

**Primary Health Care Initiatives  
(PHCI)**

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**Rationalizing Staffing Patterns  
and  
Cost Analysis of Primary Health  
Care Services in Jordan**

*December 2001*

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# **Rationalizing Staffing Patterns and Cost Analysis of Primary Health Care Services in Jordan**

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Salah Mawajdeh

Principal Investigator

## List of Acronyms

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CHC	Comprehensive Health Center
FP	Family Planning
FTE	Full time Equivalent
GP	General Practice
MCH	Maternal and Child Health
MOH	Ministry of Health
PHC	Primary Health Center
VHC	Village Health Center

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# Executive Summary

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**1. Background:** According to the 1998 National Health Accounts estimates, Jordan spent JD 454 million on healthcare services, equivalent to 9.12 percent of its GDP. This proportion of expenditure on health care services ranks Jordan very high when compared to its neighbors and other developing countries at the same socio-economic development level. Much of this spending however goes for curative services (61%) in comparison to preventive activities (25%).

**2. Purpose:** This study aims to assist the Jordanian Ministry of Health (MoH) in making more efficient use of available resources, by evaluating existing staffing patterns and estimating and analyzing the economic costs of providing services. The study concludes with a set of recommendations for increasing efficiency, reducing cost, and enhancing sustainability of the primary healthcare system. Health care projects being implemented in Jordan including the USAID funded Primary Health Care Initiatives project can direct their activities to address needs of the populace for quality primary health care and particularly provide a safety-net for the poor.

**3. Methods:** A nationally representative sample of 97 primary health centers reflecting the type of facility (comprehensive, primary, and village clinics) and client load (low, medium, and high) were selected. The study was limited to primary health care services provided within health centers. National estimates for 1999 were derived for the economic costs of 631 such clinics. In addition, staffing patterns were studied using activity-sampling techniques, where 111 providers of care were randomly selected, observed for a whole day, and their activities recorded at three-minute intervals. Encounter time was also measured for each patient during the observation day by recording the entry and exit time into the provider clinic.

## **4. Findings:**

**4.1 Staffing:** Out of the 8616 employees in the MoH primary health care facilities, 1622 (19%) are physicians, 2975 (35%) nurses, 362 (4%) midwives, and 863 (10%) are support staff. The largest number of employees is found in PHCs followed by CHCs and then VHCs. On average, a CHC facility has 58 employees (full-time and part-time), while a PHC has 16 employees and a VHC has about 3 employees. To varying degrees by provider types, there is a direct relationship between number of employees and client volume as measured by annual utilization levels.

Analysis of time utilization by providers showed that personnel at CHCs spend a greater proportion on clinical and related activities than PHCs. The proportion of downtime (time not being effectively used) in PHCs was more than 50 percent compared to 44 percent in CHCs. On the other hand, the percent of time spent on clinical activities was about 37 percent in CHCs, and 27 percent in PHCs. Time spent on non-clinical but work-related activities were higher in PHCs (23%) than in CHCs (20%). Further analysis of downtime components showed that some are preventable, while others appear to be difficult to prevent.

Analysis of clinical time, non-clinical time and downtime when client volume was introduced showed that low and medium volume facilities have an almost equal proportion of downtime, which amounts to almost one half of the total observed time. High volume facilities have the lowest proportion of downtime, but are still over 40 percent. The classification of facilities into low, medium or high was carried out within each type of facility (CHC, PHC, and VHC) based on the 33<sup>rd</sup> and 66<sup>th</sup> percentile cutoff points. As expected time spent on clinical activities is the highest in high volume facilities (1/3<sup>rd</sup> of observed time), followed by mid-volume facilities, and then the low volume facilities.

During a one-day shift, the physician contacts a mean of 36 clients and spends a mean of 01:50:18 attending to all of them. For a midwife, the mean number of contacts is 10 and the mean time spent with all the patients during the day's shift is 00:58:39. Nurses contact a mean of 11 clients during the same period and the total mean time spent with them during the whole day is 00:53:59.

Mean contact time spent with a single patient spent by a physician is 3:05, by a midwife 5:56 and by a nurse 5:07. This contact time is not uniform for all types of facilities, reaching 4:00 in CHCs and 3:36 in PHCs. This length of contact time appears to be too short to reach an accurate diagnosis and provide appropriate treatment.

Mean contact time by volume of visits showed that the highest contact time (4:51) is found in low volume facilities, followed by the medium volume (3:57) and high volume facilities (3:13). The length of contact time between patient and provider is inversely proportional to the volume of visits in the facility. However, contact time between physicians and clients is not sensitive to variation unless client volume is too low (<30 clients) or too high (>80). When client volume for the observed provider is examined, contact time seemed to be flat when clients seen ranged between 30 and 80.

Types of services provided to clients appear to have a clear influence on the length of the visit. Family planning services have the longest visit time, because such services need extensive explanation and health education. Pre-natal visits are second in length since a complete pre-natal examination requires a thorough physical examination and the performance of several tests.

**4.2 Costing:** The study results showed that the economic cost of primary healthcare facilities in 1999 amounted to JD 42.3 million. JD 13.0 million (31%) of the total cost can be attributed to CHCs, JD 26.7 million (63%) to PHCs and JD 2.6 million (6%) to VHCs. Capital cost accounted for 11 percent of this, while the share of recurrent cost was 89 percent. Breaking down the latter showed that personnel cost took the lead, consuming JD 20.2 million (54%) of recurrent cost, followed by clinical supplies, with JD 8.85 million (24%). Drugs came third with JD 7.7 million, or 20 percent of recurrent cost. The remaining 2 percent of the recurrent costs were incurred on operation costs and non-clinical supplies.

Analysis of total cost by type of services showed that direct services amount to 75 percent (JD 31.8 million) of total cost, administration accounted for 19 percent (JD 7.9 million), and support services 6 percent (JD 2.5 million) of total cost. Of the total direct services cost, 87 percent is attributed to curative care and 13 percent to maternal and child health (MCH). Further analysis of cost results with respect to volume of services showed that 48 percent of the total cost is incurred at centers with high volume of patients, 32 percent at medium volume centers, and only 20 percent at low volume centers.

The average overall cost per visit was JD 4.5. Cost per visit to the general practitioner costs JD 3.1 and to a MCH specialist costs JD 4.5. Moreover, breakdown of MCH visit into service components showed that certain services are more expensive than expected, a family planning visit costs JD 22.7 and a prenatal/postnatal visit costs JD 14.7. The cost per visit increases when client volume goes down. Figures for low, medium and high-volume facilities were JD 8.3, JD 5.2, and JD 3.5 respectively. PHCs appear to have the lowest cost per visit (JD 4.0) when compared to CHCs (JD 5.7) and VHCs (JD 6.3). Examination of the behavior of cost per visit when looking at the combined effect of type of facility and client volume showed that the lowest visit cost is in the high volume PHC (JD 3.3) and the highest cost visit is in the low volume VHC (JD 20.6).

**5. Conclusions and Recommendations:** This study shows that a large proportion of providers' time is not being used effectively, the majority of patients receive treatment between 9:00 am and 11:30 am, and the patient contact time with providers is too short. Little variation in the pattern of patient load between providers and type of facility is observed. As expected the cost per visit varied by type and visit and type of facility. The need for a referral system that facilitates client traffic between different levels of care is stressed in the hope that duplication of services will be reduced. Service oriented interventions such as the adoption of an appointment system, and the establishment of walk-in clinics in large facilities that will improve patient flow, thus improving contact time. The MoH policy of opening health centers needs to be revisited in light of these study findings, since client volume has a direct bearing on cost. Running health facilities when the expected demand is low does not only involve the cost of opening these facilities but also has a long-term burden. Consequently the study strongly recommends that expansion of VHCs be halted. Provision of certain services - such as prenatal care, family planning, and specialty services, given the current utilization levels was found to be exceptionally expensive; and the reasons for low utilization need to be studied further. The low utilization of MCH services is further highlighted by the fact that expenditures incurred on MCH were only half of what was spent on dental care in all of Jordan. These options need to be weighed in comparison with contracting out for these services. The need to create a cost conscious culture in the MoH is discussed. Even providers of care need to know the cost to the MoH of each service and procedure they undertake.

# I. Introduction

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According to 1998 National Health Accounts estimate, Jordan spent approximately JD 454 (647 million) on health care services<sup>1</sup>. This amount represents 9.12 percent of the GDP. Per capita healthcare expenditures amounted to approximately JD 94.

The breakdown of health expenditures by source of funds shows that 47 percent comes from private sources and 45 percent are public funds, with the remaining 8 percent contributed by international donors and from other sources. A further breakdown of

<b>Total Health expenditures (million)</b>	<b>Source of funding</b>	<b>%</b>	<b>Expenditure by function</b>	<b>%</b>
JD 454			Curative	61
	Private	47	Preventive	25
	Public	45	Miscellaneous	6
	Other	8	Administrative	5
			Training	3

public health expenditure shows that about 61 percent is spent on curative services, 25 percent on preventive activities, 5 percent on administration, 3 percent on training, and 6 percent on miscellaneous activities.

The table above shows that preventive health services provided through primary healthcare has a smaller proportion of the total healthcare budget (25%) as compared to the curative component (61%). Better program management is needed to make the most efficient use of the allocated resources.

There are several reasons why Jordan needs to reexamine its return on investment on the health of its citizens, namely:

- Expenditure on health is already high (close to 9% of GDP) when compared with other countries at the same level of socio-economic development

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<sup>1</sup> Jordan National Health Accounts: Partnership For Health Reform Working Papers, March, 2000

- There is a mismatch between population growth and economic growth which has been declining over the past five years, thus leading to falling per capita incomes and lower standards of living
- There is an increase in the percent of elderly people in the total population; this is expected to put more pressure on the healthcare system
- The country lacks a “cost containment culture”. Service providing ministries plan their budgets based on historical experience where past budgets and expenditures tend to guide future plans. There is also an incentive to spend the allocated budget because money savings are reimbursed to the Ministry of Finance and not to the Ministry of Health.
- There is a wide variation in the quality of services provided by an overloaded public sector and mainly unregulated private healthcare.

## **I.1 Study objectives**

1. Identify and analyze staffing patterns among a sample of primary healthcare facilities in order to make recommendations for rationalized staffing patterns and rectify the imbalance in patient load.
2. Estimate and analyze the various economic costs of providing services among a sample of primary care facilities in order to make recommendations for increasing efficiency, reducing costs, and enhancing the sustainability of the primary healthcare system.
3. Examine options and make recommendations for redirecting or re-allocating resources to primary healthcare services.
4. To better direct PHCI activities to address the needs of PHC in order to improve the quality of health care services

## II. Methodology

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### II.1 Sample selection

The study sample was selected from a total universe of 631 primary healthcare facilities divided into 42 Comprehensive Health Centers (CHCs), 336 Primary Healthcare Centers (PHCs) and 253 Village Health Centers (VHCs). A complete list of health centers was obtained from the MoH; it contained the total number of staff distributed by facility and personnel category of physician, nurse, and midwife. In the nursing category, registered and practical nurses were included. This list contained also the total number of patients seen in a year by each and all facilities of MoH.

The facilities were categorized into three groups: low, medium, and high volume, based on the 33<sup>rd</sup> and 66<sup>th</sup> percentiles of the total number of patients seen in a year. Facilities falling below the 33<sup>rd</sup> and above the 66<sup>th</sup> percentile are considered low and high volume respectively, and those between the 33<sup>rd</sup> and 66<sup>th</sup> percentiles are considered medium volume facilities.

<b>Patient Volume</b>	<b>Type of Facility</b>			<b>Total</b>
	<b>CHC</b>	<b>PHC</b>	<b>VHC</b>	
Low	14	111	83	208
Medium	14	111	84	209
High	14	114	86	214
<b>Total</b>	<b>42</b>	<b>336</b>	<b>253</b>	<b>631</b>

The study sample was selected in simple random fashion using SPSS 7.5 software. Selection of the sample was proportional to size within each selection category. The facilities are broken down by type (comprehensive, primary and village), and volume of patients (high, medium and low). A confidence limit of 95 and a precision of 10 percent were used. The number of facilities selected in this manner was 99 broken down into 8 CHCs, 50 PHCs, and 41 VHCs.

However, since the CHCs were too few to represent meaningful analysis, an over sample of 4 more CHCs was selected and added so that the final sample would have 12 CHCs out of the total population of 42 CHCS, making the total sample 103 facilities or 16% of the total universe.

The final sample at the end of field-work amounted to 97 facilities as shown in the adjacent table. Six facilities were excluded from the study for either serving special population groups like prisons or being closed down. The majority of excluded were village health centers.

Type of Facility	Facility Client Patient Load			Total
	Low	Medium	High	
CHC	2	4	6	12
PHC	16	21	12	49
VHC	7	14	15	36
<b>Total</b>	<b>25</b>	<b>39</b>	<b>33</b>	<b>97</b>

This table shows the distribution of the facilities in the sample, by governorate.

Governorate	Type of Facility			Total
	CHC	PHC	VHC	
Ajlun	1	5	2	8
Amman	4	8	3	15
Aqaba		1	1	2
Balqa		7	4	11
Irbid	1	9	6	16
Jarash		2	3	5
Karak	2	6	4	12
Ma'an	2	1	5	8
Madaba		2		2
Mafraq	1	2	6	9
Tafila		1		1
Zarqa	1	5	2	8
<b>Total</b>	<b>12</b>	<b>49</b>	<b>36</b>	<b>97</b>

For the purpose of this study the various types of costs are defined as follows:

**Direct Service Costs:** Direct costs are those that are directly associated with providing patient care. For example, salaries of care providers.

**Support Service Costs:** These are costs associated with those departments that offer services both directly to patients and to other direct service departments. For example, costs associated with x-ray departments, laboratories, pharmacy etc.

**Overhead Costs:** These are costs associated with only with the operation of facility and are not directly linked with providing patient care. The overhead costs are incurred irrespective of the patient load.

## **II.2 Study Instruments**

An exhaustive list of study instruments was prepared that recorded all facets of health services delivery at the primary health care level. It included the following: -

1. Personnel per facility
2. Room dimensions
3. Medical equipment
4. Furniture
5. Drugs
6. Clinical supplies
7. Non-clinical supplies
8. Dental equipment
9. Dental Supplies
10. Lab equipment
11. Lab supplies
12. X-ray equipment
13. X-ray supplies
14. Number of patient visits by type
15. Utilities
16. Prices of data items collected in the field
17. Staffing patterns using the activity sampling technique

The details of the coding for the above instruments are shown in Appendix (A).

In order to understand the drug utilization pattern prescriptions were reviewed for the year 1999. Drug consumption by type of service in the facility implied ascertaining origin of prescriptions, whether from general practitioners or MCH care providers, in order to assign cost to the right category. A random sample of 10 percent of studied facilities was chosen, followed by selection of random 12 days that represent each month of the year, these days are randomly dispersed such that they cover all days of the week. All prescriptions for the selected days were reviewed and recorded on specially prepared tally sheets (Appendix A) by type of medication and their quantities.

<b>Randomly Selected Days and Dates Used for Inventory of Drug Allocation by Services</b>		
<b>Month</b>	<b>Day</b>	<b>Date</b>
January	Saturday	2/1/99
February	Thursday	4/2/99
March	Sunday	7/3/99
April	Saturday	10/4/99
May	Wednesday	12/5/99
June	Tuesday	15/6/99
July	Sunday	18/7/99
August	Thursday	19/8/99
September	Wednesday	22/9/99
October	Monday	25/10/9
November	Sunday	28/11/99
December	Thursday	30/12/99

### **II.3 Field workers selection and training**

Once the instruments were completed, the project team selected 33 field workers who were MoH employees. They included doctors, nurses, midwives, and pharmacists. In the selection of these field workers, distribution by governorate was taken into consideration in order to avoid traveling long distances. These field workers were divided into 5 teams with one leader selected by the members of each team. A two-day workshop was held for the field workers and attended by all members of the project team. The health centers appearing in the sample were distributed among teams according to location of their residence and the fieldwork in each center divided between them according to their categories (Appendix A).

## **II.4 Pilot study**

Following the workshop, a one-day pilot study was carried out where each team was assigned a health facility in Amman region to test the study as a whole. One member of the project team supervised each team.

Following some discussions a few changes in the instruments were found necessary. The study instruments were also further tested and modified following 6 days of fieldwork where inputs of field workers were taken into consideration and study instruments modified accordingly. Feedback from field workers was communicated to all teams to ensure common understanding and uniformity of data.

## **II.5 Field work**

Data was collected from the field during September-October 2000. During field work, field workers were working together in one geographic area, with each one completing the type of observation assigned to him/her: on buildings, personnel, furniture, equipment, and supplies, including drugs. On a daily basis, the completed forms were sealed in an envelope and delivered by express mail to the principal investigator of the study. Once received, each group of observations was distributed to the members of the project team for editing and coding. For the personnel, the two instruments, a provider activity log and client contact, were correlated and the code of the activity checked.

## **II.6 Data quality control**

All instruments were pre-coded, and all data were checked for completeness and accuracy, giving certain data items added attention by relying on experts. For example, all drug instruments were checked and coded by a pharmacist, dental equipment and supplies by a dentist; medical equipment and clinical supplies by a physician, furniture and non-clinical supplies by a public health person experienced in research and surveys, and room dimensions by an accountant. Each data item recorded in the field was checked centrally and given a unique code that was recorded in the central coding manual of the study. This prevented any duplication of codes for items. Use of experts in coding and

verification of data prevented misclassification of items between clinical and non-clinical supplies or equipment and furniture. The use of a central coding manual also prevented double counting of items.

In certain data instruments, data was entered using SPSS with appropriate value labels. Entry of drug code would automatically show drug name. Verification of all data files was carried out to check for extreme values. Data files that had monthly expenditure were also verified by checking for an item and comparing each data value with the mean  $\pm$  2 standard deviations (SD). Each data point falling over two SDs above the mean or two below the mean was checked against the original data instruments. Data items were corrected as needed.

Employee data files were checked for consistencies. The sum of the allocated time between OH, SS, and DS recorded by employees was double-checked for accuracy (total adds up to 100 percent). Any data value higher than 100 percent flagged as a wrong data entry and was corrected. Special attention was paid where physicians and nurses who worked in more than one facility. They may be assigned to PHC but also cover one or more VHCs part time. In these instances, lower than 100 percent data value was accepted, ruling out other reasons for that error. Data on staffing patterns were checked in more than one way. The start and end times for each patient were recorded, the end-time for each data value was checked to see if it is equal or more than the start time (identical start time and end time was accepted as some patients stayed for less than one minute and recording was to the nearest minute). Moreover, the start time for the next patient should be more than the end time of the previous patient.

## II.7 Measurement of provider activity

Excess service capacity can be measured through Standard Time Motion Study, Provider Interviews, Patient Flow Analysis (PFA), Self Administered Timesheets, and Activity Sampling Technique (AST). Even though AST is somewhat resource-intensive and requires skilled staff, it was considered to be the most suitable for this type of study given its high level of accuracy in estimation of clinical time, non-clinical time and down time. Implementation of AST requires a well-trained observer who reports on the clinician's activities at discrete points in time (every 3 minutes). Field workers were supplied with chronometers that make a low noise buzz every three minutes interval. The observer writes a code down from the code list on an observation form at each interval. In this study the coded sheet was further divided into three major categories, clinical, non-clinical but work related, and downtime or idle time.

In the activity sampling observation, (provider activity log) all activities coded 77 (“when with a patient”) were classified as clinical. Three activities from the instrument entitled “when the healthcare provider is not with a patient” were added to it. These were:

- Code 10 (work related, outside the clinic);
- Code 11(providing support to another provider)
- Code 14 (talking to other clients)

Non-clinical but work related activities included the following codes

- (02) Preparing work area
- (03) Filling out patient docket
- (04) General administrative tasks.
- (05) Waiting for someone to clean consultation room.
- (06) Material (equipment) preparation.
- (07) Washing hands.
- (09) Work discussion with staff.
- (12) Work related meeting
- (13) Work related telephone call.

(17) Using rest room

Downtime included the following codes:

(08) Waiting for supplies

(15) Waiting for clients

(16) Lunch/coffee break

(18) Absent from clinic for personal reasons

(19) Personal telephone call

(20) Meeting with personal visitors

(21) Chatting with other staff about non- work related matters

(22) Gathering his/her things at the end of the day

(23) Left shift early

## **II.8 Cost estimates and allocations rules**

The first step towards understanding the behavior at the health centers involved identification of all activities and classifications of input into groups. In these centers inputs were divided into personnel, buildings, equipment and furniture, and supplies, which included besides drugs, medical and non-medical supplies. Data relevant to each component were collected and classified. A brief discussion follows of some of the methodologies used for each component.

Studies of cost can either be financial or economic in nature. Financial costs are the actual expenditures or outlays made for a specific intervention, product, or service. Economic costs on the other hand are the opportunity costs of using resources and inputs in one intervention rather than in their next best alternative use. In this study, economic cost was calculated so that all costs incurred in providing the service was considered regardless whether it was paid through governmental body, subsidized or donated by local or international agencies. Moreover, opportunity cost was considered especially when estimating the annual cost of capital expenses.

Annual number of visits and most of the cost items were collected for the year 1999 except data pertaining to personnel (time allocation and salaries) that were collected during the time of the study. It was assumed that data on personnel for the year 2000 did not differ substantially from the year 1999. National economic costs were estimated for the year 1999.

### **Personnel**

All personnel data (salaries) and other administrative expenses, such as operating expenditures – utilities etc., incurred at each center in the sample was obtained centrally from the personnel and accounting database. Each employee was asked to allocate his/her time to the activities of the center. This allocation base and the one obtained from the time and motion study were used in the analysis.

## **Buildings**

Information on building space was obtained from land and building department at the ministry levels for CHCs and peripheral centers, whereas information on PHCs was obtained from other study. Then each team was asked to measure the space of each center and identify its usage within the center. An estimated cost for square meter was obtained from recent government contacts of the ongoing contracts of health centers across the country and from the Cities and Villages Development Bank. That number was then used to calculate the cost of each center based on the actual space measurement. The annual cost then was calculated using a discount rate of 5 percent and a useful life of 20 years.

## **Equipment and Furniture**

Data on medical equipment (quantity and price) were collected centrally and validated through the fieldwork of data collecting teams. Estimates were obtained from various experts for the cost and useful life of each type of medical equipment. The annual cost was calculated using the discount rate and the useful life as identified earlier for each kind of equipment. Similar exercise was repeated for dental equipment and furniture. Furniture cost was discounted at the same rate as the medical and dental equipment, but amortized over 10 years.

## **Supplies**

Data on cost of medical and non-medical supplies was obtained from the central database, where as consumption of these commodities was estimated at the facility level.

*Medical Supplies:* For calculating the quantity of drugs consumed, a sub-sample of centers in the study was identified. Data on actual drugs prescribed on one randomly selected day in a month, were collected, logged and analyzed. Annual estimates of drug consumption were extrapolated from these figures. Seasonal variation in the utilization was adjusted by ensuring that data was collected on one day of each month. For those items of drugs, which do not appear on the sample day in certain centers, a ratio of nearby centers was used. Consumption of medical supplies was proportioned to the number of patients treated in each department.

Distribution of costs for non-medical supplies, was more complicated because almost all service departments including administrative and support services use such supplies (some items may only be used by a specific service department). Therefore, the list of non-clinical supplies was grouped into 8 categories. Each group was then allocated to the respective department or service based on its use of that item. For example, envelopes used in the X-Ray department were allocated to radiology services. On the other hand, detergents and cleaning materials were allocated to all service departments based on space share.

Following is the summary of the allocation rules used in the study:

1. Personnel costs were attributed to each department based on the number of full time equivalent (FTE) employees in each department.
2. Equipment and furniture costs are allocated to different services based on their use and location at the time of the survey. Field workers counted all pieces of equipment and furniture and specified the location in terms of service areas.
3. Costs associated with space were apportioned based on its usage. Common space, such as, corridors, bathrooms and waiting room were distributed to service areas in proportion to their use of building space: For example if MCH, occupies 20 percent of the building, then 20 percent of the shared spaces were allocated to MCH. The same logic was used for other service areas. Nursing rooms were distributed between general practice and specialty care in proportion to the patient visits. Room used by the janitor was allocated between general practice and MCH in terms of their space distribution.
4. Medical supply costs are assigned to each department based on number of patients. Drugs are allocated based on the number of prescriptions where as non-medical supply costs based on space each department occupies and their usage.

5. Operation costs including water, electric and telephones were apportioned to various services based on the space they used.

### III. Results and analysis:

Analysis of the staffing component reveals the following patterns of staffing at the facility level, followed by provider activity, client contact, and patient flow.

#### III.1 Staffing

##### III.1.1 Staffing patterns

As Table 1 shows that out of the 8616 employees in the MoH primary health care facilities, 1,622 (19%) are physicians,

**Table (1): Distribution of Staff by Type of Facility**

Type of Facility	Physicians	Nurses	Midwives	Support Staff	Others	Total	%
CHC	517	706	76	334	788	2421	28
PHC	887	1896	286	506	1882	5457	63
VHC	218	373		23	124	738	9
<b>Total</b>	<b>1622</b>	<b>2975</b>	<b>362</b>	<b>863</b>	<b>2794</b>	<b>8616</b>	<b>100</b>
<b>Percent</b>	<b>19</b>	<b>35</b>	<b>5</b>	<b>10</b>	<b>32</b>	<b>100</b>	

2,975 (35%) nurses, 362 (4%) midwives, 863 (10%) support staff, and 32 percent administrative and others. PHCs employ the largest proportion (63%) of total health care professionals, followed by CHCs (28%) and VHCs respectively (9%).

On average, a CHC facility had 58 employees, while a PHC had 16 employees and a VHC had about 3 employees.

Table 2 shows staffing pattern by volume of clients.

