্খানুপুঙ্খ ব্যবস্থা গ্রহণের বিষয়ে অনুলিপি প্রেরণ :-

- ১। মহা পরিচালক, পরিবার পরিকল্পনা অধিদপ্তর, আজিমপুর, ঢাকা-।
- ২। জেলা প্রশাসক, নরসিংদা।
- ৩। পরিচালক(হিসাব), পরিবার পরিকল্পনা অধিদপ্তর, আজিমপুর, ঢাকা-।
- ৪। পরিচালক(এম, আর, এস, ডিবি) পরিবার পরিকল্পনা অধিদপ্তর, আজিমপুর, ঢাকা-।
- ৫। ইনচার্জ, কন্সোল রুম, পরিবার পরিকল্পনা অধিদপ্তর, আজিমপুর, ঢাকা-।
- ৬। সিভিল সার্জন, নরসিংদা।

(Signature)

উপ-পরিচালক/১১-
পরিবার পরিকল্পনা, নরসিংদা।

Sadar, Narshingdi MIS Performance Data by Method by Month

MONTH	PILLS	CONDOMS	IUDS	VASECT	TUBECT	STERILE	INJECT
Jul 1984	1350	6498	174	11	28	39	4
Aug	4204	7482	182	29	36	65	14
Sep	5686	14440	63	50	34	84	11
Oct	2915	13277	127	45	65	109	50
Nov	1932	14579	164	41	31	72	16
Dec	2522	3698	95	145	38	183	50
Jan 1985	3105	18038	163	29	45	74	99
Feb	5274	10770	105	16	34	60	105
Mar	6534	12718	198	12	24	36	16
Apr	2296	13960	153	0	10	10	22
May	2056	11121	75	0	1	1	21
Jun	1694	4458	31	0	5	5	14
Jul	1445	13650	39	0	28	28	23
Aug	3698	13102	175	1	9	10	25
Sep	1702	10653	99	0	40	40	33
Oct	1714	8591	74	1	26	27	15
Nov	1646	10118	151	0	14	14	30
Dec	1942	11006	117	0	32	32	31
Jan 1986	1578	10320	52	0	22	22	16
Feb	4714	6335	117	0	27	27	9
Mar	1533	11289	96	0	21	21	29
Apr	1581	13352	112	0	21	21	27
May	1461	10517	72	0	1	1	35
Jun	1348	11284	63	0	13	13	32
Jul	5867	43465	114	0	21	21	52
Aug	3640	21743	63	0	13	13	49
Sep	2042	14678	57	0	14	14	51
Oct	2843	16821	187	0	30	30	97
Nov	3387	29357	180	3	38	41	127
Dec	2821	14096	232	8	40	48	88
Jan 1987	2730	13560	109	8	28	36	95
Feb	1904	12126	186	10	99	109	37
Mar	2532	14089	147	1	29	30	79
Apr	3199	16652	122	0	25	25	84
May	2090	11733	50	0	2	2	44
Jun	2456	16289	88	0	0	0	99
Jul	5867	12774	39	0	0	0	90
Aug	3646	27872	82	0	13	13	80
Sep	2042	17509	101	1	39	40	131
Oct	2843	22397	164	1	113	114	121
Nov	3387	39058	163	1	25	26	111
Dec	2821	20348	89	0	3	3	84

