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DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service
Centers for Disease Control

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Memorandum

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Subject Foreign Trip Report (AID/RSSA): Jordan--February 21-March 8, 1985

To Donald R. Hopkins, M.D.
Acting Director, CDC
Through: Assistant Director for Science, CHPE

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SUMMARY

The purpose of this visit was to introduce the Patient Flow Analysis (PFA) system (see Attachments 1 and 2) to the Jordan Family Planning and Protection Association (JFPPA) and to evaluate the usefulness of PFA as a management and evaluation technique in Jordan. We conducted studies of three clinic sessions each at both Zarqa and Ashrafia (Amman) Clinics (see Tables 1-4). Our studies showed that these clinics are operating at or above capacity, resulting in long waiting times for clients and time pressure on staff. Consequently, very little beyond essential services was being provided. We recommended that service capability be expanded by establishing new clinic sites, extending the hours of the present locations, adding medical staff, or some combination of these recommendations.

I. PLACES, DATES, AND PURPOSE OF TRAVEL

Amman, Jordan, February 21-March 8, 1985, at the request of AID/POP/CPSD and USAID/Amman. The travel was in accordance with the Resource Support Services Agreement between CDC/CHPE/DRH and AID/POP/CPSD (Graves) and the technical assistance contract between AID/S&T/POP and ISTI (Blair). It was in conjunction with trips to Zimbabwe and Botswana. The purposes were to provide technical assistance to the JFPPA in the evaluation of their clinical services and to introduce the PFA technique as a management tool.

II. PRINCIPAL CONTACTS

A. USAID
1. Jerry Gower, Director
2. Dick Johnson, Deputy Director
3. Robert Haladay, Health and Population Officer

B. Jordan Family Planning and Protection Association (JFPPA)
1. Dr. Salem Keswani, President
2. Mr. Abel Abu-Nadi, Executive Director

C. Family Planning International Assistance (FPIA)
1. Kritsada Boonruang, Program Officer, Asia and Pacific Regional Office

III. BACKGROUND AND OBJECTIVES

The Jordan Family Planning and Protection Association (JFPPA), an affiliate of the International Planned Parenthood Federation, is the only organization in the country with the specific purpose of providing family planning services. At the present time, the JFPPA supports five clinics, two in Amman and one each in Salt, Irbid and Zarqa. (In addition to its affiliation with JFPPA, the Zarqa clinic receives support from Family Planning International Assistance.) Clinic sessions are conducted 6 days per week in Amman and Zarqa and twice a week at the other sites. The Amman and Zarqa clinics have morning sessions, and the others have afternoon sessions. The basic clinic staff consists of a physician, a nurse, a clerk, and an aide. The IUD is the method of choice for a large majority of JFPPA clients*. In our studies, all but one client with a stated method were IUD users. (See Table 4)

JFPPA management is concerned about the increasing demand for services that they are now experiencing and their ability to provide services to more clients in the future. The basic questions are: (1) what is the capacity of the present clinic structure, and (2) when should expansion be considered? Our aim was to demonstrate the use of PFA as an evaluation and management tool to answer these and other questions. In a meeting with the president, executive director, and other staff of JFPPA, it was decided to conduct studies at the Ashrafia Clinic in Amman and the Zarqa Clinic.

IV. ACTIVITIES

In addition to the two sites chosen for the study, we visited the Al Hossain Clinic in Amman. We interviewed staff at the three locations to gain some insight into the operation and to gain some perspective on problems from the service provider's point of view. We then trained the staff and collected

*For definitive information on family planning in Jordan, see Jordan Fertility and Family Health Survey, 1983, Report of Principal Findings. The survey was conducted by the Jordan Department of Statistics and CDC/DRH.

three PFA data sets each from Ashrafia and Zarqa clinics. These data were processed by graphing the patient flow and calculating certain values from the data (see Tables 1-4). The results were presented to the JFPPA management and USAID officials. Graphs and charts were left with USAID/Amman for delivery to JFPPA.

After returning to Atlanta, the data were processed through the PFA computer programs for a more complete analysis. Three copies of the computer-generated graphs and statistics for each study are attached to the copies of this report for USAID/Amman; two copies of each are to be delivered to JFPPA. Attachment 2 is a sample of the computer output.

V. DISCUSSION

Clinic personnel at all three sites generally agreed that their clinics were either operating at capacity or not able to keep up with demand; our data confirm this. At one of the sessions at Ashrafia, the staff was unable to serve six clients.

A special study on continuation of IUD users is being conducted at Ashrafia. An interviewer is assigned to collect data from a proportion of new and continuing clients, with new clients receiving two interviews, one before and one after the IUD insertion. Continuing clients are interviewed after their visit with the medical team. This activity did not interrupt or cause delays in client services and only briefly delayed the departure of a few clients at the end of their visit. Because this activity is not a normal part of clinic services, it was assigned a special code that is totally ignored by the PFA statistical outputs. Time with the interviewer is, therefore, treated as client waiting time.