**Table (2): Distribution of Staff by Volume of Patients**

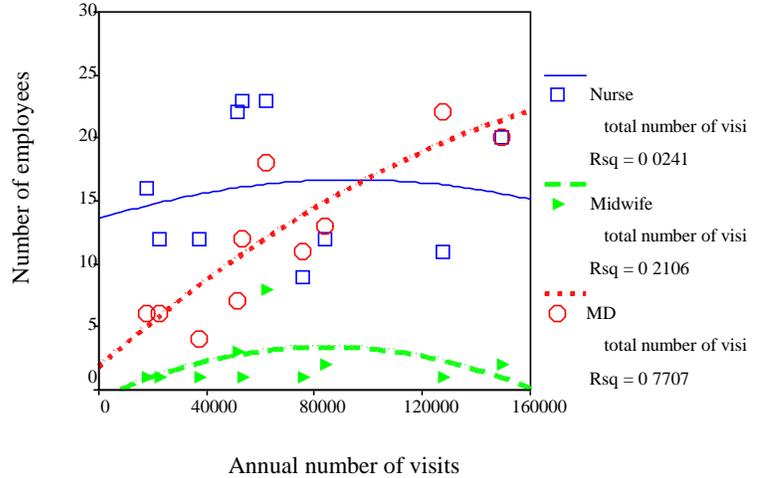
Type of Facility	Physicians	Nurses	Midwives	Support Staff	Others	Total
Low	330	851	104	160	616	2061
Medium	554	988	139	270	893	2844
High	738	1136	119	433	1285	3711
<b>Total</b>	<b>1622</b>	<b>2975</b>	<b>362</b>	<b>863</b>	<b>2794</b>	<b>8616</b>

There is a direct relationship between number

of employees and annual client volume. This relationship hold true for all types of staff except midwives, where medium volume facilities had the highest number of midwives compared to low and high volume facilities.

As Figure 1 shows, there is a direct relationship between number of physicians in CHCs and the utilization of services as measured by the annual number of visits to health facilities. The correlation coefficient was 0.77. Number of nurses however, did not correlate with annual number of visits. Number of midwives showed a similar pattern as that of nurses but at a lower level on the scale which denotes that few midwives are

**Figure 1: Number of CHC Employees by Client Visits and Job**



allocated to CHC in comparison with nurses and these two categories (nurses and midwives) do not follow client volume. When the analysis was done for PHCs a similar pattern merged as that of CHCs with minor variations.

### III.1.2 Provider activity log

Each hour is divided into twenty 3-minute intervals from 00-57. The observations recorded must coincide with the buzz of the chronometers marking the 3-minute intervals. However, since the work shifts of providers are not uniform, the total observations for a provider may vary between 120-160, which forms the denominator of the proportion calculated.

Table 3 shows the percent of time classified as clinical time, non-clinical time and downtime for each category of provider and for the providers as a whole grouped together. It is noted that physicians have the highest clinical time and downtime among the three categories of providers. Analysis of variance showed that differences in clinical time and downtime between the three categories of providers observed were not significant. However, differences in non-clinical time were significant ( $P < 0.001$ ).

**Table (3): Distribution of Observed Time by Type of Provider**

Category of observation (Percent)	Physician (n=49)		Midwife (n=24)		Nurse (n=38)		Total (n=111)	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Clinical time	33.0	16.2	28.4	14.4	24.6	16.8	29.1	16.3
Non-clinical time*	15.0	15.3	29.1	18.2	27.0	13.5	22.1	16.5
Down time	52.0	19.0	42.6	16.6	48.4	18.5	48.7	18.5

\*Significant ( $P < 0.001$ )

Table 4 shows the proportion of clinical time, non-clinical time and downtime by type of facility: CHCs and PHCs.

In this table and all the following analyses pertaining to type of facilities, the four VHC facilities were combined

**Table (4): Distribution of Observed Time by Type of Facility**

Category of Observation Value (Percent)	CHC (n=23)		PHC (n=88)		Total (n=111)	
	Mean	SD	Mean	SD	Mean	SD
Clinical time	36.6	18.3	27.2	15.3	29.1	16.3
Non-clinical time	19.9	15.5	22.7	16.8	22.1	16.5
Downtime	43.5	17.9	50.1	18.5	48.7	18.5

with PHCs. It is noted that clinical time is higher in CHCs than in PHCs, while downtime is higher in PHCs. Difference in clinical time between the two types of facilities was significant ( $P<0.013$ ). The differences in non-clinical time and downtime were not significant.

Table 5 shows clinical time, non-clinical time and downtime by volume of visits, low, medium and high. The highest average clinical time was found in high volume facilities and the lowest in those with low volume. Differences were significant ( $P<0.001$ ).

**Table (5): Distribution of Observed Time by Volume of Visits**

Category of Observation by Volume of Visits (Percent)	Low (n=26)		Medium (n=51)		High (n=34)		Total (n=111)	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Clinical time*	19.8	17.8	30.1	14.1	34.8	15.8	29.1	16.3
Non-clinical time	27.9	21.1	19.1	12.8	22.4	16.9	22.1	16.5
Downtime	52.3	23.2	50.8	16.8	42.9	15.9	48.7	18.5

\*Significant ( $P<0.001$ )

Table 6 shows clinical time, non-clinical time and downtime by category of provider and type of facility.

For physicians, clinical time is higher in CHCs than PHCs, (42.1 and 30.0 respectively). Non clinical time is almost the same in both

facilities (16.6 and 14.5 respectively). Downtime is definitely higher in PHCs than CHCs (55.5 and 41.3 respectively).

For midwives clinical time is higher in CHCs than PHCs (39.5 and 25.4 respectively). Non-clinical time is significantly higher in PHCs than CHCs (31.9 and 18.4 respectively). Downtime is almost the same in both types of facilities (42.1, 42.7). For nurses, clinical time is almost the same in both types of facilities (23.3 and 24.9 respectively). Non-clinical time and downtime are almost the same in CHCs and PHCs (27.8 and 26.8 for non clinical time and 48.9 and 48.3 for downtime).

Downtime is the most critical element in the activity of a provider; it was examined extensively in this study and the findings are highlighted in the following tables:

**Table (6): Distribution of Observed Time by Provider and Type of Facility**

Type of Facility	Category of Observation	Physicians	Midwives	Nurses	Total
<b>CHC</b>	Clinical	42.1	39.5	23.3	36.6
	Non-clinical	16.6	18.4	27.8	19.9
	Down	41.3	42.1	48.9	43.5
<b>PHC</b>	Clinical	30.0	25.4	24.9	27.2
	Non-clinical	14.5	31.9	26.8	22.7
	Down	55.5	42.7	48.3	50.1
<b>Total</b>	Clinical	33	28.4	24.6	29.1
	Non-clinical	15	29.1	27	22.1
	Down	52	42.6	48.4	48.7

**Table (7): Break Down of Down Time**

<b>Category</b>	<b>Percent</b>
Waiting for clients	47.7
Left shift early	19.6
Chatting with other staff	11.2
Lunch/coffee break	8.8
Absent from clinic for personal reasons	5.8
Gathering his/her things at the end of the day	4.3
Meeting with personal visitors	1.4
Personal telephone call	1.2
Waiting for supplies	0.1
<b>Total</b>	<b>100</b>

Table 7 shows the categories of downtime in percentage from total downtime. “Waiting for clients” is the highest (48%) followed by “left shift early” (20%) and “chatting with other staff members about non-work related matters” (11%).

Table 8 shows the category of downtime in percentage from total downtime by provider. In all three categories of providers (physicians, midwives and nurses) “waiting for clients” is the highest. However, differences were not significant.

**Table (8): Breakdown of Downtime by Type of Provider (%)**

<b>Category</b>	<b>Physician (N=48)</b>	<b>Midwife (N=23)</b>	<b>Nurse (N=38)</b>
Waiting for supplies	0.1	0.0	0.2
Waiting for clients	49.0	41.9	49.5
Lunch/Coffee break	7.1	11.9	9.1
Absent from clinic for personal reasons*	2.0	9.6	8.4
Personal telephone call	1.3	0.4	1.6
Meeting with personal visitors	0.8	3.0	1.1
Chatting with other staff *	8.1	17.1	11.6
Gathering his/her things at the end of the day*	3.2	6.3	4.4
Left shift early*	28.4	9.9	14.2
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

\*Significant at 95% confidence level

Significant differences between providers are found in the following activities:

- Absent from clinic for personal reasons (P<0.009).
- Chatting with other staff members about non-work related matters (P<0.021).
- Gathering his/her things at the end of the shift (P<0.033).

In all three activities, the percentages were highest for midwives and lowest for physicians. However, the top reason for physicians to be absent was left shift early (P<0.005).

Tables 9 shows category of downtime in percentage from total downtime by type of facility (CHCs, and PHCs). There were no significant differences by type of facility for all reasons of down time except for “absent from facility for personal reasons” (P<0.05).

**Table (9): Breakdown of Downtime by Type of Facility (%)**

Category	CHC (N=23)	PHC (N=86)	Total (N=109)
Waiting for Supplies	0.05	0.15	0.13
Waiting for Clients	42.40	49.05	47.65
Lunch/Coffee Break	9.04	8.76	8.82
Absent from Clinic for Personal Reasons*	10.05	4.68	5.82
Personal Telephone Call	1.68	1.07	1.20
Meeting with Personal Visitors	1.16	1.44	1.38
Chatting with other Staff	13.69	10.53	11.20
Gathering his/her things at the end of the day	5.41	3.96	4.26
Left Shift Early	16.52	20.36	19.55
<b>Total</b>	<b>100</b>	<b>100</b>	<b>100</b>

\*Significant at 95% confidence level

Table 10 shows the same variable by volume of visits (low, medium and high) respectively. There were no significant differences by volume of facility.

**Table (10): Breakdown of Downtime by Facility Volume (%)**

<b>Category</b>	<b>Low (N=25)</b>	<b>Medium (N=50)</b>	<b>High (N=34)</b>
Waiting for Supplies	0.0	0.3	0.0
Waiting for Clients	43.3	51.0	45.9
Lunch/Coffee Break	8.8	9.4	8.1
Absent from Clinic for Personal Reasons	8.3	4.8	5.5
Personal Telephone Call	1.1	1.7	0.6
Meeting with Personal Visitors	1.6	1.2	1.4
Chatting with other Staff	9.1	11.2	12.7
Gathering his/her things at the end of the day	4.1	4.0	4.7
Left Shift Early	23.7	16.4	21.1
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

### III.1.3 Client Contacts

Table 11 shows the total number of contacts by each category of provider, with the mean time spent with the client (contact time). Mean contact time was highest with midwives 00:05:56 and lowest with physicians (00:03:05). The differences in mean contact time between categories of providers were significant ( $P < 0.001$ ).

**Table (11): Mean Contact Time by Provider in Minutes**

<b>Job</b>	<b>Mean h:mm:ss</b>	<b>N</b>	<b>SD h:mm:ss</b>	<b>Minimum h:mm:ss</b>	<b>Maximum h:mm:ss</b>
Physician	0:03:05	1638	0:02:37	0:00:30	0:25:00
Midwife	0:05:56	227	0:04:32	0:01:00	0:24:00
Nurse	0:05:07	369	0:04:29	0:00:30	0:32:00
<b>Total</b>	<b>0:03:43</b>	<b>2234</b>	<b>0:03:23</b>	<b>0:00:30</b>	<b>0:32:00</b>
Differences significant ( $P < 0.001$ )					

Table 12 shows the mean contact time by type of facility. The higher was in CHCs (00:04:00”) and the lower in PHCs (00:03:35). This difference in contact time was significant ( $P < 0.009$ ).

**Table (12): Mean Contact Time by Type of Facility in Minutes**

<b>Type</b>	<b>Mean h:mm:ss</b>	<b>N</b>	<b>SD h:mm:ss</b>	<b>Minimum h:mm:ss</b>	<b>Maximum h:mm:ss</b>
CHC	0:04:00	644	0:03:46	0:00:30	0:32:00
PHC	0:03:36	1590	0:03:13	0:00:30	0:29:00
<b>Total</b>	<b>0:03:43</b>	<b>2234</b>	<b>0:03:23</b>	<b>0:00:30</b>	<b>0:32:00</b>
Differences significant ( $P < 0.009$ )					

Table 13 shows mean contact time by type of activity in descending order. They were: family planning (7 minutes), pre-natal visit (6 minutes); vaccination and immunization,

**Table (13): Mean Contact Time by Activity in Minutes**

Type of Service	Mean h:mm:ss	N	SD h:mm:ss	Minimum h:mm:ss	Maximum h:mm:ss
Family Planning	0:07:09	39	0:04:55	0:02:00	0:21:00
Prenatal Visits	0:06:10	75	0:04:26	0:01:00	0:18:00
Vaccination	0:05:14	148	0:04:24	0:01:00	0:24:00
Emergency	0:05:00	133	0:05:11	0:00:30	0:29:00
Growth and Development	0:04:59	85	0:03:37	0:01:00	0:20:00
Postnatal Visit	0:03:14	62	0:01:41	0:01:00	0:10:00
General Practice/Family	0:03:04	1633	0:02:27	0:00:30	0:21:00
Other	0:09:56	38	0:07:14	0:01:00	0:32:00
<b>Total</b>	<b>0:03:42</b>	<b>2213</b>	<b>0:03:24</b>	<b>0:00:30</b>	<b>0:32:00</b>

Differences significant (P<0.001)

emergency, and growth monitoring 5 minutes each; post-natal visit (3 minutes); and general practice/family medicine (3 minutes). The highest contact time (about 10 minutes) was for a group of other activities that included wound dressing, measurement of vital signs, and intra-muscular injections. Differences in contact time between these activities were significant (P<0.001).

Table 14 shows the mean contact time by volume of visits. This table shows that the longest mean contact time (00:04:51) was in low volume facilities, followed by medium volume (00:03:57) and the shortest was in high volume facilities with (00:03:13). These differences are significant (P<0.001).

**Table (14): Mean Contact Time by Volume of Visits in Minutes**

Volume of visits	Mean h:mm:ss	N	SD h:mm:ss
Low	0:04:51	239	0:03:46
Medium	0:03:57	983	0:03:48
High	0:03:13	1012	0:02:43
<b>Total</b>	<b>0:03:43</b>	<b>2234</b>	<b>0:03:23</b>

Differences significant (P<0.001)

Figure 2 shows the relationship between contact time and number of patients seen by each provider. There is a negative relationship between contact time and number of patients seen when one looks at the extremes of client load. On the other hand, the relationship seems to be flat in the middle, somewhere between 30 and 80 clients, where contact time does not seem to vary dramatically. Client volume was found to explain about 40 percent of the variation in contact time using a quadratic fit regression equation.

**Figure 2: Relationship Between Provider’s Client Load and Contact Time**

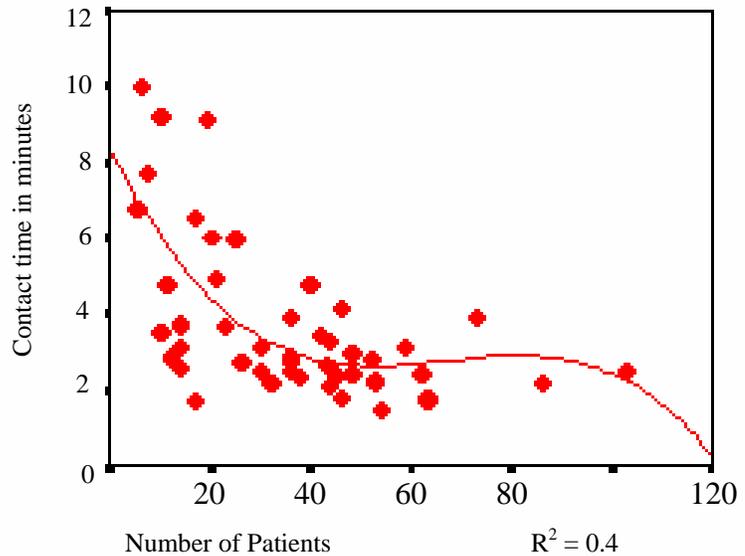


Table 15 shows the mean number of patient visits seen per day by each provider observed and the mean contact time spent with these patients during the whole day by each provider. The mean number of visits per day was 35.61 for a physician, 10.54 for a nurse and 9.87 visits for a midwife. The mean contact time spent with all these patients during the day was 01:50:18 for a physician, 00:58:39 for a midwife and 00:53:59 for a nurse. All these differences in mean visit number and mean visit time were significant ( $P < 0.001$ ).

**Table (15): Mean Number of Visits per Day and Mean Contact Time in Hours per Day by Type of Provider**

Job Category	Total contact time			Total number of clients		
	Mean	N	SD	Mean	N	SD
Physician	1:50:18	46	0:56	35.61	46	21.43
Midwives	0:58:37	23	0:35	9.87	23	7.88
Nurse	0:53:59	35	0:45	10.54	35	9.35
<b>Total</b>	<b>1:19</b>	<b>104</b>	<b>0:55</b>	<b>21.48</b>	<b>104</b>	<b>20.07</b>

Table 16 shows the perceived clinical time and the observed clinical time for each type of provider. Healthcare providers are shown to dramatically over estimate the amount of their clinical time. The perceived clinical time for physicians was 83 percent of the total working hours while the observations showed that it only amounts to about 33 percent. A similar finding is documented for midwives and nurses.

**Table (16): Perceived and Observed Proportion of Clinical Time by Provider**

<b>Provider</b>	<b>Perceived %</b>	<b>Observed %</b>
Physician	83.0	33.0
Midwife	96.7	28.4
Nurse	91.5	24.6
<b>Total</b>	<b>88.9</b>	<b>29.1</b>

### III.1.4 Patient flow

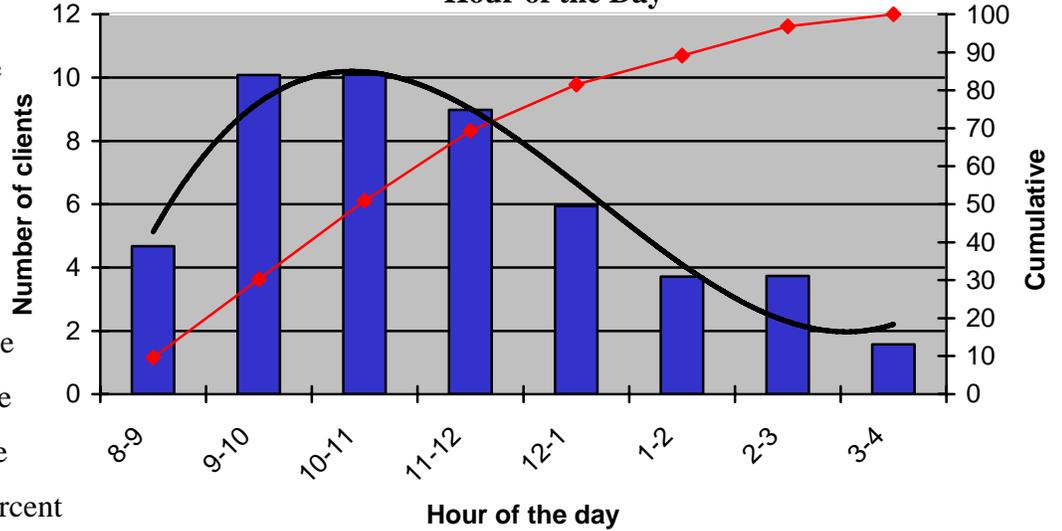
Figure 3 depicts the client flow by hour of the day. An analysis revealed showed that the bulk of clients concentrate between 9:00 am and 12:00 am.

The client volume begins to taper off at 1:00 pm and declines rapidly for the rest of the day.

An examination of the cumulative percentage of clients during the day shows that 50 percent

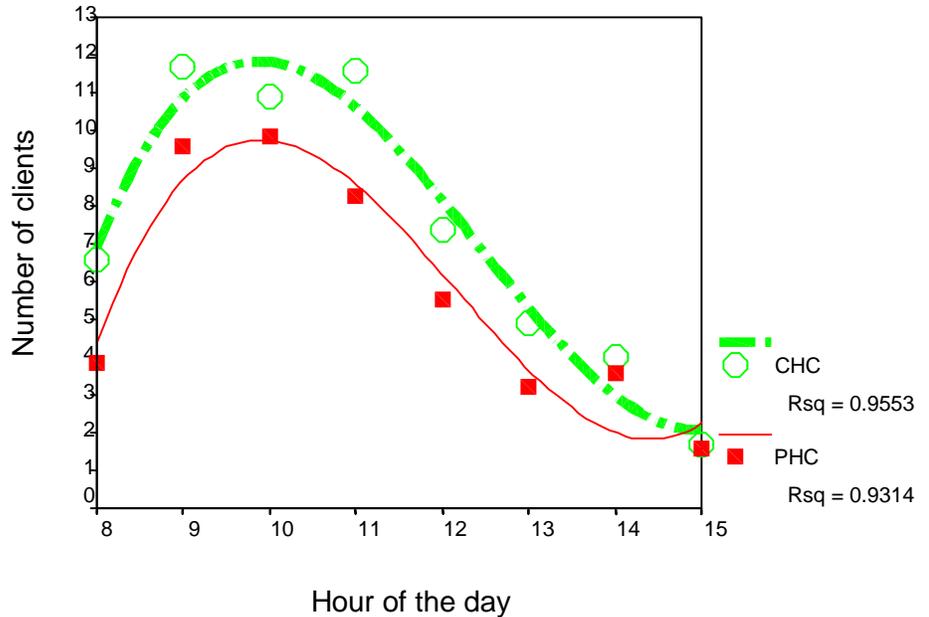
of the clients receive services by 11:00 am, and about 90 percent receive services by 1:00 pm.

**Figure 3: Mean Number of Clients Per Day by Hour of the Day**



Analysis of mean number of clients seen in MoH facilities on a daily basis showed that the first working hour had about 4 and 6 clients in PHCs and CHCs respectively (Figure 4). By 9:00 am client load increases and reaches a peak by about 10:00 am where PHCs have on the average 9 clients and CHCs have about 12 clients. The patterns are very similar in

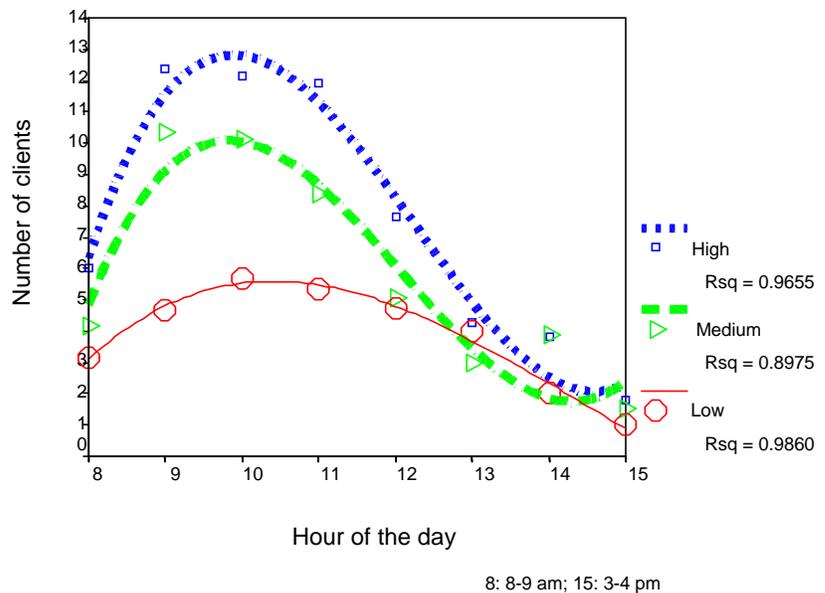
**Figure 4: Mean Client Volume by Type of Facility**



both types of facilities where client load tapers off sharply and reaches very low levels by 1:00 pm. The correlation between clients' volume and hour of the day is very high, reaching 0.85 for CHCs and 0.93 for PHCs, Figure 3. The three-fitted line in Figure 4 represents the three types of facilities by volume. In the three types of facilities, workload is concentrated between 9:00 and 11:00 am with sharp decline afterwards. The fitted line for low volume facilities follows the same pattern but appears flat due to the scale of PHCs and CHCs being higher than that of VHCs.

When facility client volume was examined, the same pattern of patient flow was observed (Figure 5). The correlation between client volume and working hours is very high for the low, medium, and high volume facilities.

**Figure 5: Mean Number of Clients by Facility Clients' Load**



## III.2 Costing study

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### III.2.1 Sampled Centers

The estimated total cost of all sampled centers for the year 1999 were JD 8.2 million, (Table 17), out of this amount JD 0.9 million was annualized capital cost (11%) and the remaining JD 7.3 million (89%) was recurrent cost. Analyzing the cost per item reveal that personnel costs constituted JD 4.0 million (54%) of the recurrent cost, followed by clinical supplies amounting to JD 1.7 million (24%). Drugs costs were JD 1.4 million (20%). Non-clinical supplies and operation costs were JD 0.11 million, JD 0.06 million respectively constituting the remaining 2 percent of the total recurrent budget. The annual building costs amounted to JD 0.6 million and was equivalent to 67 percent of the capital cost. Equipment and furniture costs totaled JD .29 million (33 % of capital costs).

Costs associated with direct services amounted to JD 6.2 million (76% of total cost) followed by overhead services overhead with JD 1.5 million (18% of total cost) and support services with a cost of JD 0.5 million (6% of the total cost). Most of the direct services costs were directed toward curative care. Curative care costs amounted to JD 5.5 million (88% of direct costs), and JD 0.8 million (12% of direct costs) was spent on MCH services.