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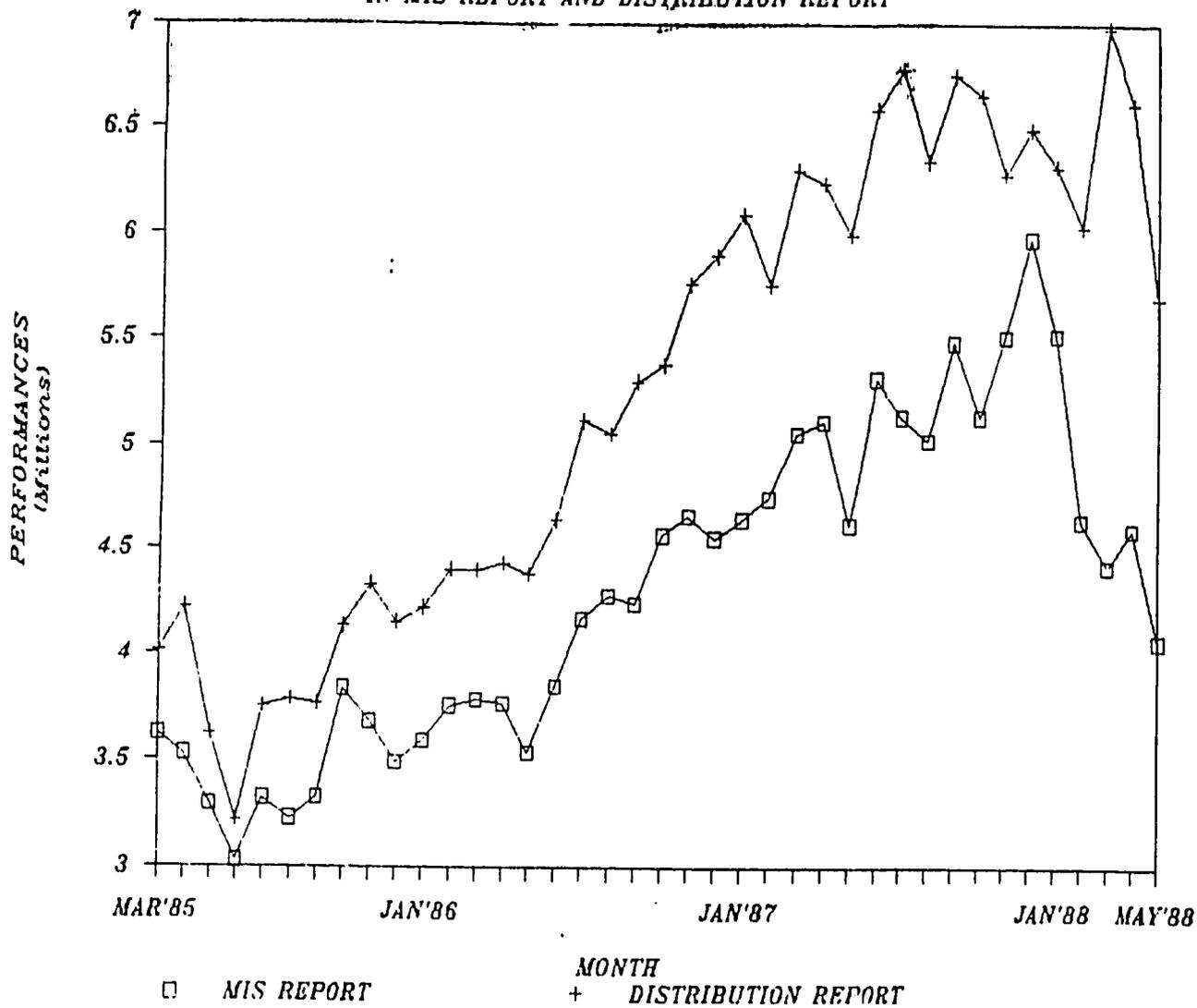
MONTH	PILLS	CONDOMS	IUDS	VASECT	TUBECT	STERILE	INJECT
Jan 1988	2730	24869	33	0	17	17	98
Feb	1904	17474	60	0	21	21	87
Mar	2532	14037	122	0	19	19	55
Apr	3499	18160	68	0	15	15	28
May	2090	20022	125	0	0	0	64
Jun	3427	20744	121	0	13	13	61
Total	184327	730865	5422	413	1222	1644	2639
Average:							
7/84-6/85	3297	10920	128	21	29	62	35
7/85-6/86	2030	10851	97	0	21	21	25
7/86-6/87	5057	15296	129	3	28	31	75
Last 12mo	4976	23838	98	0	23	23	84
Desired Inventory Level:							
14929		71515	294	1	70	70	253
Stated in Shipping Units:							
14		12	1	1	70	70	253
Trigger Points:							
9.22		7.95	.98	2	46	47	168