Another difference in the way the clinics are conducted is that, at Ashrafia, clients who need pregnancy tests are given prescriptions to obtain them elsewhere while the Zarqa clinic provides the pregnancy tests. Also, the physician who works at the Zarqa clinic travels from Amman, and the clinic starts later than Ashrafia.

The only abnormality observed was that, when we arrived at the Ashrafia clinic for the first study, the electric power was off. The power was restored at 9:00 A.M., but service delivery was delayed because the medical staff had to wait until 9:30 for sterilized equipment. This explains part of the excessive client time in the first study (see Table 3).

The unusually cold weather and snow storm that occurred a few days before the studies were conducted may have lowered service demand. If so, more clients would have been turned away, and the problem of too little service capacity is more serious than our studies show.

The Ashrafia clinic site is very small, and there were times when the waiting room was filled to capacity and clients overflowed into the entrance. Many clients had to stand for long periods while waiting for service.

Our work was divided so that Ms. Blair worked at Zarqa and Mr. Graves worked at Ashrafia. Our method for data collection was to have the clinic aide or receptionist record each client's arrival time on line 4 of a Patient Register (see Attachment 1) and return it to the client. When the receptionist served the client, she attached the Patient Register to the client's chart. Each staff member who had contact with a client entered her identification code, the time started, and the time finished in Section 6--Patient Service Time. After each client had completed her visit, the chart and Register were given to us, and the client's reason for visit and family planning method codes were determined from her chart and entered on the Register on lines 2 and 3. When the clinic ended, Registers were assembled and numbered in the order of client arrivals.

Since the IUD is almost the only method provided (see Table 4), the definitions of the codes for reason for visit were changed from the standard PFA definitions as follows:

Code	Original Definition*	Definition For this Study
I	Initial Visit	IUD Insertion
R	Resupply	First String Check
A	Annual Physical	Subsequent String Check
M	Medical Problem	Medical Problem, IUD Removal, Pregnancy Test
O	Other	Prescribe Pregnancy Test
X	Nonfamily planning	Pill resupply (one patient)

*The statistical printouts that accompany the copies of this report for USAID/ Amman will contain the original definitions.

From our analysis of the graphs and statistics, several things were apparent. First, client waiting as related to service time was excessive. Table 3 shows that the average client spent 71 minutes at the Ashrafia clinic with a range of 140 minutes for the longest visit to 2 minutes for the shortest. The mean for Zarqa was 61 minutes with a range of 153 to 10.

We also noticed that client time with the medical staff was shorter than we have observed in other studies (see Table 2). For example, the mean medical staff time for an IUD insertion at both locations was 6 minutes with a range of 18 to 4 minutes. We were told that the reasons for short contact times were the heavy workload and that new clients had spent time with other staff during home visits where the contraceptive options and procedures were explained. Conversations with the physicians at the clinic suggested that they would like more time with clients, but the heavy workload prevented this.

Chart reviews yielded little evidence that much effort was expended to offer the client an alternative method when her IUD was removed for medical reasons. This, too, could be related to the heavy workload.

The graphs show that there were several times when medical services were interrupted (see Attachment 2). We were told that the reason for this was that the medical staff were working faster than the instrument sterilizer and were waiting for sterilized equipment. These interruptions were not longer than one would expect for normal work breaks and, therefore, might not cause major delays in services. The problem is that the timing for staff breaks is governed by the shortage of equipment rather than when the staff feel the need to rest.

We also learned that there is no official JFPPA protocol for the provision of clinical services. The medical staff relies on their medical training and experience for guidance. While we do not question the competence of staff to deliver quality services, the absence of specific training in contraceptive technology and formal medical guidelines may have detrimental effects over time.

VI. RECOMMENDATIONS

The PFA system is a purely quantitative approach. That is, it measures the amount of time taken for events and documents the time of day that each event occurred. It provides no information on quality of services beyond simple measures of time. By this, we mean that the system tells us how much time it actually took to perform a task, but it does not tell us that those who took more time performed better than those who took less time.

These studies included (1) the collection and analysis of data related to time and (2) interviews with staff to attempt to explain the reasons why the clinic operates as it does. We did not attempt to verify all the information obtained from the interviews. Our recommendations should be taken with these facts in mind. In most instances alterative solutions to problems are proposed:

1. Problem: The clinics are operating at or above capacity.

   Suggested Solutions:

   a. Establish more clinic sites.

   b. Extend the hours at the existing clinic sites.

   c. Increase the staff of the existing clinics. (This is not practical at Ashrafia because of limited space.)

   d. Modify client management routines to require fewer routine visits. We realize that this might not be possible since most clients use the IUD, and there could be medical reasons to maintain or, perhaps, increase the number of routine visits for a client.

2. Problem: Clients must wait too long for services. This creates congestion in the waiting room, pressure on the staff,

and inconvenience for the client which could result in discontinuation. This problem is caused by too many clients entering the clinic too early or at a rate faster than staff can serve them. Our data show that clients are served at a rate of approximately 12 to 15 per hour, but this will probably be reduced if staff feel less pressure and/or more medical services are provided during the client's visit.

