

**COST EFFECTIVENESS ANALYSIS
OF FPPS CLINICS**

Mombassa, Nairobi, and Naivasha
Kenya

December 1996

Amos M. Kimunya

BASICS Technical Directive No.:014 AA 02 024
USAID Contract No.: HRN-6006-Q-14-3032-00

TABLE OF CONTENTS

ACKNOWLEDGMENTS

ACRONYMS

1.	INTRODUCTION	1
2.	METHODOLOGY	1
3.	SUMMARY OF THE MAIN FINDINGS	2
3.1	Integration	2
3.2	Costs of Service Delivery	2
3.3	Analysis of the Costs	3
4.	DETAILED METHODOLOGY AND DEFINITION OF TERMS	4
4.1	New Acceptor and Continuing Users	4
4.2.	Methods	5
4.3.	Time Costs	5
4.4.	Expendables	6
4.5.	Indirect Costs	6
4.6.	Commodity Costs	7
5.	LIMITATIONS AND ASSUMPTIONS	7
5.1	Sample	7
5.2	Costs	7
5.3	Determination of Unit Costs	7
5.4	Time Analysis	8
5.5	Records	8
5.6	Expendables	9
6.	PARTICIPATING FACILITIES AND PEOPLE	9
6.1	Assistance with the Study	9
6.2	Review and Discussions	9
6.3	Meeting to Discuss the Analysis	9

APPENDIXES

APPENDIX A Meeting to Discuss the Results

APPENDIX B Spreadsheets

- B.1 Comparison of Family Planning Costs Across Clinics
- B.2 Staff Time Use and Costs
 - a. Sulmac Cottage Hospital
 - b. Dagoreti MIHV Clinic
 - c. Mtongwe CMAK Clinic
- B.3 Materials Used in the FP Clinics
 - a. Sulmac Cottage Hospital
 - b. Dagoreti MIHV Clinic
 - c. Mtongwe CMAK Clinic
- B.4 Estimation of Overhead Rates
 - a. Sulmac Cottage Hospital
 - b. Dagoreti MIHV Clinic
 - c. Mtongwe CMAK Clinic
- B.5 STD Treatment Costs Analysis: Sulmac Hospital
 - a. Summary of the Costs
 - b. Staff Time
 - c. Materials and Drugs
- B.6 Workload Statistics
 - a. Sulmac Cottage Hospital
 - b. Dagoreti MIHV Clinic
 - c. Mtongwe CMAK Clinic

ACKNOWLEDGMENTS

We would like to record our appreciation for the cooperation and willing assistance we received from FPPS staff in the planning and execution of the exercise.

We also extend our gratitude to all those who have assisted in the study, especially the staff in the participating health facilities for tolerating our presence and cooperating so well in providing the required information, at times beyond the normal working hours.

Our thanks would be incomplete without the mention of Melinda Wilson (USAID) who provided the required direction and oversight to enable the successful completion of the assignment. Without the financial support from USAID, it would not have been possible to carry out the study, and for that support, we are very grateful.

All the above are worth any credit that might accrue from this report, but any shortcomings therein are the responsibility of the author.

ACRONYMS

AIDS	Acquired Immune Deficiency Syndrome
BASICS	Basic Support for Institutionalizing Child Survival
CMAK	Crescent Medical Aid Kenya
FV	First Visit
FP	Family Planning
FPPS	Family Planning Private Sector Project
MCH	Maternal and Child Health
MIHV	Minnesota International Health Volunteers
MoH	Ministry of Health
REDSO	Regional Economic Development Services Office
RV	Return Visit
STD	Sexually Transmitted Disease
USAID	United States Agency for International Development

1. INTRODUCTION

This cost effectiveness analysis of family planning clinics, established under the Family Planning Private Sector (FPPS) Project in Kenya, is a continuation of similar analyses conducted in Mkomani Clinic in Mombasa, Kenya, and a sample of clinics in Botswana and Busoga clinics in Uganda.

Analyzing costs is a priority research activity identified during the May 1995 Nairobi regional conference on setting the agenda for integrating AIDS with other reproductive health services in Africa. Cost analyses provide critical information on the service delivery implications of providing integrated or unintegrated services. These analyses are within the framework of REDSO's networking activities in AIDS integration as they provide cross-country insights and experiences on service delivery costs.

The study had two main objectives:

1. To determine the cost effectiveness of integrating STD treatment with other MCH/FP services
2. To identify the possibilities of improving quality of care through better cost control in FP clinics

The study covered three clinic sites: Mtongwe CMAK Clinic in Mombasa, Dagoreti MIHV Chandaria Clinic in Nairobi, and Sulmac Hospital in Naivasha, as per the appended scope of work.

2. METHODOLOGY (See 4 below for details)

The study concentrated on establishing the costs per user by methods (i.e., the cost of personnel, expendables and identifiable overheads) of family planning services at the provider level. It involved visiting the selected sites and carrying out on-site collection and analysis of the available data on costs and client workload. Interviews were conducted with the FP service providers to establish the time spent on the various clients for each of the methods. The data that was used for the study relates to the year 1995, a bit of 1996, and where available, 1994.

The data collected was analyzed on spreadsheets (using Quattro Pro 5 for Windows software) to determine the average costs per user and method for each of the sites, and to work out the overall average costs for all the sites. The cost per user/acceptor by method was computed by taking into account the time required to provide the service and the personnel cost of the staff involved. The costs of direct consumables was added to this, and an indirect cost figure worked, based on application of a calculated overhead rate on the total direct cost.

1

6

3. SUMMARY OF THE MAIN FINDINGS

3.1 Integration

The term "integration" seems to have as many interpretations as the intentions of the users. Some look at it as just the addition of an extra service such as STD treatment to existing services (e.g., FP) which effectively reduces the service stops and creates a one-stop service provision system. I would call this consolidation of services. For the purposes of this study, *integration refers to the deliberate moving of the various services provided so that a client receives the additional services on a single visit at a single delivery site*. Thus when we consider STD management, FP, counseling, or MCH as an integrated service, any client who comes for any service will be provided with the others. A client attending the FP clinic will, for example, be assessed for risk of exposure to STD and, if need be, further diagnoses and treatment will be provided. Similarly, patients seeking STD treatment will be provided with FP and counseling services, without necessarily asking for them. This is different from the "cafeteria" system where a client will be assured of as many services as possible at the first point of call, or even by only one person, but only when the client chooses which services they want.

In all the three clinics, only FP clients coming for the first time (or the annual examination) are examined, which could lead to discovery of STD infection, assuming they are not asymptomatic. On all the subsequent visits, emphasis is on resupply, any problems with the method etc. Those who come to the clinic already infected and aware that they have a problem are no different from other curative patients.