74

Appendix K

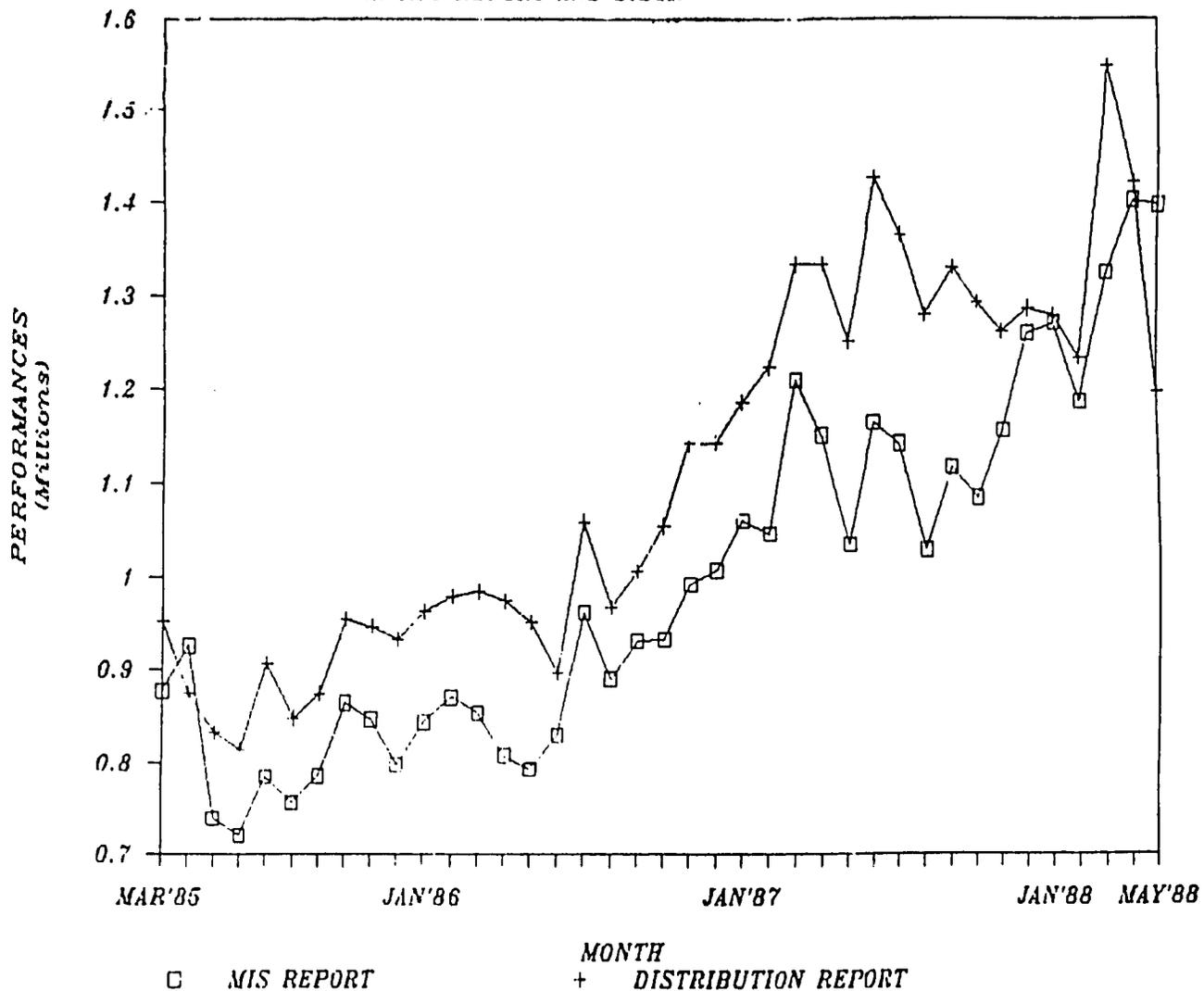
Discrepancy Graphs: Condom, Pill and Injectables

CONDOM DISCREPANCY IN MIS REPORT AND DISTRIBUTION REPORT



PILL DISCREPANCY

IN MIS REPORT AND DISTRIBUTION REPORT



INJ DISCREPANCY

IN MIS REPORT AND DISTRIBUTION REPORT