Suggested Solutions:

a. Expand service delivery capability. When the ability to provide services equals or exceeds demand, clients can be expected to spend less time in the clinic. We have observed in other countries that when clients spend less time waiting in the clinic, fewer tend to come early and the rate of client entry becomes more nearly the same as the clinic's ability to provide services.

b. Establish an appointment system. Although it is probably not practical to operate a fully appointed schedule, appointments could be made for clients who should return to the clinic within 30 days. By this, we mean initial and first subsequent string checks, followup medical treatment, etc.. These clients could be scheduled during hours of least demand, and they could be given preferential treatment if they keep their appointments on time. Also, clients turned away from a full clinic could be similarly treated.

c. Establish and publicize a system for providing certain services at predetermined hours. For example, the clinic could ask clients who make first visits to the clinics and those with medical problems to come between the hours of 8 and 9:30, provide string checks and resupply visits from 9:30 until 11:00, and pregnancy tests and other visits between 11 and 12. The clinic would then give preference to clients who come at the proper time; that is, clients for first visits and medical problems would be given preferential treatment during the hours scheduled for these services. Once clients realize that this system is for their benefit, they may be more likely to adhere to it. On the other hand, there may be contingencies that govern the time that clients can come to the clinic (such as work schedules, children's school schedules, etc.), and, therefore, such a system would not work very well.

3. Problem: Medical staff in JFPPA clinics rely on basic medical training for provision of family planning services and might not be providing all needed services to allow their clients to safely and effectively plan their fertility.

Suggested Solution:

a. Provide training in contraceptive technology to medical staff.

4. Problem: Some of the clinics lack basic equipment to sustain continuing clinic services.

Suggested Solution:

a. Develop a standard or recommended equipment list.

b. Survey each clinic's equipment and determine what, if any, shortages exist.

c. Provide equipment as indicated, including some reserve in anticipation of expansion, breakage, loss, etc.

5. Problem: The policy governing the provision of medical services in JFPPA clinics is not clear.

Suggested Solution:

a. Appoint a committee of gynecologists to establish a policy.

b. Document the policy in written protocols for the delivery of general medical services and for specific contraceptives.

c. Print and distribute the protocols to all medical staff at central and clinic levels of the program.

d. Review and revise the policy as indicated.

VII. CONCLUSIONS

The preliminary analysis of data for this consultancy was presented (in separate sessions) to officials of the JFPPA and USAID/Amman. Although computer processing provided more detailed analyses, no significant changes in problem definitions or recommendations resulted. This report, therefore, essentially confirms our observations as presented during these sessions.

The JFPPA officials indicated that they accepted our conclusions and intend to adopt the recommendations; USAID/Amman officials indicated that they would support the effort.

All were impressed with the usefulness of the PFA system in documenting problems associated with the delivery of clinical services and providing material from which action can be taken to alleviate these problems.

We appreciate the opportunity to work with the JFPPA and USAID/Amman and would welcome an opportunity to return if our services are needed in the future.

Jack L. Graves

Jack L. Graves

Ellen R. Blair

Ellen R. Blair

TABLE 1

Number and Percent of Clients by Type of Service

Study Number*	Date	Number and Percent of Clients by Reason for Visit						
		IUD Insertion (I)	First String Check (R)	Subsequent String Check (A)	Medical Problem, Misc. (M)	Prescribe Pregnancy Test (O)	Pill Resupply (X)	TOTAL
Ashrafia								
J0-001-16-1	28 Feb.	13	4	9	7	5	0	38
J0-001-11-1	2 March	9	4	26	5	3	0	47
J0-001-12-1	3 March	9	9	23	4	1	0	46
Total		31	17	58	16	9	0	131
Percent		(24)	(13)	(44)	(12)	(7)	(0)	(100)
Zarqa								
J0-001-31-1	2 March	8	8	13	11	0	1	41
J0-001-32-1	3 March	10	5	13	6	0	0	34
J0-001-33-1	4 March	3	7	11	9	0	0	30
Total		21	20	37	26	0	1	105
Percent		(20)	(19)	(35)	(25)	(0)	(1)	(100)
Both		52	37	95	42	9	1	236
Percent		(22)	(16)	(40)	(18)	(4)	(-)	(100)

*Study numbers all begin with JO for Jordan, followed by 001 for Amman Governorate, followed by 1 for Ashrafia or by 3 for Zarqa, followed by a number to indicate the day of the week (1=Saturday, 2=Sunday, 3=Monday, 4=Tuesday, 5=Wednesday, and 6=Thursday), followed by a number indicating the number of studies conducted at that site on that day of the week.

TABLE 2

Mean Medical Staff Time with Clients by Type of Service

Study Number*	Date	Mean Medical Staff Time (Minutes) by Reason for Visit						
		IUD Insertion (I)	First String Check (R)	Subsequent String Check (A)	Medical Problem, Misc. (M)	Prescribe Pregnancy Test (O)	Pill Resupply (X)	TOTAL
Ashrafia								
J0-001-16-1	28 Feb.	7	3	3	4	1	-	4
J0-001-11-1	2 March	5	3	3	4	1	-	3
J0-001-12-1	3 March	6	2	3	4	1	-	3
Mean		6	2	3	4	1	-	3
Zarqa								
J0-001-31-1	2 March	5	3	4	5	-	6	4
J0-001-32-1	3 March	6	3	3	7	-	-	5
J0-001-33-1	4 March	8	3	4	5	-	-	4
Mean		6	3	4	5	-	6	4
Both		6	3	3	5	1	6	4

*See footnote with Table 1.

TABLE 3

Mean Client Time in the Clinic by Type of Service

Study Number*	Date	Mean Client Time in the Clinic (Minutes) by Reason for Visit						
		IUD Insertion (I)	First String Check (R)	Subsequent String Check (A)	Medical Problem, Misc. (M)	Prescribe Pregnancy Test (O)	Pill Resupply (X)	TOTAL
Ashrafia								
J0-001-16-1	28 Feb.	100	96	91	101	5	-	85
J0-001-11-1	2 March	91	71	63	69	10	-	66
J0-001-12-1	3 March	90	60	58	72	5	-	65
Mean		94	71	65	84	7	-	71
Zarqa								
J0-001-31-1	2 March	53	53	55	65	-	81	58
J0-001-32-1	3 March	79	52	62	60	-	-	65
J0-001-33-1	4 March	87	72	68	30	-	-	60
Mean		70	59	61	52	-	81	61
Both		84	66	63	60	7	81	67

*See footnote with Table 1.

TABLE 4

Family Planning Method at the End of the Client's Visit

Study Number*	Family Planning Method				
	IUD	Pill	Condom**	None/Unknown***	Total
Ashrafia					
J0-001-16-1	27	0	0	11	38
J0-001-11-1	40	0	2	5	47
J0-001-12-1	41	0	1	4	46
Total	108	0	3	20	131
Zarqa					
J0-001-31-1	35	1	0	5	41
J0-001-32-1	30	0	0	4	34
J0-001-33-1	22	0	0	8	30
Total	87	1	0	17	105
Both	195	1	3	37	236
Percent	(83)	(-)	(1)	(16)	(100)

* See footnote with Table 1.
** Condoms given after IUD removal.
*** Most of these are IUD removals and pregnancy tests.

ATTACHMENT 1

Patient Flow Analysis (PFA) is a system which documents personnel utilization and patient flow in individual family planning clinics. Its use enables management to obtain data for statistical documentation and graphical representation of a clinic session, which can be used to identify problems in patient flow, determine personnel and space needs, and document personnel costs per patient visit. Family planning programs using PFA can measure the performance of individual clinics, design new clinics, initiate improvements in the clinic pattern and/or personnel needs that will increase overall clinic efficiency, and measure the results at minimal cost. Specific anticipated benefits to be derived from the use of PFA may include reduction of patient's waiting time (and frustration) in the clinic, a more equitable distribution of workload for each staff member during the work day, and reduction of personnel costs in the clinic. Additional patients may also be served for the same or even reduced costs.

Five forms are used for data collection, of which only the attached form (Patient Register--Form 3) is used during the conduct of the clinic session. Data collection does not interrupt the clinic session to such a degree that clinic behavior is modified. Data collection is relatively simple, and processing of the data has been computerized to handle large data sets and to insure rapid turnaround of results; proper interpretation of the results, however, requires training.

Two types of output are produced by the computer programs written for PFA. One is a graphical representation of the clinic session created by an electromechanical plotter. The upper part of this graph illustrates the type, number, and length of each contact that the patient makes as the patient flows through the clinic, and waiting time preceding each contact. The lower part of the graph displays the staff time occupied with patients and the time spent otherwise for each staff member. In addition to the graph, the PFA system produces six tables and a statistical summary. These tables include data on: (1) patient arrival as related to appointment time; (2) patient service time as related to patient's time in the clinic by visit type; (3) number of patients and mean personnel cost per patient by visit type and subclass; (4) personnel utilization in the clinic by task; (5) time and cost for each clinic station by visit type and total visits; and (6) each person who worked in the clinic on an individual basis.

The graphical and statistical output are examined together. In order to comprehensively interpret the output, information on personnel policy, size and arrangement of the facility, other programs conducted at the same location, personnel skills, and number of patients normally served during the clinic session should be taken into account. In addition, interpretation of the output should be done in conjunction with the clinic personnel who worked during the clinic session that was studied.