**Table (17): Overall Costs by Type of Service and Category**

<b>Cost Category</b>	<b>Overhead Cost</b>	<b>Support Services</b>	<b>Curative Services</b>	<b>MCH Services</b>	<b>All Direct Services</b>	<b>Total</b>	<b>%</b>
<i>Capital costs</i>							
Building	194,474	83,660	194,384	160,235	354,620	632,753	<b>8</b>
Equipment		81,233	98,240	55,422	153,662	234,895	<b>3</b>
Furniture	15,785	14,335	13,767	12,522	26,289	56,409	<b>1</b>
<b>Subtotal</b>	<b>210,259</b>	<b>179,228</b>	<b>306,392</b>	<b>228,179</b>	<b>534,570</b>	<b>924,057</b>	<b>11</b>
<i>Recurrent costs</i>							
Personnel	1,207,481	252,079	2,162,503	403,398	2,565,901	4,025,462	<b>49</b>
Drugs			1,403,419	43,361	1,446,780	1,446,780	<b>18</b>
Clinical Supplies		59,781	1,536,735	56,978	1,593,713	1,653,494	<b>20</b>
Non-Clinical Supplies	25,069	25,001	50,976	13,747	64,723	114,793	<b>1</b>
Operation cost	17,543	8,077	18,173	13,835	32,009	57,629	<b>1</b>
<b>Subtotal</b>	<b>1,250,093</b>	<b>344,939</b>	<b>5,171,806</b>	<b>531,320</b>	<b>5,703,126</b>	<b>7,298,158</b>	<b>89</b>
<b>Total</b>	<b>1,460,352</b>	<b>524,167</b>	<b>5,478,197</b>	<b>759,499</b>	<b>6,237,696</b>	<b>8,222,214</b>	<b>100</b>
<b>Percent</b>	<b>18</b>	<b>6</b>	<b>67</b>	<b>9</b>	<b>76</b>	<b>100</b>	

Note: All Direct Services is a sum of Curative Medical Services and MCH Services.

### **Direct Service Costs**

Curative costs are 67 percent of the total costs and approximately 88 percent of all direct costs. Table 18 shows the detailed break-down of costs associated with curative services. General practice incurred almost half the cost of all curative cost, JD 2.5 million (46% of curative cost) followed by dental services with a total cost of JD 1.5 million (28% of curative cost); specialty services came third with a cost of JD .94 million, a proportion of 17 percent of curative cost, and the smallest proportion was used by emergency services with only 9 percent of the total curative cost, JD 0.5 million.

**Table (18) Curative Care Costs by Type of Service and Cost**

<b>Cost Category</b>	<b>General Practice</b>	<b>Specialty Services</b>	<b>Dental Services</b>	<b>Emergency Services</b>	<b>Total</b>	<b>Percent</b>
<i>Capital costs</i>						
Building	72,434	30,524	49,404	42,022	194,384	
Equipment	40,390	11,852	22,346	23,652	98,240	
Furniture	1,759	3,661	3,755	4,592	13,767	
<b>Subtotal</b>	<b>114,583</b>	<b>46,037</b>	<b>75,505</b>	<b>70,267</b>	<b>306,392</b>	<b>6</b>
<i>Recurrent costs</i>						
Personnel	889,728	467,535	406,731	398,510	2,162,504	
Drugs	959,856	414,502	23,269	5,791	1,403,419	
Clinical Supplies	485,627	11,587	994,946	44,575	1,536,735	
Non-Clinical Supplies	44,295	1,894	2,219	2,568	50,976	
Operation cost	6,912	2,694	4,500	4,067	18,173	
<b>Subtotal</b>	<b>2,386,418</b>	<b>898,212</b>	<b>1,431,666</b>	<b>455,510</b>	<b>5,171,806</b>	<b>94</b>
<b>Total</b>	<b>2,501,000</b>	<b>944,250</b>	<b>1,507,171</b>	<b>525,777</b>	<b>5,478,197</b>	<b>100</b>
<b>Percent</b>	<b>46</b>	<b>17</b>	<b>28</b>	<b>9</b>	<b>100</b>	

Total MCH costs are 9 percent of the total cost and 13 percent of all direct costs. The distribution of MCH of JD 0.8 million among different MCH services is depicted in Table 19. Almost 28 percent of the total MCH was incurred for immunization, while prenatal and postnatal services, and family planning used the same proportion of about 21 percent of total MCH cost. Growth and development came third with 16 percent, and finally curative MCH service constituted 3 percent of the MCH cost, equivalent to 1 percent of the total cost. Comparing Tables 18 and 19 we find that Dental care are JD 1.5 million is twice as much as the total MCH (JD .75 million). This finding has some interesting policy implications are needs further investigation.

**Table (19): Overall MCH Costs by Type of Service and Cost**

Cost Category	Prenatal and Postnatal Services	Family Planning	Growth and Development	Immunization	Curative MCH	Total	%
<i>Capital costs</i>							
Building	32,047	32,047	32,047	32,047	32,047	160,235	
Equipment	24,247	23,044	1,647	5,705	780	55,423	
Furniture	2,523	3,917	1,718	2,787	1,577	12,522	
<b>Subtotal</b>	<b>58,817</b>	<b>59,008</b>	<b>35,411</b>	<b>40,538</b>	<b>34,404</b>	<b>228,178</b>	<b>30</b>
<i>Recurrent costs</i>							
Personnel	87,155	88,831	69,144	108,397	49,870	403,397	
Drugs	3,359	2,315	7,196	25,514	4,978	43,362	
Clinical Supplies	9,552	7,382	8,988	24,266	6,790	56,978	
Non-Clinical Supplies	1,185	1,079	2,144	7,813	1,526	13,747	
Operation cost	2,767	2,767	2,767	2,767	2,767	13,835	
<b>Subtotal</b>	<b>104,017</b>	<b>102,374</b>	<b>90,240</b>	<b>168,757</b>	<b>65,932</b>	<b>531,320</b>	<b>70</b>
<b>Total</b>	<b>162,834</b>	<b>161,382</b>	<b>125,651</b>	<b>209,296</b>	<b>100,336</b>	<b>759,499</b>	<b>100</b>
<b>Percent</b>	<b>21</b>	<b>21</b>	<b>16</b>	<b>28</b>	<b>13</b>	<b>100</b>	

### Support Service Costs

Support services were 6 percent of the total cost. Pharmacy cost constituted the largest share of support services, JD 0.25 million (Table 20) out of JD 0.52 million, equivalent of 49 percent of the total support service costs. They do not include drugs. Laboratory costs came second at JD 0.17 million (31% of the support service cost). Expenditures incurred on Radiology services were JD 0.1 million (20%).

**Table (20): Overall Support Services Costs by Type of Service and Category**

Cost Category	Pharmacy	Radiology	Laboratory	Total	%
<i>Capital costs</i>					
Building	44,029	16,268	23,362	83,660	
Equipment	9,067	31,608	40,559	81,233	
Furniture	9,918	860	3,557	14,335	
<b>Subtotal</b>	<b>63,014</b>	<b>48,736</b>	<b>67,478</b>	<b>179,228</b>	<b>34</b>
<i>Recurrent costs</i>					
Personnel	165,112	26,271	60,697	252,079	
Clinical Supplies	4,122	22,826	32,833	59,781	
Non-Clinical Supplies	17,611	3,918	3,471	25,001	
Operation cost	4,446	1,678	1,953	8,077	
<b>Subtotal</b>	<b>191,292</b>	<b>54,693</b>	<b>98,954</b>	<b>344,939</b>	<b>66</b>
<b>Total</b>	<b>254,306</b>	<b>103,429</b>	<b>166,432</b>	<b>524,167</b>	<b>100</b>
<b>Percent</b>	<b>49</b>	<b>20</b>	<b>31</b>	<b>100</b>	

## Overhead Costs

Overhead costs account for almost one-fifth (18%) of the total costs (Table 17). Capital investment such as, computers, office furniture etc constitutes 14 percent of the total overhead costs and the remaining 86 percent comprises of the recurrent costs. As expected, 97 percent of the total recurrent costs are incurred on salaries and wages. The rest of the 3 percent is spent on non-clinical supplies and operational costs.

## Total Costs and Cost per Visit

The total costs by type of facility are shown in the table below (Table 21). The total cost at each type of facility is divided by total number of annual visits made to the respective type of facility to obtain the cost per visit. As expected, cost per VHC visit is the highest because of the low volume of patients it caters to. Cost per PHC visit is closer to the average, where as the cost per CHC visit is above average. When extrapolated for the nation, the cost per visit amounts to JD 4.5. The following section on national results explains how the national estimates were calculated.

**Table (21): Cost Per Visit by Type of Facility**

Type of Facility	Cost	Visits	Cost/visit
CHC	4,181,968	796,488	5.3
PHC	3,666,360	868,160	4.2
VHC	373,887	61,887	6.0
<b>Total</b>	<b>8,222,215</b>	<b>1,726,535</b>	<b>4.8</b>

## **III.2.2 National Results**

### **III.2.2.1 General**

The staffing pattern and total staff numbers estimated in the sample have not been extrapolated to determine the national estimates. However, we expect the national staffing pattern to closely mimic the sample.

The national costs were extrapolated using the sample cost per visit for each type of facility (CHC, PHC, VHC). The total national cost was calculated by multiplying the total number of visits made nation-wide by the sample cost per visit for each type of facility. This national total cost was then apportioned as capital and current in the same proportion as the sample costs. The same idea was also applied to obtain the total direct services, support services, and overhead costs for the national estimate, using the sample proportions of these services. This methodology was the obvious choice given its simplicity in implementation and time constraints the researchers faced. However, it has certain drawbacks. Because the national distribution of visits by type (GP, Dental, MCH etc) does not exactly mimic that of the sample, the distribution of costs by type of visits may not be identical to that of the sample.

The breakdown of overall national costs is depicted in Table 22a and Table 22b. Applying the above-mentioned methodology, the national estimates are consistent with the sample findings. Approximately, 89 percent of the total expenditure is incurred on recurrent costs, and the rest of 11 percent on capital investment.

As expected, personnel costs at JD 20.2 million constitute the largest proportion of recurrent costs, almost 54 percent; it is equivalent to 48 percent of the total costs. Clinical supplies cost JD 8.8 million, which are one-fourth of recurrent cost and one-fifth of the total budget. JD 7.7 million was spent on drugs (20% of recurrent costs and 18% of the total cost). Non-clinical supplies and operational costs constitute 2 percent of the recurrent costs. Building costs are a big proportion of the capital costs (69% of capital costs and 8% of total cost), followed by equipment and furniture. Together, they constitute 31 percent of the capital costs, or 3 percent of the total costs.

**Table (22a): Overall Breakdown of Costs by Type of Service**

<b>Item</b>	<b>Overhead Costs</b>	<b>Pharmacy</b>	<b>Radiology</b>	<b>Laboratory</b>	<b>Total support services</b>	<b>General Practice</b>	<b>Specialty</b>	<b>Dental</b>	<b>Emergency</b>	<b>Total Curative Services</b>
<i>Capital Costs</i>										
Building	1,075,063	262,026	66,220	99,027	427,273	420,796	92,750	223,750	230,093	967,389
Equipment		51,998	118,616	182,377	352,991	208,069	30,509	145,041	121,178	504,797
Furniture	83,719	60,970	3,611	15,137	79,718	11,480	11,129	20,514	23,372	66,495
<b>Sub Total</b>	<b>1,158,782</b>	<b>374,994</b>	<b>188,447</b>	<b>296,541</b>	<b>859,982</b>	<b>640,344</b>	<b>134,388</b>	<b>389,305</b>	<b>374,643</b>	<b>1,538,681</b>
<i>Recurrent Costs</i>										
Personnel	6,635,885	914,191	82,769	251,105	1,248,064	4,977,394	1,175,061	1,993,715	1,989,787	10,135,957
Drugs						6,598,995	728,011	127,255	26,132	7,480,393
Clinical Supplies		23,786	74,240	140,220	238,246	2,876,906	30,034	5,205,648	185,865	8,298,453
Non-Clinical Supplies	118,256	96,716	15,410	14,219	126,344	225,354	4,526	10,797	8,219	248,896
Operation cost	90,972	25,860	6,347	7,599	39,806	38,039	7,309	18,562	21,322	85,232
<b>Sub Total</b>	<b>6,845,113</b>	<b>1,060,552</b>	<b>178,765</b>	<b>413,143</b>	<b>1,652,460</b>	<b>14,716,687</b>	<b>1,944,942</b>	<b>7,355,976</b>	<b>2,231,326</b>	<b>26,248,931</b>
<b>Total</b>	<b>8,003,895</b>	<b>1,435,546</b>	<b>367,212</b>	<b>709,683</b>	<b>2,512,441</b>	<b>15,357,031</b>	<b>2,079,330</b>	<b>7,745,282</b>	<b>2,605,969</b>	<b>27,787,612</b>

<b>Item</b>	<b>Postnatal</b>	<b>Planning</b>	<b>Development</b>	<b>Immunization</b>	<b>Curative MCH Services</b>	<b>Total MCH</b>	<b>Total Direct Services</b>	<b>Total</b>
<i>Capital Costs</i>								
Building	143,671	143,671	143,671	212,500	143,671	787,182	1,754,570	3256907
Equipment	156,947	97,241	7,290	33,723	4,132	299,333	804,130	1157120
Furniture	14,015	19,385	9,384	16,382	7,678	66,845	133,340	296776
<b>Sub Total</b>	<b>314,633</b>	<b>260,297</b>	<b>160,345</b>	<b>262,605</b>	<b>155,480</b>	<b>1,153,360</b>	<b>2,692,040</b>	<b>4710803</b>
<i>Recurrent Costs</i>								
Personnel	481,089	483,646	365,014	618,386	269,980	2,218,115	12,354,071	20238020
Drugs	14,815	9,952	34,636	141,315	25,247	225,965	7,706,357	7706357
Clinical Supplies	54,838	35,955	49,537	129,125	40,035	309,490	8,607,945	8846190
Non-Clinical Supplies	4,569	4,163	9,538	33,331	7,346	58,947	307,843	552443
Operation cost	11,641	11,641	11,641	18,322	11,641	64,887	150,119	280897
<b>Sub Total</b>	<b>566,952</b>	<b>545,358</b>	<b>470,367</b>	<b>940,479</b>	<b>354,248</b>	<b>2,877,403</b>	<b>29,126,335</b>	<b>37623908</b>
<b>Total</b>	<b>881,585</b>	<b>805,655</b>	<b>630,712</b>	<b>1,203,084</b>	<b>509,728</b>	<b>4,030,764</b>	<b>31,818,375</b>	<b>42334711</b>

Direct services consumed 75 percent of the total cost; amounting to JD 31.8 million followed by administrative and overhead cost of JD 8.0 million (19% of total cost). Most of the direct services cost went to curative medical services, consuming JD 27.8 million (87% of the total direct costs, and JD 4.0 million for MCH services (13% of the total direct costs). The proportion of support services was the smallest (JD 2.5) million which accounts for 6 percent of total cost.

**Table (22b): Overall Breakdown of Costs by Type of Service**

<b>Item</b>	<b>Overhead Costs</b>	<b>Total support Services</b>	<b>Total Direct Services</b>	<b>Total</b>	<b>%</b>
<i>Capital Costs</i>					
Building	1,075,063	427,273	1,754,570	3,256,907	
Equipment		352,991	804,130	1,157,120	
Furniture	83,719	79,718	133,340	296,776	
<b>Sub Total</b>	<b>1,158,782</b>	<b>859,982</b>	<b>2,692,040</b>	<b>4,710,803</b>	<b>11</b>
<i>Recurrent Costs</i>					
Personnel	6,635,885	1,248,064	12,354,071	20,238,020	
Drugs			7,706,357	7,706,357	
Clinical Supplies		238,246	8,607,945	8,846,190	
Non-Clinical Supplies	118,256	126,344	307,843	552,443	
Operation cost	90,972	39,806	150,119	280,897	
<b>Sub Total</b>	<b>6,845,113</b>	<b>1,652,460</b>	<b>29,126,335</b>	<b>37,623,908</b>	<b>89</b>
<b>Total</b>	<b>8,003,895</b>	<b>2,512,441</b>	<b>31,818,375</b>	<b>42,334,711</b>	<b>100</b>
<b>Percent</b>	<b>19</b>	<b>6</b>	<b>75</b>	<b>100</b>	

### **Direct Services Cost**

Consistent with sample results, the breakdown of capital and recurrent costs for the national estimate are 6 percent of total curative costs are spent on capital items and 94 percent on recurrent items. As expected, general practice is the most commonly used service and therefore constituted 55 percent of all curative services cost (Table 23) consuming JD 15.4 million. Dental services were the next most sought after service. Total expenditure associated with dental services was JD 7.7 million, accounting for 28 percent of all curative services. An amount of JD 2.1 million was used for providing specialty services (8%), and emergency services consumed JD 2.6 million, 6.2 percent of curative cost.

**Table (23): Curative Costs by Type of Service and Cost**

<b>Item</b>	<b>General</b>	<b>Specialty</b>	<b>Dental</b>	<b>Emergency</b>	<b>Total</b>	<b>%</b>
<i>Capital Costs</i>						
Building	420,796	92,750	223,750	230,093	<b>967,388</b>	
Equipment	208,069	30,509	145,041	121,178	<b>504,797</b>	
Furniture	11,480	11,129	20,514	23,372	<b>66,495</b>	
<b>Sub Total</b>	<b>640,344</b>	<b>134,388</b>	<b>389,305</b>	<b>374,643</b>	<b>1,538,680</b>	<b>6</b>
<i>Recurrent Costs</i>						
Personnel	4,977,394	1,175,061	1,993,715	1,989,787	<b>10,135,957</b>	
Drugs	6,598,995	728,011	127,255	26,132	<b>7,480,392</b>	
Clinical Supplies	2,876,906	30,034	5,205,648	185,865	<b>8,298,454</b>	
Non-Clinical Supplies	225,354	4,526	10,797	8,219	<b>248,896</b>	
Operation cost	38,039	7,309	18,562	21,322	<b>85,232</b>	
<b>Sub Total</b>	<b>14,716,687</b>	<b>1,944,942</b>	<b>7,355,976</b>	<b>2,231,326</b>	<b>26,248,931</b>	<b>94</b>
<b>Total</b>	<b>15,357,031</b>	<b>2,079,330</b>	<b>7,745,282</b>	<b>2,605,969</b>	<b>27,787,611</b>	<b>100</b>
<b>Percent</b>	<b>55</b>	<b>8</b>	<b>28</b>	<b>9</b>	<b>100</b>	

The distribution of the total cost of all maternal and child services of JD 4.0 million was shown in Table 24. Less than one third (30%) of that cost was incurred for Immunization, followed by prenatal and postnatal services with a total cost of JD 0.9 million, a proportion of 22 percent of MCH cost; family planning consumed JD 0.8 million with 20 percent of all MCH cost. Growth and development consumed 16 percent of all MCH services, and finally curative MCH services used the least amount JD 0.5 million, amounting to 13 percent of all MCH cost. The distribution of recurrent and capital costs for the national estimate varies slightly from sample; this is because the distribution of MCH visits for the sample is different than the national distribution.

**Table (24): Overall MCH Costs by Type of Service and Cost**

Item	Prenatal & postnatal	Family Planning	Growth & Development	Immunization	Curative MCH	Total	%
<i>Capital Costs</i>							
Building	143,671	143,671	143,671	212,500		787,182	
Equipment	156,947	97,241	7,290	33,723	4,132	299,333	
Furniture	14,015	19,385	9,384	16,382	7,678	66,845	
<b>Sub Total</b>	<b>314,633</b>	<b>260,297</b>	<b>160,345</b>	<b>262,605</b>	<b>155,480</b>	<b>1,153,360</b>	<b>40</b>
<i>Recurrent Costs</i>							
Personnel	481,089	483,646	365,014	618,386	269,980	2,218,115	
Drugs	14,815	9,952	34,636	141,315	25,247	225,965	
Clinical Supplies	54,838	35,955	49,537	129,125	40,035	309,490	
Non-Clinical Supplies	4,569	4,163	9,538	33,331	7,346	58,947	
Operation cost	11,641	11,641	11,641	18,322	11,641	64,887	
<b>Sub Total</b>	<b>566,952</b>	<b>545,358</b>	<b>470,367</b>	<b>940,479</b>	<b>354,248</b>	<b>2,877,403</b>	<b>60</b>
<b>Total</b>	<b>881,585</b>	<b>805,655</b>	<b>630,712</b>	<b>1,203,084</b>	<b>509,728</b>	<b>4,030,764</b>	<b>100</b>
<b>Percent</b>	<b>22</b>	<b>20</b>	<b>16</b>	<b>30</b>	<b>13</b>	<b>100</b>	

Total amount spent on support services is JD 2.5 million. Pharmacy took the lead and consumed JD 1.4 million with a proportion of 57 percent (Table 25) of all support services and 3 percent of the total cost. This amount is exclusive of the cost of drugs, which was added to the cost of all direct services. Laboratory costs came second with a total cost of JD 0.7 million, a proportion of 28 percent of all support services and only 2 percent of the total cost, and finally radiology consumed JD 0.4 million, 15 percent of all support services and of 1 percent of the total cost.

**Table (25): Overall Support Services Costs by Type of Service and Category**

Item	Pharmacy	Radiology	Lab	Total	%
<i>Capital Costs</i>					
Building	262,026	66,220	99,027	427,273	
Equipment	51,998	118,616	182,377	352,991	
Furniture	60,970	3,611	15,137	79,718	
<b>Sub Total</b>	<b>374,994</b>	<b>188,447</b>	<b>296,541</b>	<b>859,982</b>	<b>34</b>
<i>Recurrent Costs</i>					
Personnel	914,191	82,769	251,105	1,248,064	
Drugs				0	
Clinical supplies	23,786	74,240	140,220	238,246	
Non-clinical supplies	96,716	15,410	14,219	126,344	
Operation cost	25,860	6,347	7,599	39,806	
<b>Sub Total</b>	<b>1,060,552</b>	<b>178,765</b>	<b>413,143</b>	<b>1,652,460</b>	<b>66</b>
<b>Total</b>	<b>1,435,546</b>	<b>367,212</b>	<b>709,683</b>	<b>2,512,441</b>	<b>100</b>
<b>Percent</b>	<b>57</b>	<b>15</b>	<b>28</b>	<b>100</b>	

## **Overhead Costs**

Referring to Table 22b, we observe that overhead costs constitute 19 percent of the total costs. They amount to a total of JD 8 million. Capital and recurrent expenditures are 17 and 83 percent of the total overhead costs, respectively. Costs associated with buildings constitute the largest proportion of the capital overhead costs (93%), and the remaining 7 percent is spent on furniture. Recurrent costs are mainly comprised on expenditure on personnel (97%). The remaining 3 percent is spent on non-clinical supplies and operations costs.

### **III.2.2.2 Type of center**

The analysis was set up such that costs could be ascertained by type of facilities – CHC, PHC, and VHC, and by volume of clients – high, medium, and low. The breakdown of the estimated JD 42.3 million is depicted in Table 26a and 26b. As we can observe, JD 13 million (31% of the total cost) can be attributed to CHCs. PHCs accounted for about twice the amount spent at CHCs, JD 26.7 million (63%), and as expected VHCs accounted for the smallest share of JD 2.6 million (6% of the total cost).

The ratio of capital and recurrent expenditures among CHCs, PHCs, and VHC does not vary significantly (Table 26a and 26b). PHCs have a slightly higher proportion of recurrent expenditures. Personnel costs constitute the largest proportion of recurrent costs. In each type of center, they constitute almost half of the recurrent costs. Drug cost was assigned to direct service costs. It varied between 11 percent for VHCs, 16 percent for CHCs, and 20 percent for PHCs. Building costs were 7 percent for CHCs and PHCs, and almost 11 percent for VHCs. Investment on equipment for VHCs and PHCs was identical at 2 percent, it was twice as much for the CHCs (4%). The proportion of non-clinical supplies, operations cost, and furniture did not vary within the three types of centers.

Table 26b shows that the proportion of direct services ranges from 71 to 76 percent among the different type of facilities. The proportion of support services is less than 10 percent for all of them. The largest variation is for overhead expenditure. It varies from lowest for CHCs at 15 percent to 24 percent for VHCs.

**Table (26a): Overall Costs of Primary Health Care Services by Type of Facility (JD 000s)**

		<b>Item</b>	<b>Overhead</b>	<b>Pharmacy</b>	<b>Radiology</b>	<b>Laboratory</b>	<b>GP</b>	<b>Specialty</b>	<b>Dental</b>	<b>Emergency</b>	<b>Prenatal</b>	<b>FP</b>	<b>Growth</b>	<b>Immunization</b>	<b>Curative MCH</b>	<b>Total</b>
<b>CHC</b>	<b>Capital Costs</b>	Building	282	38	46	57	72	93	87	59	58	58	58	58	58	1,021
		Equipment	-	8	110	94	61	31	28	46	84	75	4	9	2	552
		Furniture	22	8	3	8	1	11	6	7	4	6	3	4	2	86
		<b>Sub Total</b>	304	53	159	160	135	134	122	112	146	138	65	71	62	1,659
	<b>Recurrent Costs</b>	Personnel	1,579	269	73	191	1,085	1,170	777	729	104	97	101	111	76	6,362
		Drugs	-	-	-	-	1,260	711	32	11	6	5	9	37	6	2,078
		Clinical Supplies	-	4	74	79	537	30	1,675	138	18	16	16	49	13	2,649
		Non-Clinical Supplies	43	23	9	8	61	5	4	8	3	3	4	16	3	189
		Operation cost	28	4	5	5	7	7	8	6	5	5	5	5	5	93
		<b>Sub Total</b>	1,650	299	161	283	2,949	1,923	2,497	892	135	125	135	218	103	11,371
<b>Total</b>		1,954	352	320	443	3,084	2,057	2,619	1,004	281	263	200	289	165	<b>13,030</b>	
<b>PHC</b>	<b>Capital Costs</b>	Building	690	185	20	42	278	-	137	172	86	86	86	86	86	1,954
		Equipment	-	17	8	88	112	-	117	75	73	23	3	24	2	542
		Furniture	56	42	1	7	7	-	14	16	10	13	6	10	5	188
		<b>Sub Total</b>	747	243	30	137	397	-	268	263	169	122	96	120	94	2,685
	<b>Recurrent Costs</b>	Personnel	4,573	608	10	60	3,406	5	1,216	1,091	377	387	264	492	194	12,681
		Drugs	-	-	-	-	5,062	17	95	13	9	5	25	97	19	5,343
		Clinical Supplies	-	16	0	61	1,673	-	3,530	48	37	20	33	79	27	5,526
		Non-Clinical Supplies	66	66	7	6	147	-	6	-	2	1	6	17	4	329
		Operation cost	56	18	2	3	26	-	10	15	7	7	7	7	7	166
		<b>Sub Total</b>	4,695	709	18	130	10,314	22	4,859	1,167	432	420	335	692	252	24,045
<b>Total</b>		5,442	952	48	267	10,711	22	5,126	1,430	600	543	431	812	345	<b>26,730</b>	
<b>VHC</b>	<b>Capital Costs</b>	Building	102	40	-	-	71	-	-	-	-	-	-	69	-	281
		Equipment	-	28	-	-	34	-	-	-	-	-	-	1	-	63
		Furniture	6	12	-	-	4	-	-	-	-	-	-	2	-	23
		<b>Sub Total</b>	108	79	-	-	109	-	-	-	-	-	-	72	-	367
	<b>Recurrent Costs</b>	Personnel	484	37	-	-	486	-	-	170	-	-	-	16	-	1,195
		Drugs	-	-	-	-	277	-	-	2	-	-	-	7	-	286
		Clinical Supplies	-	4	-	-	666	-	-	-	-	-	-	0	-	670
		Non-Clinical Supplies	9	7	-	-	18	-	-	-	-	-	-	-	-	34
		Operation cost	7	4	-	-	5	-	-	-	-	-	-	7	-	23
		<b>Sub Total</b>	499	53	-	-	1,453	-	-	172	-	-	-	30	-	2,208
<b>Total</b>		607	131	-	-	1,562	-	-	172	-	-	-	102	-	<b>2,575</b>	
<b>Grand Total</b>			<b>8,004</b>	<b>1,436</b>	<b>367</b>	<b>710</b>	<b>15,357</b>	<b>2,079</b>	<b>7,745</b>	<b>2,606</b>	<b>882</b>	<b>806</b>	<b>631</b>	<b>1,203</b>	<b>510</b>	<b>42,335</b>

**Table (26b): Overall Costs of Primary Health Care Services by Type of Facility and Service (000s JDs)**

Type of Facility	Item	Total Overhead	Total Support Services	Total Direct	Grand Total	Percent
CHC	Building	282	141	601	1,024	
	Equipment	-	212	340	552	
	Furniture	22	19	44	85	
	<b>Sub Total</b>	<b>304</b>	<b>372</b>	<b>985</b>	<b>1,661</b>	<b>13</b>
	Personnel	1,579	533	4250	6,362	
	Drugs	-	0	2077	2,077	
	Clinical Supplies	-	157	2492	2,649	
	Non-Clinical Supplies	43	40	107	190	
	Operation cost	28	14	53	95	
	<b>Sub Total</b>	<b>1,650</b>	<b>743</b>	<b>8977</b>	<b>11,370</b>	<b>87</b>
	<b>Total</b>	<b>1954</b>	<b>1115</b>	<b>9,962</b>	<b>11,077</b>	<b>31</b>
<i>Percent</i>	<i>15%</i>	<i>9%</i>	<i>76%</i>	<i>100%</i>		
PHC	Building	690	247	1017	1,954	
	Equipment	-	113	429	542	
	Furniture	56	50	81	187	
	<b>Sub Total</b>	<b>747</b>	<b>410</b>	<b>1529</b>	<b>2,686</b>	<b>10</b>
	Personnel	4,573	678	7432	12,683	
	Drugs	-	0	5342	5,342	
	Clinical Supplies	-	77	5447	5,524	
	Non-Clinical Supplies	66	79	183	328	
	Operation cost	56	23	86	165	
	<b>Sub Total</b>	<b>4,695</b>	<b>857</b>	<b>18493</b>	<b>24,045</b>	<b>90</b>
	<b>Total</b>	<b>5442</b>	<b>1267</b>	<b>20,022</b>	<b>21,289</b>	<b>63</b>
<i>Percent</i>	<i>20%</i>	<i>5%</i>	<i>75%</i>	<i>100%</i>		
VHC	Building	102	40	140	282	
	Equipment	-	28	35	63	
	Furniture	6	12	6	24	
	<b>Sub Total</b>	<b>108</b>	<b>79</b>	<b>181</b>	<b>368</b>	<b>14</b>
	Personnel	484	37	672	1,193	
	Drugs	-	0	286	286	
	Clinical Supplies	-	4	666	670	
	Non-Clinical Supplies	9	7	18	34	
	Operation cost	7	4	12	23	
	<b>Sub Total</b>	<b>499</b>	<b>53</b>	<b>1655</b>	<b>2,207</b>	<b>86</b>
	<b>Total</b>	<b>607</b>	<b>132</b>	<b>1,836</b>	<b>1,968</b>	<b>6</b>
<i>Percent</i>	<i>24%</i>	<i>5%</i>	<i>71%</i>	<i>100%</i>		
<b>Grand Total</b>	<b>8,003</b>	<b>2,514</b>	<b>31,820</b>	<b>42,337</b>	<b>100</b>	
<b>Percent</b>	<b>19%</b>	<b>6%</b>	<b>75%</b>	<b>100%</b>		

Overall, almost half the cost associated with curative services was incurred for general practice, however, this proportion varied with regard to type of centers: it ranged from 35 percent for CHC, to 53 percent for PHC, and reached 83 percent for VHC. Dental services came second and consumed 24 percent of all curative services. This proportion for all centers varied from none for VHCs, to around 27 percent for CHCs and 25 percent for PHCs. Overall specialty services accounted for 6 percent of the total direct services. The smallest proportion of curative cost was incurred for emergency services; its proportion did not vary significantly among types of centers.

**Table (27): Summary of Distribution of Total Costs by Type of Facility and Cost (000s JDs)**

Type of Facility	Overhead Costs	Support Services	General Practice	Specialty	Dental	Emergency	Total MCH	Total Direct Services	Total	%
CHC	1,954	1,114	3,084	2,057	2,619	1,004	1,198	9,962	13,030	31
PHC	5,442	1,267	10,711	22	5,126	1,430	2,731	20,021	26,730	63
VHC	607	131	1,562	0	0	172	102	1,836	2,575	6
<b>Total</b>	<b>8,004</b>	<b>2,512</b>	<b>15,357</b>	<b>2,079</b>	<b>7,745</b>	<b>2,606</b>	<b>4,031</b>	<b>31,818</b>	<b>42,335</b>	<b>100</b>
<b>Percent</b>	<b>19</b>	<b>6</b>	<b>48</b>	<b>6</b>	<b>24</b>	<b>8</b>	<b>13</b>	<b>75</b>	<b>100</b>	

Note: Total Direct Services is a sum of General Practice, Specialty Services, Dental, Services, Emergency Services, and MCH Services.

The maternal and child services cost for all centers amounted to JD 4.0 million equivalent to 10 percent of the total cost and almost 13 percent of all direct services cost, Table 28. Immunization consumed 30 percent of all MCH cost, and this proportion varied within the types of center from 24 percent for CHC, to 30 percent for PHCs, and reached 100 percent for VHCs. Prenatal and postnatal services came second in importance for all centers with a proportion of 22 percent, with the exception of PHCs. This general proportion ranged from none at VHCs to 24 percent at CHCs, and reached 35 percent at PHCs. Family planning with a general proportion of 20 percent changed from nil in VHCs to 20 percent for PHCs and 22 percent in CHCs. Growth and development services cost did vary among all types of center: from nil for VHCs to around 16 percent for both PHCs and CHCs. The lowest proportion of the total MCH cost was incurred for curative MCH care.

**Table (28): Distribution of Overall Maternal and Child Health Care Costs by Type of Facility**

Facility	Pre & Postnatal	Family Planning	Growth & Development	Immunization	Curative MCH	Total MCH	Percent
CHC	281,105	263,092	199,861	288,958	164,606	1,197,622	30
PHC	600,480	542,562	430,850	812,315	345,123	2,731,330	67
VHC				101,811		101,811	3
<b>Total</b>	<b>881,585</b>	<b>805,655</b>	<b>630,712</b>	<b>1,203,084</b>	<b>509,728</b>	<b>4,030,764</b>	<b>100</b>
<b>Percent</b>	<b>22</b>	<b>20</b>	<b>15</b>	<b>30</b>	<b>13</b>	<b>100</b>	

The total support service cost was JD 2.5 million. Exactly half of the total support services were consumed at PHCs (50%), followed by CHCs (45%) and VHCs (5%). The largest proportion of costs was incurred at the pharmacies, which excluded drug costs. Followed by laboratory and radiology costs, Table 29. Pharmacy services (excluding drug costs) consumed 57 percent of all support cost, followed by laboratory with 28 percent, and the least proportion of 15 percent went to radiology services; 67 percent of pharmacy cost was incurred at PHCs, 25 percent at CHCs and 9 percent at VHCs; 62 percent of laboratory costs were incurred within CHCs, 38 percent within PHCs, and no laboratory associated expenditures were incurred at VHCs. Most of the radiology cost was incurred at CHCs, and 13 percent of that cost was at PHCs. Also no radiology cost was incurred at VHCs. Within CHC centers, laboratory cost consumed the highest proportion (40%) of all support services cost within CHCs, followed by pharmacy with a proportion of 32 percent, and the least proportion of only 29 percent went to radiology. Within the PHC centers three-quarters of all support services was pharmacy cost, 21 percent for laboratory and only 4 percent for radiology services. All support services within VHC centers was pharmacy cost.

**Table (29): Distribution of Support Services Costs by Type of Facility**

Type of Facility	Pharmacy	Radiology	Laboratory	Total	Percent
CHC	351,982	319,660	442,548	1,114,190	45
PHC	952,232	47,552	267,135	1,266,919	50
VHC	131,333			131,333	5
<b>Total</b>	<b>1,435,546</b>	<b>367,212</b>	<b>709,683</b>	<b>2,512,441</b>	<b>100</b>
<b>Percent</b>	<b>57</b>	<b>15</b>	<b>28</b>	<b>100</b>	

### III.2.2.3 Volume of service

As shown in Table 30, costs associated with rendering health care services at high volume centers amounted to JD 20.3 million which accounted for 48 percent of the total cost. JD 13.5 million was spent in medium volume centers (32%), and the remaining one-fifth (JD 8.4 million) at low volume centers. Approximately three-quarters of the total cost was direct cost, of which 66 percent was for curative services and 10 percent was for MCH services. Overhead consumed 19 percent of the total cost, and the rest 6 percent went for support services. The distribution of costs within the type of centers did not vary significantly: direct services cost, curative services cost, MCH cost, and overhead cost all behaved in the same way in relation to the overall cost. Support services cost was the highest for the medium volume center (41%), than the high volume 37 percent and 22 percent went for the low volume.

**Table (30): Distribution of Overall Total Cost by Volume of Service and Type of Cost (000s JDs)**

Item	Overhead Costs	Total support services	General Practice	Specialty	Dental	Emergency	Total MCH	Total Direct Services	Total	%
High	3,550	920	7,799	1,431	3,931	998	1,718	15,876	20,346	<b>48</b>
Medium	2,635	1,031	4,684	570	2,473	869	1,292	9,889	13,555	<b>32</b>
Low	1,819	562	2,874	79	1,341	739	1,020	6,053	8,434	<b>20</b>
<b>Total</b>	<b>8,004</b>	<b>2,512</b>	<b>15,357</b>	<b>2,079</b>	<b>7,745</b>	<b>2,606</b>	<b>4,031</b>	<b>31,818</b>	<b>42,335</b>	<b>100</b>
<b>Percent</b>	<b>19</b>	<b>6</b>						<b>75</b>	<b>100</b>	

Total curative cost was distributed among centers, as follows: 51 percent was consumed by high volume centers, 31 percent by medium volume centers, and 18 percent by low volume centers. General practice consumed the highest proportion of cost in all type of centers; it ranged from 55 percent at medium volume, 55 percent high volume centers and 57 percent at the low volume centers, followed by Dental services (27-29%). Emergency services came third in the low volume centers and medium centers, with respective proportions of 15 percent, and 10 percent, and the fourth in high volume centers (7%), and specialty services came third in the high volume center with a proportion of 10 percent of all curative services.

Almost 43 percent of the total MCH services were administered at high volume centers, followed by 32 percent at medium volume centers and 25 percent at low volume centers. Within MCH services, immunization took the lead and consumed the highest proportion of all MCH cost; it ranged from 27 percent for low volume centers, 30 percent for medium, and 32 percent for high volume centers. Pre and postnatal care and family planning costs were 22 and 20 of the total MCH cost, respectively. Curative MCH and growth and development costs were 17 and 16 percent respectively. Behavior of MCH services cost within low and high volume centers followed the same pattern of overall costs, with medium volume centers an exception as family planning consumed the second highest proportion of MCH cost, followed by prenatal, postnatal, and Growth and development, with the least used by curative MCH, Table 31.

**Table (31): Distribution of Maternal and Child Health Care Costs by Volume of Service**

<b>Item</b>	<b>Prenatal Postnatal</b>	<b>Family Planning</b>	<b>Growth and Development</b>	<b>Immunization</b>	<b>Curative MCH</b>	<b>Total MCH</b>	<b>Percent</b>
High	366,620	334,929	270,097	542,390	204,310	1,718,346	43
Medium	254,864	296,513	190,688	387,582	162,482	1,292,128	32
Low	260,101	174,212	169,927	273,112	142,937	1,020,289	25
<b>Total</b>	<b>881,585</b>	<b>805,654</b>	<b>630,712</b>	<b>1,203,084</b>	<b>509,729</b>	<b>4,030,763</b>	<b>100</b>
<b>Percent</b>	<b>22</b>	<b>20</b>	<b>16</b>	<b>30</b>	<b>17</b>	<b>100</b>	

Pharmacy cost, excluding drug costs, amounted to JD 1.4 million (28%) and constituted more than half of all support services cost (57%), Table 32. Irrespective of the volume of visits, pharmacy costs were always the highest, followed by laboratory and then radiology. The highest proportion of support services were consumed at medium volume centers (41%), followed by high volume facilities (37%) and then at low volume centers (22%).

**Table (32): Distribution of Support Services Costs by Volume of Service**

<b>Item</b>	<b>Pharmacy</b>	<b>Radiology</b>	<b>Laboratory</b>	<b>Total support Services</b>	<b>Percent</b>
High	536,095	98,009	285,598	919,702	37
Medium	514,500	214,584	301,500	1,030,584	41
Low	384,951	54,619	122,585	562,155	22
<b>Total</b>	<b>1,435,546</b>	<b>367,212</b>	<b>709,683</b>	<b>2,512,441</b>	<b>100</b>
<b>Percent</b>	<b>57</b>	<b>15</b>	<b>28</b>	<b>100</b>	

The allocation of overhead cost to both direct cost and support service cost (step 1 cost allocation) and the allocation of support service cost to direct cost (step 2 cost) with its effect on each cost item and service can be seen in tables (37-54) shown in Appendix B.

#### **III.2.2.4 Cost per visit**

The results indicated that overall cost per visit before allocating overhead cost was JD 4.1 (Table 33). The costs varied with type of centers from JD 3.9 for primary centers, JD 4.2 for comprehensive, to JD 6.3 at the village centers. The variation even was greater with regard to volume of services: cost per visit ranged from JD 7.7 at low volume centers, JD 4.4 at medium volume centers, to JD 3.2 at the high volume centers. The overall cost per visit for all direct services was JD 3.4. Curative cost per visit was JD 3.6, MCH cost per visit JD 2.6, and overall support service cost per visit was JD 2.3.

Within Curative services, cost per visit was the highest at JD 9.4, followed by specialty services of JD 7.5. Emergency services came third with a cost per visit of JD 4.1, the same as the overall cost per visit; and finally came general practice cost per visit, below the overall cost figure, amounting to only JD 2.5.

Family planning cost per visit was the highest among all MCH services and all services with a cost per visit of JD 13.1, followed by prenatal and postnatal cost per visit of JD 9.2; both growth and development and curative MCH services were identical at JD 2.3 per visit, and the least cost per visit for MCH services was for immunization, at only JD 1.4.

Among support services, Radiology and Laboratory cost per visit were way below the overall cost per visit, amounting to JD 1.3 and JD 1.9 respectively.

Results in Table 33 indicated that cost per visit for all direct services, support services, and MCH services have followed the same pattern with regard to type of centers, and volume of services in the same way as the overall cost per visit. Within curative services, cost per visit at village centers were the highest, and cost per visit at the primary center were the lowest except for Emergency services; the lowest cost per visit for Emergency services was at the CHCs. The behavior of cost per visit within MCH service with regard to type of services did not follow a systematic pattern. The cost per visit for Growth and Development, Immunization and Curative MCH were the highest at the CHCs, where prenatal and postnatal services cost per visit were the highest at the PHCs. For support services the cost per visit of both Radiology and Laboratory service were the highest at the PHCs.

The volume of service has a clearer affect on the cost per visit where cost per visit decreases with the increase in volume, this relationship applies for the overall cost visit, and for all sub services within the curative and MCH service, except for Family planning where the lowest cost was at the low volume centers, and for the Radiology department, where the lowest cost was at medium volume centers.

Looking into different type of centers and volume of services results indicated that specialty services cost per visit at the low volume centers was the highest at JD 37.7, followed by prenatal and postnatal services at low volume centers. The lowest cost per visit of JD 0.6 was for Laboratory services at high volume centers. More detailed results can be obtained from Table 33.

**Table (33): Overall Costs of Primary Health Care Services for 1999 in JD's, Number of Visits and Cost per Visit**

	Support			Medical Services					MCH Services					All Maternal and Child Health Services	All Support Services (Pharmacy, Lab and X-Ray)	All Direct Services	TOTAL
	Overhead Cost	Pharmacy	Radiology	Laboratory	General Practice	Specialty Services	Dental Services	Emergency Services	Prenatal and Postnatal Services	Family Planning	Growth and Development	Immunization	Curative MCH Services				
<b>Type of facility</b>																	
<b>Costs in Jordanian Dinars for 1999</b>																	
CHC	1,954,316	351,982	319,660	442,548	3,084,341	2,057,095	2,619,029	1,003,660	281,105	263,092	199,861	288,958	164,606	1,197,622	1,114,190	9,961,747	13,030,254
PHC	5,442,081	952,232	47,552	267,135	10,710,738	22,235	5,126,253	1,430,280	600,480	542,562	430,850	812,315	345,123	2,731,330	1,266,919	20,020,835	26,729,834
VHC	607,498	131,333			1,561,952			172,029				101,811		101,811	131,333	1,835,792	2,574,623
<b>Client volume</b>																	
Low	1,818,621	384,951	54,619	122,585	2,874,477	78,508	1,341,352	738,642	260,101	174,212	169,927	273,112	142,937	1,020,289	562,155	6,053,268	8,434,044
Medium	2,635,334	514,500	214,584	301,500	4,683,773	569,891	2,473,332	869,487	254,864	296,513	190,688	387,582	162,482	1,292,128	1,030,584	9,888,612	13,554,530
High	3,549,940	536,095	98,009	285,598	7,798,782	1,430,931	3,930,597	997,839	366,620	334,929	270,097	542,390	204,310	1,718,346	919,702	15,876,495	20,346,138
<b>Total</b>	<b>8,003,895</b>	<b>1,435,546</b>	<b>367,212</b>	<b>709,683</b>	<b>15,357,031</b>	<b>2,079,330</b>	<b>7,745,282</b>	<b>2,605,969</b>	<b>881,585</b>	<b>805,655</b>	<b>630,712</b>	<b>1,203,084</b>	<b>509,728</b>	<b>4,030,764</b>	<b>2,512,441</b>	<b>31,818,375</b>	<b>42,334,711</b>
<b>Type of facility</b>																	
<b>Number of visits for 1999</b>																	
CHC			276,063	539,250	1,180,366	255,190	183,194	325,515	34,293	26,937	53,979	200,031	40,704	355,944	815,312	2,300,208	3,115,520
PHC			9,192	259,582	4,548,519	21,535	637,666	288,330	61,883	34,642	225,091	640,070	180,473	1,142,160	268,774	6,638,209	6,906,983
VHC					351,904			29,298				30,381		30,381		411,583	411,583
<b>Client volume</b>																	
Low			3,507	79,862	585,203	2,084	126,045	77,813	12,747	14,887	42,031	109,789	41,890	221,342	83,369	1,012,487	1,095,856
Medium			214,428	273,621	1,640,776	35,340	258,408	252,436	33,653	20,547	78,949	204,582	58,892	396,623	488,049	2,583,582	3,071,631
High			67,319	445,349	3,854,809	239,301	436,407	312,895	49,777	26,146	158,090	556,111	120,395	910,519	512,668	5,753,931	6,266,599
<b>Total</b>			<b>285,254</b>	<b>798,832</b>	<b>6,080,788</b>	<b>276,724</b>	<b>820,859</b>	<b>643,144</b>	<b>96,176</b>	<b>61,580</b>	<b>279,070</b>	<b>870,482</b>	<b>221,177</b>	<b>1,528,484</b>	<b>1,084,086</b>	<b>9,350,000</b>	<b>10,434,087</b>
<b>Type of facility</b>																	
<b>Cost per visit in JD's</b>																	
CHC			1.2	0.8	2.6	8.1	14.3	3.1	8.2	9.8	3.7	1.4	4.0	3.4	1.4	4.3	4.2
PHC			5.2	1.0	2.4	1.0	8.0	5.0	9.7	15.7	1.9	1.3	1.9	2.4	4.7	3.0	3.9
VHC					4.4			5.9				3.4		3.4		4.5	6.3
<b>Client volume</b>																	
Low			15.6	1.5	4.9	37.7	10.6	9.5	20.4	11.7	4.0	2.5	3.4	4.6	6.7	6.0	7.7
Medium			1.0	1.1	2.9	16.1	9.6	3.4	7.6	14.4	2.4	1.9	2.8	3.3	2.1	3.8	4.4
High			1.5	0.6	2.0	6.0	9.0	3.2	7.4	12.8	1.7	1.0	1.7	1.9	1.8	2.8	3.2
<b>Total</b>			<b>1.3</b>	<b>0.9</b>	<b>2.5</b>	<b>7.5</b>	<b>9.4</b>	<b>4.1</b>	<b>9.2</b>	<b>13.1</b>	<b>2.3</b>	<b>1.4</b>	<b>2.3</b>	<b>2.6</b>	<b>2.3</b>	<b>3.4</b>	<b>4.1</b>

When overhead costs were allocated to support services and direct services, the results indicated no change on the cost per visit for the overall services (Table 34) and with regard to type of centers and volume of services. Almost the same pattern of cost per visit existed with regard to different activities, the type of centers, and volume of services.

**Table (34): Overall Costs of Primary Health Care Services for 1999 in JD's, Number of Visits and Cost per Visit**

**with Allocation of Overhead to Support and Direct Services**

	Support Services			Medical Services				MCH Services								
	Pharmacy	Radiology	Laboratory	General Practice	Specialty Services	Dental Services	Emergency Services	Prenatal and Postnatal Services	Family Planning	Growth and Development	Immunization	Curative MCH Services	All Maternal and Child Health Services	All Support Services (Pharmacy, Lab and X-Ray)	All Direct Services	TOTAL
<b>Type of facility</b>																
<b>Costs in Jordanian Dinars for 1999</b>																
CHC	504,148	377,924	585,342	3,499,033	2,290,585	2,908,968	1,306,113	348,854	329,357	267,938	391,987	220,005	1,558,142	1,467,414	11,562,840	13,030,254
PHC	1,524,579	64,112	323,972	12,337,249	22,235	5,904,299	2,423,602	867,186	831,102	659,618	1,269,748	502,131	4,129,786	1,912,663	24,817,171	26,729,834
VHC	178,490	2,907	2,907	1,937,864							157,116		157,116	184,304	2,390,319	2,574,623
<b>Client volume</b>																
Low	591,018	74,213	162,487	3,370,204	88,229	1,584,592	1,139,332	342,310	244,402	238,513	395,139	203,603	1,423,967	827,718	7,606,325	8,434,043
Medium	803,658	251,799	385,539	5,487,667	637,719	2,763,712	1,378,197	349,734	428,725	273,289	570,134	224,349	1,846,231	1,440,995	12,113,526	13,554,521
High	812,541	118,931	364,196	8,916,276	1,586,872	4,464,962	1,507,524	523,997	487,332	415,755	853,578	294,184	2,574,845	1,295,668	19,050,479	20,346,147
<b>Total</b>	<b>2,207,217</b>	<b>444,943</b>	<b>912,221</b>	<b>17,774,147</b>	<b>2,312,820</b>	<b>8,813,267</b>	<b>4,025,053</b>	<b>1,216,041</b>	<b>1,160,459</b>	<b>927,556</b>	<b>1,818,851</b>	<b>722,136</b>	<b>5,845,044</b>	<b>3,564,381</b>	<b>38,770,330</b>	<b>42,334,711</b>
<b>Type of facility</b>																
<b>Number of visits for 1999</b>																
CHC		276,063	539,250	1,180,366	255,190	183,194	325,515	34,293	26,937	53,979	200,031	40,704	355,944	815,312	2,300,208	3,115,520
PHC		9,192	259,582	4,548,519	21,535	637,666	288,330	61,883	34,642	225,091	640,070	180,473	1,142,160	268,774	6,638,209	6,906,983
VHC				351,904			29,298				30,381		30,381		411,583	411,583
<b>Client volume</b>																
Low		3,507	79,862	585,203	2,084	126,045	77,813	12,747	14,887	42,031	109,789	41,890	221,342	83,369	1,012,487	1,095,856
Medium		214,428	273,621	1,640,776	35,340	258,408	252,436	33,653	20,547	78,949	204,582	58,892	396,623	488,049	2,583,582	3,071,631
High		67,319	445,349	3,854,809	239,301	436,407	312,895	49,777	26,146	158,090	556,111	120,395	910,519	512,668	5,753,931	6,266,599
<b>Total</b>		<b>285,254</b>	<b>798,832</b>	<b>6,080,788</b>	<b>276,724</b>	<b>820,859</b>	<b>643,144</b>	<b>96,176</b>	<b>61,580</b>	<b>279,070</b>	<b>870,482</b>	<b>221,177</b>	<b>1,528,484</b>	<b>1,084,086</b>	<b>9,350,000</b>	<b>10,434,087</b>
<b>Type of facility</b>																
<b>Cost per visit in JD's</b>																
CHC		1.4	1.1	3.0	9.0	15.9	4.0	10.2	12.2	5.0	2.0	5.4	4.4	1.8	5.0	4.2
PHC		7.0	1.2	2.7	1.0	9.3	8.4	14.0	24.0	2.9	2.0	2.8	3.6	7.1	3.7	3.9
VHC				5.5			10.1				5.2		5.2		5.8	6.3
<b>Client volume</b>																
Low		21.2	2.0	5.8	42.3	12.6	14.6	26.9	16.4	5.7	3.6	4.9	6.4	9.9	7.5	7.7
Medium		1.2	1.4	3.3	18.0	10.7	5.5	10.4	20.9	3.5	2.8	3.8	4.7	3.0	4.7	4.4
High		1.8	0.8	2.3	6.6	10.2	4.8	10.5	18.6	2.6	1.5	2.4	2.8	2.5	3.3	3.2
<b>Total</b>		<b>1.6</b>	<b>1.1</b>	<b>2.9</b>	<b>8.4</b>	<b>10.7</b>	<b>6.3</b>	<b>12.6</b>	<b>18.8</b>	<b>3.3</b>	<b>2.1</b>	<b>3.3</b>	<b>3.8</b>	<b>3.3</b>	<b>4.1</b>	<b>4.1</b>

The final results after allocating support services cost to direct cost (Table 35) indicated that overall average cost per visit at all centers was JD 4.5, this is because visits to the support services are not allocated to direct services along with their costs. This cost per visit varied within the type of center from JD 4.0 at the PHC center, JD 5.7 at the comprehensive centers, to JD 6.3 at the village centers. The cost of providing maternal and child health services was the same proportion of the overall cost, JD 4.5. The lowest cost per visit was at the PHCs followed by comprehensive centers, and the highest cost was at the village centers. Overall volume of services has a clear effect on the cost per visit. That cost ranged from JD 8.3 for the low volume, JD 5.2 for medium volume to JD 3.5 for the high volume centers.

As expected, cost per GP visit is the lowest as compared to specialty, dental or emergency visits. Dental services cost per visit reached JD 11.4, followed by specialty services with JD 8.9, and Emergency services cost per visit amounted JD 7.4. Specialty services cost per visit at low volume centers was the highest, with a cost per visit of JD 46.5, followed by Emergency services at the medium volume center of JD 20.4; cost per visit at low volume centers was the third highest cost per visit for all curative care (JD 17.4). Specialty services cost per visit at PHCs. Within MCH services, family planning reached an unexpected rate of JD 22.7 per visit, almost 5 times the overall cost, followed by prenatal and postnatal services of JD 14.7. Growth and development, immunization and curative MCH services cost per visit all came below the overall MCH cost per visit of JD 4.5; looking into detailed results, the highest cost per visit at MCH services was for prenatal and postnatal services at low volume centers (JD 31.3) followed by family planning at primary centers, medium volume centers, high volume centers, low volume centers, and comprehensive centers.

**Table (35): Overall Distribution of Number of Visits and Cost Per Visit with Allocation of Overhead and Support Services Costs to Direct Services**

	Medical Services				MCH Services					All Maternal and Child Health Services	All Direct Services
	General Practice	Specialty Services	Dental Services	Emergency Services	Prenatal and Postnatal Services	Family Planning	Growth and Development	Immunization	Curative MCH Services		
<b>Type of facility</b>											
<b>Costs in Jordanian Dinars for 1999</b>											
CHC	3930394	2436184	3144978	1602303	425949	428112	320397	474540	267397	1916395	13030254
PHC	12966699	22235	6205094	2834125	986546	968825	742916	1433858	569538	4701682	26729834
VHC	2065070			299339				210214		210214	2574623
<b>Total</b>	<b>18962163</b>	<b>2458418</b>	<b>9350071</b>	<b>4735767</b>	<b>1412495</b>	<b>1396938</b>	<b>1063313</b>	<b>2118612</b>	<b>836934</b>	<b>6828292</b>	<b>42334711</b>
<b>Client volume</b>											
Low	3587524	96876	1715486	1355520	398423	285905	280850	469202	244257	1678637	8434043
Medium	5988452	720117	2969858	1665191	422210	539804	317815	665978	264600	2210407	13554025
High	9386187	1641425	4664727	1715056	591862	571228	464648	983432	328077	2939248	20346643
<b>Total</b>	<b>18962163</b>	<b>2458418</b>	<b>9350071</b>	<b>4735767</b>	<b>1412495</b>	<b>1396938</b>	<b>1063313</b>	<b>2118612</b>	<b>836934</b>	<b>6828292</b>	<b>42334711</b>
<b>Type of facility</b>											
<b>Number of Visits for 1999</b>											
CHC	1,180,366	255,190	183,194	325,515	34,293	26,937	53,979	200,031	40,704	355,944	2,300,208
PHC	4,548,519	21,535	637,666	288,330	61,883	34,642	225,091	640,070	180,473	1,142,160	6,638,209
VHC	351,904			29,298				30,381		30,381	411,583
<b>Total</b>	<b>6080789</b>	<b>278,724</b>	<b>822,859</b>	<b>643,144</b>	<b>96,176</b>	<b>61,580</b>	<b>279,070</b>	<b>870,482</b>	<b>221,177</b>	<b>1,528,484</b>	<b>9,350,000</b>
<b>Client volume</b>											
Low	585,203	2,084	126,045	77,813	12,747	14,887	42,031	109,789	41,890	221,342	1,012,487
Medium	1,640,776	35,340	258,408	252,436	33,653	20,547	78,949	204,582	58,892	396,623	2,583,582
High	3,854,809	239,301	436,407	312,895	49,777	26,146	158,090	556,111	120,395	910,519	5,753,931
<b>Total</b>	<b>6080789</b>	<b>278,724</b>	<b>822,859</b>	<b>643,144</b>	<b>96,176</b>	<b>61,580</b>	<b>279,070</b>	<b>870,482</b>	<b>221,177</b>	<b>1,528,484</b>	<b>9,350,000</b>
<b>Type of facility</b>											
<b>Cost Per Visit in JD's</b>											
CHC	3.3	9.5	17.2	4.9	12.4	15.9	5.9	2.4	6.6	5.4	5.7
PHC	2.9	1.0	9.7	9.8	15.9	28.0	3.3	2.2	3.2	4.1	4.0
VHC	5.9			10.2				6.9		6.9	6.3
<b>Total</b>	<b>3.1</b>	<b>8.9</b>	<b>11.4</b>	<b>7.4</b>	<b>14.7</b>	<b>22.7</b>	<b>3.8</b>	<b>2.4</b>	<b>3.8</b>	<b>4.5</b>	<b>4.5</b>
<b>Client volume</b>											
Low	6.1	46.5	13.6	17.4	31.3	19.2	6.7	4.3	5.8	7.6	8.3
Medium	3.6	20.4	11.5	6.6	12.5	26.3	4.0	3.3	4.5	5.6	5.2
High	2.4	6.9	10.7	5.5	11.9	21.8	2.9	1.8	2.7	3.2	3.5
<b>Total</b>	<b>3.1</b>	<b>8.9</b>	<b>11.4</b>	<b>7.4</b>	<b>14.7</b>	<b>22.7</b>	<b>3.8</b>	<b>2.4</b>	<b>3.8</b>	<b>4.5</b>	<b>4.5</b>

A summary of all the results is shown in Table 36 The highest overall cost per visit was at the low volume VHC centers (JD 20.6) where the overall lowest cost per visit was at high volume PHCs (JD 3.3); all high volume centers within different types of facility cost per visit were below the overall cost per visit of JD 4.5. All low volume centers within different types of facilities cost per visit were above the overall cost per visit of JD 4.5. At medium volume centers, only PHC cost per visit was below the overall cost per visit.

**Table (36): Overall Costs of Primary Health Care Services, Number of Visits and Cost per Visit by Type of Facility and Client Volume**

Type of Facility	Category	Client volume			
		Low	Medium	High	Total
CHC	Total Cost	2,281,577	5,253,833	5,494,844	13,030,254
	Number of visits	283,577	755,955	1,260,677	2,300,208
	Cost per visit	8.0	6.9	4.4	5.7
PHC	Total Cost	5,496,442	7,381,525	13,851,868	26,729,834
	Number of visits	697,073	1,695,520	4,245,617	6,638,209
	Cost per visit	7.9	4.4	3.3	4.0
VHC	Total Cost	656,025	919,172	999,426	2,574,623
	Number of visits	31,837	132,108	247,638	411,583
	Cost per visit	20.6	7.0	4.0	6.3
Total	Total Cost	8,434,044	13,554,530	20,346,138	42,334,711
	Number of visits	1,012,487	2,583,582	5,753,931	9,350,000
	Cost per visit	8.3	5.2	3.5	4.5

## IV. Conclusions

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### IV.1 Staffing patterns

Analysis of personnel observations based on clinical time, non-clinical time and downtime showed the following:

1. On an average, almost half the time (49%) was spent by various providers on non-work related activities or as down time. Approximately, 29 percent of the total time was spent on clinical activities, and the rest on work related, but non-clinical activities. Interestingly enough, physicians had the largest down time (52%) when compared to nurses (48%) and midwives (43%). However, they also had the largest proportion of clinical time (33%) than midwives and nurses, implying that they spent much less time on non-clinical activities than the other two types of providers.
2. Clinical time is the highest in the high volume centers and as expected, it tapers off with a decline in volume. Non-clinical time is the highest in low volume facilities, followed by high volume and medium volume centers. Down time is also the highest at low volume centers, followed by medium and high volume centers.
3. Time spent on clinical activities is the highest in CHCs, well above the average of 29 percent of the different type of facilities. Clinical time at PHCs is slightly below the average. The downtime at PHC was very high, on an average 50 percent of the time each of the providers did no work related activity. At the CHCs average downtime for all providers was 44 percent. In CHCs, nurses had the highest amount of downtime (49%), where as, providers with most free time on their hands were the physicians in PHCs (56%).

During a one-day shift, the physician contacts a mean of 36 clients and spends a mean of 01:50:18 attending to these patients. For a midwife, the mean number of contacts is 10 and the mean time spent with these patients during the day's shift is 00:58:39. Nurses contact a mean of 11 clients during the same period and the mean time spent with those patients during the whole day is 00:53:59.

Mean contact time spent with a single patient by provider shows that a physician spends 3'05", a midwife 5:56, and a nurse 5:07. This contact time is not uniform for all types of facilities. In CHCs, the mean contact time between a patient and provider is 4:00 and in PHCs 3:36. This length of contact time appears to be too short to reach an accurate diagnosis and administer appropriate treatment.

Mean contact time by volume of visits showed that the highest contact time (4:51) is found in low volume facilities, followed by the medium volume with 3:57 and high volume facilities with 3:13. It appears that the length of contact time between patient and provider is inversely proportionate to the volume of visits in the facility.

Types of services provided to clients appear to have a clear influence on the length of the visit. Family planning services have the longest visit time, since such services need extensive explanation and health education, usually requested by the patient, before a final decision is reached.

Pre-natal visits are second in length since a complete pre-natal examination requires a thorough physical examination and the performance of several tests. The third in length are vaccination and immunization visits, as handling infants and children to perform these services may be time-consuming. Emergency services come fourth as the care may involve several diagnostic tests. Growth and development visits are the fifth longest. The highest contact time is for a group of procedures including wound dressing, measurement of vital signs and injections. As for downtime, there are some components that are preventable, while others appear to be difficult to prevent. The highest component of downtime is "waiting for clients" which means that the flow of patients in the facilities is not uniform. Theoretically, this component can be prevented by the adoption of an appointment system. Walk-in patients, even from the neighborhood, are the majority of daily attendance. Changing the habits of the

population regarding the pattern of utilization of the health center may need drastic changes in the procedural functioning of health centers, such as dividing the provision of care between appointment and walk-in clinics. Further analysis is necessary to determine the reasons behind the pattern of patient in-flow. It may be expected that the advantages of the appointment system will convince clients to choose it for their regular non-emergency visits. Appointment system is likely to be more effective for specialty services than general practice services, because first of all the availability of the specialist may be limited and therefore, an appointment will ensure a meeting with him/her. Secondly, a visit to the specialist is less casual than seeking preventive or basic curative care from a GP, where patients generally just walk-in.

As to the second component, “left the shift early,” which is mainly seen among physicians, it may be related on one hand to the absence of patients at the end of the shift and the usual lack of strict observance of shift times among this group of providers. However it is not realistic for a physician to leave his shift if there are still patients waiting to be seen.

The third component of the downtime “chatting with other staff members about non-work related matters” is closely related to the lack of regular flow of patients and “waiting for clients” which is the largest, factor in downtime. If the flow of patients is regular and continuous throughout the shift, the downtime of providers will probably decrease to a minimum.

## IV.2 Costing study

The analysis of the results of the costing section of this study was centered on the effect of type of facility and volume of services on total cost, capital cost, recurrent cost, item cost, specific service cost, and cost per visit. The analysis of the results lead to the following conclusions:

1. The estimated cost of providing primary health services at MoH centers of JD 42,334,711 is not far from the number of JD 50,331,000 reached by the National Health Account team for 1998, especially if we consider other cost of Primary care outside the Health Centers which were excluded in this study.
2. Most of the cost incurred at the centers to provide primary health services is recurrent cost (89%); personnel cost was the highest cost item, almost reaching half the total cost of all primary services. This number is worth consideration when looking into reduction of cost or increasing the efficiency of providing services. Drugs and clinical supplies are other possibility for consideration.
3. Almost three fourth of the total cost consumed providing direct services with an overall per visit cost (JD 3.4) which is below the overall cost per visit for all services; when overhead cost was allocated, the cost per visit of direct services equal the overall cost per visit at JD 4.1 which means that each direct service visit bears overhead cost of JD 0.7.
4. Maternal and child services consumed less than 10% of the total cost (JD 4 million); but the overall cost per visit for all MCH service may be misleading if we consider the cost per visit for the family planning (JD 22.7), and prenatal and postnatal (JD 14.7), and that only 30% of the total MCH services cost went for immunization, which makes up 57% of all MCH services visit.
5. About two thirds, 63.1%, of the total cost (JD26.7 million) was consumed at PHC centers to provide services to 71% of all visits, with an average annual cost for each PHC center of JD 0.08 million, while 30.8% of the total cost (JD13.0 million) was used by CHC to provide services to 25% of all visits with an average annual cost for each CHC center of JD310 thousands. The VHC used only 6.1% of the total cost (JD2.6 million) to provide services to 4% of all visits with an average annual cost of JD10,176. The cost per visit

was JD 6.3 for VHC, JD 5.7 for CHC, and JD 4.0 for PHC, which provides an indication for possible adjustment within the structure and hierarchy of primary services.

6. Almost half of the total cost (JD20.3 million) went to high volume centers, to provide services to 62% of all visits, with an average annual cost per center of JD 95,075 and a cost per visit of JD 3.5. About one third (32%) of the total cost (JD13.6 million) went to medium volume center to provide services to 28% of all visits, with an average annual cost per center of JD 64,854, and a cost per visit of JD 3.2; on the other hand only 19.9% of the total cost (JD8.4 million) was used by low volume centers to provide services to 11% of all visits, with an annual average cost for each center of JD 40,548, and a cost per visit of JD 8.3.
7. The village centers provide general practice, Emergency and Immunization services, and the cost per visit for each type of these services is above the average overall cost of all services.
8. The cost per visit for general practice at the primary health center is less than its cost at the comprehensive centers by JD 0.4 which mean that if such services had been limited to the primary center the saving in the cost may reach JD 472,146; the same may be said about the Dental service where the saving per visit equal JD 7.5 with a total saving of JD 1.4 million.

## V. Recommendations

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The detailed analysis of the staffing pattern and expenditures incurred in the primary care sector highlight several shortcomings of the system. The results reveal that a lot of these shortcomings are interlinked and therefore they solicit a system wide approach. The Jordanian primary care system is reasonably robust and widespread. People who need care can access some basic care, however, given the macro-economic trends and population growth rate, the ability to sustain even the existing level of quality and amount of services in the future may be a challenge. The overall expenditures on primary health care are not very high, but there is room to improve how resources are allocated and the efficiency of their use. General recommendations on addressing some of the shortcomings are discussed below.

1. One of the most critical findings of this study is the incredibly high proportion of downtime (almost half) experienced by all service providers. Two major reasons can be cited for this. One, highly concentrated patient flow (90% of the patients seek care between 9.00 am – 12.00), second, very short contact time between the patient and the physician, averaging to less than 4 minutes. One of the first steps towards enhancing the quality of care would be to utilize the providers' time more effectively. It can be achieved by implementing a system that involves defining suitable case-mix, and mandates that require firm control or incentives for service providers to be more detailed in their assessment and dispensing care. More time spent per client would result in spreading the client load over a few extra hours and therefore, resolve the problem of excessive downtime to some extent, and ensure higher quality care.
2. The primary cause that was identified for down time was “waiting for patients” This can be partially addressed by introducing an appointment system. Adoption of an appointment system in facilities where services provided are not of an urgent nature, such as, general practice services, maternal and child services, family planning services,

dental services, and specialty clinics, can assist in better managing the patient flow. In relatively large health centers where several GP clinics are operating, an appointment system can work jointly with walk-in clinics. Such a policy may also increase contact time with patients, especially if the proposed system is coupled with the adoption of standardized protocols and adequate training. In high volume facilities, special clinics (e.g. for diabetes) can be operated on an appointment basis. An across the board adoption of appointment system may not be best suited for Jordan until a health care seeking habits of individuals are further explored.

3. The second major finding and concern is the distribution of costs and poor allocation of resources. The cost per visit or the overall cost is not very high, but many facilities are overstaffed coupled with underutilized of services. Improvement in the primary health care services requires availability of resources and their optimum use. Improving the efficiency of existing facilities by rationalizing staff, and cost saving from more rational use of drugs can save money and enhance quality of care. Money saved can be used by MoH to improve facilities' infrastructure and quality of care. At the national level, more work needs to be done with Ministry of Finance to allow cost savings to be retained within MoH so that it can be used to improve its services.
4. Since visit costs in low volume facilities were found to be more than double the cost of services in high volume facilities, MoH ought to consider the following:
  - Staffing patterns of existing facilities should be matched with the actual or expected effective demand.
  - In addition to existing criteria, MoH should take into consideration, while planning for establishment of new facilities, the expected volume of clients as part of a comprehensive needs assessment study.

5. Given how expensive the cost per pre and post natal, and family planning visit is, the option of contracting out those services should be evaluated. Non-Governmental organization and the private sector may be better suited to provide these types of services in the most efficient manner.
6. This study strongly recommends that MoH avoids any expansion of VHCs, given its high cost per visit. Politically it may not be possible to close down any of the existing 253 VHCs. Also, given that they account for only 6 percent of the total cost of providing care, closing them down will not produce significant savings. Therefore it is prudent to keep that status quo of VHCs without any future expansion. However, VHCs' role need to be re-defined, with additional services provided in order to maximize the return for money spent. Such an expanded role may include health education and strengthening of community participation.
7. Provision of lab and x-ray as a part of the support services was found to be relatively cheap; therefore it is encouraged to maintain provision of these services since it contributes positively to higher quality of care and may reduce referrals of recipients of these types of services to higher levels of care.
8. MCH visit cost is no different from other direct services, however, breaking down these services showed that some deserve special attention (e.g. prenatal, postnatal, and family planning). The high cost of these services is due to their underutilization. Underutilization of MCH care is highlighted by the fact that expenditures on MCH care is only half of that incurred on dental care. Part of the underutilization may be due to clients' preferences for provider gender not being met. An in-depth inquiry into utilization patterns and demand is needed in order to design services that best meet client expectations.

9. Mapping of services by region is another exercise that ought to be undertaken in order to look for clusters of VHCs that serve a particular geographical area. The MoH can then propose to the district planning council that these clusters of health centers be replaced by a an upgraded version of a PHC that provides a better range of services, in exchange for closure of these VHCs.
  
10. Although the referral and feedback system was not within the scope of this study, we find it necessary to emphasize that this aspect of primary healthcare services should be examined in depth, because duplication of services within different levels of care means higher costs to MoH and distortion of real costs incurred by each level. According to the National Health Accounts of 1998, hospital outpatient visits amounted to 4.4 million visits. The MoH share of these visits was 1.8 million visits and the remaining 2.6 million visits were either to Royal Medical Services, Jordan University Hospital or private hospitals. Many of these visits to hospital outpatient departments take place without an appropriate referral. Since MoH facilities are underutilized many of these hospital outpatient visits can be avoided by directing them to underutilized facilities. MoH needs to rethink its package of services and levels of hierarchy so that certain services provided at the VHC are different from those provided at the PHC and CHC. By the same token, CHCs do not need to replicate the same services available at the PHCs, but rather should deliver more specialized services and not those that are already offered at the PHCs.
  
11. MOH should consider implementing a monitoring and evaluating system to keep a track of expenditure and utilization of services. Creation of a system of reporting, with a dual function that links performance with financial status of health facilities, could be one way of monitoring and evaluating the system on a regular basis. This analysis could be done at the governorate level with inputs from facilities on utilization, consumption of drugs, and supplies. The analysis can then be fed back into facilities and sent upward in the

MoH hierarchy. Such a system can be field tested in a smaller governorate with fewer facilities before being implemented on a national level. Three main steps need to be followed:

- Development of reporting systems to track costs and utilization.
- Data analysis to be forwarded to facility manager and Director Generals for decision-making.
- Use the results with Director Generals to come operationalization plan at the governorate level.
- Action based on data analysis.

12. To create a cost-conscious culture within MoH both at the decision-making level and at that of facilities through a series of workshops for directors of facilities and providers of care. Decision makers need to know the costs of alternative policy options dealing with staffing or provision of certain types of services. Providers of care also need to know the costs of services that they extend in the hope that this would lead to more rationalized used of lab investigations, radiology tests ordered, and treatment regimens prescribed. Modification of the prevailing culture is envisaged to be a long term process that can be achieved by a combination of the following:

- Training workshops on health economics and costing of services.
- Developing systems, e.g.: systems of monitoring of resource use.
- Payment/Incentives for successful cost containment of costs.
- Adoption and dissemination of reinforcing messages that carry the main themes of cost reduction and efficient use of existing resources.

## VI. Appendices

## VI.1 Appendix A

Distribution of Sample Facility by Team

Facility Name	Type of Center	Governorate	Region	Team
Abu Nsseir	CHC	Amman	Central	West Amman
Al-Taj	PHC	Amman	Central	West Amman
East Al-Weibde	CHC	Amman	Central	West Amman
Jebal Al-Hussen	CHC	Amman	Central	West Amman
Na'our	CHC	Amman	Central	West Amman
Jabal Amman	PHC	Amman	Central	West Amman
Al-Bassa	PHC	Amman	Central	West Amman
Bader	PHC	Amman	Central	West Amman
Al-Muraqab	PHC	Amman	Central	West Amman
Nuzhat Sahab	PHC	Amman	Central	East Amman
Al-Faisalieh	PHC	Amman	Central	East Amman
Abu Hulailifah	PHC	Amman	Central	East Amman
Al-Abdaliah	VHC	Amman	Central	East Amman
Manga	VHC	Amman	Central	East Amman
Al-Bnaiyat	VHC	Amman	Central	East Amman
Haneena	PHC	Madaba	Central	East Amman
Lub	PHC	Madaba	Central	East Amman
Subhi Shbeeb	PHC	Zarqa	Central	East Amman
Hai Al-Ameer H	PHC	Zarqa	Central	East Amman
Al-Tatweer Al-	PHC	Zarqa	Central	East Amman
Al-Azraq	CHC	Zarqa	Central	East Amman
Al-Oumari	VHC	Zarqa	Central	East Amman
Um-Al-Sleih	PHC	Zarqa	Central	East Amman
Abu-Al-Zeighan	VHC	Zarqa	Central	East Amman
Awajan	PHC	Zarqa	Central	East Amman
Al-Manshieh	PHC	Balqa	Central	West Amman
Mahess	PHC	Balqa	Central	West Amman
Salhoub	PHC	Balqa	Central	West Amman
Al-Sbeihi	PHC	Balqa	Central	West Amman
Moubess	VHC	Balqa	Central	West Amman
Sal'ouf	VHC	Balqa	Central	West Amman
Eleiqoun	VHC	Balqa	Central	West Amman
Jreish	VHC	Balqa	Central	West Amman
Kufr Houda	VHC	Balqa	Central	West Amman
Al-Rumman	VHC	Balqa	Central	West Amman
Janoub Gharb A	PHC	Balqa	Central	West Amman
Al-Maghareeb w	PHC	Balqa	Central	West Amman
Khazma	PHC	Balqa	Central	West Amman
Al-Karamah	PHC	Balqa	Central	West Amman
Ibin Seena	PHC	Irbid	North	North Two
Anbah	PHC	Irbid	North	North Two
Kofr Youba	CHC	Irbid		North Two
Fo'ara	PHC	Irbid	North	North Two
Marou	VHC	Irbid	North	North Two
Qam	VHC	Irbid	North	North Two
Al-Husson	PHC	Irbid	North	North Two
Shanta	VHC	Irbid	North	North Two
Zahar	PHC	Irbid	North	North Two
Koufor Rahta	VHC	Irbid	North	North Two
Al-Baqourah	VHC	Irbid	North	North Two

**Distribution of Sample Facility by Team**

<b>Facility Name</b>	<b>Type of Center</b>	<b>Governorate</b>	<b>Region</b>	<b>Team</b>
Al-Ramtha Al-S	PHC	Irbid	North	North Two
Thuneibeh	PHC	Irbid	North	North Two
Koufor Soum	PHC	Irbid	North	North Two
Hartha	PHC	Irbid	North	North Two
Sama Al-Roussa	VHC	Irbid	North	North Two
Ajloun	CHC	Ajloun	North	North One
Al-Hashimiah	PHC	Ajloun	North	North Two
Rajeb	PHC	Ajloun	North	North One
Rasoun	PHC	Ajloun	North	North One
Ba'oun	PHC	Ajloun	North	North Two
Halawa	PHC	Ajloun	North	North Two
Samta	VHC	Ajloun	North	North One
San'ar	VHC	Ajloun	North	North One
Al-Mastaba	PHC	Jerash	North	North One
Kufur Khal	PHC	Jerash	North	North One
Al-Msheirfeh	VHC	Jerash	North	North One
Muqbleh	VHC	Jerash	North	North One
Al-Rashadiah	VHC	Jerash	North	North One
Rihab	CHC	AL-Mafraq	North	North One
Nadrah	PHC	AL-Mafraq	North	North One
Al-Mabroukah	VHC	AL-Mafraq	North	North One
Jaber Al-Sarha	VHC	AL-Mafraq	North	North One
Al-Mkeifteh	PHC	AL-Mafraq	North	North One
Khashare'e Al-	VHC	AL-Mafraq	North	North One
Al-Jeibeh	VHC	AL-Mafraq	North	North One
Al-Ageb	VHC	AL-Mafraq	North	North One
Mathanet Rajel	VHC	AL-Mafraq	North	North One
Einoon	VHC	AL-Karak	South	South
Areeha wa Abu-	PHC	AL-Karak	South	South
Al-Rabba	CHC	AL-Karak	South	South
Madeen	VHC	AL-Karak	South	South
Al-Bgei'	VHC	AL-Karak	South	South
Al-Karak	CHC	AL-Karak	South	South
Mu'aab	PHC	AL-Karak	South	South
Majra	PHC	AL-Karak	South	South
Adar	PHC	AL-Karak	South	South
Al-Samakiah	PHC	AL-Karak	South	South
Ghor Al-Mazra'	PHC	AL-Karak	South	South
Damnah	VHC	AL-Karak	South	South
Al-Eian	VHC	AL-Karak	South	South
Ghrandal	PHC	Tafila	South	South
Ma'a'n	CHC	Maan	South	South
Al-Jarba'a	VHC	Maan	South	South
Al-Zbeirieh	VHC	Maan	South	South
Hawala	VHC	Maan	South	South
Al-Taibeh Al-J	PHC	Maan	South	South
Wadi Mousa	CHC	Maan	South	South
Al-Muhamadiyah	VHC	Maan	South	South
Qrein	VHC	Maan	South	South
Sweimra	VHC	Maan	South	South
Rahma	PHC	Aqaba	South	South
Al-Hamimah	VHC	Aqaba	South	South



**Coding Manual for Medical Equipment**

<b>Code</b>	<b>Item</b>	<b>Notes</b>
1	Autoclave	
2	Boiling Sterilizer	
3	Heat Sterilizer	
4	Blood Centrifuge	
5	Refrigerator	
6	Thermometer in Refrigerator	
7	Sphygmomanometer (blood Pressure instrument)	
8	Syringe and needle disposal	
9	Biohazard Materials Disposal Unit	
10	Vaginal speculum	
11	Tenaculum	
12	Ring Forceps	
13	Uterine Sound	
14	Microscope	
15	Urine Holder	
16	Needle Holder	
17	Forceps (regular, crocodile, chattel)	
18	Scissors	
19	Hemostat Clamp	
20	Oxygen Cylinder	
21	Infant Scale	
22	Adult Scale	
23	Infant Height Measure	
24	Child Height Measure	
25	Fetal Doppler Stethoscope	
26	Autoscope / Ophthalmoscope	
27	Suction Equipment	
28	ECG Machine	
29	Cardiac Monitor	
30	Cardiac Defibrillator	
31	Ultrasound Machine	
32	X-ray Machine	
33	Fluoroscope	
34	Water Bath	
35	Eye Chart	
36	Stove	
37	TV	
38	VCR	
39	Overhead projector	
40	Slide projector	
41	Glucose level estimation device	
42	Drum	
43	Hand held flash light	
44	Metal Tongue depressor	

### Coding Manual for Medical Equipment

Code	Item	Notes
45	Kidney dish	
46	Thermos for vaccines	
47	Stethoscope	
48	Thermometer	
49	Hammer	
50	Stainless steel Jar	
51	Stainless steel Basin	
52	Wheel chair	
53	Patient trolley	
54	X-ray viewing screen	
55	Delivery bed	
56	Patient exam bed	
57	Umbu bag	
58	Metal splints	
59	Medical bag	
60	Spectrophotometer	
61	Oven	
62	Hematocrite Centrifuge	
63	Shaker , Vibrator	
64	E.N.T chair	
65	Hand mirror	
66	Galli- Pot	
67	Nasal Speculum	
68	Ear Washing Pump	
69	Probe E.N.T	
70	Laryngeal Mirror	
71	Fork Set	
72	Ear Speculum	
73	Head Mirror	
74	Intubations set	
75	Urine Centrifuge	
76	Chlorine test	
77	Glass Bowl	
78	E.N.T Syringe	
79	Pharmaceutical Measuring Scale	
80	Air Way	
81	Pelvic Measurement	
82	Pelvic	
83	Electrocautery	
84	Curette	
85	Nebulizer	
86	Spatula	
87	Oxygen Watch	
88	T.V. Stand	
89	Blade. Surgical Handle	

**Coding Manual for Medical Equipment**

<b>Code</b>	<b>Item</b>	<b>Notes</b>
90	Surgical instrument kit.	
91	Oxygen Mask	
92	Segmoidoscope	
93	Delivery Bag	
94	Vaccine Bag	
95	ENEMA Set	
96	Auto micro Pipette	
97	ESR Stand	
98	Rack Play, Tubes Rack	
99	Vibrator For WBCs	
100	Diminizen	
101	Spectronic	
102	Tripod Iron	
103	Benzene Burn	
104	Timer	
105	Apron Lead	
106	X- Ray Processing	
107	X-Ray Cassette	
108	Hunger	
109	Earth Cassette	
110	Safe Light	
111	Dryer	
112	Film Stronger Box	
113	Floor Cassette Stand	
114	Chest Stand Iron	
115	Laboratory Table	
116	Klett Summer Son Complete With Two Tube	
117	Blood Reader	
118	Steel Sterilizing Pipette	
119	WBCs Pipette	
120	RBCs Pipette	
121	Automatic Pipette 500 Micro	
122	Automatic Pipette 5 Micro	
123	Automatic Pipette 10 Micro	
124	Automatic Pipette 50 Micro	
125	Automatic Pipette 100 Micro	
126	Ambulance	
127	Car for Administrative Use	
128	Laryngoscope	
129	Bone Cutter	
130	ESR Tube	
131	Chamber Count	
132	O2 Cylinder Stand	
133	Tempanogram	
134	Audio Gram	

### Coding Manual for Medical Equipment

<b>Code</b>	<b>Item</b>	<b>Notes</b>
135	Lenso Meter	
136	Retinoscope	
137	Relain Speculum	
138	Side Lamp	
139	Lenses Box	
140	Electrophoresis Scanner	
141	Electrophoresis Printer	
142	Electrophoresis Washer	
143	Sterilizer Lamp	
144	Flam Photo Meter	
145	Air Compressor	
146	Hematology Printer	
147	Hematology Mixer	
148	Distiller	
149	Mouth Gag	

### Coding Manual for Dental Equipment

Code	Item	Notes
1	Dental unit	
2	Stool chair	
3	Compressor	
4	Dental instrument cabinet	
5	Amalgamator	
6	Dental x-ray unit	
7	Visible light unit for composite curing	
8	Portable dark room for dental x-ray	
9	Micromotor-low speed hand piece	
10	High speed hand piece	
11	Ultrasonic scaler	
12	Matrix retainer ivory	
13	Matrix retainer M.O.D.	
14	Rubber bowl	
15	Plastic impression trays	
16	Plastic burs holder	
17	Handle mirror	
18	Probe double-end	
19	Scissors	
20	Scalpel handle	
21	Depend glass	
22	Extracting forceps lower molar/upper molar	
23	Extracting forceps lower root anterior/upper root anterior	
24	Extracting forceps lower anterior/upper anterior	
25	Extracting forceps lower bicuspid/upper bicuspid	
26	Extracting forceps child	
27	Extracting root forceps	
28	Mini gas burner	
29	Amalgam carrier	
30	Heat sterilizing unit	
31	Syringe cartridge	
32	Spatula cement	
33	Tweezers	
34	Excavators	
35	X-Ray led Apron	
36	three way syringe	
37	Spatula for Rubber bow	
38	Mirrors	
39	Probe single End	
40	Kidney dish	
41	Autoclave	
42	S-S X-Ray Film Holder	
43	Protection eye glasses	
44	Burnisher	
45	Carver For amalgam	
46	Carver for wax	
47	Condenser for Amalgam	
48	Amalgam Plugger	
49	Spreader	

**Coding Manual for Dental Equipment**

<b>Code</b>	<b>Item</b>	<b>Notes</b>
50	Scalers manual . curette . sickle. Chesil	
51	Perio probe	
52	Endo probe	
53	Crown Remover	
54	Crown Scissors	
55	Plastic Filling Instrument	
56	Bone Rongeur	
57	Bone File	
58	Bone Curette	
59	Hammer	
60	Elevator (Straight,Wore Work James Left and Right Carriers left and Right ,Root Elevator)	
61	Perio Steel Elevator	
62	Needle Holder	
63	Calcium Hydroxide Applicator	
64	Tissue Forceps	
65	Lip Retractor (Plastic or Metal	
66	Mouth Retractor	
67	Gar dressing with Cover	
68	Cotton Holder	
69	Artery Forcepse	
70	Instrument Tray	
71	Chizel	
72	Drums with Cover	
73	Mixing glass Slab	
74	Cheitle Forcepse	
75	Brush Cleaning Burs	
76	Contra Angle Hand Piece	
77	Stright Hand Piece	
78	Air Micromotor	
79	Wax Knife	

**Coding Manual for Dental Equipment in Dental Laboratory**

<b>Code</b>	<b>Item</b>	<b>Notes</b>
80	Caliper For Metal	
81	Caliper For Wax	
82	Saw For Models	
83	Wax Lecron	
84	Plaster Knife	
85	Polishing Machine	
86	Vibrater	
87	Bracket For Flask	
88	Flask	
89	Micromotor(Pedal or Knee)	
90	Handging Motor	
91	Sand blast	
92	Trimmer	
93	Procalin Furnace	
94	Casting Machine	
95	Vacum For Night Mouth Gaurd	
96	Surveyor For	
97	Chrome Cobalt	
98	Articulatar	
99	Metal Tray	
100	Hand Pice For Motor Lab	
101	Boiling Sterillizer	
102	Pliers	
103	Fixed Long Press	
104	Trolley Table	
105	Waste Receiver	
106	Metal Table	
107	Hidrolic press	
108	BunSen Burner	
109	Flask Pross Fixed Larg	
110	Through Plastic	
111	Through Aluminium	
112	Maniual Press	
113	Curette For Jupse	
114	Siciser For jupse	
115	Easy Cut	
116	Chee Of Brackef	
117	Trolley Metal	

**Coding Manual for Clinical Supplies**

<b>Code</b>	<b>Item</b>	<b>Notes</b>
1	Gauze Roll	
2	Gauze Bandage	
3	Disp Gloves	
4	Surg. Gloves	
5	Wooden Tongue Depressor	
6	Iodine	
7	Hydrogen	
8	Alcohol	
9	Bandge	
10	Cotton	
11	Syringe	
12	Gauze With Sofratol	
13	Alcohol	
14	Surg. Blades	
15	Crep Bandage	
16	Plaster Zinc Roll	
17	Glucose/Water	
18	Glucose/Saline	
19	Normal Saline	
20	Scaple Vein	
21	Silk -Cutt-Ceamic	
22	Infusion Set	
23	Thermometer	
24	Distilled Water	
25	Soft Bam Roll	
26	Gypsona Roll	
27	Dextrose 5% Inj	
28	E.C.G. Paper	
29	Ringer Solution	
30	Air Way Disposable	
31	Air Strip	
32	Disp Canula	
33	Disp Face Mask	
34	Autoclave Tape	
35	Catheter Suction	

**Coding Manual for Clinical Supplies**

<b>Code</b>	<b>Item</b>	<b>Notes</b>
36	Urine Bag	
37	Folys Catheter	
38	Draw Sheet	
39	Ky Gell	
40	Bectazon	
41	Silvaren	
42	Ethylchlorid	
43	Lidococain Spray	
44	Stavlon	
45	Sofratol	
46	Vaseline	
47	Furacin Gell	
48	Comber Test	
49	Xalocain Bottle	
50	Saftey Box	
51	Ultrasoun Gell	
52	Xalocain Gell	
53	Oposit Spray	
54	Cidex	
55	Cord Clamp	

### Coding Manual for Dental Supplies

Code	Item	Notes
1	Amalgam No. 1	
2	Amalgam No. 2	
3	Cotton Roll	
4	Dental brush	
5	T. carbide burs (high speed)	
6	Matrix band	
7	Mouth mirror	
8	Glass Inomer Filling	
9	Root canal filling	
10	Lilly cups	
11	Mouthwash tablets	
12	Zinc polycarboxilate cement	
13	Zinc oxide eugenol impression	
14	Paper Pionts	
15	Gutta percha points	
16	Wire stainless steel	
17	Broaches	
18	Bur trimming lab	
19	Mummyfing paste	
20	Matrix strip	
21	Modeling wax	
22	Burs low speed	
23	Strip celluloid	
24	Eugenol	
25	Prophylactic polishing paste	
26	Burs of stone	
27	Burs of rubber	
28	Zinc oxide powder	
29	Articulating paper	
30	Calcium hydroxide	
31	Devitalizing fiber	
32	Composite chemical cure	
33	Emperor cc. Cold cure powder	
34	Emperor cc. Cold cure liquid	
35	Calcium hydroxide (non-setting)	
36	Wood or Plastic Wedges	
37	Root canal filler	
38	Impression compound	
39	Alginate	
40	Dental needle	
41	K-files	
42	Resin acrylic powder, heat cure	
43	Cavity varnish	
44	Teeth set of 28	

**Coding Manual for Dental Supplies**

<b>Code</b>	<b>Item</b>	<b>Notes</b>
45	Teeth set of 6	
46	Teeth set of 8	
47	Dental anesthesia (ampules)	
48	Dental x-ray film	
49	Composite—light-cured	
50	Fixer and developer	
51	Disposable saliva ejector	
52	Calum Hidroxide	
53	Rubber Kit	
54	Hemo Stop	
55	eamers FilesR	
56	H.Files	
57	Disposable Suction Tip	
58	Surgical Bors	
59	Green Stick	
60	Polishing Disc	
61	Zinc Phosphate Cement	
62	From Cresol	
63	Turbine Oil	
64	Glass Inomer Cement	
65	Tipe mirror	

**Coding Manual for Dental Laboratory Clinical Supplies**

<b>Code</b>	<b>Item</b>	<b>Unit</b>	<b>Quantity</b>
66	66-Dental Stone (yellow)		
67	67-Die Stone .White Or Blue		
68	Sand For Sandblast. 250M.150.M 60M.		
69	Investment For Chrome Cobalt		
70	Pumice Powder		
71	Separating Disc		
72	Diamand Disc		
73	Acrylic Burs		
74	Lab Bur Diamond or Carbide		
75	Disposable Trays		
76	Mandril Assorted		
77	Dental Anesthesia Spray		
78	Compound		
79	Brush Lathe Wheel		
80	Sand Percold Mold Seal		
81	Plaster of Paris		
82	Sticky Wax		
83	Cold Mold Seal		

### Coding Manual for Prescription Drugs

Item	Month											
	1	2	3	4	5	6	7	8	9	10	11	12
1. Adalat 10mg Cap												
2. Adalat 20mg Tap												
3. Adrenalin inj												
4. Agarol syrp												
5. Alcohol Sol												
6. Aldacton 25mg												
7. Aldacton 50mg												
8. Aldomet Tab												
9. Allerfln inj												
10. Allerfln Tab												
11. Alomid E/d												
12. Aminophylin R Tab 00												
13. Aminophyline inj												
14. Aminophyline Tab												
15. Amoxil 125mg Susp												
16. Amoxil 250mg Susp												
17. Amoxil 25mg Cap												
18. Amoxil 500mg Cap												
19. Anfranil 25mg Tab												
20. Anfranil 75mg Tab												
21. Anusol Oint												
22. Anusol Supp												
23. Aspirin Tab												
24. Atropine inj												
25. Axid 150 mg Tab												
26. Axid 300 mg Tab												
27. Balkatrin Susp												
28. Balkatrin Tab												
29. B-Complex inj												
30. B-Complex Syrup												
31. Beconaz N/sp												
32. Becotid inhaler												
33. Benzyl Benzawate												
34. Betagan E/d												
35. Betopic E/d												
36. Betval Cream +oint												
37. Betval oint.												
38. Bezalip 200mg Tab												
39. Bisolvon Syrp												
40. Brinerdin Tab												
41. Brufen 200mg Tab												
42. Brufen 400mg Tab												
43. Brufen Susp												
44. Buscopan inj												
45. Buscopan Syrp												
46. Buscopan Tab												
47. Calcium Tab.												
48. Capoten 25 Tab												













mg																			
359.Mycoh .V.Supp 400mg																			
360.Femuline																			
361.Lo-Feminol																			
362.Microgynon																			
363.Condom																			
364.IUD																			
365.Depo Provera																			
366.Multicine Powder																			
367.Angiotic 5mg																			
368.Angiotic 10mg																			
369.Angiotic 20mg																			
370.Daktarin cream																			
371.Epanutine 100 mg																			
372.Lincocine inj 600mg																			
373.Asmadil syrup																			
374.Asmadil 2mg tab																			
375.Ketotefine tab																			
376.Anti Tetanus Vac.																			
377.DTP Vac.																			
378.Polio Vac.																			
379.Measles Vac.																			
380.Hebatitis Vac.																			
381.Asmadil teb 4 mg																			
382.DT																			
383.Ambolar Syrup																			
384.Antistin N / D																			
385.Kemectin E / D																			
386.Neamycin Powder																			
387.Dermovet S / O																			
388.Alfacort S / Ceram																			
389.latisyin E / O																			
390.Humalin Ninsulin																			
391.Poxidium Tab																			
392.Pergenal 5000 Inj																			
393.Pergenal 1500 Inj																			
394.Verpamil 40 mg																			
395.Refapicin 300mg																			
396.Refapicin 150 mg																			
397.P.Z.D Tab																			
398.I.N.H Tab																			
399.Anti Rabies Vac																			
400.Neo - Healar oint																			
401.Ultra derm Cream																			
402.Maningitis Vacc																			
403.Histazin Syurp																			
404.Novater S / O																			
405.Antiscorpine Vac																			
406.Zoverx Tab 20mg																			
407.Phenobarbiton 30 mg tab																			
408.Apresoline Tab 25 mg																			
409.Artin 5mg																			



462.Beta Sorc Tab													
463.Cogentin Tab													
464.Cefazil Susp													
465.Flounoxal Tab													
466.Haldol Drops													
467.Imuran tab													
468.Lamisil Tab													
469.Clopixal Inj													
470.Calcitanin Inj													
471.Norphy ptalin Tab													
472.Proscar Tab													
473.One alpha drops													
474.Salazopyrin Tab													
475.Tamofen 10mg Tab													
476.V.E Tab													
477.Inderal 80 mg													

**Coding Manual for Lab Supplies and Lab Tests**

<b>Code</b>	<b>Item</b>
1	ABL3
2	Acid_phos
3	Albumin
4	Alk_phos
5	Alpha_globulin
6	Amylase
7	ANA
8	ANTI_DNA
9	Aphlatoxin
10	ASO
11	B HCG
12	Bleed_time
13	Blood_culture
14	Blood_film
15	Blood_gases
16	Blood_type
17	BRUCELLA_TEST
18	C_E_A
19	C3
20	C4
21	Ca
22	Cholest
23	Cl
24	Coag_time
25	CPK
26	Creatinine
27	CRP
28	CSF
29	Urine_culture
30	Derm test
31	Detail water culture
32	Diff_count
33	Direct_bilirubin
34	ECHINNOCOCCUS
35	ESR
36	Fe sat
37	Fibinogen
38	Food_bacteriology

**Coding Manual for Lab Supplies and Lab Tests**

<b>Code</b>	<b>Item</b>
39	Food chemistry
40	G6PD
41	Gama_T
42	Glucose
43	Hb
44	HB
45	HCG
46	HDL
47	Haptoglobin
48	HIV
49	Hormones
50	IGA
51	IGE
52	IGG
53	IGM
54	ISO LDH
55	K
56	Ket_steriod_7
57	LDH
58	LDL
59	LE
60	Leishmania
61	LI
62	Lipase
63	Lipoprotein
64	MCHC
65	MCV
66	MCV
67	Mg
68	MONO
69	NA
70	Osteo
72	Other
73	Other_biochemistry
74	Other_blood
75	Other culture
76	Other_serology
77	Pathology

**Coding Manual for Lab Supplies and Lab Tests**

<b>Code</b>	<b>Item</b>
78	PCV
79	platletes
80	PO4
81	Pros_acid
82	Protein
83	PT
84	PTT
85	RA_LATEX
86	RBC
87	Reticulocytes
88	Routine water exam
89	S_bilirubin
90	S_Fe
91	S_P_A
92	S_prot
93	Sensitivity test
94	SGOT
95	SGPT
96	Sickle
97	special_chemistry
98	Special water culture
99	Sperm_count
100	Sputum_culture
101	Stool_analysis
102	Stool_culture
103	TB culture
104	TIBC
105	Tot_bil
106	Tot_fat
107	Toxics
108	TOXO
109	TPHA
110	Trig
111	Urea
112	Uric Acid
113	urine analysis
114	VDRL_RRRP
115	VIDIAL_ACTION

**Coding Manual for Lab Supplies and Lab Tests**

<b>Code</b>	<b>Item</b>
116	Virology
117	VMA
118	Waste_water_culture
119	WBC
120	Capillary Tube
121	Cover Slide
122	Slide
123	Cumber Test
124	Blood Lancet
125	Urine Container
126	RPR
127	Sugar Kit
128	Vacutainer with EDTA
129	Wooden Applicater
130	Yellow Tips
131	ESR Pipette
132	Pregnancy Test
133	Triglycerides
134	Glucose Strep
135	Blood Lancet
136	Stool Container
137	Vacutainer Plain+non- Oxellate
138	Test Tube
139	Sterile Swab
140	Blue Tips
141	Vacutainer Needle
142	Filter Paper
143	Paper Film
144	Urine Bag Infant
145	Anti- A
146	Anti- B
147	Anti- D
149	Coniocal Flask
150	Plain Tube
151	EDTA Tube
152	Transminaze
1531	Pipptte - 5 cc
1532	Pipptte - 10 cc

**Coding Manual for Lab Supplies and Lab Tests**

<b>Code</b>	<b>Item</b>
1533	Pipette - 1 cc
1534	Pipette - 2 cc
1541	Flask- 500 cc
1542	Flask - 1000 cc
1543	Flask- 50 cc
1544	Erlenmeyer Flask-1 L
1545	Erlenmeyer Flask-2 L
1551	Cylinder- 100 cc
1552	Cylinder- 500 cc
1553	Cylinder- 1000 cc
1561	Beaker- 500 cc
1562	Beaker - 1000 cc
1563	Beaker -600 cc
1564	Beaker - 2000 cc
1565	Beaker - 250 cc
1566	Beaker - 50 cc
1567	Beaker -800 cc
157	Funnel Glass
158	Cylinder for Pipette
159	Petri Dish
160	Micro Cuvet
161	Multi Disk
162	Vacutainer SS Gell
163	Conical Tube
164	Billigen
165	Stain
166	Medium for cell Counting
167	Mini Lyse
168	Mini Clean
169	Lithium
170	Acuvitazal,

### Coding Manual for Room Types and Dimensions

Room Type	Width (M:CC)	Length (M:CC)
1. Waiting area		
2. Medical records		
3. Operator		
4. Doctors lounge		
5. Accounting		
6. Clerk		
7. Meeting room		
8. General practice		
9. Prenatal/postnatal		
10. Family planning		
11. Vaccination		
12. Dental		
13. Emergency room		
14. Specialty		
15. Nursing room		
16. Laboratory		
17. Pharmacy		
18. Radiology		
19. Store		
20. Boiler room		
21. Electric generator room		
22. Basement		
23. Corridor		
24. Stairway		
25. Health inspector room		
26. Kitchen		
27. Toilets		
28. Changing room		
29. Administration		
30. Dental lab		
31. Prayer room		
32. Typing		
33. X-ray development room		
34. Balcony		
35. Drivers room		
36. Maintenance		
37. Lodging room for drivers		
38. Lodging room for nurses		
39. Security guard room		
40. Empty room		
41. Lodging room for physicians		

**Coding Manual for Activity Sampling Technique  
When the Health Care Provider is not with a Patient**

<b>Codes</b>	<b>Activities</b>
01	Was not present when the shift began
02	Preparing work area
03	Filling out patient docket
04	General administrative tasks (paper work, mail)
05	Waiting for someone to clean consultation room
06	Material preparation
07	Washing hands
08	Waiting for supplies
09	Work discussion with staff
10	Work related and outside the clinic
11	Providing support to another provider
12	Work related meeting
13	Work related telephone call
14	Talking with other clients
15	Waiting for client
16	Lunch/coffee break
17	Using restroom
18	Absent from clinic for personal reason
19	Personal telephone call
20	Meeting with personal visitors
21	Chatting with other staff about non-work matters
22	Gathering his/her things (at the end of the day )
23	Left shift early
24	(Other ) specify on form)
66	Finishing the shift
77	Busy with Patient
99	Do not know

**Coding Manual for Activity Sampling Technique  
When the Health Care Provider is with a Patient**

<b>Codes</b>	<b>Visit Types</b>
25	General Practice / Family Physician
26	Emergency
27	Family Planning
28	Prenatal Visit
29	Postnatal Visit
30	Vaccination and Immunization
31	Growth and Development
32	Dentist
33	Outside facility support (School health visit, home visit..)
34	Other ( Specify on form)



# VI.2 Appendix B

**Table (37): Overall Costs of Primary Health Care Services in CHCs by Cost Item and Services**

Item	Overhead Costs	Pharmacy	Radiology	Laboratory	General Practice	Specialty	Dental	Emergency	Prenatal Postnatal	Family Planning	Growth and Development	Immunization	Curative MCH
<i>Capital Costs</i>													
Building	282,240	37,799	45,979	56,856	72,306	92,750	87,192	58,568	57,510	57,510	57,510	57,510	57,510
Equipment		7,509	110,326	94,428	61,487	30,509	28,119	45,885	84,284	74,601	4,149	8,957	2,109
Furniture	21,699	7,635	2,602	8,444	1,108	11,129	6,326	7,312	3,895	5,976	2,964	4,217	2,286
<b>Sub Total</b>	<b>303,938</b>	<b>52,943</b>	<b>158,907</b>	<b>159,729</b>	<b>134,902</b>	<b>134,388</b>	<b>121,637</b>	<b>111,766</b>	<b>145,689</b>	<b>138,087</b>	<b>64,623</b>	<b>70,684</b>	<b>61,905</b>
<i>Recurrent Costs</i>													
Personnel	1,578,996	268,656	73,060	191,355	1,084,888	1,170,169	777,483	729,067	104,106	96,776	101,060	110,593	75,867
Drugs					1,259,767	710,669	31,979	11,149	5,835	4,823	9,467	37,413	6,423
Clinical Supplies		3,987	74,156	78,909	537,216	30,034	1,675,352	137,527	18,046	15,766	16,144	49,426	12,901
Non-Clinical Supplies	43,326	22,876	8,896	7,972	60,551	4,526	4,336	8,219	2,779	2,989	3,915	16,189	2,858
Operation cost	28,057	3,520	4,641	4,583	7,017	7,309	8,242	5,933	4,652	4,652	4,652	4,652	4,652
<b>Sub Total</b>	<b>1,650,378</b>	<b>299,039</b>	<b>160,753</b>	<b>282,819</b>	<b>2,949,440</b>	<b>1,922,707</b>	<b>2,497,392</b>	<b>891,894</b>	<b>135,416</b>	<b>125,006</b>	<b>135,239</b>	<b>218,274</b>	<b>102,701</b>
<b>Total</b>	<b>1,954,316</b>	<b>351,982</b>	<b>319,660</b>	<b>442,548</b>	<b>3,084,341</b>	<b>2,057,095</b>	<b>2,619,029</b>	<b>1,003,660</b>	<b>281,105</b>	<b>263,092</b>	<b>199,861</b>	<b>288,958</b>	<b>164,606</b>

Item	Total MCH	Total support services	Total Direct Services	Total
<i>Capital Costs</i>				
Building	287,549	140,634	598,365	1,021,238
Equipment	174,101	212,264	340,101	552,365
Furniture	19,338	18,682	45,213	85,594
<b>Sub Total</b>	<b>480,987</b>	<b>371,579</b>	<b>983,679</b>	<b>1,659,197</b>
<i>Recurrent Costs</i>				
Personnel	488,403	533,071	4,250,009	6,362,076
Drugs	63,960		2,077,524	2,077,524
Clinical Supplies	112,284	157,053	2,492,412	2,649,465
Non-Clinical Supplies	28,730	39,743	106,363	189,432
Operation cost	23,259	12,744	51,760	92,561
<b>Sub Total</b>	<b>716,635</b>	<b>742,611</b>	<b>8,978,068</b>	<b>11,371,057</b>
<b>Total</b>	<b>1,197,622</b>	<b>1,114,190</b>	<b>9,961,747</b>	<b>13,030,254</b>

**Table (38): Overall Costs of Primary Health Care Services in PHCs by Cost Item and Services**

Item	Overhead Costs	Pharmacy	Radiology	Laboratory	General Practice	Specialty	Dental	Emergency	Prenatal Postnatal	Family Planning	Growth and Development	Immunization	Curative MCH
<i>Capital Costs</i>													
Building	690,457	184,616	20,241	42,171	277,975		136,557	171,525	86,161	86,161	86,161	86,161	86,161
Equipment		16,882	8,290	87,948	112,248		116,922	75,293	72,663	22,640	3,141	24,146	2,022
Furniture	56,375	41,723	1,009	6,693	6,718		14,189	16,059	10,120	13,409	6,421	9,861	5,392
<b>Sub Total</b>	<b>746,832</b>	<b>243,221</b>	<b>29,540</b>	<b>136,812</b>	<b>396,941</b>		<b>267,668</b>	<b>262,877</b>	<b>168,944</b>	<b>122,210</b>	<b>95,722</b>	<b>120,168</b>	<b>93,575</b>
<i>Recurrent Costs</i>													
Personnel	4,572,603	608,115	9,708	59,749	3,406,032	4,893	1,216,231	1,090,629	376,983	386,870	263,954	491,552	194,113
Drugs					5,062,005	17,342	95,276	13,046	8,981	5,129	25,169	97,009	18,824
Clinical Supplies		16,049	84	61,311	1,673,404		3,530,297	48,339	36,792	20,189	33,393	79,454	27,133
Non-Clinical Supplies	66,351	66,493	6,514	6,247	146,759		6,461		1,790	1,175	5,622	17,142	4,488
Operation cost	56,295	18,353	1,705	3,016	25,596		10,320	15,389	6,990	6,990	6,990	6,990	6,990
<b>Sub Total</b>	<b>4,695,249</b>	<b>709,011</b>	<b>18,011</b>	<b>130,323</b>	<b>10,313,797</b>	<b>22,235</b>	<b>4,858,585</b>	<b>1,167,403</b>	<b>431,536</b>	<b>420,352</b>	<b>335,128</b>	<b>692,147</b>	<b>251,548</b>
<b>Total</b>	<b>5,442,081</b>	<b>952,232</b>	<b>47,552</b>	<b>267,135</b>	<b>10,710,738</b>	<b>22,235</b>	<b>5,126,253</b>	<b>1,430,280</b>	<b>600,480</b>	<b>542,562</b>	<b>430,850</b>	<b>812,315</b>	<b>345,123</b>

Item	Total MCH	Total support services	Total Direct Services	Total
<i>Capital Costs</i>				
Building	430,804	247,028	1,016,861	1,954,346
Equipment	124,613	113,121	429,076	542,196
Furniture	45,203	49,424	82,169	187,968
<b>Sub Total</b>	<b>600,620</b>	<b>409,573</b>	<b>1,528,106</b>	<b>2,684,510</b>
<i>Recurrent Costs</i>				
Personnel	1,713,471	677,573	7,431,257	12,681,432
Drugs	155,112		5,342,781	5,342,781
Clinical Supplies	196,962	77,444	5,449,002	5,526,446
Non-Clinical Supplies	30,217	79,254	183,437	329,042
Operation cost	34,948	23,075	86,253	165,623
<b>Sub Total</b>	<b>2,130,710</b>	<b>857,346</b>	<b>18,492,729</b>	<b>24,045,324</b>
<b>Total</b>	<b>2,731,330</b>	<b>1,266,919</b>	<b>20,020,835</b>	<b>26,729,834</b>

**Table (39): Overall Costs of Primary Health Care Services in VHCs by Cost Item and Services**

Item	Overhead Costs	Pharmacy	Radiology	Laboratory	General Practice	Specialty	Dental	Emergency	Prenatal Postnatal	Family Planning	Growth and Development	Immunization	Curative MCH
<i>Capital Costs</i>													
Building	102,366	39,612			70,515							68,829	
Equipment		27,606			34,333							620	
Furniture	5,645	11,612			3,654							2,304	
<b>Sub Total</b>	<b>108,012</b>	<b>78,830</b>			<b>108,502</b>							<b>71,753</b>	
<i>Recurrent Costs</i>													
Personnel	484,287	37,420			486,473			170,091				16,241	
Drugs					277,223			1,937				6,893	
Clinical Supplies		3,749			666,286							245	
Non-Clinical Supplies	8,579	7,347			18,043								
Operation cost	6,621	3,987			5,426							6,680	
<b>Sub Total</b>	<b>499,487</b>	<b>52,503</b>			<b>1,453,451</b>			<b>172,029</b>				<b>30,058</b>	
<b>Total</b>	<b>607,498</b>	<b>131,333</b>			<b>1,561,952</b>			<b>172,029</b>				<b>101,811</b>	

Item	Total MCH	Total support services	Total Direct Services	Total
<i>Capital Costs</i>				
Building	68,829	39,612	139,344	281,322
Equipment	620	27,606	34,953	62,559
Furniture	2,304	11,612	5,958	23,215
<b>Sub Total</b>	<b>71,753</b>	<b>78,830</b>	<b>180,255</b>	<b>367,096</b>
<i>Recurrent Costs</i>				
Personnel	16,241	37,420	672,805	1,194,512
Drugs	6,893		286,052	286,052
Clinical Supplies	245	3,749	666,531	670,280
Non-Clinical Supplies		7,347	18,043	33,969
Operation cost	6,680	3,987	12,106	22,714
<b>Sub Total</b>	<b>30,058</b>	<b>52,503</b>	<b>1,655,538</b>	<b>2,207,527</b>
<b>Total</b>	<b>101,811</b>	<b>131,333</b>	<b>1,835,792</b>	<b>2,574,623</b>

**Table (40): Overall Costs of Primary Health Care Services in Low Client Volume Facilities by Cost Item and Services**

Item	Overhead Costs	Pharmacy	Radiology	Laboratory	General Practice	Specialty	Dental	Emergency	Prenatal Postnatal	Family Planning	Growth and Development	Immunization	Curative MCH
<i>Capital Costs</i>													
Building	313,120	83,405	14,879	19,665	80,436	5,941	37,788	83,632	31,173	31,173	31,173	53,435	31,173
Equipment		6,220	27,712	20,517	62,199		21,480	30,741	80,391	26,251	3,104	11,414	2,340
Furniture	15,488	14,853	821	2,170	3,006	727	2,988	8,353	3,090	4,659	2,942	3,145	2,113
<b>Sub Total</b>	<b>328,608</b>	<b>104,477</b>	<b>43,412</b>	<b>42,353</b>	<b>145,641</b>	<b>6,669</b>	<b>62,256</b>	<b>122,726</b>	<b>114,654</b>	<b>62,083</b>	<b>37,219</b>	<b>67,994</b>	<b>35,626</b>
<i>Recurrent Costs</i>													
Personnel	1,436,302	250,574	6,297	43,727	916,637	20,480	395,932	565,772	124,617	97,863	103,975	140,498	78,242
Drugs					848,859	50,706	12,351	3,479	1,762	1,967	5,735	19,289	5,246
Clinical Supplies		5,913	1,212	32,700	916,241		865,236	37,632	15,898	8,973	18,576	36,584	19,257
Non-Clinical Supplies	26,869	15,994	2,171	2,194	39,136		2,682	1,172	505	661	1,757	4,617	1,901
Operation cost	26,841	7,993	1,527	1,611	7,963	653	2,896	7,861	2,665	2,665	2,665	4,131	2,665
<b>Sub Total</b>	<b>1,490,012</b>	<b>280,474</b>	<b>11,207</b>	<b>80,232</b>	<b>2,728,836</b>	<b>71,839</b>	<b>1,279,096</b>	<b>615,916</b>	<b>145,446</b>	<b>112,129</b>	<b>132,708</b>	<b>205,118</b>	<b>107,311</b>
<b>Total</b>	<b>1,818,621</b>	<b>384,951</b>	<b>54,619</b>	<b>122,585</b>	<b>2,874,477</b>	<b>78,508</b>	<b>1,341,352</b>	<b>738,642</b>	<b>260,101</b>	<b>174,212</b>	<b>169,927</b>	<b>273,112</b>	<b>142,937</b>

Item	Total MCH	Total support services	Total Direct Services	Total
<i>Capital Costs</i>				
Building	178,127	117,950	385,924	816,994
Equipment	123,500	54,449	237,920	292,369
Furniture	15,949	17,844	31,023	64,355
<b>Sub Total</b>	<b>317,576</b>	<b>190,242</b>	<b>654,867</b>	<b>1,173,718</b>
<i>Recurrent Costs</i>				
Personnel	545,195	300,599	2,444,016	4,180,917
Drugs	33,998		949,393	949,393
Clinical Supplies	99,288	39,825	1,918,397	1,958,222
Non-Clinical Supplies	9,441	20,359	52,431	99,659
Operation cost	14,791	11,130	34,164	72,136
<b>Sub Total</b>	<b>702,713</b>	<b>371,913</b>	<b>5,398,400</b>	<b>7,260,326</b>
<b>Total</b>	<b>1,020,289</b>	<b>562,155</b>	<b>6,053,268</b>	<b>8,434,044</b>

**Table (41): Overall Costs of Primary Health Care Services in Medium Client Volume Facilities by Cost Item and Services**

Item	Overhead Costs	Pharmacy	Radiology	Laboratory	General Practice	Specialty	Dental	Emergency	Prenatal Postnatal	Family Planning	Growth and Development	Immunization	Curative MCH
<i>Capital Costs</i>													
Building	350,596	91,560	24,842	37,402	131,189	52,700	58,290	75,310	55,062	55,062	55,062	72,480	86,161
Equipment		35,101	73,570	71,013	80,876	8,559	32,921	42,670	35,966	40,226	2,039	9,121	2,022
Furniture	26,847	22,915	1,595	6,398	3,185	6,506	6,553	7,968	5,755	9,670	2,542	4,745	5,392
<b>Sub Total</b>	<b>377,443</b>	<b>149,575</b>	<b>100,008</b>	<b>114,812</b>	<b>215,250</b>	<b>67,765</b>	<b>97,765</b>	<b>125,949</b>	<b>96,783</b>	<b>104,958</b>	<b>59,643</b>	<b>86,346</b>	<b>93,575</b>
<i>Recurrent Costs</i>													
Personnel	2,183,080	323,208	45,255	131,903	1,489,757	235,947	510,840	615,289	126,913	167,286	95,140	196,085	194,113
Drugs					1,812,362	255,103	35,498	9,445	5,550	3,908	12,552	35,584	18,824
Clinical Supplies		3,049	60,458	46,439	1,073,570	8,995	1,822,299	107,681	19,755	14,465	15,815	45,954	27,133
Non-Clinical Supplies	48,558	28,977	7,120	6,825	81,479	321	3,632	4,339	2,698	2,731	4,372	18,226	4,488
Operation cost	26,254	9,691	1,743	1,521	11,355	1,759	3,299	6,784	3,166	3,166	3,166	5,388	6,990
<b>Sub Total</b>	<b>2,257,891</b>	<b>364,925</b>	<b>114,576</b>	<b>186,688</b>	<b>4,468,523</b>	<b>502,126</b>	<b>2,375,568</b>	<b>743,538</b>	<b>158,082</b>	<b>191,555</b>	<b>131,044</b>	<b>301,236</b>	<b>251,548</b>
<b>Total</b>	<b>2,635,334</b>	<b>514,500</b>	<b>214,584</b>	<b>301,500</b>	<b>4,683,773</b>	<b>569,891</b>	<b>2,473,332</b>	<b>869,487</b>	<b>254,864</b>	<b>296,513</b>	<b>190,688</b>	<b>387,582</b>	<b>345,123</b>

Item	Total MCH	Total support services	Total Direct Services	Total
<i>Capital Costs</i>				
Building	292,726	153,804	610,216	1,114,615
Equipment	87,919	179,684	252,946	432,630
Furniture	25,937	30,907	50,149	107,904
<b>Sub Total</b>	<b>406,582</b>	<b>364,395</b>	<b>913,311</b>	<b>1,655,148</b>
<i>Recurrent Costs</i>				
Personnel	663,199	500,366	3,515,032	6,198,477
Drugs	66,989		2,179,397	2,179,397
Clinical Supplies	105,999	109,946	3,118,544	3,228,491
Non-Clinical Supplies	31,308	42,922	121,079	212,559
Operation cost	18,052	12,955	41,249	80,458
<b>Sub Total</b>	<b>885,547</b>	<b>666,189</b>	<b>8,975,301</b>	<b>11,899,381</b>
<b>Total</b>	<b>1,292,128</b>	<b>1,030,584</b>	<b>9,888,612</b>	<b>13,554,530</b>

**Table (42): Overall Costs of Primary Health Care Services in High Client Volume Facilities by Cost Item and Services**

Item	Overhead Costs	Pharmacy	Radiology	Laboratory	General Practice	Specialty	Dental	Emergency	Prenatal Postnatal	Family Planning	Growth and Development	Immunization	Curative MCH
<i>Capital Costs</i>													
Building	411,348	87,062	26,498	41,960	209,171	34,109	127,672	71,150	57,436	57,436	57,436	86,585	57,436
Equipment		10,677	17,334	90,847	64,994	21,949	90,639	47,767	40,590	30,763	2,147	13,189	1,225
Furniture	41,383	23,202	1,195	6,569	5,289	3,896	10,973	7,051	5,170	5,056	3,900	8,492	2,341
<b>Sub Total</b>	<b>452,731</b>	<b>120,941</b>	<b>45,028</b>	<b>139,376</b>	<b>279,453</b>	<b>59,954</b>	<b>229,284</b>	<b>125,968</b>	<b>103,196</b>	<b>93,255</b>	<b>63,483</b>	<b>108,266</b>	<b>61,002</b>
<i>Recurrent Costs</i>													
Personnel	3,016,503	340,409	31,217	75,474	2,570,999	918,635	1,086,943	808,726	229,559	218,498	165,899	281,803	113,963
Drugs					3,937,774	422,201	79,406	13,208	7,504	4,078	16,350	86,442	10,605
Clinical Supplies		14,823	12,569	61,081	887,096	21,039	2,518,113	40,553	19,185	12,518	15,147	46,588	10,766
Non-Clinical Supplies	42,829	51,744	6,119	5,200	104,739	4,205	4,483	2,709	1,366	771	3,408	10,488	2,163
Operation cost	37,878	8,177	3,076	4,467	18,721	4,896	12,367	6,676	5,810	5,810	5,810	8,803	5,810
<b>Sub Total</b>	<b>3,097,210</b>	<b>415,154</b>	<b>52,981</b>	<b>146,223</b>	<b>7,519,329</b>	<b>1,370,977</b>	<b>3,701,312</b>	<b>871,871</b>	<b>263,424</b>	<b>241,674</b>	<b>206,614</b>	<b>434,124</b>	<b>143,308</b>
<b>Total</b>	<b>3,549,940</b>	<b>536,095</b>	<b>98,009</b>	<b>285,598</b>	<b>7,798,782</b>	<b>1,430,931</b>	<b>3,930,597</b>	<b>997,839</b>	<b>366,620</b>	<b>334,929</b>	<b>270,097</b>	<b>542,390</b>	<b>204,310</b>

Item	Total MCH	Total support services	Total Direct Services	Total
<i>Capital Costs</i>				
Building	316,329	155,520	758,431	1,325,298
Equipment	87,915	118,858	313,264	432,122
Furniture	24,959	30,967	52,168	124,518
<b>Sub Total</b>	<b>429,203</b>	<b>305,345</b>	<b>1,123,862</b>	<b>1,881,937</b>
<i>Recurrent Costs</i>				
Personnel	1,009,721	447,100	6,395,024	9,858,626
Drugs	124,978		4,577,567	4,577,567
Clinical Supplies	104,203	88,474	3,571,004	3,659,478
Non-Clinical Supplies	18,197	63,064	134,333	240,225
Operation cost	32,045	15,720	74,705	128,304
<b>Sub Total</b>	<b>1,289,144</b>	<b>614,358</b>	<b>14,752,633</b>	<b>18,464,201</b>
<b>Total</b>	<b>1,718,346</b>	<b>919,702</b>	<b>15,876,495</b>	<b>20,346,138</b>

**Table (43): Overall Costs of Primary Health Care Services in CHCs by Cost Item and Services with Overhead Allocated to Support and Direct Services**

Item	Pharmacy	Radiology	Laboratory	General Practice	Specialty	Dental	Emergency	Prenatal Postnatal	Family Planning	Growth and Development	Immunization	Curative MCH	Total MCH
<i>Capital Costs</i>													
Building	54,783	68,417	77,166	101,059	123,793	116,668	88,162	78,238	78,238	78,238	78,238	78,238	391,190
Equipment	7,509	110,326	94,428	61,487	30,509	28,119	45,885	84,284	74,601	4,149	8,957	2,109	174,101
Furniture	10,580	3,532	11,628	1,553	14,647	8,205	10,302	5,089	7,720	3,663	5,697	2,978	25,147
<b>Sub Total</b>	<b>72,873</b>	<b>182,275</b>	<b>183,223</b>	<b>164,099</b>	<b>168,948</b>	<b>152,992</b>	<b>144,350</b>	<b>167,611</b>	<b>160,559</b>	<b>86,051</b>	<b>92,893</b>	<b>83,325</b>	<b>590,438</b>
<i>Recurrent Costs</i>													
Personnel	396,461	104,403	306,108	1,458,261	1,358,203	1,026,846	987,867	146,883	137,622	144,693	187,700	107,031	723,928
Drugs				1,259,767	710,669	31,979	11,149	5,835	4,823	9,467	37,413	6,423	63,960
Clinical Supplies	3,987	74,156	78,909	537,216	30,034	1,675,352	137,527	18,046	15,766	16,144	49,426	12,901	112,284
Non-Clinical Supplies	25,570	10,008	10,598	69,656	12,508	10,554	16,107	3,861	3,967	4,964	17,935	3,705	34,432
Operation cost	5,257	7,082	6,505	10,034	10,223	11,246	9,113	6,620	6,620	6,620	6,620	6,620	33,100
<b>Sub Total</b>	<b>431,275</b>	<b>195,649</b>	<b>402,120</b>	<b>3,334,934</b>	<b>2,121,637</b>	<b>2,755,976</b>	<b>1,161,763</b>	<b>181,244</b>	<b>168,798</b>	<b>181,887</b>	<b>299,094</b>	<b>136,680</b>	<b>967,704</b>
<b>Total</b>	<b>504,148</b>	<b>377,924</b>	<b>585,342</b>	<b>3,499,033</b>	<b>2,290,585</b>	<b>2,908,968</b>	<b>1,306,113</b>	<b>348,854</b>	<b>329,357</b>	<b>267,938</b>	<b>391,987</b>	<b>220,005</b>	<b>1,558,142</b>

Item	Total support services	Total Direct Services	Total
<i>Capital Costs</i>			
Building	200,366	820,872	1,021,238
Equipment	212,264	340,101	552,365
Furniture	25,740	59,853	85,594
<b>Sub Total</b>	<b>438,370</b>	<b>1,220,826</b>	<b>1,659,197</b>
<i>Recurrent Costs</i>			
Personnel	806,972	5,555,105	6,362,077
Drugs		2,077,524	2,077,524
Clinical Supplies	157,053	2,492,412	2,649,465
Non-Clinical Supplies	46,175	143,256	189,432
Operation cost	18,844	73,717	92,561
<b>Sub Total</b>	<b>1,029,044</b>	<b>10,342,014</b>	<b>11,371,058</b>
<b>Total</b>	<b>1,467,414</b>	<b>11,562,840</b>	<b>13,030,254</b>

**Table (44): Overall Costs of Primary Health Care Services in PHCs by Cost Item and Services with Overhead Costs Allocated to Support and Direct Services**

Item	Pharmacy	Radiology	Laboratory	General Practice	Specialty	Dental	Emergency	Prenatal Postnatal	Family Planning	Growth and Development	Immunization	Curative MCH	Total MCH
<i>Capital Costs</i>													
Building	293,683	28,342	60,190	431,183		211,388	272,395	131,433	131,433	131,433	131,433	131,433	657,165
Equipment	16,882	8,290	87,948	112,248		116,922	75,293	72,663	22,640	3,141	24,146	2,022	124,613
Furniture	59,497	1,350	10,008	9,719		19,801	22,412	13,986	19,423	9,507	14,582	7,689	65,188
<b>Sub Total</b>	<b>370,062</b>	<b>37,982</b>	<b>158,146</b>	<b>553,149</b>		<b>348,111</b>	<b>370,100</b>	<b>218,082</b>	<b>173,496</b>	<b>144,081</b>	<b>170,161</b>	<b>141,144</b>	<b>846,966</b>
<i>Recurrent Costs</i>													
Personnel	1,038,128	16,972	93,328	4,841,994	4,893	1,899,435	1,955,343	587,805	617,234	438,005	889,870	298,419	2,831,334
Drugs				5,062,005	17,342	95,276	13,046	8,981	5,129	25,169	97,009	18,824	155,112
Clinical Supplies	16,049	84	61,311	1,673,404		3,530,297	48,339	36,792	20,189	33,393	79,454	27,133	196,962
Non-Clinical Supplies	72,268	6,683	6,885	167,879		15,355	13,146	5,009	4,537	8,452	22,735	6,093	46,826
Operation cost	28,071	2,391	4,302	38,818		15,825	23,629	10,517	10,517	10,517	10,517	10,517	52,586
<b>Sub Total</b>	<b>1,154,517</b>	<b>26,130</b>	<b>165,826</b>	<b>11,784,100</b>	<b>22,235</b>	<b>5,556,188</b>	<b>2,053,503</b>	<b>649,104</b>	<b>657,606</b>	<b>515,537</b>	<b>1,099,586</b>	<b>360,987</b>	<b>3,282,820</b>
<b>Total</b>	<b>1,524,579</b>	<b>64,112</b>	<b>323,972</b>	<b>12,337,249</b>	<b>22,235</b>	<b>5,904,299</b>	<b>2,423,602</b>	<b>867,186</b>	<b>831,102</b>	<b>659,618</b>	<b>1,269,748</b>	<b>502,131</b>	<b>4,129,786</b>

Item	Total support services	Total Direct Services	Total
<i>Capital Costs</i>			
Building	382,215	1,572,131	1,954,346
Equipment	113,121	429,076	542,196
Furniture	70,855	117,119	187,974
<b>Sub Total</b>	<b>566,191</b>	<b>2,118,326</b>	<b>2,684,516</b>
<i>Recurrent Costs</i>			
Personnel	1,148,427	11,532,999	12,681,426
Drugs		5,342,781	5,342,781
Clinical Supplies	77,444	5,449,002	5,526,446
Non-Clinical Supplies	85,836	243,206	329,042
Operation cost	34,765	130,859	165,623
<b>Sub Total</b>	<b>1,346,473</b>	<b>22,698,845</b>	<b>24,045,318</b>
<b>Total</b>	<b>1,912,663</b>	<b>24,817,171</b>	<b>26,729,834</b>

**Table (45): Overall Costs of Primary Health Care Services in VHCs by Cost Item and Services with Overhead Costs Allocated to Support and Direct Services**

