Evaluation of Reproductive Health Logistics Management Information System (RHLMIS) in Swaziland

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I. SUMMARY

During the last several years the government of Swaziland (through the Ministry of Health and Social Welfare and the latter’s Reproductive Health Unit) has developed and implemented a variety of health programmes with emphasis on reproductive health and family planning. In April 2000 it launched its Reproductive Health Commodity Management (RHCM) training initiative. This paper is an attempt to evaluate the effectiveness of this initiative, primarily the Contraceptive Logistics Management Training (CLMT).

The study was conducted in May 2001 over one week at a variety of urban and rural sites across the country. A selection of family planning centres throughout the country was used for this evaluation study. Four teams, using questionnaires, gathered data from these centres. The data were then screened by a data management coordinator.

Overall it was concluded that the training initiative was a success, resulting in an increase in client load as facilities had acquired the capacity to keep more stock on hand. Frequent utilisation of the new skills will result over time in better understanding by the service providers. Supervision of health facilities in the region remains a challenge, and this function needs to be integrated with other supervisory tasks, structured and conducted more frequently. Service providers must be encouraged to share their newly acquired skills with their colleagues.
II. INTRODUCTION

SETTING
Swaziland is a landlocked country surrounded by South Africa on the north, west, south and south east and by Mozambique on the east. It has a population of 1.2m and growth rate of 0.9 percent\(^1\); contraceptive prevalence rate (CPR), 48%\(^2\); maternal mortality ratio\(^3\) (MMR), 370/100,000; infant mortality rate\(^4\) (IMR), 74/1000 live-births and HIV prevalence rate\(^5\) of males, 20.2%, females, 32.1%.

The high population growth rate is perceived by the government as a burden on the socio-economic development of Swaziland. In view of this apparent disparity between the inter-censual and annual growth rates, the government – through the National Development Strategy, long-term development plan, and the short-term Economic and Social Development Reform Agenda – has underscored the need to integrate population concerns, including fertility reduction, with HIV/AIDS prevention and control and development planning.

Over the last several years the MOHSW has developed a variety of programmes focused on training and family planning to answer some of these concerns. Evaluations, and in some cases rapid surveys, have been conducted to assess the effectiveness of some of these programmes.

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\(^1\) Population Reference Bureau (PRB), USAID, 2010
\(^2\) PRB, USAID, 2010
\(^3\) Swaziland MDG Report, Swaziland Government, 2010
\(^4\) PRB, USAID, 2010
\(^5\) Age group, 15-49
The primary objective of this study was to assess the effectiveness of the Contraceptive Logistics Management (CLM) conducted across the country in selected sites. The hypothesis is that health facility staff well trained in handling the logistics of contraceptives will strive to keep service delivery points stocked with adequate quantities of contraceptives. This in turn, will enable clients to have access to contraceptives of their choice and, thereby, increase client loads and the CPR. The secondary objective was to validate the adequacy of the training methodology used.

**Training Methodology**

The training exercise was conducted on two levels: Training of Trainers (TOT) and On-the-Job-Training (OJT) of service providers. The Reproductive Health Unit of the MOHSW chose nineteen participants, selected from all over the country. The training was implemented in four phases:

• Phase I: Conventional didactic method in the classroom.

• Phase II: Immediate follow-up to Phase I in which participants were assisted by facilitators in solving problems related to topics presented in the Phase I.

• Phase III: Participants spent a week in different clinics (two participants per clinic) to practice using logistical tools. These tools included the Family Planning Register (FPR), Requisition and Issue Voucher (RIV), Contraception Projection Form (CPF), Monitoring Form (MF), Stock Card (SC) and Tally Sheet (TS). In addition to demonstrating the use of these tools, the trainers also spent the first three days conducting an OJT programme of service providers on how to complete the forms. During this process, facilitators assisted both
the trainers and the trainees. These facilitators were also assigned specific clinics to supervise.

- Phase IV: The TOT trainers prepared and made presentations on their respective field experiences. They also produced and presented a work plan with details of follow-up activities to be undertaken in their respective clinics during the following six months.