In effect then, it would be futile to attempt any cost-effectiveness analysis of offering integrated STD and FP services, when this is not the reality in the study clinics. If, however, services are integrated as defined above, the only extra costs to the provider would be for the time to carry out the risk assessment. The benefits are more qualitative in terms of early diagnoses which may end up being cheaper to treat, decrease in opportunities, etc. In the end, it is the client who derives the benefits through reduced time of service, less trips to seek services, and better health (early diagnoses). The benefits to the clinic are not clear.

The "cafeteria" practice in the clinics and in others that claim to be providing integrated services does appear to be a convenient matter of delegating the filtering of patients to the lowest entry point of the service chain, i.e., a CBD screens for the nurse, who screens and refers to the clinical officer or doctor, as the case may be. In my view, any cost savings arising from this practice can only be attributed to efficiency in resource allocation rather than "integration."

3.2 Costs of Service Delivery

The comparative average costs per new acceptor for the first year and per continuing user by methods are shown in Table 1. The costs do not include the costs of commodities provided by the MoH.

Table 1 Costs by Method for a Year

Method	Costs per new acceptor			Costs per continuing user		
	Sulmac KShs	Dagoreti KShs	Mtongwe KShs	Sulmac KShs	Dagoreti KShs	Mtongwe KShs
Pills	288.64	135.61	143.15	209.71	98.57	100.35
Injectables	302.72	145.94	149.17	240.66	117.27	114.92
I U C Ds	504.96	247.06	247.41	185.61	72.51	95.88

3.3 Analysis of the Costs

A look at the above costs raises more questions than answers. What does one make of the above results? Is comparison between the clinics practicable, or even fair? Do they serve the same clientele? Are the objectives of the three sites related? What of their funding levels and sources? Is the quality of care any different? A closer analysis may give the reasons why they are different.

There are three main cost categories in FP service delivery: staff cost, direct materials, and indirect overhead cost. In most programmes, as was the case in the three study sites, the original investment in capital expenditure was financed through donations. The repairs and maintenance are, however, the responsibility of the sites, and this is included in the costing. In the long run, the maintenance costs will approximate the rent equivalent, if the premises were rented. I have, therefore, not taken into account the effects of capital costs in the analysis. The comparative costs of the three sites are shown in Appendix A, with the following observations:

- a) The "crude" average cost per client in Sulmac is over twice the other two. This confirms the similar relationship of the calculated FP service delivery costs.
- b) Staff costs, which are a product of salary and the time taken on a client, are about twice in Sulmac as in the other two clinics. The time taken to see clients is within a common band, and the difference is really due to salary differential. Average cost per nurse minute is She 1.78, compared with She 0.95 and She 0.93 for Dagoreti and Mtongwe respectively.
- c) Based on the time spent on each client by a nurse, for the number of clients seen in 1995, it appears that the nurses were utilized only 57.23 percent at Sulmac, 60.27 percent at Dagoreti, and 5.61 percent at Mtongwe. If the nurses were not utilized for other work during the rest of the time, this leads to an under-utilization cost.
- d) The same cost comparison is evident for materials. This is mainly due to the expendables used. The main cost is gloves and lotion used for the examination. The use of lotion is further complicated by the fact that a minimum is required, regardless of the number of

clients. These two items are a potential target for cost control and efficiency. The number and type of gloves used could have a significant effect on costs.

- e) The allocation of overheads to FP clinics is rather unfair, due to the nature of their operations. It is my belief that one could set up an FP clinic completely detached from the rest of the curative complex, run by only one nurse with minimum support. It only operates during daytime; hence, power costs are minimal. The calculation of how much each service should contribute as overhead towards maintaining the whole is only meaningful where full cost recovery is desired. There is little an FP "manager" can do to control these common costs.
- f) A look at the costs of STD treatment using the "syndromic approach" at Sulmac (Appendix B.5) indicates it is a very expensive approach, given that the hospital has laboratory facilities. The other study sites use the conventional laboratory diagnosis approach., which is cheaper.

From the above, is there not scope for cost reduction without affecting quality of care?

4. DETAILED METHODOLOGY AND DEFINITION OF TERMS

4.1 New Acceptor and Continuing Users

A new acceptor of a method refers to a client who starts using a certain method at a certain source within the year. They will be expected to go through the whole process, from counseling and examination through service delivery. A continuing user, on the other hand, refers to a client who started a method in year one and who comes back to continue the same method in year two. This will normally involve an annual examination and resupplies, but will not have any counseling component. The specific services offered and the number of revisits are shown on Table 2.

A

Table 2. Services Offered to New Acceptors and Continuing User by Method

Method	During first visit	At each of the revisits	No. of revisits in the year	Continuing user	No. of revisits in the year
Pills	C, B,W,E,S	B,W, R,S	4	B,W,R,E,S	4
Injectables	C, B,W,E,S	B,W, R,S	3	B,W,R,E,S	4
I U C Ds	C, B,W,E,S	B,W,R,E	2	B,W,R,E	1
Norplant	C, B,W,E,S	B,W,R	2	B,W,R,E	1
Tubal ligation	C, B,W,E,S, sutures removal and then no more visits				

Where: C = Counseling, both general and specific
 B = Blood pressure measurement
 W =Weight
 E = Examination, physical and pelvic
 S = Service delivery for the specific method
 R = Review of progress and satisfaction with method

All methods also involve registration and filing

4.2. Methods

The study aimed at covering all the methods offered at static clinics, i.e., condoms, oral contraceptives, injectables, IUCDs, Norplant, and tubal ligation. The three clinics, however, only provided the first four methods. Clients opting for Norplant or tubal ligation were usually referred elsewhere. None of the facilities had any experience with vasectomies. It became clear that condoms are not issued for their contraceptive value, but more for their STD prevention use. It was also only in rare cases that they were used by clients awaiting another method, and the costs associated with this were minimal. Hence, they have not been analyzed with the other methods. Foaming tablets have also been in little use, and were not included in the analysis.

4.3. Time Costs

In each of the facilities visited, the FP service providers were interviewed to establish the time taken on each of the processes for the various methods. Details on these for each of the methods are shown on the attachments. The salaries payable and value of benefits to each of the providers were then divided by the number of working minutes and the cost per minute used to work out the total time cost of carrying out a certain process. It will be appreciated that the times given were the best estimates of the providers, which assumes some degree of optimal conditions and operating level. The providers did agree, for example, that if there was a big queue of clients awaiting a service, counseling, or other processes in the service delivery may have to be rushed,

and vice versa. It was not considered necessary to carry out a patient flow analysis, given the time available.

Separate analyses were carried out for the first visit (FV) and return visits (RVs). The time shown for each of the methods is the sum total of the two, i.e.,

$$\text{Total Time} = \text{FV} + \text{RV} \times \text{Number of RVs, and}$$

$$\text{Time Cost} = \text{Total time} \times \text{Cost per time unit}$$

It is worth noting that the staff in all the clinics provide at least both MCH and FP services, and some assistance with the curative services; hence it would not have been useful to simply divide their salary by the workload. There are no records maintained of the time used between the various services given to enable an allocation of the staff time. In the circumstances, I resorted to the alternative method of determining the time required for a client from the moment they come to the clinic to the point of receiving the service.