PATIENT REGISTER
3

Prefix: (1-8)

1. PATIENT NUMBER . . . . . (9-10)

2. REASON FOR VISIT . . . . . (Code) (11)

3. FAMILY PLANNING METHOD . . . . . (Code) (12)

	Hour	Min.	
4. TIME OF PATIENT'S ARRIVAL IN THIS CLINIC SESSION			(13-16)
5. TIME OF PATIENT'S APPOINTMENT (according to clinic records)			(17-20)

6. PATIENT SERVICE TIME:

	Clinic Personnel Code	Time Service Started Hour	Min.	Time Service Completed Hour	Min.	
First contact		from	til			(21-29)
Second contact		from	til			(30-38)
Third contact		from	til			(39-47)
Fourth contact		from	til			(48-56)
Fifth contact		from	til			(57-65)
Sixth contact		from	til			(66-74)

3 (80)

PREFIX: (1-8)

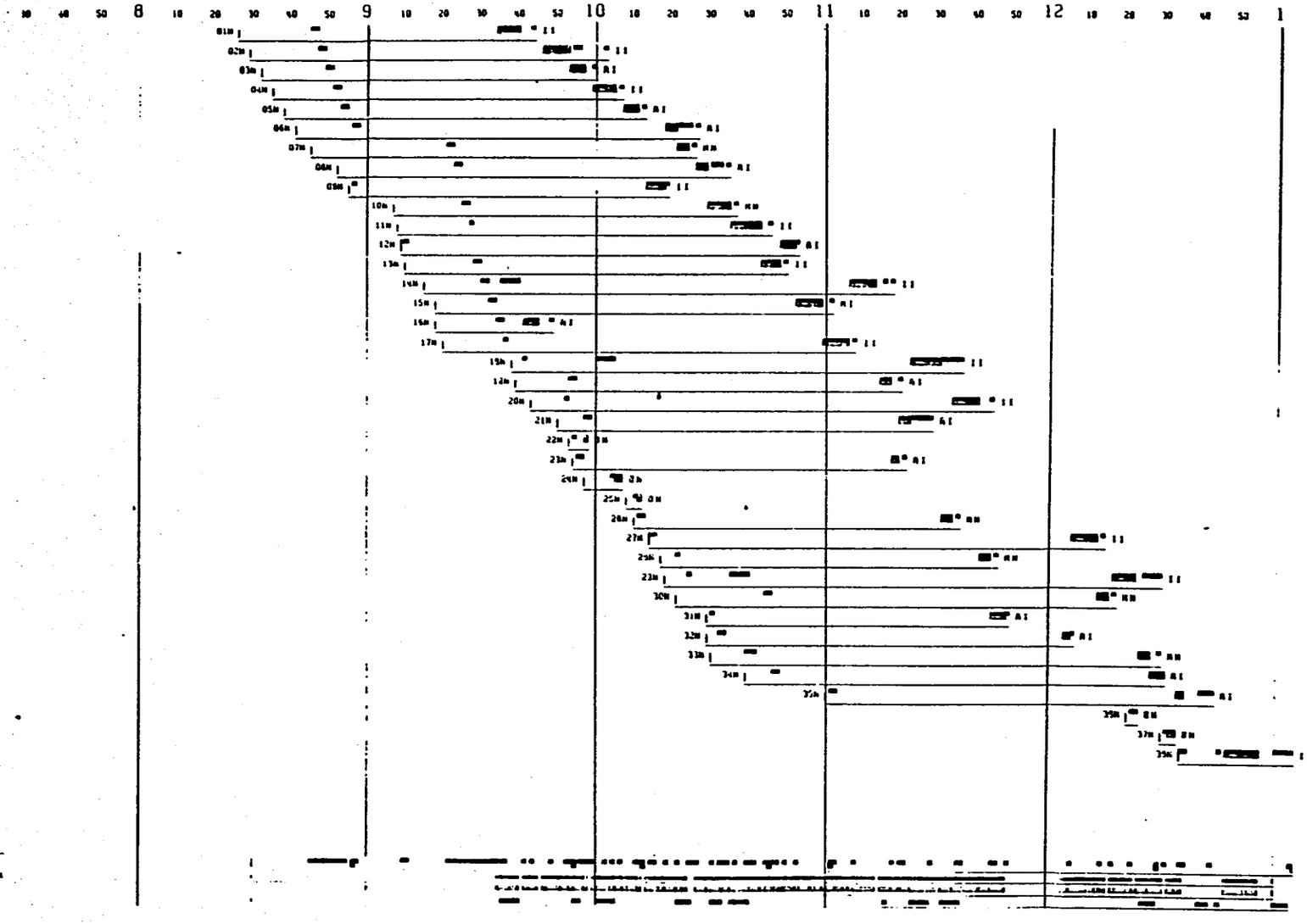
7. PATIENT NUMBER . . . . . (9-10)

Card number 2 (11)

	Code	Hour	Min.	Hour	Min.	
Seventh contact		from	til			(12-20)
Eighth contact		from	til			(21-29)
Ninth contact		from	til			(30-38)
Tenth contact		from	til			(39-47)
Eleventh contact		from	til			(48-56)
Twelfth contact		from	til			(57-65)
Thirteenth contact		from	til			(66-74)

3 (80)

PATIENT FLOW ANALYSIS - STATE CODE JO - BLDG CODE 16 - CNTY CODE 001 - STUDYNO. 1
FEB 28,1985 - 08:30 A.M. - 12:00 A.M.



1 - SUMMARY

PATIENT FLOW ANALYSIS

DATA SET CODE: JO-001-16-1

STATE CODE JO - COUNTY CODE 001
BUILDING CODE 16 - STUDY NO. 1
FEB 28, 1985 - 08:30 A.M. - 12:00 NOON
CLINIC TYPE: GENERAL, FULL SERVICE, FAMILY PLANNING CLINIC CONDUCTED IN A(N) URBAN FREESTANDING CLINIC DURING REGULAR BUSINESS HOURS

95 % CONFIDENCE INTERVAL		
		INTRODUCTION
	0	APPOINTMENTS WERE MADE (SEE TABLE 1)
	0	PERCENT OF APPOINTMENTS WERE KEPT
	38	FAMILY PLANNING PATIENTS WERE SERVED (SEE TABLE 3)
	0	NON-FAMILY PLANNING PATIENTS WERE SERVED
	0	PATIENTS REGISTERED BUT RECEIVED NO SERVICES (SEE TABLE 2)
	0	SCHEDULED STATION STOPS WERE MISSED (SEE TABLE 4, ITEM 11)
	131	UNSCHEDULED STATION STOPS WERE MADE (SEE TABLE 4, ITEM 12)
	3	PERSONNEL WERE SCHEDULED TO WORK IN THIS CLINIC (SEE TABLE 4, ITEM 1)
	3	PERSONNEL WORKED IN THIS CLINIC (SEE TABLE 4, ITEM 2)
	4:39	WAS THE DURATION OF THIS CLINIC - FIRST TO LAST PATIENT (HOURS:MINUTES)
		PATIENT ORIENTED DATA
7 - 9	8	PERCENT OF THE AVERAGE PATIENT'S TIME IN THE CLINIC WAS SPENT IN CONTACT WITH CLINIC PERSONNEL (SEE TABLE 2)
6 - 8	7	MINUTES WERE SPENT BY THE AVERAGE PATIENT IN CONTACT WITH CLINIC PERSONNEL (SEE TABLE 2)
73 - 98	85	MINUTES WERE SPENT BY THE AVERAGE PATIENT IN THE CLINIC (SEE TABLE 2)
		PERSONNEL ORIENTED DATA
1 - 193	53	PERCENT OF PERSONNEL TIME AVAILABLE WAS SPENT SERVING PATIENTS (SEE TABLE 4, ITEM 7)
	11	MINUTES OF PERSONNEL TIME WERE SPENT WITH THE AVERAGE PATIENT (SEE TABLE 4, ITEMS 5 AND 8)
	21	MINUTES OF PERSONNEL TIME WERE AVAILABLE PER PATIENT SERVED (SEE TABLE 4, ITEMS 3 AND 8)
	35	PERCENT OF AVAILABLE PERSONNEL TIME WAS CLERICAL (SEE TABLE 4, ITEM 4)
	21	PERCENT OF PERSONNEL TIME SPENT WITH PATIENTS WAS CLERICAL (SEE TABLE 4, ITEM 6)
		COST DATA
	$ 0.52	WAS THE AVERAGE PERSONNEL COST FOR AN INITIAL VISIT (SEE TABLE 3)
	0.31	WAS THE AVERAGE PERSONNEL COST FOR AN ANNUAL VISIT (SEE TABLE 3)
	0.35	WAS THE AVERAGE PERSONNEL COST FOR A MEDICAL PROBLEM VISIT (SEE TABLE 3)
	0.27	WAS THE AVERAGE PERSONNEL COST FOR A RESUPPLY VISIT (SEE TABLE 3)
	0.12	WAS THE AVERAGE PERSONNEL COST FOR OTHER TYPES OF FAMILY PLANNING VISITS (SEE TABLE 3)
	0.0	WAS THE AVERAGE PERSONNEL COST FOR NON- FAMILY PLANNING VISITS
	0.0	WAS THE PERSONNEL COST TO BUDGET CODE A
	0.0	WAS THE PERSONNEL COST TO BUDGET CODE B
	0.0	WAS THE PERSONNEL COST TO BUDGET CODE C
	0.0	WAS THE PERSONNEL COST TO BUDGET CODE D
	0.0	WAS THE PERSONNEL COST TO BUDGET CODE E
	13.54	WAS THE TOTAL PERSONNEL COST FOR THIS CLINIC
	0.0	WAS THE TOTAL TRAVEL COST FOR THIS CLINIC

DEFINITIONS:

95% CONFIDENCE INTERVAL: A NUMERICAL RANGE COMPUTED FROM THE DATA SO THAT, IF YOU REPEAT THE STUDY UNDER THE SAME CONDITIONS, 95% OF THE TIME THE INTERVAL YOU CALCULATE WILL CONTAIN THE TRUE MEAN

PAGE 2 - PATIENT SUMMARY

DATA SET CODE: JO-001-16-1

TABLE 1 ---------- PATIENT TIME OF ARRIVAL IN THE CLINIC RELATIVE TO APPOINTMENT TIME (MINUTES)

	EARLY > 45	EARLY 16-45	ON TIME +/- 15	LATE 16-45	LATE > 45	PATIENTS WITH APPOINTMENTS
FAMILY PLANNING						
NO. OF PATIENTS	0	0	0	0	0	0
PERCENT OF TOTAL	0%	0%	0%	0%	0%	100 %
NON-FAMILY PLANNING						
NO. OF PATIENTS	0	0	0	0	0	0
PERCENT OF TOTAL	0%	0%	0%	0%	0%	100 %

TABLE 2 ----------

VISIT TYPE	AVERAGE PATIENT TIME IN THE CLINIC (MINUTES) MEAN	95 % CONF. INTERVAL	RANGE MAX	RANGE MIN	PATIENT TIME RECEIVING SERVICES (MINUTES) MEAN	95 % CONF. INTERVAL	RANGE MAX	RANGE MIN	PROPORTION OF PATIENT TIME RECEIVING SERVICES PERCENT RECEIVING SERVICES	95 % CONF. INTERVAL
INITIAL	100	84 - 116	132	30	9	9 - 10	12	7	9 %	7 - 11
ANNUAL	91	72 - 110	112	31	6	6 - 7	7	5	7 %	5 - 9
MEDICAL	101	88 - 114	120	85	7	5 - 9	10	5	7 %	5 - 9
RESUPPLY	96	85 - 106	103	87	6	4 - 7	7	5	6 %	4 - 8
OTHER	5	2 - 9	10	3	2	2 - 3	3	2	46 %	17 - 75
TOTAL FP	85	73 - 98	132	3	7	6 - 8	12	2	8 %	7 - 9
NON-FP	0	*** - ***	0	0	0	*** - ***	0	0	0 %	** - **

TABLE 3 ---------- NUMBER OF PATIENTS / COST PER PATIENT SERVED BY VISIT TYPE AND FAMILY PLANNING METHOD

VISIT TYPE	METHOD PILL NO/ $	IUD NO/ $	FOAM/CON NO/ $	DIAPH. NO/ $	OTHER NO/ $	NONE NO/ $	UNKNOWN NO/ $	ALL METH NO/ $	PERCENT PTS. BY VIS. TP	PATIENTS WITH APPT BY VIS TP
INITIAL	0/ 0.0	13/ 0.52	0/ 0.0	0/ 0.0	0/ 0.0	0/ 0.0	0/ 0.0	13/ 0.52	34 %	0
ANNUAL	0/ 0.0	9/ 0.31	0/ 0.0	0/ 0.0	0/ 0.0	0/ 0.0	0/ 0.0	9/ 0.31	24 %	0
MEDICAL	0/ 0.0	1/ 0.54	0/ 0.0	0/ 0.0	0/ 0.0	6/ 0.32	0/ 0.0	7/ 0.35	18 %	0
RESUPPLY	0/ 0.0	4/ 0.27	0/ 0.0	0/ 0.0	0/ 0.0	0/ 0.0	0/ 0.0	4/ 0.27	11 %	0
OTHER	0/ 0.0	0/ 0.0	0/ 0.0	0/ 0.0	0/ 0.0	5/ 0.12	0/ 0.0	5/ 0.12	13 %	0
TOTAL FP PATIENTS	0	27	0	0	0	11	0	38	----	0
PERCENT BY METHOD	0 %	71 %	0 %	0 %	0 %	29 %	0 %	100 %	100 %	---