*Training Model*
III. STUDY DESIGN

1. Health Facilities

The clinics included in this evaluation process were selected for their location (urban & rural), provision of Family Planning services and frequency of service availability, work- and client-load, and accessibility. An attempt was made to choose a balanced number of rural and urban clinics, when possible, making the selection process purposive.

The final study design product was an identification of two circuits, or arms: one in which providers were trained (treatment clinics) and one where no formal training was conducted (control). Twenty-seven treatment clinics and 25 controls were selected for this study. The evaluation process was conducted in May 2001, roughly one year after the initial training.

2. Survey Respondents

A random procedure was used in choosing respondents at clinic level. A random table was generated using an Excel spreadsheet. The following algorithm was applied during the selection process:

a. An alphabetical list of surnames of all available FP providers trained in Logistics Management Information Systems in the treatment circuit was compiled.

b. An alphabetical list of surnames of all available FP providers in the control circuit was compiled.

c. In health facilities where only one of the above (1 and 2) is available, he/she automatically qualified for interview.
In health facilities where more than one of the above was available, the following procedure was followed:

i. The list of providers compiled above was numbered sequentially, starting with 1 (1,2,3...).

ii. The table was then used in selecting the candidate to be interviewed through a simple random process.

The total number of respondents in the survey was 52.

3. Survey Methodology

In an ideal setting, a double-blind case/control study would have been more appropriate. For practical, logistical and economic reasons, it was not possible to implement these activities based on the traditional case/control study protocols. The experimental design has therefore been limited to a quasi-experimental design [Campbell, D. and Stanley, J.].

There were other factors constraining implementation of the model. The first was inadequate supervisory visits from the central level to the periphery (clinics) to the treatment sites. During implementation, it was recommended that treatment clinics should be supervised at least once a quarter by the programme managers for the duration of the study. Only one supervisory visit was conducted during the entire period of implementation, which substantially compromised the outcome of the study.

Another weakness was the high prevalence of contraceptive stock outs at the central level during this period. The impact of this trickled down from the central level to the health facilities. The susceptibility of
case/control to bias by a variety of sources is also recognised in this study [Sackette]. As a result of these shortcomings this analysis can only be considered exploratory, as indicated in the title.

The survey was conducted using a questionnaire, divided into the following 11 sections:

• Facility Profile
• Monitoring and Evaluation
• Outreach Programmes
• Supervision
• LMIS Training
• Data Collection Tools
• Reporting System
• Contraceptive Logistics Management
• Interviewer Observations and Remarks
• Records Review (Service Statistics)
• Records Review (Logistics Data)

While the questionnaire remains primarily quantitative, efforts were made to collect a limited amount of qualitative data. The analysis, however, will be mainly quantitative.
4. Field Activities

The first three days of this exercise were spent training the survey interviewers and their supervisors. During this process the questionnaire was revised and updated.

One day was spent in the field performing a test of the questionnaire at pilot facilities that were automatically excluded from the survey. This was followed by a final review, after which an operational version of the questionnaire was finalised, printed and implemented according to guidelines supplied to every interview team.

There were a total of four teams, one for each region: Hhohho, Lubombo, Manzini and Shiselwini. Each team consisted of an average of three interviewers, a team leader and a driver. A coordinating team was charged with visiting all the sites and providing technical and relevant support where required. The survey exercise lasted one week and was conducted in the week beginning May 10 2001.

5. Data management

A data management coordinator was recruited and given the responsibility of screening every questionnaire, identifying any obvious inconsistencies, and correcting them as the results arrived. In some cases, unreliable questionnaires were sent back to the field for further investigations. This process was followed by data entry, with quality control screens developed using EPIINFO software. The screens included consistency checks, outliers, and validation of appropriate data types. Frequency tables were generated and analysed as part of the data cleaning exercise. These were scrutinised variable-by-variable

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6 Epi Info, V3.3.2 CDC 2003
in order to minimise errors. In a further attempt to improve the quality of the survey data, an additional data-cleaning exercise was conducted.

6. Reliability
While many efforts were made to improve the reliability of this study, it needs to be pointed out again that weaknesses still exist. However, the importance of such a unique study cannot be emphasised enough. The next two sections look into some aspects of reliability that can easily compromise the quality of such a study [Litvac, J. et al].