It was also noted that in about all the clinics, it is the nurses who carry out all the tasks, from recording and filing to service delivery. There would also be little cost savings in any case if clerks were to be used. Even where patient attendants or nurse aides assist, this is not officially recognized, and hence, I have not taken them into account.

4.4. Expendables

There is little, if any, recording of materials used by the FP clinics. This is exacerbated in other cases by materials being mixed up with those for the MCH clinics. The approach I used was to determine all the required materials to provide a service. Details of these were supplied by the providers, and attempts have been made to estimate as accurately as possible the quantities of each of the items.

The unit purchase costs of each of the items were obtained from the purchase records of each of the clinics. Details of the requirements for each of the methods are attached.

4.5. Indirect Costs

Of all the clinics visited, none had a budget allocation for FP activities, or even had any idea as to how much it costs to run the FP services. In fact, apart from the cleaning, repairs, utilities, etc., the FP clinics have minimal costs compared to their curative counterparts.

In the absence of any cost data, I resorted to computation of an overhead rate for the entire clinic, which is basically the relationship between the indirect costs as a percentage of the direct costs. This rate is then applied to the total direct costs of each of the family planning services. These

should adequately cover such costs as utilities, repairs and maintenance of equipment and buildings, and administrative costs, including salaries of the supervisors, cleaners, etc.

4.6. Commodity Costs

These have not been included in the costing as the supplies are all received from the government.

5. LIMITATIONS AND ASSUMPTIONS

5.1 Sample

The sample of three units is only a small percentage of the FP network and may, therefore, not provide a good impression of the cost patterns of either FPPS or other clinics. The sample selection was based primarily on availability of data. It was not spread to take into consideration other factors that affect costs such as geographic location, utilization level, cultural backgrounds of clients, experience of providers, etc.

The time taken on clients, especially on the first visits, varied considerably from area to area, due to such factors as understanding/literacy levels (though some learned clients at times take longer due to their inquisitive nature!); low attendances leading to more time being taken on the few clients and vice versa; cultural and other local beliefs that prolong the counseling; and the experience of the service providers.

5.2 Costs

As mentioned earlier in the text, no budget allocation is done at the facility level for FP services. The main expenditures are salaries, drugs, and other consumables. Contraceptive supplies and expendables are provided by the Division of Family Health through the Family Planning Logistics Management Unit. Any other costs are incurred as part of the entire facility's costs, with no costs directly related to FP. There is no logical and definite basis of allocating these costs to the family planning services, and we have assumed the allocation based on direct costs to be the fairest.

5.3 Determination of Unit Costs

The approach used in this study is the "bottom up" approach which starts by determining what resources are required to provide a service and costs them accordingly. It calculates what a service should cost. This has been criticized as a modified theoretical calculation which does not take account of past performance. Its strength is that it eliminates the problems that are associated with the alternative.

Other costing models use the "top down" approach which allocates the overall costs of the facility to cost centers using set criteria. The individual cost center costs are then applied to the output of that center to come up with cost per unit of service, e.g., cost per client seen. The approach would be very suitable where data has been collected with a costing exercise in mind and where heads of a cost center have control over costs that are charged to the center. It requires a situation where relationships between the desired outputs and necessary inputs are defined. Unfortunately, this is only to be found in organizations with sophisticated management accounting systems. In the absence of this situation, the approach makes a number of fundamental assumptions, and the result is unit costs that are only estimates of distributed historical costs. A critical assumption, for example, is that costs can be allocated based on the staff and other direct costs in a center. In reality, these costs can only be determined through a long amount of time spent doing different activities, total separation of materials and drugs used for different services, and incorporation of an efficiency measure to take care of wastage. This was not the case in the study sites.

Until such time as clinics can be in a position to maintain systems designed to provide data for decision making, it should be accepted that the choice of method will be determined by convenience rather than guarantee of more accuracy.

5.4 Time Analysis

The time required/taken to provide services to clients for the various methods is based on the estimates by the service providers, from their experience (the need has never arisen for recording.) Furthermore, we could not conduct a controlled patient flow analysis, which would have required more time and resources than were available.

The FP clinic staff provide integrated services such that when they are not busy with the FP clients, they are either with the MCH clients or assisting their curative services counterparts. Under the circumstances, we did not consider it useful to work out the total staff time available and divide by the services given in order to estimate the time spent on a client. We consider the approach we used, using staff estimates on the time spent on a client, to be a better estimation of the time cost.

The analysis also assumes the counseling will all be done at the clinic, although in practice part of this will have been done by field workers, friends, or other information sources.

5.5 Records

The daily activity registers used in the facilities were apparently designed to provide information on contraceptives distribution, with the emphasis on the numbers distributed rather than the users of the various methods. We also noted some errors and that the summaries given to us (as sent to FPPS) are not necessarily in agreement with the registers from where the data is presumably

extracted. We were forced to carry out a time-consuming, client-by-client analysis to obtain the required data for each of the methods.

5.6 Expendables

The quantities of the expendable supplies used for any of the methods is based on the estimates by the providers and our by direct observation.

6. PARTICIPATING FACILITIES AND PEOPLE

6.1 Assistance with the Study

- | | | |
|----|--------------------------------|---|
| 1. | Sulmac Hospital, Naivasha | Dr. Kulundu and Ms. Harriet Muhonja |
| 2. | CMA Mtongwe Clinic | Mr. Aboud Saidi, Ms. Phillis Mbaki, Dr. G. Phillipe |
| 3. | Dagoreti MIHV Chandaria Clinic | Dr. Eric Jamison |
| 4. | FPPS: Logistical Coordination | Florence Gachanja |

6.2 Review and Discussions

- | | | |
|----|------------------------|--|
| 1. | USAID / REDSO / BASICS | Melinda Wilson, Oscar Picazzo, Sophia Ladha, Richard Sturgis |
|----|------------------------|--|

6.3 Meeting to Discuss the Analysis

- | | | |
|----|------------------------|--|
| 1. | USAID/REDSO | Oscar Picazzo, Melinda Wilson, Sophia Ladha, Vicky Wells |
| 2. | USAID / OPH | Dana Vogel (Chief OPH), Milly Howard, Emma Njuguna |
| 3. | The Population Council | Dr. Jane Chege, Dr. Nougga Maggwa |
| 4. | Sulmac / Brooke Bond | Michael Onyura, Harriet Muhonja |
| 5. | Crescent Medical Aid | Saidi Aboud, Martha Wambui |
| 6. | Dagoreti MIHV Clinic | Eric Jamison, Joseph Ole Mapi, Joan Odunga and Catherine Mwaniki |

APPENDIXES

APPENDIX A

Meeting to Discuss the Results

Meeting on Cost Effectiveness Analysis of Family Planning Clinics

4 th floor Conference Room, USAID Towers, December 18, 1996

Objectives of the meeting:-

1. To discuss the results of the cost-effectiveness analysis carried out in 3 clinics
2. To provide a forum for the participants to exchange their experiences, insights and lessons on improving quality of care through better cost control.