TABLE 4 ---- PERSONNEL STATISTICS BY TASK

	TASK											
	RECEP	LAB WORK	MED HIST	ASST CLIN	CLIN	EDUC	SOC WORK	OTHER HLTH	OTHER CLERK	PHYS.	ADMIN	TOTAL
1. NO. OF PERSONNEL SCHEDULED	1	0	0	1	0	0	0	0	0	1	0	3
2. NO. OF PERSONNEL WHO WORKED	1	0	0	1	0	0	0	0	0	1	0	3
3. PERSONNEL MINUTES AVAILABLE	275	0	0	270	0	0	0	0	0	240	0	785
4. PERCENT OF TOTAL PERSONNEL MINUTES AVAILABLE	35 %	0 %	0 %	34 %	0 %	0 %	0 %	0 %	0 %	31 %	0 %	100 %
5. PERSONNEL MINUTES IN PATIENT CONTACT	90	0	0	164	0	0	0	0	0	165	0	419
6. PERCENT OF TOTAL TIME IN PATIENT CONTACT	21 %	0 %	0 %	39 %	0 %	0 %	0 %	0 %	0 %	39 %	0 %	100 %
7. PERCENT OF AVAILABLE TIME IN PAT. CONTACT (#5/#3)	33 %	0 %	0 %	61 %	0 %	0 %	0 %	0 %	0 %	69 %	0 %	53 %
8. NO. OF PATIENTS SERVED	38	0	0	37	0	0	0	0	0	38	0	38
9. AVERAGE WAITING TIME PRECEDING THIS STATION	12	0	0	68	0	0	0	0	0	0	0	78
10. 95 % CONF. INTERVAL	9- 16	***-***	***-***	57- 79	***-***	***-***	***-***	***-***	***-***	1- 0	***-***	66- 90
11. SCHEDULED STOPS MISSED BY VISIT TYPE												
INITIAL	0	0	0	0	0	0	0	0	0	--	--	0
ANNUAL	0	0	0	0	0	0	0	0	0	--	--	0
MEDICAL	0	0	0	0	0	0	0	0	0	--	--	0
RESUPPLY	0	0	0	0	0	0	0	0	0	--	--	0
12. UNSCHEDULED STOPS MADE BY VISIT TYPE												
INITIAL	26	0	0	13	13	0	0	0	0	--	--	52
ANNUAL	17	0	0	9	9	0	0	0	0	--	--	35
MEDICAL	14	0	0	7	7	0	0	0	0	--	--	28
RESUPPLY	8	0	0	4	4	0	0	0	0	--	--	16
13. NUMBER OF STOPS REQUIRED BY VISIT TYPE												
INITIAL	0	0	0	0	0	0	0	0	0	--	--	0
ANNUAL	0	0	0	0	0	0	0	0	0	--	--	0
MEDICAL	0	0	0	0	0	0	0	0	0	--	--	0
RESUPPLY	0	0	0	0	0	0	0	0	0	--	--	0

4 - PERSONNEL SUMMARY (CONTINUED)

DATA SET CODE: JO-001-16-1

LE 5 --- TIME (MINUTES) AND COST PER PATIENT SERVED BY TASK AND VISIT TYPE

TASK	VISIT TYPE	PAT. SERVICE MINUTES TOTAL	PAT. SERVICE MINUTES MEAN	95 % CONF. INTERVAL	COST TOTAL	COST MEAN PER PATIENT
RECEPTIONIST	INITIAL	33	3	2 - 3	0.96	0.07
	ANNUAL	25	3	2 - 3	0.72	0.08
	MEDICAL	21	3	2 - 4	0.61	0.09
	RESUPPLY	12	3	3 - 3	0.35	0.09
	OTHER	5	1	1 - 1	0.14	0.03
	TOTAL FP	96	3	2 - 3	2.78	0.07
	NON-FP	0	0	*** - ***	0.0	0.0
	DIST COST				0.0	0.0
ASST. CLINICIAN	INITIAL	88	7	6 - 7	1.47	0.11
	ANNUAL	31	3	3 - 4	0.52	0.06
	MEDICAL	28	4	2 - 6	0.47	0.07
	RESUPPLY	11	3	1 - 4	0.18	0.05
	OTHER	6	2	1 - 2	0.10	0.02
	TOTAL FP	164	4	4 - 5	2.73	0.07
	NON-FP	0	0	*** - ***	0.0	0.0
	DIST COST				0.0	0.0
PHYSICIAN	INITIAL	88	7	6 - 7	4.28	0.33
	ANNUAL	31	3	3 - 4	1.51	0.17
	MEDICAL	28	4	2 - 6	1.36	0.19
	RESUPPLY	11	3	1 - 4	0.54	0.13
	OTHER	7	1	1 - 2	0.34	0.07
	TOTAL FP	165	4	4 - 5	8.03	0.21
	NON-FP	0	0	*** - ***	0.0	0.0
	DIST COST				0.0	0.0
ALL TASKS	INITIAL	209	16	15 - 18	6.70	0.52
	ANNUAL	87	10	9 - 11	2.75	0.31
	MEDICAL	77	11	8 - 14	2.44	0.35
	RESUPPLY	34	9	5 - 12	1.07	0.27
	OTHER	18	4	2 - 5	0.59	0.12
	TOTAL FP	425	11	10 - 13	13.54	0.36
	NON-FP	0	0	*** - ***	0.0	0.0
	DIST COST				0.0	0.0

E 5 - PERSONNEL SUMMARY (CONTINUED)

DATA SET CODE: JO-001-16-1

TABLE 6 ------ INDIVIDUAL PERSONNEL DATA

PERSONNEL CODE	OFFICIAL DESIGNATION CODE	TASK ASSIGNED CODE	COST RATE $/MIN.	NO. OF PATIENTS SEEN	TIME WITH PATIENTS (MINUTES) MEAN	MAX	MIN	TOTAL	TOTAL TIME IN CLINIC (MINUTES)	PERCENT OF TIME WITH PATIENTS
N	D	P	0.033	38	4	9	1	165	240	69 %
S	C	R	0.010	38	2	4	1	90	275	33 %
Z	N	A	0.010	37	4	9	1	164	270	61 %
AVERAGE			0.017							