7. External Validity
This refers to the appropriateness and validity of the survey of the population of interest, given the biases that may exist as a result of the sampling methods. Swaziland has four political/administrative regions: Hhohho, Lubombo, Manzini and Shiselwini. Of the fifty-two health facilities surveyed, 23 percent came from Hhohho, 27 percent from Lubombo, 27 percent from Manzini, and 23 percent from Shiselwini. Lubombo and Manzini had a higher number for different reasons: Manzini is considered cosmopolitan and relatively more heterogeneous, and Lubombo is a border region exposed to substantial inter-border activities between Mozambique in the east and South Africa in the south. Efforts were made to choose equal numbers of treatment and control facilities in each area. Hhohho had six treatment centres and six control centres, Lubombo had seven treatment and seven control centres, Manzini had nine treatment and five control centres, while Shiselwini had five treatment and seven control centres.

Because of the homogeneous distribution of resources and infrastructure in the country, one may assume that the scaling up of
this intervention should not create any major problems, assuming adequacy of funding.

8. Internal Validity
Internal validity refers to the authenticity of the experiment, or the degree to which the results can be classified as ‘true’. The internal validity of the experiment needs to be protected from external contamination [Rosenblatt and Miller]. This is in order to guarantee a degree of reliability. Some environmental biases could substantially compromise the internal validity of the experiment. There are two obvious biases:
• Chronological bias: This refers to historic events that could negatively impact the study. Swaziland is a small country that has remained politically stable for a long time. There have been no social or political upheavals that could influence the outcome of the experiment. For example, service provision frequency or contraceptive distribution was not disrupted by social, political, or natural disasters.
• Instrument bias: These are possible modifications to the questionnaire that could adversely bias the outcome of the survey. Efforts were made during the pilot phase to only visit the sites that were not included in the sampling frame. Similar efforts were made to maintain the same number of interviewers, team leaders and supervisors. Meetings were organised with each team at the end of the day to review the day’s work, identify possible ambiguities, and prepare logistics for the following day.

Tables were generated using EPPINFO software. Frequency tables were generated and chi-square tests performed for qualitative data.
Quantitative data were analysed using the t-test to compare means between treatment and control centres. No multivariate analyses were performed because of the small sample size. Analysis was also performed according to the different sections identified earlier in the questionnaire section.

In a Contraceptive Programming Framework (CPF), the following components constitute major attributes of the model:

- Demand
- Use
- Access
- Supply
- Availability

This paper looks at supply as defined by access. The general elements of access will include proximity, variety, cost, and quality of care. [Hermalin and Entwisle]. No attempt will be made at looking into user need, demand, and frequency of services.

IV. RESULTS
1. Health Facility Profile
An examination of the descriptive statistics indicated that 45 (86.5 percent) of the 52 health facilities surveyed were located in rural areas, while seven (13.5 percent) were located in urban communities. Roughly 73 percent of the health centres were public, and only 27 percent were private or non-governmental organisation-run clinics (Figure 2). This bias was deliberate and in response to the need to
immediately assist public-sector units to utilize Family Planning Logistics Management (FPLM) tools. This training was also an attempt to address reporting inadequacies and inconsistencies that appear to be common in these facilities. For example, a health facility indicates in one of its monthly reports that 50 doses of injectables were provided to 75 clients.

Eight-one percent of the 52 respondents were family planning providers, with nine percent working as health facility in-charges – staff members who are responsible for the day-to-day operations of the clinics. The latter was also capable of providing family planning services.

![Figure 2: Distribution of Sampled Health Facilities](image)

2. Monitoring and Evaluation

Datasets derived from service performance are one of the few programming tools that can enable managers to assess the quality of service at health facilities. These datasets are also crucial for
assessing progress as they are usually embedded in logical frameworks (LOGFRAMES) as Objectively Verifiable Indicators (OVIs). Roughly 60 percent of the health facilities have established service targets with health facilities in the treatment circuit more likely to establish service targets. See Figure 3, below.

Sixty-eight percent of health facilities with established targets employed someone who had been trained in setting them. Seventy-two percent of these monitored their targets. Among the facilities with benchmarks, 58 percent produced graphs as part of their monitoring activity. Facilities in the treatment circuit were roughly twice as likely to produce graphs for monitoring purposes as those in the control (72 percent and 38 percent respectively).