Agenda: -

- 09:00 Arrival and registration
- 09:30 Introduction - of participants and background to the meeting (O Picazzo, M Wilson)
- 09:45 Presentation of the results of the analysis (A Kimunya)
- 10:30 Coffee / tea break
- 10:45 Group discussions on the results and: -
 - a) Improving quality through better cost control,
 - b) Minimising costs without adverse effects on quality
 - c) The way ahead
- 11:45 Groups feedback
- 12:00 Plenary discussion
- 12:50 End of meeting and closing
- 13:00 Lunch and departure

Output of the meeting

The participants discussed the results of the analysis, and the ways and means of improving quality without necessarily incurring more costs, and came up with the following observations: -

1. Controlling costs and improving quality

It was noted that costs control and rationalization, leading to improvement in quality (or that does not compromise quality of care) may be looked at based on three broad categories; staff costs, procedures, and materials procurement and use.

1.1 Staff time and costs

Staff time could be better spent, with more utilization of client contact time, to provide more services than is currently the case. This could be improved through use of checklists for risk assessment, optimal utilization of staff through such time management approaches as set service times for clients. It was suggested that facilities should consider client responsive time management, i.e., operating the Family Planning clinics at flexible times when the clients are able to attend. This could be, for example, in the evening, rather than having a nurse waiting for clients all day and then missing out on those that are working and who can only make it after 5:00 pm.

Nurses could also be provided with extra training to enable them to offer more services to the clients such as STD management. Since staff costs are fixed over a given workload, emphasis should be on utilization of the available idle capacity.

Related to staff is the issue of their involvement in decision making and teamwork. Staff who are more involved are in a better position to appreciate the cost implications of their actions, and will therefore assist in cost control.

1.2 Procedures

There is a need for standardizing procedures in service delivery at the National level to have only those that are necessary to ensure quality. The value and need, for example, for pelvic examinations for pill users was questioned. It was felt that this should be done only where results of the risk assessment indicated possibility of exposure to STDs etc. This would drastically cut down on the cost of staff time materials used in the examination.

Another issue to be considered is how many cycles can be safely given to a client to reduce on the time they spend with the providers.

It was also noted that in some facilities, STD treatment was done using the syndromic approach, even though there are laboratory facilities that can provide better diagnosis and more effective treatment. The cost of drugs used for syndromic approach treatment are also fairly expensive, and

may well be more than the cost of a laboratory test and drugs combined. The syndromic approach may therefore only be appropriate where there is no laboratory.

1.3 Materials usage and procurement

Questions that were raised, and that will need further looking into included: -

- Should providers use generic drugs, and what is the impact on quality of the services given?
- What materials are more cost effective - e.g., use of normal saline instead of lotions?
- How will providers match rational use of gloves, disinfectants etc against infection prevention?
- Where and how are the drugs procured? Is there competitive value-for-money bidding?
- Are the materials adequately protected from losses due to theft and misuse?

2. The Way ahead

It was felt it will be necessary to create a forum for following up on the above issues, and for more sharing of experiences. This could either take the form of a working group or brown bag meetings.

It will also be necessary to define clearly what is acceptable level of quality, what a cost-efficient program should be like, and what integration really means.

APPENDIX B

Spreadsheets

APPENDIX B.1

Comparison of Family Planning Costs Across Clinics

Cost effectiveness analysis of FPPS Clinics

Notes: COMPARISON OF COSTS OF FAMILY PLANNING SERVICES ACROSS CLINICS

1 SUMMARY OF THE ANNUAL COSTS OF SERVING A CLIENT

	SULMAC CLINIC			DAGORETI MHT	
	Pills KShs	Injectables KShs	IUCDs KShs	Pills KShs	Injectables KShs
1.a New Clients					
Personnel costs	122.13	116.19	126.24	60.62	5
Materials used	101.07	117.90	264.24	46.88	6
Overheads	65.44	68.63	114.48	28.11	3
	<u>288.64</u>	<u>302.72</u>	<u>504.96</u>	<u>135.61</u>	<u>14</u>
1.b Continuing Clients					
Personnel costs	61.09	68.20	20.16	31.25	1
Materials used	101.07	117.90	123.37	46.88	6
Overheads	47.54	54.56	42.08	20.44	1
	<u>209.71</u>	<u>240.66</u>	<u>185.61</u>	<u>98.57</u>	<u>8</u>
1.c No of years for basis of Cost per CYP	5	5	5	5	
Total cost of serving the client	1,337.17	1,506.04	1,433.01	628.48	72
Cost per year (Cost per CYP)	267.43	301.21	286.60	125.70	14
2 Overhead rates	29.32%			26.15%	
3 Average cost per minute	1.78			0.95	
4 Time taken (mins) by methods:-					
4.1 First visit	41	42	50	36	
4.2 revisits (each)	9	10	13	7	
5 FP Clients seen in 1995 (all methods)					
New	604			843	
Revisits	4269			5170	
Total	4873			6013	
6 Total costs for 1995 (in KShs)	23859417			4359420	
Total curative + preventive clients	77941			34281	
7 Average cost per client - KShs	306.12			127.17	
8 Cost chargeable to FP in 1995	1,080,573			823,944	
As a % of total costs	4.48%			14.31%	
9 Nurse days required for clients - revs	80.04			75.40	
- new	51.59			63.23	
total required for 1995	131.64			138.62	
time available (allow 30 days leave)	230			230	
nurse time utilized	57.23%			60.27%	

APPENDIX B.2

Staff Time Use and Costs

APPENDIX B.2.a

Sulmac Cottage Hospital

SULMAC COTTAGE HOSPITAL :- FAMILY PLANNING COSTS ANALYSIS
 DIRECT FP STAFF TIME USE & COSTS
 Method :-

Nature of involvement with the FP client	Job Title	Salary / Min KShs	PILLS		INJECTABLEs		IUCDs	
			Avg Time in Mins	Average Cost KShs	Avg Time in Mins	Average Cost KShs	Avg Time in Mins	Average Cost KShs
FIRST VISIT:-								
Reception	Nurse	2	1	2	1	2	1	2
	Nurse aide	0						
Weight and BP	Nurse aide	2	2	4	2	4	2	4
General counselling on all methods	Nurse	2	10	18	10	18	10	18
Examination inc. breast exam teaching	Nurse	2	10	18	10	18	10	18
Specific counselling on method	Nurse	2	5	9	5	9	10	18
Service delivery	Nurse	2	1	2	2	4	5	9
Registration, history, revisit card & date	Nurse	2	10	18	10	18	10	18
Filing	Nurse	2						
	Nurse aide	0	2	1	2	1	2	1
TOTAL COST OF FIRST VISIT			41	70	42	72	50	86
REVISITS (No. of revisits in year)				4		3		2
Retrival of file	Nurse	2						
	Nurse aide	0	1	0	1	0	1	0
BP / Weight	Nurse	2	2	4	2	4	2	4
Review of progress and any problems	Nurse	2	3	5	3	5	3	5
Examination (IUCD only)	Nurse	2					5	9
Service delivery	Nurse	2	1	2	2	4		
Return date	Nurse	2	1	2	1	2	1	2
Filing	Nurse	2						
	Nurse aide	0	1	0	1	0	1	0
Total cost of revisit			9	52	10	44	13	40
Total staff cost of first + return visits			50	122	52	116	63	126
Costs of materials / consumables				101		118		264
Other indirect costs				65		69		114
COST PER ACCEPTOR FOR ONE YEAR			KShs	289	KShs	303	KShs	505
COST OF CONTINUING USERS								
Time Cost- add nurse time for annual exam				61		68		20
Costs of materials / consumables				101		113		123
Other indirect costs				48		55		42
			KShs	210	KShs	241	KShs	186

APPENDIX B.2.b

Dagoreti MIHV Clinic

Cost effectiveness analysis of FP/PS clinics

CHANDARIA M I H V HEALTH CENTER							
DIRECT FP STAFF TIME USE & COSTS							
Method :-		PILLS		INJECTABLEs		I U C Ds	
Nature of involvement with the FP client		Avg Time	Average	Avg Time	Average	Avg Time	Average
FIRST VISIT:-	Job Title	in Mins	Cost KShs	in Mins	Cost KShs	in Mins	Cost KShs
Reception	Receptionist	1	1	1	1	1	1
Weight and BP	Nurse	1	1	1	1	1	1
General counselling on all methods	Nurse	10	9	10	9	15	14
Examination inc. breast exam teaching	Nurse	10	9	10	9	15	14
Specific counselling on method	Nurse	5	5	5	5	5	5
Service delivery	Nurse	1	1	1	1	5	5
Registration, history, revisit card & date	Nurse	7	7	7	7	7	7
Filing	Nurse	1	1	1	1	1	1
	Nurse aide						
TOTAL COST OF FIRST VISIT		36	34	36	34	50	47
REVISITS (No. of revisits in year)			4		3		2
Retrival of file	Nurse	1	1	1	1	1	1
BP / Weight	Nurse	1	1	1	1	1	1
Review of progress and any problems	Nurse	2	2	2	2	2	2
Examination (IUCD only)	Nurse					5	5
Service delivery	Nurse	1	1	1	1		
Return date	Nurse	1	1	1	1	1	1
Filing	Nurse	1	1	1	1	1	1
	Nurse aide						
Total cost of revisit		7	27	7	20	11	21
Total staff cost of first + return visits		43	61	43	54	61	68
Costs of materials / consumables			47		62		128
Other indirect costs			28		30		51
COST PER ACCEPTOR FOR ONE YEAR		KShs	136	KShs	146	KShs	247
COST OF CONTINUING USERS							
Time Cost- add nurse time for annual exam			31		31		10
Costs of materials / consumables			47		62		47
Other indirect costs			20		24		15
		KShs	99	KShs	117	KShs	73

APPENDIX B.2.c

Mtongwe CMAK Clinic

Cost effectiveness analysis of FPPS Clinics

CRESENT MEDICAL AID - MTONGWE CLINIC
DIRECT FP STAFF TIME USE & COSTS
Method :-

Nature of involvement with the FP client	Job Title	PILLS		INJECTABLES		IUCDs	
		Avg Time in Mins	Average Cost KShs	Avg Time in Mins	Average Cost KShs	Avg Time in Mins	Average Cost KShs
FIRST VISIT:-							
Reception	Receptionist	1	1	1	1	1	1
	Nurse aide						
Weight and BP	Nurse	2	2	2	2	2	2
General counselling on all methods	Nurse	20	19	20	19	20	19
Examination inc. breast exam teaching	Nurse	10	9	10	9	10	9
Specific counselling on method	Nurse	6	6	4	4	10	9
Service delivery	Nurse	1	1	2	2	5	5
Registration, history, revisit card & date	Nurse	3	3	3	3	3	3
Filing	Nurse	1	1	1	1	1	1
	Nurse aide						
TOTAL COST OF FIRST VISIT		44	41	43	40	52	48
REVISITS (No. of revisits in year)			4		3		2
Retrival of file	Nurse	1	1	1	1	1	1
	Nurse aide						
BP / Weight	Nurse	2	2	2	2	2	2
Review of progress and any problems	Nurse	2	2	1	1	4	4
Examination (IUCD only)	Nurse					4	4
Service delivery	Nurse	1	1	2	2		
Return date	Nurse	1	1	1	1	1	1
Filing	Nurse	1	1			1	1
	Nurse aide			1			
Total cost of revisit		8	30	8	20	13	24
Total staff cost of first + return visits		52	71	51	60	65	73
Costs of materials / consumables			54		70		142
Other indirect costs			19		20		32
COST PER ACCEPTOR FOR ONE YEAR		KShs	143	KShs	149	KShs	247
COST OF CONTINUING USERS							
Time Cost- add nurse time for annual exam			33		30		12
Costs of materials / consumables			54		70		71
Other indirect costs			13		15		13
		KShs	100	KShs	115	KShs	96

APPENDIX B.3

Materials Used in the FP Clinics

APPENDIX B.3.a

Sulmac Cottage Hospital

SULMAC COTTAGE HOSPITAL :- FAMILY PLANNING COSTS ANALYSIS

Materials used to give FP service to a client for one year

Description	Units	Unit Cost KShs	PILLS		INJECTABLES		IUCD's	
			Quantity per client	Cost KShs	Quantity per client	Cost KShs	Quantity per client	Cost KShs
Card	piece		1.00		1.00		1.00	
Client File	piece		1.00		1.00		1.00	
Gloves - disposable	Pairs	17.50	2.00	35.00	2.00	35.00	5.00	87.50
Cotton swabs	gms	0.23			2.00	0.45		
Lotion(Cidex)	mls	0.16	200.00	32.70	200.00	32.70	400.00	65.41
soap	piece	21.00	0.04	0.84	0.04	0.84	0.08	1.68
Jik - bleach	mls	0.04	20.00	0.86	20.00	0.86	40.00	1.72
spirit	mls	0.05			4.00	0.18		
Gauze	roll	445.00	0.04	17.80	0.04	17.80	0.16	71.20
Needles	piece	1.30			4.00	5.20		
Syringes - 2 mls	piece	2.75			4.00	11.00		
Autoclaving tape	roll	225.00	0.01	2.25	0.01	2.25	0.06	13.50
Sanitary pads	pad	27.50						
Savlon (cleaning)	mls	2.32	5	12	5	12	10	23
Omo (linen cleaning)	gms	0.09	40	4	40	4	80	7
TOTAL COST OF EXPENDABLES (per new acceptor)			KShs	101		118		264
TOTAL COST OF EXPENDABLES (per continuing client)			KShs	101		118		123

Source: - SULMAC Clinic costs data and staff interview on quantities.