Item	Pharmacy	Radiology	Laboratory	General Practice	Specialty	Dental	Emergency	Prenatal Postnatal	Family Planning	Growth and Development	Immunization	Curative MCH	Total MCH
<i>Capital Costs</i>													
Building	55,815	2,305	2,305	114,258			2,305				104,334		104,334
Equipment	27,606			34,333							620		620
Furniture	14,938			5,588							2,689		2,689
<b>Sub Total</b>	<b>98,359</b>	<b>2,305</b>	<b>2,305</b>	<b>154,180</b>			<b>2,305</b>				<b>107,643</b>		<b>107,643</b>
<i>Recurrent Costs</i>													
Personnel	64,110			809,529			288,494				32,378		32,378
Drugs				277,223			1,937				6,893		6,893
Clinical Supplies	3,749			666,286							245		245
Non-Clinical Supplies	7,736	54	54	23,186			2,412				527		527
Operation cost	4,535	548	548	7,461			190				9,431		9,431
<b>Sub Total</b>	<b>80,130</b>	<b>602</b>	<b>602</b>	<b>1,783,685</b>			<b>293,034</b>				<b>49,474</b>		<b>49,474</b>
<b>Total</b>	<b>178,490</b>	<b>2,907</b>	<b>2,907</b>	<b>1,937,864</b>			<b>295,338</b>				<b>157,116</b>		<b>157,116</b>

Item	Total support services	Total Direct Services	Total
<i>Capital Costs</i>			
Building	60,425	220,897	281,322
Equipment	27,606	34,953	62,559
Furniture	14,938	8,277	23,215
<b>Sub Total</b>	<b>102,969</b>	<b>264,127</b>	<b>367,096</b>
<i>Recurrent Costs</i>			
Personnel	64,110	1,130,402	1,194,512
Drugs		286,052	286,052
Clinical Supplies	3,749	666,531	670,280
Non-Clinical Supplies	7,844	26,125	33,969
Operation cost	5,631	17,082	22,714
<b>Sub Total</b>	<b>81,335</b>	<b>2,126,192</b>	<b>2,207,527</b>
<b>Total</b>	<b>184,304</b>	<b>2,390,319</b>	<b>2,574,623</b>

**Table (46): Overall Costs of Primary Health Care Services in Low Client Volume Facilities by Cost Item and Services with Overhead Costs Allocated to Support and Direct Services**

Item	Pharmacy	Radiology	Laboratory	General Practice	Specialty	Dental	Emergency	Prenatal Postnatal	Family Planning	Growth and Development	Immunization	Curative MCH	Total MCH
<i>Capital Costs</i>													
Building	131,398	28,262	32,105	126,290	10,416	61,995	139,011	50,722	50,722	50,722	84,628	50,722	287,516
Equipment	6,220	27,712	20,517	62,199		21,480	30,741	80,391	26,251	3,104	11,414	2,340	123,500
Furniture	19,271	1,110	3,060	3,819	1,002	4,025	11,241	4,418	5,921	3,843	3,841	2,804	20,826
<b>Sub Total</b>	<b>156,889</b>	<b>57,083</b>	<b>55,682</b>	<b>192,308</b>	<b>11,418</b>	<b>87,500</b>	<b>180,994</b>	<b>135,531</b>	<b>82,894</b>	<b>57,668</b>	<b>99,883</b>	<b>55,866</b>	<b>431,842</b>
<i>Recurrent Costs</i>													
Personnel	397,715	10,705	68,490	1,353,384	24,888	608,879	896,478	183,146	144,617	149,671	226,696	116,247	820,377
Drugs				848,859	50,706	12,351	3,479	1,762	1,967	5,735	19,289	5,246	33,998
Clinical Supplies	5,913	1,212	32,700	916,241		865,236	37,632	15,898	8,973	18,576	36,584	19,257	99,288
Non-Clinical Supplies	18,426	2,285	2,908	47,359	60	5,842	7,995	1,615	1,592	2,505	6,442	2,629	14,784
Operation cost	12,075	2,927	2,707	12,053	1,157	4,784	12,754	4,358	4,358	4,358	6,246	4,358	23,678
<b>Sub Total</b>	<b>434,129</b>	<b>17,129</b>	<b>106,805</b>	<b>3,177,896</b>	<b>76,811</b>	<b>1,497,092</b>	<b>958,339</b>	<b>206,780</b>	<b>161,508</b>	<b>180,845</b>	<b>295,256</b>	<b>147,737</b>	<b>992,125</b>
<b>Total</b>	<b>591,018</b>	<b>74,213</b>	<b>162,487</b>	<b>3,370,204</b>	<b>88,229</b>	<b>1,584,592</b>	<b>1,139,332</b>	<b>342,310</b>	<b>244,402</b>	<b>238,513</b>	<b>395,139</b>	<b>203,603</b>	<b>1,423,967</b>

Item	Total support services	Total Direct Services	Total
<i>Capital Costs</i>			
Building	191,765	625,229	816,994
Equipment	54,449	237,920	292,369
Furniture	23,441	40,914	64,355
<b>Sub Total</b>	<b>269,655</b>	<b>904,063</b>	<b>1,173,717</b>
<i>Recurrent Costs</i>			
Personnel	476,910	3,704,006	4,180,917
Drugs		949,393	949,393
Clinical Supplies	39,825	1,918,397	1,958,222
Non-Clinical Supplies	23,619	76,040	99,659
Operation cost	17,709	54,427	72,136
<b>Sub Total</b>	<b>558,063</b>	<b>6,702,263</b>	<b>7,260,326</b>
<b>Total</b>	<b>827,718</b>	<b>7,606,325</b>	<b>8,434,043</b>

**Table (47): Overall Costs of Primary Health Care Services in Medium Client Volume Facilities by Cost Item and Services with Overhead Costs Allocated to Support and Direct Services**

Item	Pharmacy	Radiology	Laboratory	General Practice	Specialty	Dental	Emergency	Prenatal Postnatal	Family Planning	Growth and Development	Immunization	Curative MCH	Total MCH
<i>Capital Costs</i>													
Building	142,496	34,548	50,287	206,654	66,757	83,076	116,966	77,733	77,733	77,733	102,899	77,733	657,165
Equipment	35,101	73,570	71,013	80,876	8,559	32,921	42,670	35,966	40,226	2,039	9,121	566	124,613
Furniture	31,204	2,129	8,372	4,981	7,675	8,366	10,944	7,492	13,145	3,109	6,231	4,255	65,188
<b>Sub Total</b>	<b>208,800</b>	<b>110,247</b>	<b>129,671</b>	<b>292,511</b>	<b>82,991</b>	<b>124,363</b>	<b>170,580</b>	<b>121,192</b>	<b>131,104</b>	<b>82,881</b>	<b>118,251</b>	<b>82,555</b>	<b>846,966</b>
<i>Recurrent Costs</i>													
Personnel	544,729	70,454	198,217	2,195,181	286,484	767,359	1,066,144	194,081	269,856	151,277	340,988	113,700	2,831,334
Drugs				1,812,362	255,103	35,498	9,445	5,550	3,908	12,552	35,584	9,396	155,112
Clinical Supplies	3,049	60,458	46,439	1,073,570	8,995	1,822,299	107,681	19,755	14,465	15,815	45,954	10,011	196,962
Non-Clinical Supplies	32,817	7,929	8,842	96,928	1,809	9,354	14,037	4,511	4,747	6,119	21,423	4,043	46,826
Operation cost	14,263	2,710	2,370	17,115	2,336	4,839	10,310	4,645	4,645	4,645	7,934	4,645	52,586
<b>Sub Total</b>	<b>594,858</b>	<b>141,552</b>	<b>255,867</b>	<b>5,195,156</b>	<b>554,728</b>	<b>2,639,349</b>	<b>1,207,617</b>	<b>228,542</b>	<b>297,621</b>	<b>190,407</b>	<b>451,884</b>	<b>141,795</b>	<b>3,282,820</b>
<b>Total</b>	<b>803,658</b>	<b>251,799</b>	<b>385,539</b>	<b>5,487,667</b>	<b>637,719</b>	<b>2,763,712</b>	<b>1,378,197</b>	<b>349,734</b>	<b>428,725</b>	<b>273,289</b>	<b>570,134</b>	<b>224,349</b>	<b>4,129,786</b>

Item	Total support services	Total Direct Services	Total
<i>Capital Costs</i>			
Building	227,330	887,285	1,114,615
Equipment	179,684	252,946	432,630
Furniture	41,705	66,197	107,902
<b>Sub Total</b>	<b>448,718</b>	<b>1,206,428</b>	<b>1,655,146</b>
<i>Recurrent Costs</i>			
Personnel	813,400	5,385,071	6,198,471
Drugs		2,179,397	2,179,397
Clinical Supplies	109,946	3,118,544	3,228,491
Non-Clinical Supplies	49,587	162,972	212,559
Operation cost	19,343	61,115	80,458
<b>Sub Total</b>	<b>992,277</b>	<b>10,907,098</b>	<b>11,899,375</b>
<b>Total</b>	<b>1,440,995</b>	<b>12,113,526</b>	<b>13,554,521</b>

**Table (48): Overall Costs of Primary Health Care Services in High Client Volume Facilities by Cost Item and Services with Overhead Costs Allocated to Support and Direct Services**

Item	Pharmacy	Radiology	Laboratory	General Practice	Specialty	Dental	Emergency	Prenatal Postnatal	Family Planning	Growth and Development	Immunization	Curative MCH	Total MCH
<i>Capital Costs</i>													
Building	130,388	36,254	57,269	313,557	46,619	182,985	106,884	81,216	81,216	81,216	126,479	81,216	451,341
Equipment	10,677	17,334	90,847	64,994	21,949	90,639	47,767	40,590	30,763	2,147	13,189	1,225	87,915
Furniture	34,540	1,643	10,204	8,059	5,970	15,615	10,529	7,165	8,077	6,219	12,896	3,608	37,965
<b>Sub Total</b>	<b>175,605</b>	<b>55,231</b>	<b>158,320</b>	<b>386,609</b>	<b>74,538</b>	<b>289,239</b>	<b>165,180</b>	<b>128,971</b>	<b>120,056</b>	<b>89,582</b>	<b>152,564</b>	<b>86,049</b>	<b>577,221</b>
<i>Recurrent Costs</i>													
Personnel	556,256	40,216	132,728	3,561,219	1,051,724	1,550,043	1,269,082	357,460	340,382	281,750	542,265	175,503	1,697,360
Drugs				3,937,774	422,201	79,406	13,208	7,504	4,078	16,350	86,442	10,605	124,978
Clinical Supplies	14,823	12,569	61,081	887,096	21,039	2,518,113	40,553	19,185	12,518	15,147	46,588	10,766	104,203
Non-Clinical Supplies	54,331	6,531	5,787	116,433	10,638	10,712	9,634	2,744	2,165	4,792	13,331	3,127	26,158
Operation cost	11,526	4,384	6,279	27,145	6,731	17,449	9,867	8,134	8,134	8,134	12,388	8,134	44,924
<b>Sub Total</b>	<b>636,936</b>	<b>63,700</b>	<b>205,875</b>	<b>8,529,667</b>	<b>1,512,333</b>	<b>4,175,723</b>	<b>1,342,344</b>	<b>395,026</b>	<b>367,276</b>	<b>326,172</b>	<b>701,014</b>	<b>208,135</b>	<b>1,997,624</b>
<b>Total</b>	<b>812,541</b>	<b>118,931</b>	<b>364,196</b>	<b>8,916,276</b>	<b>1,586,872</b>	<b>4,464,962</b>	<b>1,507,524</b>	<b>523,997</b>	<b>487,332</b>	<b>415,755</b>	<b>853,578</b>	<b>294,184</b>	<b>2,574,845</b>

Item	Total support services	Total Direct Services	Total
<i>Capital Costs</i>			
Building	223,911	1,101,387	1,325,298
Equipment	118,858	313,264	432,122
Furniture	46,387	78,138	124,525
<b>Sub Total</b>	<b>389,157</b>	<b>1,492,788</b>	<b>1,881,945</b>
<i>Recurrent Costs</i>			
Personnel	729,199	9,129,428	9,858,627
Drugs		4,577,567	4,577,567
Clinical Supplies	88,474	3,571,004	3,659,478
Non-Clinical Supplies	66,649	173,576	240,225
Operation cost	22,188	106,116	128,304
<b>Sub Total</b>	<b>906,511</b>	<b>17,557,690</b>	<b>18,464,201</b>
<b>Total</b>	<b>1,295,668</b>	<b>19,050,479</b>	<b>20,346,147</b>

**Table (49): Overall Costs of Primary Health Care Services in CHCs by Cost Item and Services with Overhead Allocated and Support Services to Direct Services**

<b>Item</b>	<b>General Practice</b>	<b>Specialty</b>	<b>Dental</b>	<b>Emergency</b>	<b>Prenatal Postnatal</b>	<b>Family Planning</b>	<b>Growth and Development</b>	<b>Immunization</b>	<b>Curative MCH</b>	<b>Total MCH</b>	<b>Total</b>
<i>Capital Costs</i>											
Building	127,318	152,333	140,376	113,469	97,548	97,548	97,548	97,548	97,548	487,742	1,021,238
Equipment	106,463	54,444	50,721	94,309	106,314	117,256	6,345	13,651	2,861	246,427	552,365
Furniture	2,388	20,437	11,784	14,837	7,434	10,826	5,252	8,380	4,255	36,148	85,594
<b>Sub Total</b>	<b>236,168</b>	<b>227,214</b>	<b>202,881</b>	<b>222,616</b>	<b>211,297</b>	<b>225,631</b>	<b>109,145</b>	<b>119,579</b>	<b>104,665</b>	<b>770,317</b>	<b>1,659,197</b>
<i>Recurrent Costs</i>											
Personnel	1,693,240	1,433,646	1,191,069	1,174,981	174,787	165,630	168,695	231,645	128,382	869,140	6,362,077
Drugs	1,259,767	710,669	31,979	11,149	5,835	4,823	9,467	37,413	6,423	63,960	2,077,524
Clinical Supplies	646,043	30,995	1,686,766	156,297	20,384	18,296	18,489	57,381	14,814	129,364	2,649,465
Non-Clinical Supplies	82,421	20,919	18,782	25,506	5,284	5,370	6,238	20,160	4,750	41,803	189,432
Operation cost	12,755	12,740	13,501	11,753	8,362	8,362	8,362	8,362	8,362	41,811	92,561
<b>Sub Total</b>	<b>3,694,226</b>	<b>2,208,970</b>	<b>2,942,096</b>	<b>1,379,687</b>	<b>214,652</b>	<b>202,481</b>	<b>211,252</b>	<b>354,961</b>	<b>162,732</b>	<b>1,146,078</b>	<b>11,371,058</b>
<b>Total</b>	<b>3,930,394</b>	<b>2,436,184</b>	<b>3,144,978</b>	<b>1,602,303</b>	<b>425,949</b>	<b>428,112</b>	<b>320,397</b>	<b>474,540</b>	<b>267,397</b>	<b>1,916,395</b>	<b>13,030,254</b>

**Table (50): Overall Costs of Primary Health Care Services in PHCs by Cost Item and Services with Overhead Allocated and Support Services to Direct Services**

Item	General Practice	Specialty	Dental	Emergency	Prenatal Postnatal	Family Planning	Growth and Development	Immunization	Curative MCH	Total MCH	Total
<i>Capital Costs</i>											
Building	532,652		259,253	348,494	162,789	162,789	162,789	162,789	162,789	813,947	1,954,346
Equipment	138,870		144,853	103,527	81,083	32,799	3,814	34,603	2,647	154,946	542,196
Furniture	17,471		35,195	35,669	22,282	29,005	14,247	22,129	11,977	99,639	187,974
<b>Sub Total</b>	<b>688,993</b>		<b>439,301</b>	<b>487,690</b>	<b>266,154</b>	<b>224,593</b>	<b>180,850</b>	<b>219,521</b>	<b>177,413</b>	<b>1,068,532</b>	<b>2,684,516</b>
<i>Recurrent Costs</i>											
Personnel	5,244,697	4,893	2,078,424	2,218,398	649,055	694,743	476,539	991,020	323,161	3,134,518	12,680,930
Drugs	5,062,502	17,342	95,276	13,046	8,981	5,129	25,169	97,009	18,824	155,112	5,343,277
Clinical Supplies	1,723,834		3,543,668	51,288	39,636	21,406	35,077	83,044	28,493	207,656	5,526,446
Non-Clinical Supplies	197,463		28,952	32,893	9,494	9,728	12,055	30,037	8,420	69,734	329,042
Operation cost	49,210		19,472	30,810	13,226	13,226	13,226	13,226	13,226	66,131	165,623
<b>Sub Total</b>	<b>12,277,705</b>	<b>22,235</b>	<b>5,765,793</b>	<b>2,346,435</b>	<b>720,392</b>	<b>744,232</b>	<b>562,066</b>	<b>1,214,336</b>	<b>392,125</b>	<b>3,633,151</b>	<b>24,045,318</b>
<b>Total</b>	<b>12,966,699</b>	<b>22,235</b>	<b>6,205,094</b>	<b>2,834,125</b>	<b>986,546</b>	<b>968,825</b>	<b>742,916</b>	<b>1,433,858</b>	<b>569,538</b>	<b>4,701,682</b>	<b>26,729,834</b>

**Table (51): Overall Costs of Primary Health Care Services in VHCs by Cost Item and Services with Overhead Allocated and Support Services to Direct Services**

<b>Item</b>	General Practice	Specialty	Dental	Emergency	Prenatal Postnatal	Family Planning	Growth and Development	Immunization	Curative MCH	Total MCH	Total
<i>Capital Costs</i>											
Building	134,013			3,073				144,236		144,236	281,322
Equipment	61,939							620		620	62,559
Furniture	15,744							7,471		7,471	23,215
<b>Sub Total</b>	<b>211,697</b>			<b>3,073</b>				<b>152,327</b>		<b>152,327</b>	<b>367,096</b>
<i>Recurrent Costs</i>											
Personnel	868,707			289,842				35,963		35,963	1,194,512
Drugs	277,223			1,937				6,893		6,893	286,052
Clinical Supplies	669,583			66				631		631	670,280
Non-Clinical Supplies	28,691			4,074				1,204		1,204	33,969
Operation cost	9,171			346				13,197		13,197	22,714
<b>Sub Total</b>	<b>1,853,374</b>			<b>296,265</b>				<b>57,888</b>		<b>57,888</b>	<b>2,207,527</b>
<b>Total</b>	<b>2,065,070</b>			<b>299,339</b>				<b>210,214</b>		<b>210,214</b>	<b>2,574,623</b>

**Table (52): Overall Costs of Primary Health Care Services in Low Client Volume Facilities by Cost Item and Services with Overhead Allocated and Support Services to Direct Services**

<b>Item</b>	<b>General Practice</b>	<b>Specialty</b>	<b>Dental</b>	<b>Emergency</b>	<b>Prenatal Postnatal</b>	<b>Family Planning</b>	<b>Growth and Development</b>	<b>Immunization</b>	<b>Curative MCH</b>	<b>Total MCH</b>	<b>Total</b>
<i>Capital Costs</i>											
Building	165,036	14,244	79,017	184,029	65,235	65,235	65,235	113,729	65,235	374,668	816,994
Equipment	78,675		27,681	40,139	95,822	29,802	4,220	13,201	2,829	145,874	292,369
Furniture	8,085	1,626	6,009	17,071	6,769	8,365	5,505	6,698	4,226	31,564	64,355
<b>Sub Total</b>	<b>251,796</b>	<b>15,870</b>	<b>112,707</b>	<b>241,239</b>	<b>167,826</b>	<b>103,402</b>	<b>74,960</b>	<b>133,627</b>	<b>72,291</b>	<b>552,106</b>	<b>1,173,717</b>
<i>Recurrent Costs</i>											
Personnel	1,471,648	28,561	706,721	1,039,336	203,311	162,596	171,170	260,207	137,368	934,651	4,180,917
Drugs	848,859	50,706	12,351	3,479	1,762	1,967	5,735	19,289	5,246	33,998	949,393
Clinical Supplies	944,804		868,050	39,712	17,022	9,516	19,833	39,107	20,178	105,656	1,958,222
Non-Clinical Supplies	54,270	154	9,509	14,730	2,781	2,703	3,429	8,631	3,452	20,997	99,659
Operation cost	16,148	1,586	6,148	17,024	5,722	5,722	5,722	8,340	5,722	31,230	72,136
<b>Sub Total</b>	<b>3,335,728</b>	<b>81,006</b>	<b>1,602,779</b>	<b>1,114,281</b>	<b>230,597</b>	<b>182,503</b>	<b>205,890</b>	<b>335,574</b>	<b>171,966</b>	<b>1,126,531</b>	<b>7,260,326</b>
<b>Total</b>	<b>3,587,524</b>	<b>96,876</b>	<b>1,715,486</b>	<b>1,355,520</b>	<b>398,423</b>	<b>285,905</b>	<b>280,850</b>	<b>469,202</b>	<b>244,257</b>	<b>1,678,637</b>	<b>8,434,043</b>

**Table (53): Overall Costs of Primary Health Care Services in Medium Client Volume Facilities by Cost Item and Services with Overhead Allocated and Support Services to Direct Services**

<b>Item</b>	<b>General Practice</b>	<b>Specialty</b>	<b>Dental</b>	<b>Emergency</b>	<b>Prenatal Postnatal</b>	<b>Family Planning</b>	<b>Growth and Development</b>	<b>Immunization</b>	<b>Curative MCH</b>	<b>Total MCH</b>	<b>Total</b>
<i>Capital Costs</i>											
Building	255,192	81,577	103,764	153,470	97,284	97,284	97,284	131,474	97,284	520,612	1,114,615
Equipment	138,935	22,499	51,486	86,180	46,624	70,388	2,774	12,741	1,002	133,530	432,630
Furniture	11,779	10,430	16,092	17,541	11,484	19,349	4,429	10,357	6,441	52,060	107,902
<b>Sub Total</b>	<b>405,906</b>	<b>114,506</b>	<b>171,342</b>	<b>257,191</b>	<b>155,393</b>	<b>187,022</b>	<b>104,488</b>	<b>154,572</b>	<b>104,727</b>	<b>706,202</b>	<b>1,655,146</b>
<i>Recurrent Costs</i>											
Personnel	2,483,528	333,852	910,064	1,237,277	227,420	318,595	170,031	388,782	128,424	1,233,253	6,197,975
Drugs	1,812,362	255,103	35,498	9,445	5,550	3,908	12,552	35,584	9,396	66,989	2,179,397
Clinical Supplies	1,148,854	9,572	1,830,494	122,640	21,215	16,679	16,903	51,164	10,970	116,931	3,228,491
Non-Clinical Supplies	115,331	4,131	16,291	24,685	6,599	7,568	7,810	25,093	5,051	52,122	212,559
Operation cost	22,472	2,953	6,170	13,953	6,032	6,032	6,032	10,783	6,032	34,910	80,458
<b>Sub Total</b>	<b>5,582,546</b>	<b>605,611</b>	<b>2,798,517</b>	<b>1,407,999</b>	<b>266,816</b>	<b>352,782</b>	<b>213,327</b>	<b>511,406</b>	<b>159,873</b>	<b>1,504,205</b>	<b>11,898,878</b>
<b>Total</b>	<b>5,988,452</b>	<b>720,117</b>	<b>2,969,858</b>	<b>1,665,191</b>	<b>422,210</b>	<b>539,804</b>	<b>317,815</b>	<b>665,978</b>	<b>264,600</b>	<b>2,210,407</b>	<b>13,554,025</b>

**Table (54): Overall Costs of Primary Health Care Services in High Client Volume Facilities by Cost Item and Services With Overhead Allocated and Support Services to Direct Services**

<b>Item</b>	<b>General Practice</b>	<b>Specialty</b>	<b>Dental</b>	<b>Emergency</b>	<b>Prenatal Postnatal</b>	<b>Family Planning</b>	<b>Growth and Development</b>	<b>Immunization</b>	<b>Curative MCH</b>	<b>Total MCH</b>	<b>Total</b>
<i>Capital Costs</i>											
Building	373,755	56,513	216,848	127,537	97,818	97,818	97,818	159,371	97,818	550,644	1,325,298
Equipment	89,662	31,945	116,407	71,517	44,951	49,866	3,164	22,932	1,677	122,590	432,122
Furniture	15,739	8,381	24,878	15,894	11,463	12,116	9,565	20,924	5,565	59,633	124,525
<b>Sub Total</b>	<b>479,156</b>	<b>96,839</b>	<b>358,134</b>	<b>214,949</b>	<b>154,232</b>	<b>159,800</b>	<b>110,548</b>	<b>203,227</b>	<b>105,060</b>	<b>732,867</b>	<b>1,881,945</b>
<i>Recurrent Costs</i>											
Personnel	3,851,467	1,076,126	1,652,708	1,406,609	393,111	379,182	304,033	609,639	185,751	1,871,716	9,858,627
Drugs	3,938,271	422,201	79,406	13,208	7,504	4,078	16,350	86,442	10,605	124,978	4,578,064
Clinical Supplies	945,801	21,423	2,531,890	45,300	21,783	13,506	16,830	50,785	12,160	115,064	3,659,478
Non-Clinical Supplies	138,975	16,635	21,935	23,058	5,398	4,828	7,054	17,677	4,667	39,623	240,225
Operation cost	32,517	8,201	20,655	11,932	9,834	9,834	9,834	15,662	9,834	54,999	128,304
<b>Sub Total</b>	<b>8,907,031</b>	<b>1,544,587</b>	<b>4,306,593</b>	<b>1,500,107</b>	<b>437,630</b>	<b>411,428</b>	<b>354,100</b>	<b>780,205</b>	<b>223,017</b>	<b>2,206,380</b>	<b>18,464,698</b>
<b>Total</b>	<b>9,386,187</b>	<b>1,641,425</b>	<b>4,664,727</b>	<b>1,715,056</b>	<b>591,862</b>	<b>571,228</b>	<b>464,648</b>	<b>983,432</b>	<b>328,077</b>	<b>2,939,248</b>	<b>20,346,643</b>