Monitoring was one of the key components of the training exercise. The relatively low percentage of health facilities in the treatment arm capable of monitoring and developing graphs may be explained by the fact that there was only one post-training supervisory (follow-up) visit.

![Figure 3: Percentage of health facilities with established service targets](image)

<table>
<thead>
<tr>
<th></th>
<th>Treatment</th>
<th>Control</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percentage</td>
<td>67%</td>
<td>52%</td>
<td>60%</td>
</tr>
</tbody>
</table>

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3. Outreach Programmes

Roughly one-third of the 52 health facilities conducted outreach activities, with just under half (48 percent) of the treatment centres and 12 percent of the control centres participating. About 23 percent had community-based agents (CBA) evenly distributed between the treatment and control circuit. Forty-four percent had NGOs operating within their service areas. This was nearly three times as likely in treatment health facilities as in control centres (64 percent versus 24 percent). About 88 percent of all the health facilities (93% of treatment and 84% control) referred clients to other facilities for further case management. Roughly 85 percent of the total sample (96% of treatment, 72% of control) also received referrals from other units.

4. Supervision

During the training, it was decided that treatment health facilities should be supervised at least once every quarter by personnel from the central level. This expectation was not met for a variety of reasons, for example, due to lack of staffing or vehicles. During the entire pilot implementation phase, only one supervisory visit was conducted and that just before the evaluation exercise.

Needless to say, this limitation substantially affected staff performance and affected expected differences between the two circuits. About half (54%) of the sample confirmed some kind of ‘lifetime’ family planning services supervision had taken place. Of these, about 82 percent were in the treatment set and 24 percent in the control set. Roughly 79 percent indicated that they were supervised during the first quarter of
2001 – a few weeks before the evaluation exercise. As expected, about 82 percent and 67 percent of the treatment and control arms respectively acknowledged the supervisory visits. Only 25 percent of the supervised facilities had prior knowledge before the visit was conducted, although supervisors were repeatedly requested to share their supervisory schedules with all the concerned units before the trips were undertaken.

Some form of feedback was given to the staff after supervision by 75 percent of those supervised (82 percent treatment and 50 percent control). Feedback was also one of the key elements of supervision that was constantly emphasized. The supervisory visits were conducted late into the programme, as it neared the evaluation phase. Most of these visits took place during the first quarter of 2001. It is likely that these visits had some significant effect on the treatment circuit performance primarily because service data were collected and analyzed between February and April 2001.

5. Logistics Management Information System (LMIS) Training
As expected it was found that at least one person had been trained in LMIS in the treatment arm and none in the control arm. Forty-one percent of these were trained in the last quarter of 2000.

6. Data Collection Tools
Table 1 below is generated from the following set of verifiable questions:
• Are the following registers/forms/procedures currently available in the health facility?
• Are the following tools used in the health facility?

• Are the following tools up-to-date or current?

• Would you describe your understanding of these tools as high, average or low?

(Note: Interviewers were requested to confirm all ‘YES’ responses)

Making estimates of contraception usage remains a major challenge to both programme managers and service providers judging from the results seen in Table 1. This problem was also recognized during training, and substantial efforts were made to simplify and facilitate the computation process. During the workshop, participants were trained in using the average monthly consumption (AMC) method. Extensive exercises were performed with different scenarios and difficulty levels including the limitations (strengths and weaknesses) of the method. Table 1 below confirms the limited success of this module. These efforts do not seem to have solved the problem. As contraception usage estimation plays a very crucial role in LMIS, the current approach either needs to be revised or attempts need to be made to incorporate some of these tools in pre-service training curricula. In general, looking at all indicators for this tool, the poor self-assessment results (18 percent treatment and 4 percent control) definitely confirm a need to look at other strategies.

On the positive side, the assessment of the use of the family planning register was generally high. The lower self-assessment result (63 percent) by the treatment circuit can be attributed to a natural tendency to resist change, even though the tool was simplified and required fewer entries when compared with the previous one. Even
though the requisition book tool was available, used and up-to-date in most treatment arm facilities, the treatment centre respondents were still not as comfortable assessing themselves as the control arm respondents – 41 percent versus 56 percent. As indicated in Table 1, the book used for training was also slightly modified.