02

APPENDIX B.3.b

Dagoreti MIHV Clinic

RE

Cost effectiveness analysis of FPPS clinics—
BSIarc
lier
spic
raj
k -su
ee
yrii...
avi
mc—
CI

ou

CHANDARIA M I H V HEALTH CENTER
Materials used to give FP service to a client for one year

Description	Units	Unit Cost KShs	PILLS		INJECTABLES		IUCD's	
			Quantity per client	Cost KShs	Quantity per client	Cost KShs	Quantity per client	Cost KShs
Card	piece	govt	1.00		1.00		1.00	
Client File	piece	govt	1.00		1.00		1.00	
Gloves - disposable, ordinary quality	Pairs	13.00	2.00	26.00	2.00	26.00	5.00	65.00
Cotton swabs	gms	0.16	10.00	1.63	10.00	1.63	30.00	4.88
Lotion(Hibitin)	mls	0.16	5.00	0.82	5.00	0.82	15.00	2.45
soap	piece	21.00	0.04	0.84	0.04	0.84	0.12	2.52
Jik - bleach	mls	0.04	200.00	8.60	200.00	8.60	600.00	25.80
spirit	mls	0.05			4.00	0.18		
	roll							
Needles	piece	1.44			4.00	5.76		
Syringes - 2 mls	piece	2.22			4.00	8.88		
Autoclaving tape	cm	0.30	30.00	9.00	30.00	9.00	90.00	27.00
	pad	27.83						
	mls	2.32						
Omo (linen cleaning)	gms	0.09	2.00	0.18	2.00	0.18	6.00	0.54
TOTAL COST OF EXPENDABLES (per new acceptor)			KShs	47		62		128
TOTAL COST OF EXPENDABLES (per continuing client)			KShs	47		62		47

Source: - Clinic costs data and staff interview on quantities.

APPENDIX B.3.c

Mtongwe CMAK Clinic

CRESENT MEDICAL AID - MTONGWE CLINIC

Materials used to give FP service to a client for one year

Description	Units	Unit Cost KShs	PILLS		INJECTABLES		IUCD's	
			Quantity per client	Cost KShs	Quantity per client	Cost KShs	Quantity per client	Cost KShs
Card	piece	govt	1.00		1.00		1.00	
Client File	piece	govt	1.00		1.00		1.00	
Gloves - disposable	Pairs	17.50	1.00	17.50	1.00	17.50	4.00	70.00
Cotton swabs	gms	0.23	10.00	2.25	10.00	2.25	20.00	4.50
Lotion(Savlon)	mls	0.16	150.00	24.53	150.00	24.53	300.00	49.06
soap	piece	21.00	0.04	0.84	0.04	0.84	0.08	1.68
Jik - bleach	mls	0.04	200.00	8.60	200.00	8.60	400.00	17.20
spirit	mls	0.05			4.00	0.18		
Gauze	roll	445.00						
Needles	piece	1.30			4.00	5.20		
Syringes - 2 mls	piece	2.75			4.00	11.00		
Autoclaving tape	roll	225.00						
Sanitary pads	pad	27.50						
Savlon (cleaning)	mls	2.32						
Omo (linen cleaning)	gms	0.09	4	0	40	4	80	7
TOTAL COST OF EXPENDABLES (per new acceptor)			KShs	54		70		142
TOTAL COST OF EXPENDABLES (per continuing client)			KShs	54		70		71

Source: - Clinic costs data and staff interview on quantities.

APPENDIX B.4

Estimation of Overhead Rates

APPENDIX B.4.a

Sulmac Cottage Hospital

SULMAC COTTAGE HOSPITAL :- FAMILY PLANNING COSTS ANALYSIS

ESTIMATION OF OVERHEAD RATE FOR SULMAC

EXPENDITURE (Note 1 below)	Total	Direct costs	Indirect costs	1995	To July 96
	KShs	KShs	KShs	KShs	KShs
Salaries management	6973402	4881381	2092021	4022443	2950959
lab, supervisors, subs	2159118	1511383	647735	1087792	1071326
benefits	480626	336438	144188	300766	179860
wages arrears	79755	55829	23927	79755	
Travel & per diem	217001		217001	125534	91467
housing and welfare	933818	653673	280145	546245	387573
Office & sundries	780977		780977	502033	278944
Vehicle expenses	675307		675307	449799	225508
staff car running	394161		394161	263749	130412
depreciation	303886		303886	204696	99190
Drugs, dressings,	19275556	19275556		12685171	6590385
Hospital materials	37457	37457		11944	25513
Instruments, appliances	35985		35985	13150	22835
Catering	2579618	2579618		1652129	927489
Purchased medical services	4440369		4440369	2452957	1987412
recoveries on med services	-1381856		-1381856	-799746	-582110
day care centre	261878	261878		261000	878
Training	22232		22232		22232
TOTAL	38269290	29593212	8676078	23859417	14409873
		77.33%	22.67%		

Estimated overhead rate 29.32%

- Notes & assumptions:-
1. Crude estimate of cost per patient seen 306.12 322.98
 2. Salaries have been allocated 30% to indirect costs.

The overhead rate % means that for every shilling spent directly on a client, i.e., either staff contact time or materials, the clinic should add the worked out % to cover the indirect costs including the non-direct staff costs. The higher the overheads, the more expensive to clients.