The First to Expire First Out (FEFO) protocol (a method of storing and prioritizing distribution commodities in warehouses) was well understood and implemented by the treatment arm at 93 percent, against 64 percent for the control arm.

Table 1: Data Collection Tools

<table>
<thead>
<tr>
<th>TOOLS</th>
<th>% available</th>
<th>% used</th>
<th>% current</th>
<th>% high level understanding</th>
</tr>
</thead>
<tbody>
<tr>
<td>DESCRIPTION</td>
<td>Rx</td>
<td>Control</td>
<td>Rx</td>
<td>Control</td>
</tr>
<tr>
<td>Rx</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Control</td>
<td>92</td>
<td>63</td>
<td>84</td>
<td></td>
</tr>
<tr>
<td>Stock Card</td>
<td>89</td>
<td>28</td>
<td>32</td>
<td>24</td>
</tr>
<tr>
<td>Projection Form</td>
<td>37</td>
<td>8</td>
<td>4</td>
<td>18</td>
</tr>
<tr>
<td>FP Client Card**</td>
<td>100</td>
<td>96</td>
<td>100</td>
<td>96</td>
</tr>
<tr>
<td>Requisition Book*</td>
<td>85</td>
<td>68</td>
<td>85</td>
<td>68</td>
</tr>
<tr>
<td>Graphs</td>
<td>78</td>
<td>24</td>
<td>70</td>
<td>20</td>
</tr>
<tr>
<td>FEFO</td>
<td>93</td>
<td>64</td>
<td>82</td>
<td>64</td>
</tr>
</tbody>
</table>
In general, the informants agreed that all the tools were useful. In response to a follow-up question, about 60 percent (evenly distributed between treatment and control) felt that there were too many of these tools. Sixty-four percent (82% treatment and 44% control) felt that there was a need to revise all data collection instruments.

7. Reporting System

Ninety-two percent of sampled health facilities (96% treatment and 88% control) compile monthly summary reports. About 90 percent (92% treatment and 85% control) compiled their monthly reports preceding the interview. As expected, over 90 percent of health facilities compile Contraceptive Usage Reports (CUR). Ninety-eight percent had compiled their CURs for the previous month.

8. Contraceptive Logistics Management (CLM)

☐ As designed, all health facilities provided FP services. Twenty-three percent stocked contraceptives past their expiry date, and most of them (93% treatment and 84% control) followed the FEFO storage protocol.

☐ About 56 percent and 48 percent respectively of treatment and control health facilities had made requisitions during the survey period.

☐ About half of the facilities (56% treatment and 44% control) made stock replenishment requisitions when stocks had already run out, a practice that is not recommended and
which highlights the difficulty encountered with the findings about the adequacy of calculations presented earlier.

- Forty-four percent of health facilities perform required stock-level verifications once a month, which helps to explain why requisitions are made only when stock(s) have been exhausted.
- Ninety percent (89% percent treatment and 92% control) do verify stock levels by conducting physical counts, with about a third (28 percent) of control and 11 percent of treatment centres confirming that their facilities had never had any stock-outs.
- Forty-two percent of all facilities received requests for female condoms from clients, although during that period no stock of this item was available at all.
- About 36 percent (63% treatment and 8% control) were capable of making contraceptive projections, substantially higher than the utilization statistics reported earlier (especially within the treatment circuit). The message, therefore, is very clear: knowledge is present but application is very limited; a situation that may be easily addressed with regular supervisory visits.
9. Storage Facilities

During the survey interviewers were asked to observe the conditions of storage environments, assessing them on how commodities were organised, level of cleanliness, adequate lighting and availability of shelves. Facilities in the treatment circuit performed generally better than the control, except on adequate cleanliness, where all were at par. From these observations it may be concluded (not included in the graph) that just over half (56%) of the units (evenly distributed between the circuits) had adequate storage area. Sixty-five percent (59% treatment and 72% control) require some form of upgrading.
10. Records Review

In the previous paragraphs attempts have been made to analyse the support systems and how each circuit performed. Service and logistics data can predict performance reliably. Before the survey exercise started, efforts were made to establish the availability levels, degree of reliability, and reporting of these data. Generally these were found to be inadequate and inconsistent, which is why no pre-survey data were collected and analysed during this exercise. As a result of this limitation, the analysis will be based on trend performance between the two arms over a three-month period – February, March and April.
2001 – before the evaluation in May of the same year. Although service and logistics data were collected on all available methods – oral contraceptives, injectables, intra-uterine device (IUD), vaginal foaming tablets (VFT), male condoms, and sterilization – the analyses are limited to oral contraception, injectables and condoms. These are considered more prevalent and generally available and accessible to clients. The mean number of and median number of clients, as recorded in the service statistics (users of family planning methods) and the logistics data for family planning methods for the two circuits were then compared using t-tests and corresponding confidence level of 0.05.
### 11. Service Statistics

Table 2: Contraceptive Statistics

<table>
<thead>
<tr>
<th>Method</th>
<th>Month (2001)</th>
<th>Means</th>
<th>Median</th>
<th>P-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Treatment</td>
<td>Control</td>
<td>Treatment</td>
</tr>
<tr>
<td>Orals</td>
<td>April</td>
<td>43.3</td>
<td>16.4</td>
<td>21</td>
</tr>
<tr>
<td>Orals</td>
<td>March</td>
<td>51.2</td>
<td>12.8</td>
<td>20</td>
</tr>
<tr>
<td>Orals</td>
<td>February</td>
<td>36.6</td>
<td>14.2</td>
<td>18</td>
</tr>
<tr>
<td>Injectables</td>
<td>April</td>
<td>174.0</td>
<td>55.5</td>
<td>79</td>
</tr>
<tr>
<td>Injectables</td>
<td>March</td>
<td>180.7</td>
<td>58.7</td>
<td>91</td>
</tr>
<tr>
<td>Injectables</td>
<td>February</td>
<td>159.9</td>
<td>47.2</td>
<td>83</td>
</tr>
<tr>
<td>Condoms</td>
<td>April</td>
<td>114.9</td>
<td>85.8</td>
<td>9</td>
</tr>
<tr>
<td>Condoms</td>
<td>March</td>
<td>117.5</td>
<td>62.2</td>
<td>5</td>
</tr>
<tr>
<td>Condoms</td>
<td>February</td>
<td>14.3</td>
<td>75.7</td>
<td>8</td>
</tr>
</tbody>
</table>
The average number of oral contraceptive clients, Figure 6 above, illustrates a significant difference between the two arms over a three-month period. Health facilities in the treatment circuit served on average 37, 52 and 44 clients respectively during the months of February, March and April. Similar means for the control arms were 15, 13 and 17. While the control circuit averages remain generally stable, there is a range of between 37 and 52 among the treatment health facilities with a peak in March. Between February and March, the treatment centres served over twice the amount of people than the control arm health facilities in February, over three times in March and over three times in April.
The performance of the treatment circuit with respect to the mean number of injectable contraceptive clients was as impressive as with the oral clients. Treatment centres outperformed the control arm health facilities by a ratio of 3 to 1 in February, and roughly the same in March and April. There were fewer oral and injectable clients in February as there were fewer days when the clinics were open. Attendance peaked in March, while in April the clinic experienced a slight decline due to Easter holidays.
Table 3: Statistical Summary of Logistics Data Table

<table>
<thead>
<tr>
<th>Method</th>
<th>Month (2001)</th>
<th>Means</th>
<th>Median</th>
<th>P-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Rx</td>
<td>Control</td>
<td></td>
</tr>
<tr>
<td>Orals*</td>
<td>April</td>
<td>113.2</td>
<td>47</td>
<td>54</td>
</tr>
<tr>
<td>Orals</td>
<td>March</td>
<td>134.9</td>
<td>36.4</td>
<td>60</td>
</tr>
<tr>
<td>Orals</td>
<td>February</td>
<td>111.7</td>
<td>40.0</td>
<td>48</td>
</tr>
<tr>
<td>Injectables**</td>
<td>April</td>
<td>175.9</td>
<td>55.1</td>
<td>79</td>
</tr>
<tr>
<td>Injectables</td>
<td>March</td>
<td>180.7</td>
<td>59.4</td>
<td>91</td>
</tr>
<tr>
<td>Injectables</td>
<td>February</td>
<td>163.4</td>
<td>47.1</td>
<td>83</td>
</tr>
<tr>
<td>Condoms***</td>
<td>April</td>
<td>918.5</td>
<td>213.1</td>
<td>300</td>
</tr>
<tr>
<td>Condoms</td>
<td>March</td>
<td>838.5</td>
<td>167.5</td>
<td>360</td>
</tr>
<tr>
<td>Condoms</td>
<td>February</td>
<td>823.4</td>
<td>255.9</td>
<td>200</td>
</tr>
</tbody>
</table>