APPENDIX B.4.b

Dagoreti MIHV Clinic

Cost effectiveness analysis of FPPS clinics

CHANDARIA M I H V HEALTH CENTER

ESTIMATION OF OVERHEAD RATE

EXPENDITURE (Note 1 below)	Total			1995	1994
		KShs	KShs	KShs	KShs
		Direct	Indirect		
Personnel:-					
HC staff salaries	681583	681583		366654	314928.63
Admin staff	786751		786751	423229	363522.37
HC staff allowances	17586	17586		720	16866
MOH staff allowance	348508	348508		194094	154414
MOH staff (est. cost)	2647537	2647537		1680000	967537
Personnel taxes	123241	57207	66034	72175	51066
Uniforms	49707	49707		23197	26510
Other expenses	6547		6547	250	6297
tea break	118112		118112	64459	53653
Supplies:-					
pharmaceuticals	1708396	1708396		633145	1075251
Non-drug med supplies	391611	391611		166110	225501
Laboratory supplies	243663	243663		124537	119126
Other supplies	276715	276715		136088	140627
Donated drugs (estimate)	508172	508172			508172
Insurance:-					
Personnel coverage	51858		51858	38906	12952
Theft, fire,	3040		3040	885	2155
medical van	56119		56119	3650	52469
transport:-					
Petrol	300		300		300
vehicle repair	111415		111415	53395	58020
parking	1999		1999	1257	742
other transport	23834		23834	2717	21117
Facility maintenance:-					
Bldg, equip repairs	104351		104351	68547	35804
utilities	157115		157115	100502	56613
Printing / reproduction					
Printing	147500		147500	87820	59680
photocopier	12		12		12
Telephone	1062		1062		1062
audit fee	121346		121346	90722	30624
otoer taxes, insurance,	16868		16868		16868
other expenses	38345		38345	26361	11984
		8743293	6930685	1812608	4359420
			79.27%	20.73%	4383873

Computed overhead rate, i.e., indirect as a % of direct costs 26.15%

The overhead rate % means that for every shilling spent directly on a client, i.e., either staff contact time or materials, the clinic should add the worked out % to cover the indirect costs including the non-direct staff costs. The higher the overheads, the more expensive to clients.

APPENDIX B.4.c

Mtongwe CMAK Clinic

Cost effectiveness analysis of FPPS Clinics

CRESENT MEDICAL AID - MTONGWE CLINIC

ESTIMATION OF OVERHEAD RATE

EXPENDITURE (Note 1 below)	Total KShs'000	Salaries	drugs	admin costs
January 95	91693	46846	33256	11591
February	89974	48201	29608	12165
March	85304	47680	22480	15144
April	85673	50023	25150	10500
May	104860	51922	38300	14638
June	110290	52368	45875	12047
July	121569	64034	44119	13416
August	128590	53805	58063	16722
September	91062	56413	18429	16220
October	135537	59975	56874	18688
November	119721	57627	49446	12648
December	127252	56580	55046	15626
TOTAL	1291525	645474	476646	169405

Indirect costs as a % of direct costs (15.10%

estimate of cost per "patient" 162

January 96	100610	40764	45178	14668
february	102492	45015	43675	13802
March	120476	49009	56590	14877
April	112296	49204	50296	12796
May	117735	55397	46318	16020
Total	553609	239389	242057	72163

1996 overhead rate 14.99%

1996 cost per patient 156

The overhead rate % means that for every shilling spent directly on a client, i.e., either staff contact time or materials, the clinic should add the worked out % to cover the indirect costs including the non-direct staff costs. The higher the overheads, the more expensive to clients.

APPENDIX B.5

STD Treatment Costs Analysis: Sulmac Hospital

45

APPENDIX B.5.a

Summary of the Costs

2/6

Cost effectiveness analysis of FPPS clinics

SULMAC COTTAGE HOSPITAL: STD TREATMENT COSTS ANALYSIS

Condition / syndrome :-	COSTS:-			Staff time & materials	Drugs	Total Direct cost	Overheads 29.32% cost	Estimated cost
	Staff time KShs	Materials KShs	KShs					
Urethral discharge (urethritis) alternative treatment 1	53	170	223	342	565	166	731	
				250	473	139	612	
Pelvic Inflammatory Disease alternative treatment 1	53	170	223	227	449	132	581	
alternative treatment 2				354	577	169	746	
				1340	1563	458	2021	
Genital Ulcer Disease alternative treatment 1	53	170	223	364	587	172	759	
alternative treatment 2				205	428	125	554	
				432	655	192	847	
Vaginal Discharge - vaginitis	53	170	223	426	649	190	839	
Vaginal Discharge - Cervicitis alternative treatment 1 (if pregnant)	53	170	223	342	565	166	731	
				591	814	239	1052	
V Discharge - vaginitis + cervi alternative treatment 1 (if pregnant)	53	170	223	758	981	288	1269	
				1007	1230	361	1590	

47

APPENDIX B.5.b

Staff Time

Cost effectiveness analysis of FPPS clinics

**SULMAC COTTAGE HOSPITAL: STD TREATMENT COSTS ANALYSIS
DIRECT CLINIC STAFF TIME USE & COSTS**

Nature of involvement with the Patient	Job Title	Salary / Min KShs	Avg Time in Mins	Average Cost KShs
Reception	Nurse	1.777251	1	1.78
	Nurse aide	0.305545		0.00
Weight and BP	Nurse	1.777251	3	5.33
				0.00
General counselling on STDs	Nurse	1.777251	10	17.77
				0.00
Examination and condition diagnosis	Nurse	1.777251	5	8.89
				0.00
Specific counselling, contact tracing etc	Nurse	1.777251	5	8.89
				0.00
Treatment, drugs, etc	Nurse	1.777251	2	3.55
				0.00
Registration, history,	Nurse	1.777251	3	5.33
				0.00
Filing	Nurse	1.777251	1	1.78
	Nurse aide	0.305545		0.00
TOTAL COST OF VISIT			30	53.32

Based on estimated time of patient contact as given by Sulmac staff, and average salary for Sulmac staff

APPENDIX B.5.c

Materials and Drugs

Cost effectiveness analysis of FPPS clinics

SULMAC COTTAGE HOSPITAL: STD TREATMENT COSTS ANALYSIS
Materials used to treat a STD patient per visit

Description	Units	Unit Cost KShs	MALE		FEMALE	
			Quantity per client	Cost KShs	Quantity per client	Cost KShs
Appointment Card	piece	35.00	1	35.00	1	35.00
Patient card	piece	85.00	1	85.00	1	85.00
Gloves - disposable	Pairs	17.50	1	17.50	1	17.50
Geuze	roll	445.00			0.04	17.80
Lotion(Cldex)	mIs	0.16			200	32.70
soap	piece	20.00	0.1	2.00	0.05	1.00
Jik - bleach	mIs	0.04			20	0.80
TOTAL COST OF EXPENDABLES (per patient)				KShs 139.50		189.80

Male : female ratio
Jan - July 96

	Male	female	Total
GUD	38	18	56.00
urethral D	80		80.00
Vaginal D		97.00	97.00
PID		61.00	61.00
total	118.00	176.00	294.00
%	0.40	0.60	

Weighted cost based on male:female ratio 1996 Shs 169.61 55.99 113.62

DRUGS PRESCRIBED	Unit	Cost/unit KShs	UD (Urethritis)		PID		GUD		Vag D (Vaginitis)		Vag D (Cervicitis)		Vag D (Vag + cerv)	
			Units	Cost KShs	Units	Cost KShs	Units	Cost KShs	Units	Cost KShs	Units	Cost KShs	Units	Cost KShs
1 Norfloxacin 400 mgs	TabS	63.80	2	127.60	2	127.60					2	127.60	2	127.60
2 Doxycycline 100 mgs	Caps	14.85	14	207.90	14	207.90					14	207.90	14	207.90
3 Amoxycycline 250mg (Servamox)	Caps	2.95	12	35.40							56	165.20	56	165.20
4 Probenacid 1g	TabS	5.80												
5 Augmentin	TabS	53.50												
6 Erythromycin 250 mgs	TabS	7.60					42	319.20			58	425.60	58	425.60
7 Benzathine Pen 2.4 mu (Penadur)	Inj vial	34.00					1	34.00						
8 Ciprofloxacin 500 mgs	tabS	99.17					2	198.33						
9 Fasygyn Pessaries	Pessaries	416.00							1	416.00			1	416.00
10 Metronidazole 400gms	TabS	0.30			40	11.80			10	2.95				
11 Brufen 400 mgs	TabS													
12 Paracetamol	TabS	0.34	20	6.80	20	6.80	20	6.80	20	6.80	20	6.80	20	6.80
13 Erythromycin 250 mgs	TabS	7.60					56	425.60						
14 Needles	piece	1.30					1	1.30						
15 Syringes - 2 mIs	piece	2.75					1	2.75						
16 spirit	mIs	0.05					4	0.18						
TOTAL COST OF DRUGS (per patient)			1,2,12	342.30	less 1	226.50	less 8,13	364.23		425.75	less 3,6	342.30	less 3,8	758.30
Alternative treatment 1			3,2,12	250.10		354.10	8,12	205.13			3,8	590.80	3,6,9	1006.80
Alternative treatment 2					NortX3X7	1339.80	12,13	432.40						

Source: - Sulmac Nakvasha Clinic costs (suppliers' invoices) data and staff interview on quantities.

AS.3

APPENDIX B.6

Workload Statistics

APPENDIX B.6.a

Sulmac Cottage Hospital

SULMAC COTTAGE HOSPITAL - FAMILY PLANNING COSTS ANALYSIS

Laboratory workload analysis

Other services

Month	Total	Laboratory workload analysis				Other services						Method mix (clients on method)						
		Kahn	tes	UTI	Pregnan	Others	Inpatient	OPD	MCH an	MCH cw	FP New	FP Revisit	Inj	Pills	IUCD ins	IUCD re	TL	Other
Jan 95	2046	32	575	14	1425	92	5590	67	535	57	424	218	187			7		69
Feb	1518	17	393	29	1079	112	4659	80	529	57	348	168	172	1				64
march	1833	32	407	34	1360	83	5797	142	590	52	371	172	179	1	1			70
April	1446	55	104	21	1266	89	5781	149	556	42	343	180	155				1	49
May	1872	27	251	34	1560	117	6168	68	632	54	352	173	180			2		51
June	1575	21	189	20	1345	105	5582	74	608	50	390	191	170			5		74
July	1442	27	239	19	1157	69	5337	15	599	41	349	211	128					51
Aug	1334	36	249	20	1029	66	4866	87	647	46	270	170	111	1			1	33
Sept	1700	32	410	17	1241	80	5182	98	612	50	280	162	125			1		42
Oct	1430	26	416	22	966	48	4671	84	652	57	413	232	190			1		47
Nov	1025	46	288	25	666	82	4917	94	563	57	327	171	162	2	3			46
Dec	1234	34	272	30	898	80	5414	67	533	41	402	222	172		3		1	45
	18455	385	3793	285	13992	1023	63964	1025	7056	604	4269	2270	1931	5	23	3		641
Jan 96	1260	20	183	24	1033	92	5902	98	692	37	391	212	156			6		54
Feb	1331	37	298	31	965	98	4968	78	571	44	357	212	113			5		71
march	1275	41	254	30	950	91	5254	77	452	26	459	263	172		1			49
April	1246	32	236	27	951	76	4781	60	680	43	383	211	185		2			28
May	1259	46	161	27	1025	105	5355	72	584	30	395	214	178		1			32
June	1079	48	161	27	843	101	5052	54	599	33	327	201	112			5	1	41
July	1431	26	426	27	952	93	5005	66	625	40	370	233	134	2	2			39
Total	8881	250	1719	193	6719	656	36317	505	4203	253	2682	1546	1050	2	22	1		314
%	100%	2.81%	19.36%	2.17%	75.66%													

Total "patients" seen in 1995 77941
 Total "patients" seen in 1996 44616

A-6-1

69

APPENDIX B.6.b

Dagoreti MIHV Clinic

Cost effectiveness analysis of FPPS clinics

CHANDARIA M I H V HEALTH CENTER

Workload analysis

Month	Total	Curative MCH an	MCH cw	FP New	FP Revisit	
Jan 95		1521	313	789	34	511
Feb		1552	313	778	43	394
march		1413	352	839	88	443
April			323	736	44	292
May			332	805	69	346
June			311	793	111	474
July			294	820	72	427
Aug			331	892	71	497
Sept			305	797	127	480
Oct			277	812	49	416
Nov			297	890	63	485
Dec		1033	233	910	72	405
Total	0	5519	3681	9861	843	5170
%		25074				
		2089.5				

APPENDIX B.6.c

Mtongwe CMAK Clinic

CRESENT MEDICAL AID - MTONGWE CLINIC

Laboratory workload analysis

Month	Total	VDRL	urethral +		Pregnan	Others
			Urinalysi	HVS		
Jan 95	421	55	86		39	241
Feb	451	35	106	6	29	275
march	365	39	98	6	24	198
April	416	29	106	5	38	238
May	380	39	76	4	43	218
June	408	38	90	1	27	252
July	498	50	86	4	37	321
Aug	529	52	102	3	48	324
Sept	406	26	17	6	37	320
Oct	484	39	81	7	35	322
Nov	442	51	104	2	20	265
Dec	532	51	98	3	30	350
Total	5332	504	1050	47	407	3324
%	100%	9.45%	19.69%	0.88%	7.63%	62.34%

Other services

Curative	MCH an	MCH cw	FP New	FP Revisit
885	70		12	35
734	75		4	30
585	90		7	37
620	71		8	32
612	91		11	33
737	64		6	35
826	70		4	29
1122	84		7	34
794	46		7	36
793	50		6	25
744	83		10	28
819	51		6	24
9271	845	0	88	378
10582				
772.58	70.417		7.3333	31.5

Method mix (clients on method)

Inj	Pills	IUCD ins	IUCD rev	TL	Condoms
32	15				0
21	12				1
24	14				6
24	13				3
23	21				0
22	16				3
20	8				5
26	6				9
24	13				6
25	6				0
23	15				0
16	14				0
280	153	0			0
					33

A.6.3.

578