* cycles; ** doses; ***pieces.
Figure 8: Mean no. of cycles of orals distributed to clients

<table>
<thead>
<tr>
<th>Month</th>
<th>Treatment</th>
<th>Control</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feb</td>
<td>112</td>
<td>47</td>
</tr>
<tr>
<td>March</td>
<td>135</td>
<td>37</td>
</tr>
<tr>
<td>Apr</td>
<td>114</td>
<td>40</td>
</tr>
</tbody>
</table>

Legend:
- Treatment
- Control
The logistical statistics for orals and injectables, represented in Figures 8 and 9, above are generally consistent with the number of clients served. Oral contraception clients receive an average of three cycles per visit while injectable clients receive one dose per visit. In February, for example, about 37 clients were given 112 cycles of oral contraception by the treatment circuit. This yields an average of three cycles per client. Forty-eight injections for the same period in the control circuit were given to 48 clients – one dose per client. These graphs, therefore, are representative of the service data presented earlier.
Condom statistics are not so consistent as those showing distribution of orals and injectables because in the time between the training period and when the survey was conducted a variety of promotion activities were conducted. A number of facilities, especially in the treatment circuit, had outreach condom promotion activities during which a higher-than-normal number of clients received condoms.

Surprisingly, the treatment clients distributed condoms to more clients in February, March and April than the control circuit. When the condom distribution indexes are compared, however, treatment facilities dispensed more units of condoms per user. For example, in February an average of 824 units of condoms were given to 15 clients yielding an index of 55. During the same period, the control arm...
facilities dispensed an average of 256 units of condoms to 76 clients producing an index of about five, an eleven-fold difference between both circuits.

12. Stock-outs
Having the right contraceptives in the right place at the right time is precondition to availability and access. One of the questions regarded the number of days of stock-outs of oral contraception, injectables and condoms. The mean responses ranged from one day without injectables in the control circuit health facilities to about 3.5 days without oral contraception. In most cases, the treatment arm had fewer stock-out days than the control facilities. The exception was regarding the injectables, where treatment had 2.5 days without stock, compared to one day in the control circuit.

V. FINDINGS AND CONCLUSIONS

Supervision remains a major and critical component of programme management. The lesson learnt here is that an effective supervisory process needs to be coordinated, timely, and integrated with built-in follow-up and feedback mechanisms. The importance and availability of relevant resources cannot be emphasized enough.

The participants generally regard workshops as an opportunity to earn additional financial resources. Efforts are required to change this mindset. An effective capacity-building programme should, therefore, include opportunities for participants to use ‘real’ or historical data that will enable them to analyse data and be able to make constructive interventions in terms of planning and management.
Attempts should also be made to make this initiative continuous (process) instead of cross-sectional (event), as is generally the case. For example, follow-up work plans should be developed at the end of every training session. This will enable participants to better implement the experience acquired and start making meaningful decisions.

This training model was an attempt to deviate from the status quo use a different approach. There is no doubt from the preceding analyses that the training did make a difference in generating more volume - more users and contraceptives - in the treatment arm than in the control circuit. In spite of the weaknesses identified, lack of supervision and limited follow-up, this initiative did make a difference and could be easily duplicated or scaled-up.

As indicated earlier, supervision needs to be integrated and should also be seen as an opportunity for the supervisor to facilitate access to commodities by the service outlets. This could be accomplished by supervisors bringing with them additional stocks that could be distributed to health facilities when required. From a programme management perspective, it could be useful to include a ‘per-head’ cost of the entire exercise, which can easily be done.
References: