

The Provision of Reproductive Health Services in Private Hospitals in Amman, Jordan

September 2003

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- ▲ *Implementation of appropriate health system reform.*
- ▲ *Generation of new financing for health care, as well as more effective use of existing funds.*
- ▲ *Design and implementation of health information systems for disease surveillance.*
- ▲ *Delivery of quality services by health workers.*
- ▲ *Availability and appropriate use of health commodities.*

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Abstract

To help the Jordanian Ministry of Health (MOH) gain baseline information on services offered by private acute care hospitals and assess the capacity and willingness of these hospitals to participate in a Health Insurance Pilot Program (HIPP), the Partnerships for Health Reform *plus* project carried out a survey of the 30 private acute care hospitals in Amman. The HIPP proposes to contract with hospitals to provide reproductive health services to MOH patients. The survey, which measured the availability of a broad range of hospital services, focused on prenatal, delivery, and postnatal services in order to ascertain whether the hospitals offered the services that are included in the HIPP benefits package. It also looked at hospital staffing, and it queried the satisfaction of hospitals with existing contracts with the MOH and their willingness to expand contractual relationships, comply with clinical guidelines, and participate in the health information system being established for the HIPP. The survey found that, among the 25 respondent hospitals, more than 90 percent offered the reproductive health services in the HIPP package. While all hospitals expressed a willingness to engage in a contractual relationship with the MOH, many described frustrations with current contracting, and less than half were willing to use the clinical guidelines and the information system. The survey thus provides baseline information on services and helps the MOH to understand the steps it must take to enhance its contracting with private sector facilities.

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Acronyms

CCU	Critical Care Unit
HID	Health Insurance Directorate
HIPP	Health Insurance Pilot Project
HRH	Hospital Reproductive Health (Survey)
ICU	Intensive Care Unit
IU	Implementation Unit
IUD	Intra Uterine Device
JHUES	Jordan Health Utilization and Expenditure Survey
MRI	Magnetic Resonance Imaging
MOH	Ministry of Health
NICU	Neonatal Intensive Care Unit
OB/Gyn	Obstetrics and Gynecology
PHR	Partnership for Health Reform
PHR<i>plus</i>	Partners for Health Reform <i>plus</i>
PICU	Portable Intensive Care Unit

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Executive Summary

This report summarizes findings from the *Hospital Reproductive Health* (HRH) survey that was implemented by the Partners for Health Reformplus (PHRplus) project, Amman, Jordan, during the month of July 2002. The survey received responses from 25 of the 30 private acute care hospitals that are located in East and West Amman. The purpose of the survey was to determine the capacity of private sector hospitals to provide comprehensive delivery and newborn care to Ministry of Health (MOH) patients. Obtaining this information will allow the MOH Health Insurance Directorate to estimate the market structure for private sector contracting for the 250 beneficiaries of its Health Insurance Pilot Project (HIPP).

The HRH survey is of import for at least two reasons. Firstly, it will provide the MOH with baseline information on the scope of services that are available among private sector hospitals in East and West Amman. This information will be matched against the service requirements that the MOH has designated for beneficiaries under the HIPP. Secondly, this study constitutes the first-ever comprehensive assessment of hospital-based reproductive health care services that are offered in Jordan; hence, the information contained within this document will be of use to researchers and policymakers as they seek to design an optimal health care strategy for the nation. Key findings of the study are highlighted below:

Which services are typically offered among private sector acute care hospitals?

- ▲ Basic obstetrics and gynecology (OB/Gyn) services are the most commonly offered inpatient services among private hospitals; 92 percent of hospitals offer this category of services. Other commonly offered services are internal medicine, 62 percent; surgery, 65 percent; and pediatrics, 69 percent.
- ▲ Emergency room services are offered by 92 percent of private hospitals, while clinic services are offered by 85 percent.
- ▲ All hospitals offer clinical laboratory and pharmaceutical services to patients. Thirty-one percent of hospitals offered physiotherapy services to patients, while 4 percent offer MRI/CT scan services.
- ▲ Radiological services are offered by 92 percent of hospitals. Nephrology services are offered by 50 percent of hospitals, endoscopy by 27 percent, pulmonology by 15 percent, nuclear medicine by 4 percent, and lithotripsy by 12 percent of hospitals. Of these specialized services, radiological services for diagnostic purposes are the most relevant for the HIPP.

- ▲ All hospitals provide neonatal services. Intensive care services are offered by 85 percent of hospitals, critical care by 69 percent, cardiac catheterization by 31 percent, and open heart surgery by 31 percent. Therefore, it appears that a significant majority of hospitals offer the basic category of neonatal services that are required by the HIPP; however, overall intensive care services for the neonate is restricted to only a few select facilities.

Which reproductive health services are typically offered at private sector acute care hospitals?

- ▲ Nearly 90 percent of all hospitals that responded to the survey reported offering state-of-the-art birth control devices, including the pill. These devices and services range from traditional methods to Depo Medroxy Progesterone Acetate (DMPA).
- ▲ More than 92 percent of respondent hospitals provide prenatal and postnatal services on a regular basis. In other words, it appears that the vast majority of private acute care facilities in East and West Amman are capable of providing these services, which are essential under the HIPP.
- ▲ Of the hospitals that offer obstetric services, 96 percent offer their patients separate delivery facilities, and 73 percent offer Caesarian-section rooms that are in close proximity to normal delivery rooms.
- ▲ The percentage of vaginal deliveries performed (relative to C-section deliveries) shows little variation among private hospitals, when the survey information is disaggregated by hospital bed size. The average number of deliveries, on a per-hospital basis, was 1,911 in 2001. This ranged from a low of 80 to a high of 6,647. Slightly more than 86 percent of these deliveries were classified as normal deliveries, while roughly 14 percent required a Cesarean section.

What are the physician and nursing staffing patterns among private sector acute care hospitals?

- ▲ Staffing patterns fail to provide a comprehensive assessment of the total physician staff that are affiliated with the hospitals. Much like in the United States and elsewhere, the vast majority of physicians are not staff physicians, but instead have admitting privileges at one or more hospitals. In any event, the average number of OB/Gyn and pediatric staff physicians and residents varies only slightly among hospitals that responded to the survey. The greatest variation among hospitals is the numbers of OB/Gyn and pediatric residents employed. The larger hospitals – those with significant teaching responsibilities – have as many as twice the number of resident physicians on staff. For example, hospitals with 105 or fewer beds employ only one full-time OB/Gyn and pediatrician, while the largest hospitals, those with more than 105 beds, employ two OB/Gyns and pediatricians.
- ▲ Nursing staff varies by the specialty mix of the hospitals, as well as by hospital size. Larger hospitals, those with more than 105 beds, employ 15 OB/Gyn nurses, 13 pediatric nurses, and six nurse-midwives. However, specialized obstetric hospitals, most of which range in size from 46 beds to 85 beds, employ on average 23 OB/Gyn nurses, nine pediatric nurses, and five nurse-midwives.

Conclusion

As this report illustrates, the vast majority of hospitals surveyed offer comprehensive maternal and child health services that are consistent with those in the basic benefits package of the HIPP. The specific services surveyed – OB/Gyn, neonatal, prenatal, postnatal, and family planning services – are readily available at most of the hospitals. In addition, a majority of hospitals offer the typical categories of ancillary and support services that are required by the HIPP, including clinical laboratory, pharmaceutical, and radiological services. The only significant variation in reproductive health services found was in the provision of neonatal intensive care services, specifically, the availability of permanent and portable units. Hence, based upon this survey, it appears that a significant infrastructure for delivering the services outlined in the HIPP benefits package exists in both East and West Amman.

Moreover, in considering the willingness of private sector hospitals to participate in the HIPP, *PHRplus* explored the extent to which both formal and informal relationships exist between the MOH and private sector hospitals in Jordan. All hospitals surveyed stated that they would be willing to explore the possibility of participating in the HIPP. However, when specific contract provisions, for example, the use of clinical practice guidelines, were proposed, several hospitals stated that they would be unwilling to participate. In fact only 46 percent of hospitals surveyed stated that they would be willing to incorporate clinical practice guidelines into the terms of the contract, only 50 percent would incorporate pre- and postnatal services, and only 46 percent would be willing to establish a computerized link with the MOH for monitoring contract performance.

The MOH has a long-standing relationship with private sector hospitals in Jordan, primarily for the provision of obstetric and renal dialysis services to MOH beneficiaries. Renal dialysis patients receive treatment based upon existing formal contractual links between the MOH and providers; treatment of obstetric patients stems primarily from need for emergency services or lack of bed availability in Al Bashir hospital (the largest public hospital in Amman). In any event, 96 percent of hospitals surveyed stated that they had provided treatment to MOH-sponsored patients during the past year. Of those hospitals that had treated MOH patients, 62 percent expressed fair to poor levels of satisfaction with the MOH as a client. Hence, prior to implementing the HIPP, it is essential for the MOH to reassure private hospital clients that their concerns, such as delayed reimbursement, disputes over diagnosis, and overall distrust of the private sector, will have to be resolved.

1. Background

The Partners for Health Reform *plus* (PHR *plus*) project is providing long-term technical assistance to the Jordanian Ministry of Health (MOH) in the fields of health care financing, hospital managerial reform, and National Health Accounts. The overall aim of this technical assistance is to improve the efficiency, equity, and sustainability of the Jordanian health care sector. One major area of concern is that of universal health insurance coverage. The MOH has expressed keen interest in expanding formal health insurance coverage to the estimated 1.9 million uninsured Jordanian residents (40 percent of the population).¹ However, prior to implementing such a policy, the MOH seeks to expand the administrative capacity of its Health Insurance Directorate (HID) in the areas of contract design, contract monitoring, and contract enforcement. Therefore, the Ministry is implementing the Health Insurance Pilot Project (HIPP), with support from PHR *plus*.

The *Hospital Reproductive Health* (HRH) survey described in this report is part of a series of studies aimed at assisting the MOH in implementing comprehensive health insurance reform. Earlier technical assistance related to health insurance that has been provided by the Partnerships for Health Reform (PHR) and PHR *plus* is as follows:

- ▲ April 1998: Convened a round table discussion with the Minister of Health and other senior level public and private sector officials on establishing guidelines for implementing health insurance reform in Jordan (Feder and Fairbank, 1998).
- ▲ April 1998: Conducted a survey of private health insurance companies in Jordan (Hollander and Rauch, 1998).
- ▲ November 1998: Held workshop to explore the issues and options to consider when designing health insurance coverage for the uninsured in Jordan (Banks et al., 1998).
- ▲ June 1999: Conducted focus groups to measure consumers' willingness to purchase MOH-sponsored voluntary health insurance and obtain information on the public's perception of MOH service quality (Banks et al., 1999).
- ▲ July 1999: Developed a comprehensive profile of the uninsured Jordanian population. This study highlighted the demographic attributes and geographical distribution of uninsured persons in Jordan (Banks et al., 2001).

¹ See Jordan Health Care and Expenditure Survey (JHUES) 2000 (Partnerships for Health Reform, 2000). This survey of 8,800 households (more than 49,500 individuals) was funded by the United States Agency for International Development, under the Partnerships for Health Reform/Jordan program. PHR/Jordan designed the survey instrument and contracted with the Jordanian Department of Statistics for the field implementation of this survey. Personnel from the U.S. Bureau of the Census designed the sample frame for the survey. The JHUES constitutes the first and most comprehensive health care expenditure and utilization survey conducted in Jordan.

- ▲ August 2000: Assisted the Department of Statistics to conduct the national Jordan Health Utilization and Expenditure Survey (PHR, 2000, and Banks et al., 2001).
- ▲ September 2001: Conducted survey of 500 private sector companies and their provision of health insurance to their employees (Paterson et al., 2001).

The HIPP takes a top-down approach to improving the contracting abilities of the HID. Through an assessment conducted by PHR*plus* in February 2001, stakeholders suggested that improvements in MOH contracting must begin with a category of services that are frequently contracted out to private sector hospitals. Subsequent meetings between MOH executives and PHR*plus* staff concluded that obstetric services, to include prenatal and postnatal care, should constitute the preliminary bundle of services to be contracted under the HIPP. The consensus was that this category of MOH patients demands a bundle of services that are: relatively easy to define, demanded in amounts sufficient to justify the development of a separate contracting entity within the HID, easy to monitor, and less difficult to price than other services. Prior to implementation, it was agreed upon that several newly established entities, as well as additional information on the market structure for private sector obstetric services be obtained. This was accomplished in three phases.

Firstly, an Advisory Committee of senior level MOH executives was appointed to oversee the development and operation of the HIPP, based upon information provided by the Ministry's newly established Implementation Unit (IU). It was agreed upon that the IU be located within the Health Insurance Directorate, and fully integrated within the HID's organizational structure. Secondly, the four full-time IU staff would receive ongoing technical assistance from PHR*plus* in the following areas of private sector contracting: design, implementation, monitoring, and enforcement. Thirdly, while the focus of the HIPP is the development of an enhanced contracting capacity within the MOH, the monitoring of any bundle of services requires baseline information for monitoring contract performance. Hence, the IU, in collaboration with PHR*plus*, developed a series of clinical practice guidelines for OB/Gyn and pediatric services based upon the bundle of services that has been designed for HIPP beneficiaries. The current study builds upon the IU's information-gathering efforts, by supplying much-needed information on the potential suppliers of OB/Gyn and pediatric services for HIPP beneficiaries.

2. Data Methodology and Issues

2.1 Instrument Development

The survey instrument that was developed for the HRH study is contained in Annex A. The factors motivating the development of the instrument were as follows:

- ▲ To investigate the availability of obstetric/gynecology and neonatal services in private sector acute care hospitals in East and West Amman.
- ▲ To assess staffing patterns in private sector acute care hospitals, with respect to the provision of OB/Gyn and pediatric care.
- ▲ To assess the willingness of private sector hospitals to participate in the Health Insurance Pilot Project, as well as to assess their experience with Ministry of Health contracting.

2.2 Hospitals Surveyed

The results of this survey were based upon information obtained from a population of private sector acute care hospitals located in East and West Amman. This survey captures data on a variety of hospital-based services, most notably information that is relevant to the MOH as it seeks to structure optimal service contracts for its MOH HIPP enrollees. A universe of 30 private acute care hospitals – the total number of that type of hospital operating in the city – was surveyed. Of this population, 25 respondents completed the on-site interviews, for a response rate of 83 percent. The information obtained from these respondents provides insight into their productive capacity in various areas of service delivery, as well as their views of the MOH as a client.

2.3 Supervision and Field Work

The HRH survey team consisted of a Survey Director, Assistant Director (who also served as Field Coordinator), and three full-time interviewers. The interviewers received comprehensive training on the objectives of the survey, and its structure, interviewing methods, and field data verification methods. Upon completion of this training, the interviewers pre-tested the survey instrument on a sample of six hospitals. A brief report was written, highlighting those areas of the survey instrument that were in need of modification. After modifications were made, interviewers received post-pilot training on the final instrument. The Survey Director and Assistant Director provided senior level management and expertise to the overall design and implementation of the survey.

The Assistant Director, in the role of Field Coordinator, provided overall field supervision to interviewers, as well as field verification of all data compiled. Each survey day concluded with a

complete review of the day's completed surveys by the Assistant Director. This consisted of a preliminary check for consistency in answers, as well as a group discussion of the day's work.

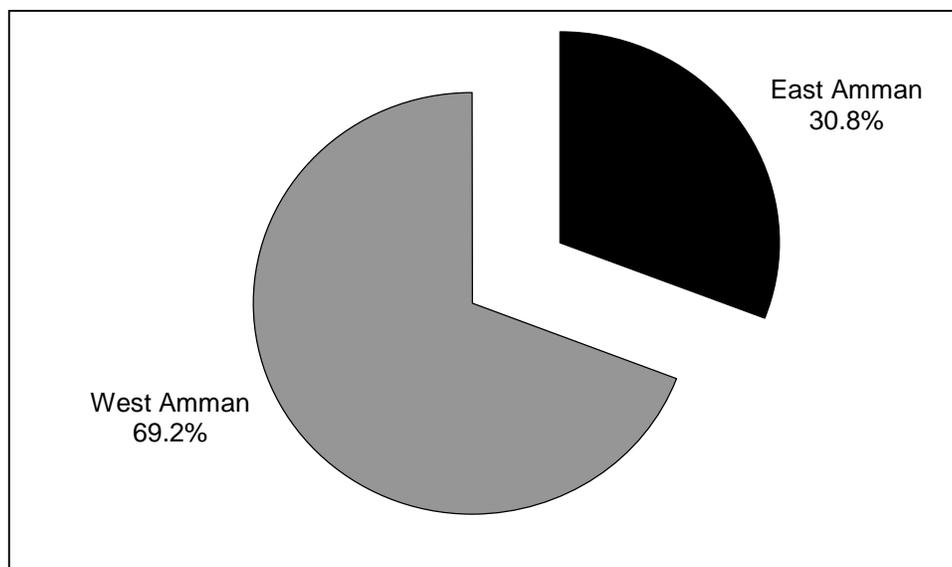
2.4 Data Entry and Cleaning

The Assistant Director was also responsible for inputting, coding, and performing consistency checks on the final data set. All survey information was double-entered for consistency. The final data set was prepared in SPSS (Statistical Package for the Social Sciences) format. Cross-tabulations were performed in an attempt to check for inconsistencies in coding as well as data entry. No data problems were found.

3. Hospital Profiles, Staffing, and Services

Of paramount importance to the Ministry of Health, as it develops the operational guidelines for implementing the Health Insurance Pilot Project, is the geographical distribution of private hospitals in Amman. This information will be utilized to approximate the availability of service providers in each area. As illustrated in Figure 1, roughly 69 percent of the hospitals surveyed were located in West Amman.² West Amman is considered the financial and business center of the country and city. Its population is more affluent than that of East Amman, better educated, and employed primarily in the retail and service sectors. In contrast, East Amman is the site of a higher concentration of lower income services and manufacturing firms, which typically employ low income, seasonal, and unskilled workers (Banks et al., 2001). Moreover, the more densely populated areas of East Amman have poorer sanitation and transportation services than West Amman.

Figure 1: Distribution of Private Hospitals by Location in Amman



² Even though an official geographical definition of East and West Amman does not exist, the city is often classified accordingly in official documents (see for example, the MOH Annual Statistical Reports). This study classifies hospitals according to common perception of their relative location as well as the geographic delineations obtained from the MOH and the Amman Municipality. An official city map, obtained from the Amman Municipality, was utilized to demarcate the East and West for the purposes of this study. Irrespective of the classification used, the socio-economic characteristics of the two sections are quite distinct.

3.1 Hospital Distribution by Bed Size and Services

Bed size is often viewed as an indicator of a hospital's productive capacity and product mix. Larger hospitals tend to offer a greater mix of clinical and diagnostic services, are better able to accommodate higher numbers of patients per day, and employ a more diversified labor force. Moreover, larger hospitals may achieve greater production efficiencies through enhanced economies of scale and scope that are often associated with large scale production. This information will be of use to the MOH as it seeks to identify the relationship between hospital size and the provision of reproductive health services. As illustrated in Figure 2, roughly 35 percent of hospitals surveyed have fewer than 46 beds, while 30 percent have a bed size in the range of 46 to 85. Among larger hospitals, 8 percent have bed sizes of 86 to 105 beds, while nearly 27 percent exhibit bed size of more than 105 beds. This report later utilizes this information to classify hospitals by bed size cohorts, relative to their service offerings and labor inputs.

Figure 2: Distribution of Hospitals by Bed Size

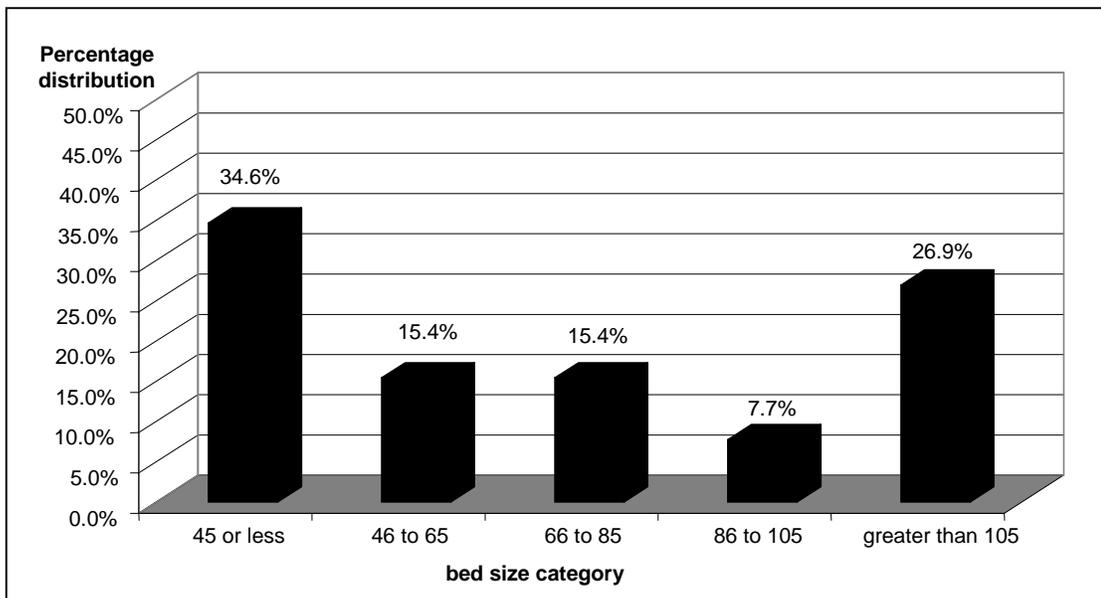
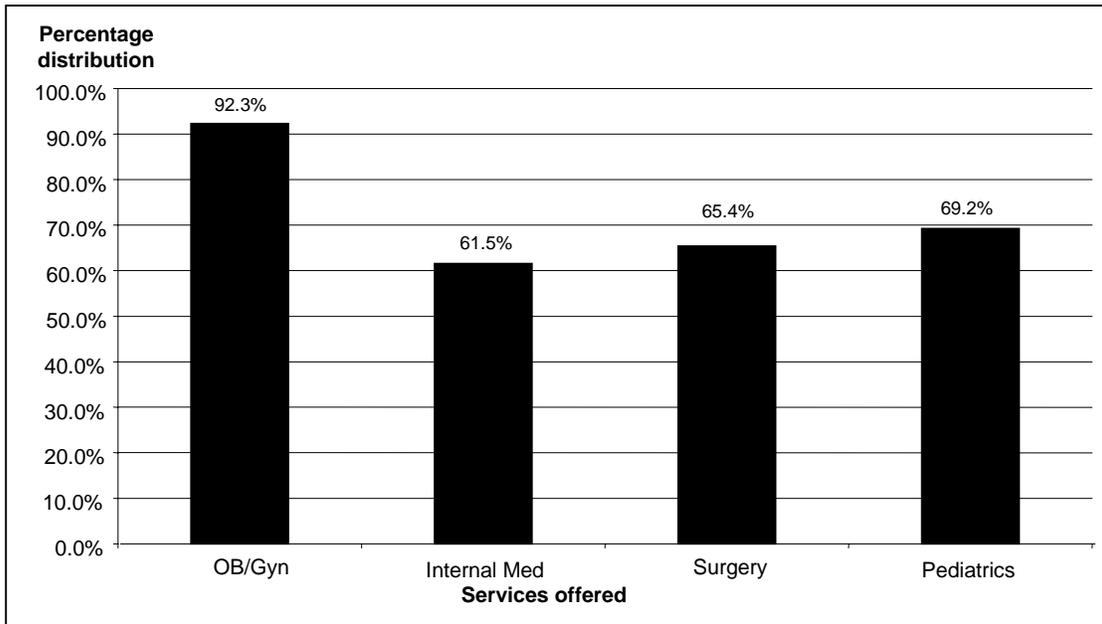


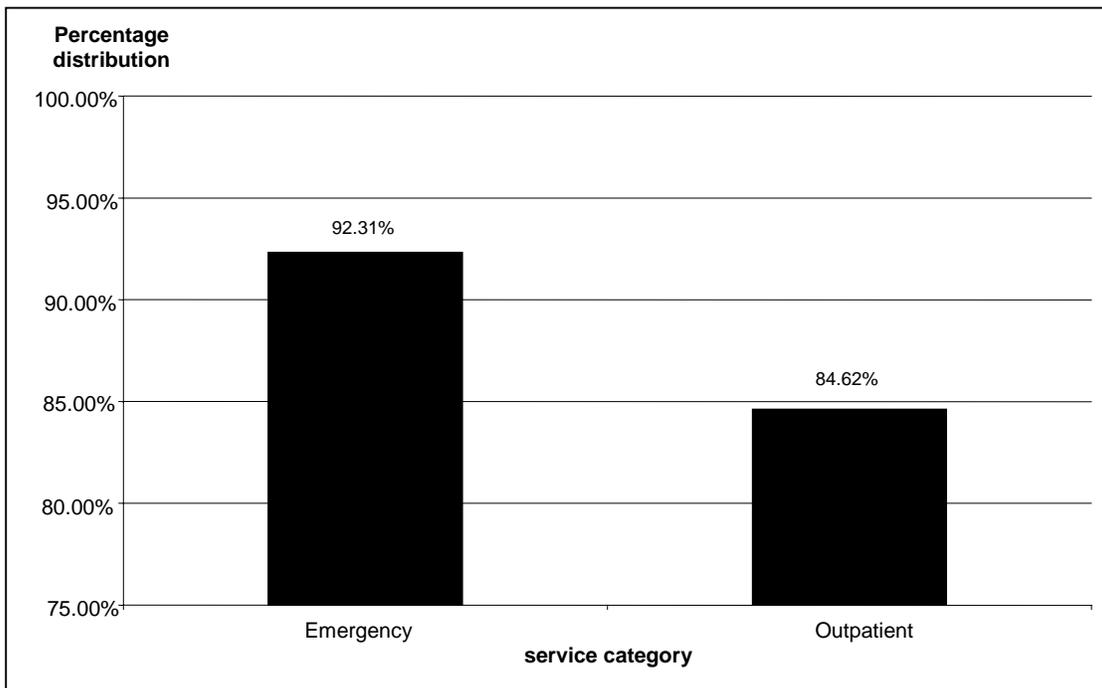
Figure 3 illustrates the percentage of hospitals that offer specified acute care services. Ninety-two percent of all hospitals offer obstetric/gynecological services, 62 percent offer internal medicine services, 65 percent offer surgical services, and 69 percent offer pediatric services. These services are the most common found among acute care hospitals and are considered essential inpatient services for the HIPP beneficiaries. As noted earlier, OB/Gyn and pediatric care are part of the basic benefits package for HIPP enrollees.

Figure 3: Percent of Hospital Offering Specified Acute Care Services



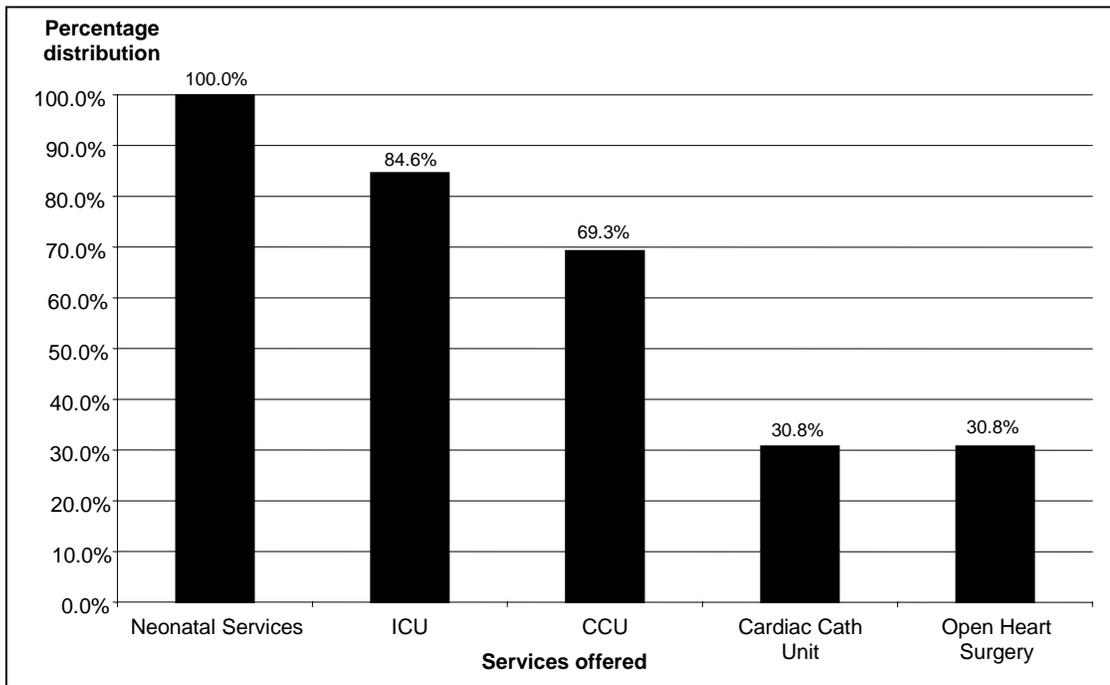
As illustrated in Figure 4, 85 percent of the hospitals surveyed offer outpatient clinic services, and 92 percent of the hospitals offer emergency room services. Because a major component of the HIPP benefits package is prenatal and postnatal outpatient services, the availability of clinic services within enrollees' catchment areas is essential. Twenty-four-hour emergency room service also is considered a prerequisite of provider participation.

Figure 4: Percent of Hospital Offering Emergency Room and Clinic Services



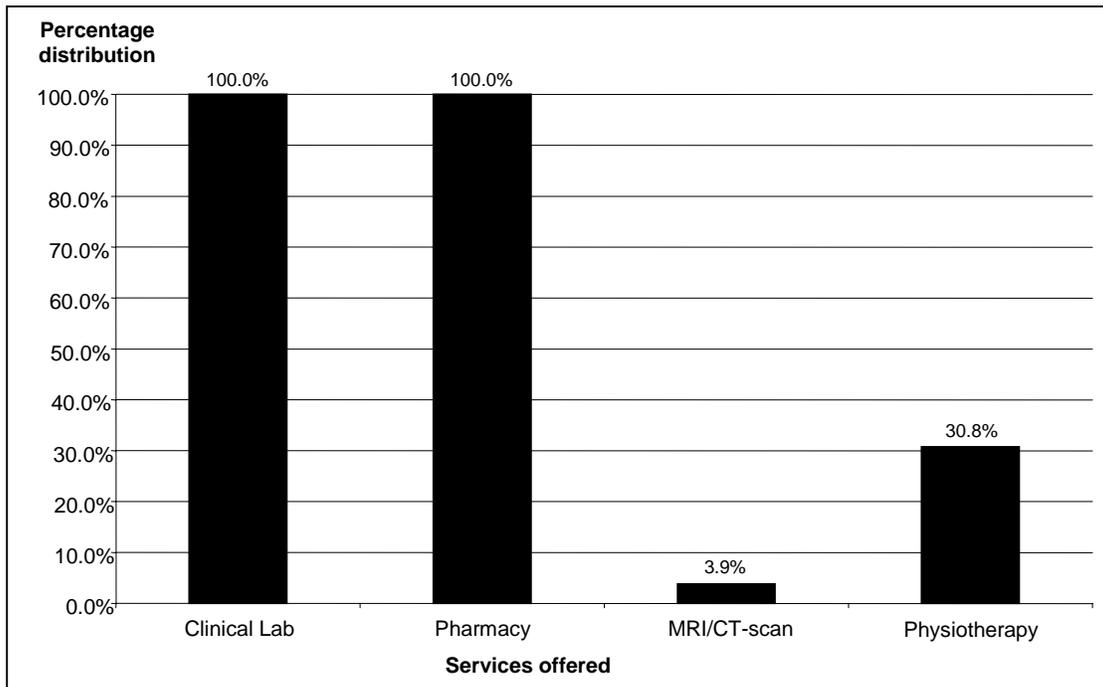
As illustrated in Figure 5, 100 percent of the hospitals surveyed offer neonatal services. This finding is most important, given that the MOH/PHR^{plus} clinical practice guidelines for pediatric care stipulate the availability of neonatal services within any facility that is selected under the HIPP. Eighty-five percent have an intensive care unit (ICU), 69 percent have a critical care unit (CCU), 31 percent offer cardiac catheterization, and another 31 percent offer open heart surgical services. The availability of ICU/CCU services is an essential to the HIPP as well. These services, which are typically attached to the surgical and/or medical departments of a hospital, are a form of tertiary care treatment that is unlikely to be demanded by HIPP beneficiaries; however, they must be available if needed.

Figure 5: Percent of Hospital Offering Specified Tertiary Care Services



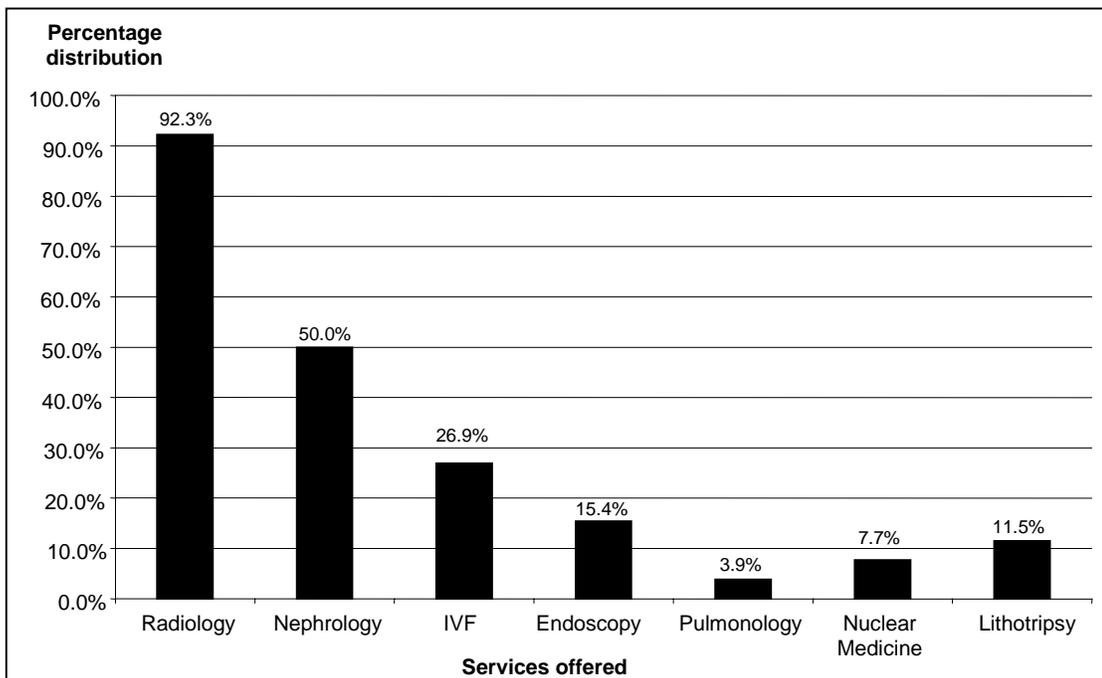
As illustrated in Figure 6, 100 percent of the hospitals offer clinical laboratory and pharmaceutical services. Four percent offer MRIs/CT scans, and 31 percent offer physiotherapy services. Each of these service categories is considered essential to HIPP participation. For example, MRI/CT scan services are needed for those few cases that require diagnostic intervention, such as post-delivery complication for both the mother and newborn.

Figure 6: Percentage of Hospitals Offering Specified Ancillary Services



The percentage of hospitals that offer radiology was 92 percent, nephrology 50 percent, in-vitro fertilization 27 percent, endoscopy 15 percent, pulmonology 4 percent, nuclear medicine 8 percent, and lithotripsy services 12 percent. Of these specialized services, radiological services are considered a necessary diagnostic service for HIPP beneficiaries.

Figure 7: Percentage of Hospitals Offering Specified Specialty Services



3.2 Hospital Distribution by Reproductive Health Services

Six hospitals performed more than 60 percent (17,874) of the 29,525 deliveries that were assisted by the 25 hospitals that participated in the survey. These six hospitals had an average bed size of 149. Table 1 presents a frequency distribution of the 25 hospitals by number of deliveries, ordered from lowest to highest.

Table 1: Frequency Distribution by Volume of Deliveries, 2001

Number of Deliveries	Frequency	Cumulative Percentage
80	1	4.0
128	1	8.0
145	1	12.0
148	1	16.0
150	1	20.0
282	1	24.0
400	2	32.0
406	1	36.0
540	1	40.0
800	1	44.0
919	1	48.0
1047	1	52.0
1073	1	56.0
1200	2	64.0
1257	1	68.0
1476	1	72.0
1500	1	76.0
1516	1	80.0
1661	1	84.0
1700	1	88.0
2350	1	92.0
2500	1	96.0
6647	1	100.0

Table 2 lists the number of deliveries per bed for respondent hospitals, by bed size. The number of deliveries per bed ranged from a low of .8 to a high of 60.0. The average was 18.2 deliveries per bed. A single hospital, a 340-bed institution, performed more than 22 percent of the deliveries. The highest ratio of deliveries per bed was found among hospitals in the bed size range of 50 and fewer. Hence, it appears that the smaller hospital categories utilized a greater proportion of their beds for delivery services. This also appears to be the case when these hospitals are compared to specialized maternity hospitals.

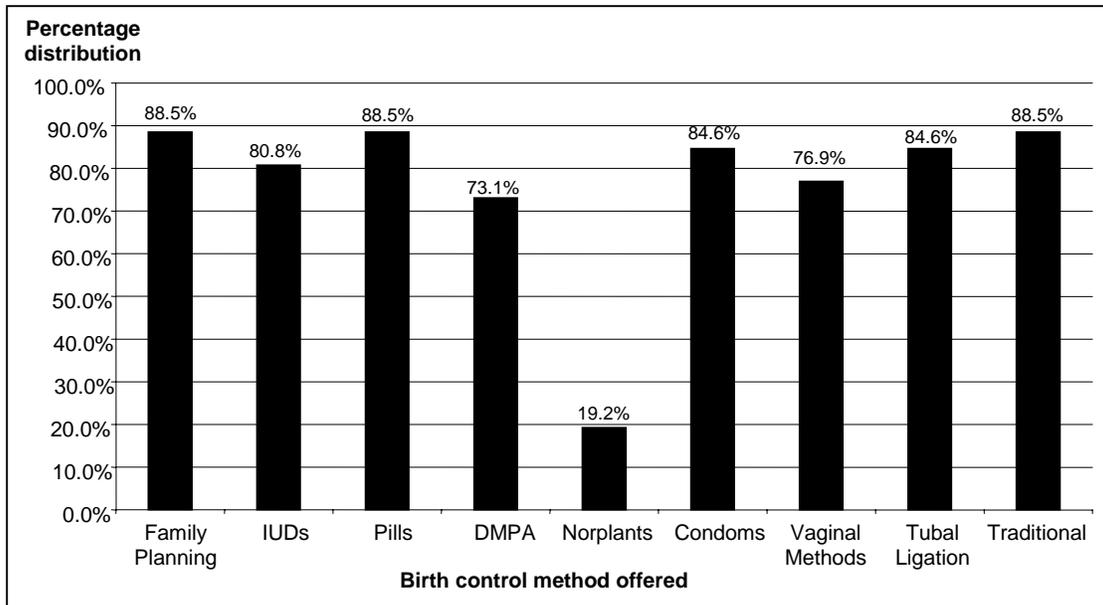
Table 2: Deliveries per Bed by Hospital Bed Size

Bed Size	Deliveries per Bed Size
15	9.8
20	60.0
30	18.0
30	49.2
33	38.0
35	42.8
36	11.1
42	28.6
50	3.0
50	50.0
62	6.4
65	16.5
67	6.0
69	24.6
70	1.1
75	14.0
100	23.5
102	1.4
141	6.5
150	11.1
160	.8
160	1.8
170	4.7
200	7.6
340	19.6
Average	18.2

As previously discussed, a majority of hospitals surveyed offer OB/Gyn and pediatric services that are considered core HIPP benefits. However, an additional component of the HIPP benefits package is postnatal family planning services. Hence, information about the availability of family planning services was essential. As depicted in Figure 8, private hospitals in Amman offered

an array of family planning services, from basic family planning counseling and state-of-the-art devices, to traditional methods.

Figure 8: Percent of Hospitals Offering Specified Birth Control Method



As illustrated in Figure 9, both prenatal and postnatal services are offered by 92 percent of private hospitals in Amman, thus giving the MOH access to a significant number of potential suppliers of these HIPP-covered services.

Figure 9: Percentage of Hospitals Offering Pre- and Postnatal Outpatient Services

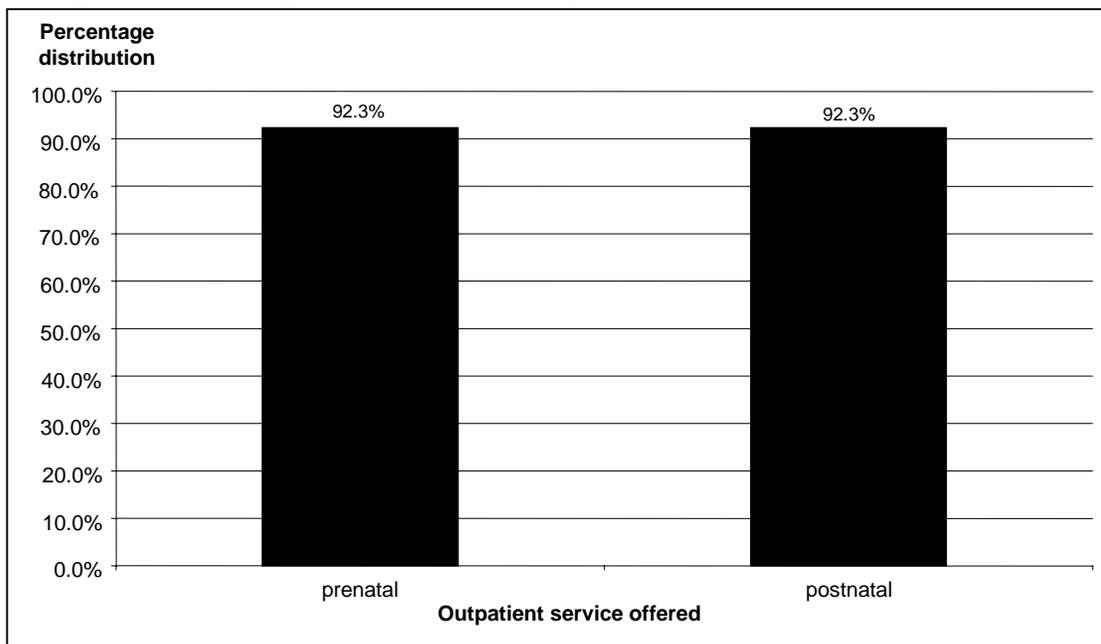
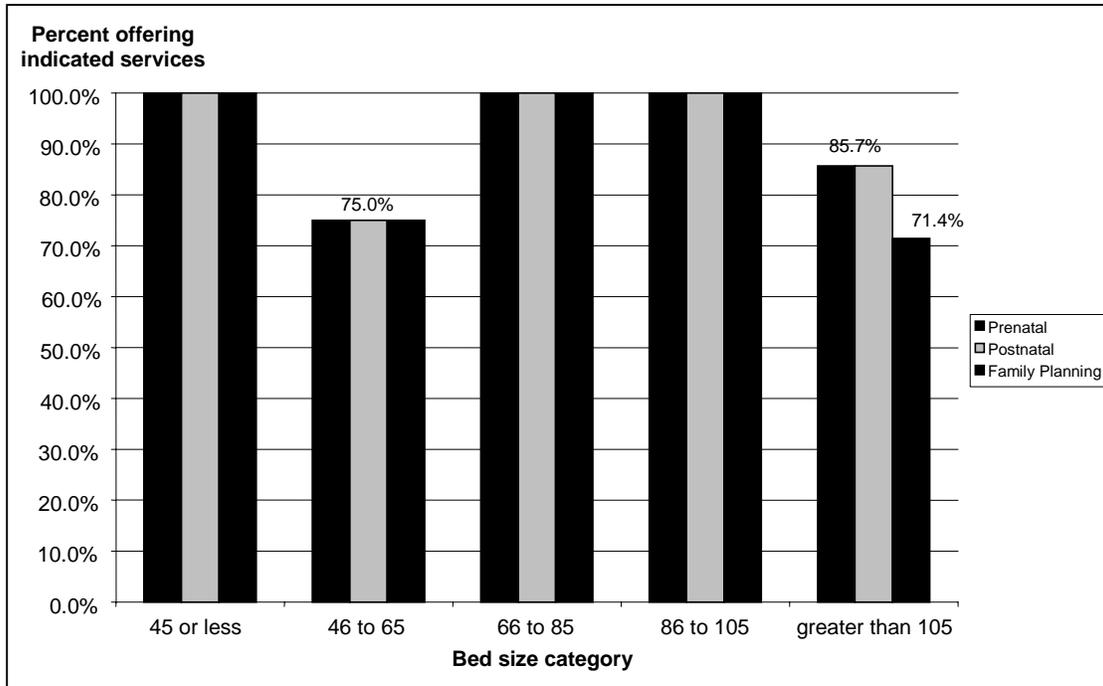


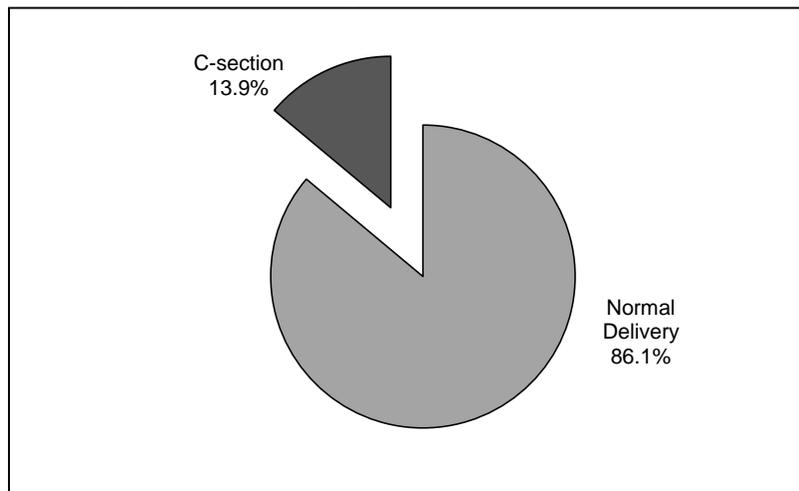
Figure 9A breaks down the percentages of hospitals offering prenatal, postnatal, and family planning services by hospital size. Little variation exists. Hence, size was not a factor in determining hospital eligibility for HIPP participation in terms of these services.

Figure 9A: Provision of Prenatal, Postnatal, and Family Planning Services



The average number of deliveries that occurred per hospital in 2001 was 1,911. This ranged from a low of 150 to a high of 7,976. As illustrated in Figure 9B, slightly more than 86 percent of deliveries were classified as normal deliveries by hospitals surveyed.

Figure 9B: Percentage of Normal Deliveries, 2001



As indicated in Figure 10, of the 92 percent of hospitals that offer obstetric services, 96 percent reserve a separate section of the OB/Gyn ward for deliveries and 73 percent provided Caesarian-section rooms in close proximity to normal delivery rooms. Figure 10A shows the number of patients admitted for delivery by hospitals in each bed size category.

Figure 10: Percentage of Hospitals Offering Specified OB Rooms

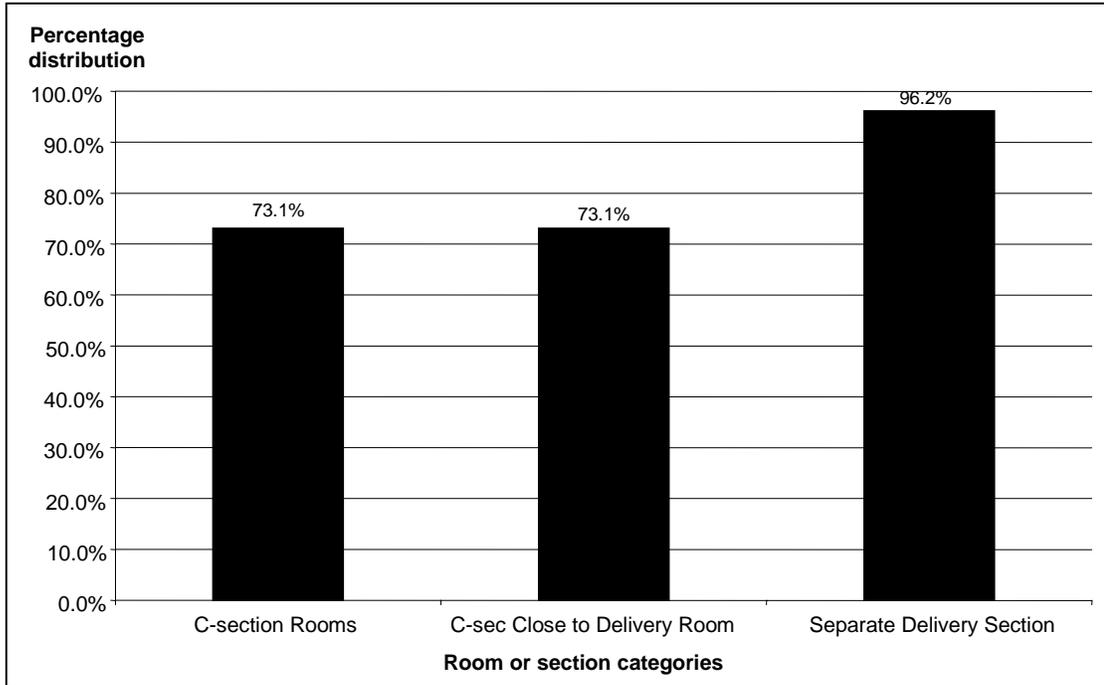


Figure 10A: Average Number of Patients Admitted for Delivery, 2001, by Bed Size

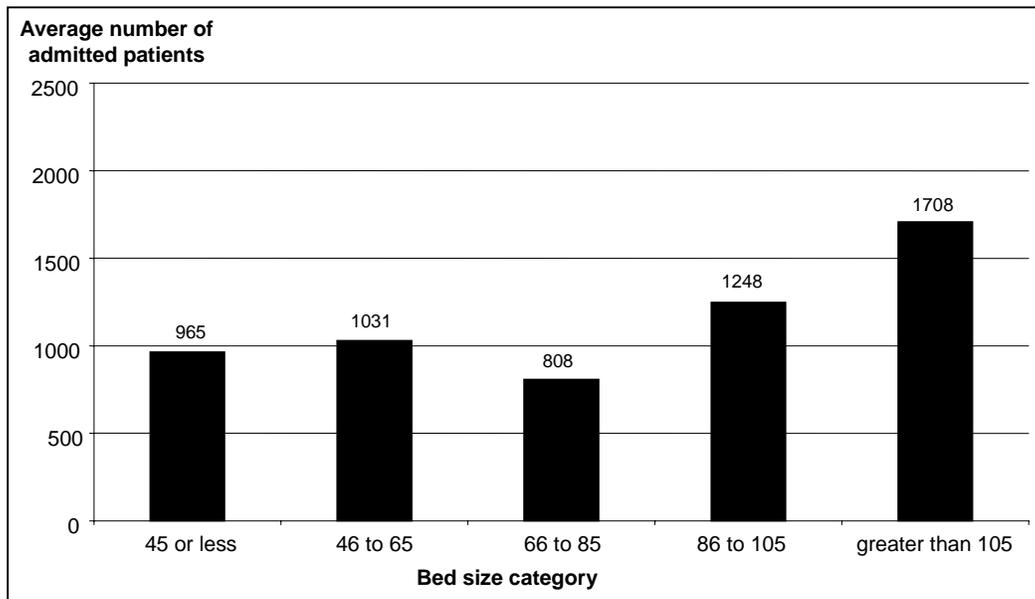
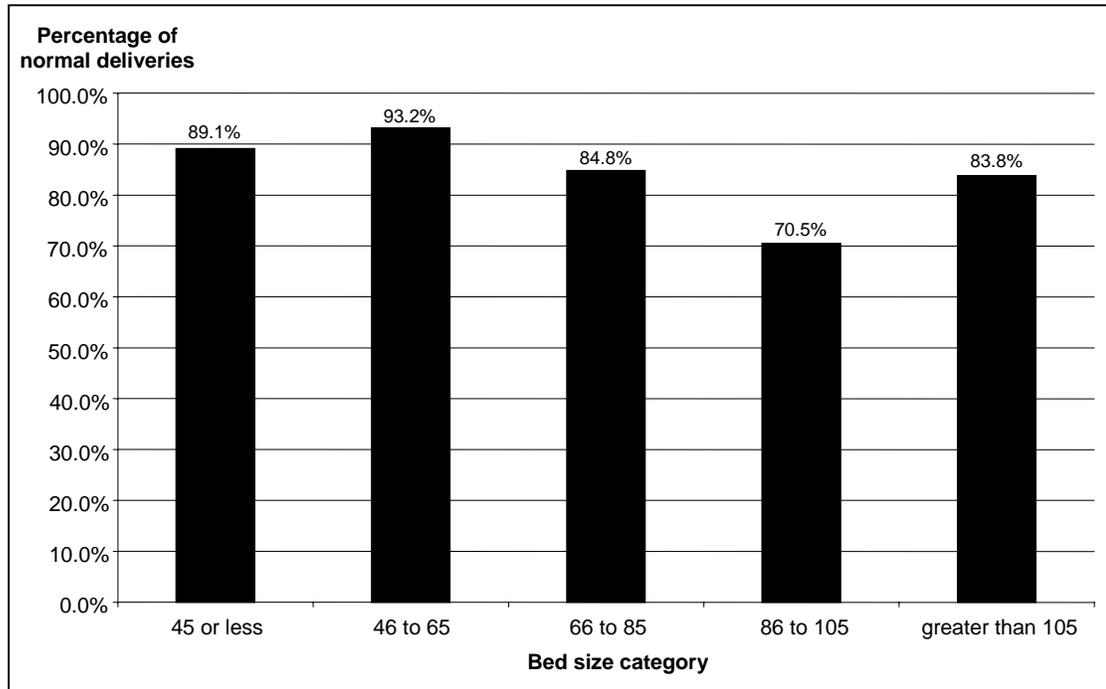


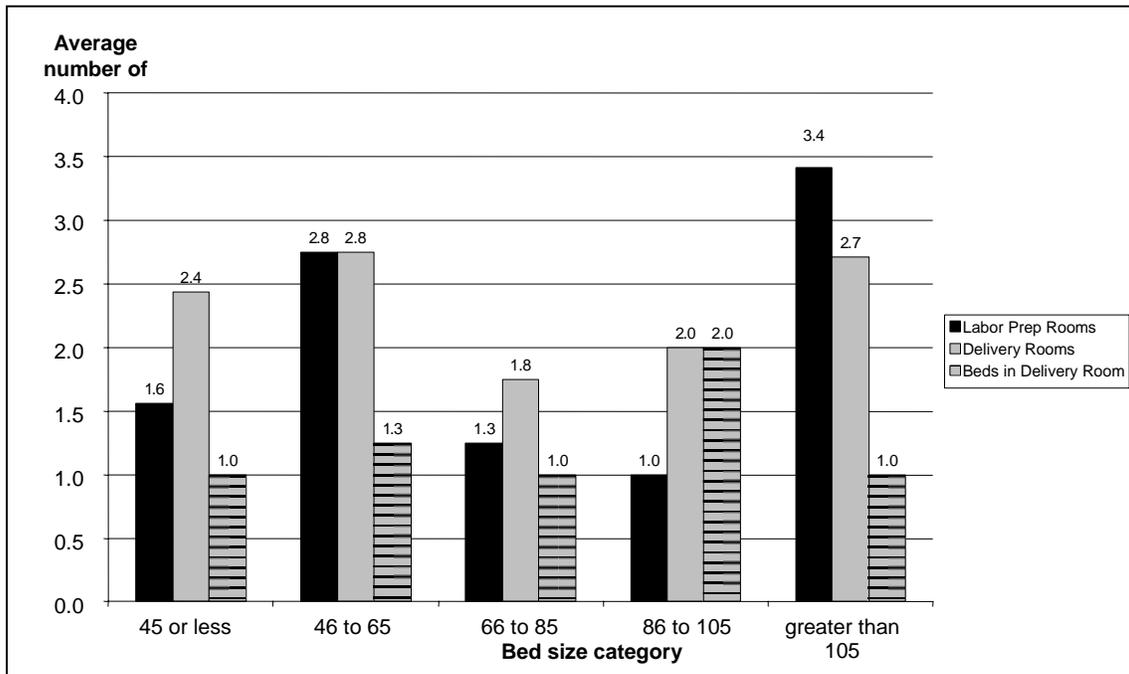
Figure 10B shows the average percentage of normal deliveries in hospitals by size category; there is only slight variation, except for hospitals in the 86 to 105 bed category.

Figure 10B: Location of Normal Deliveries, by Bed Size



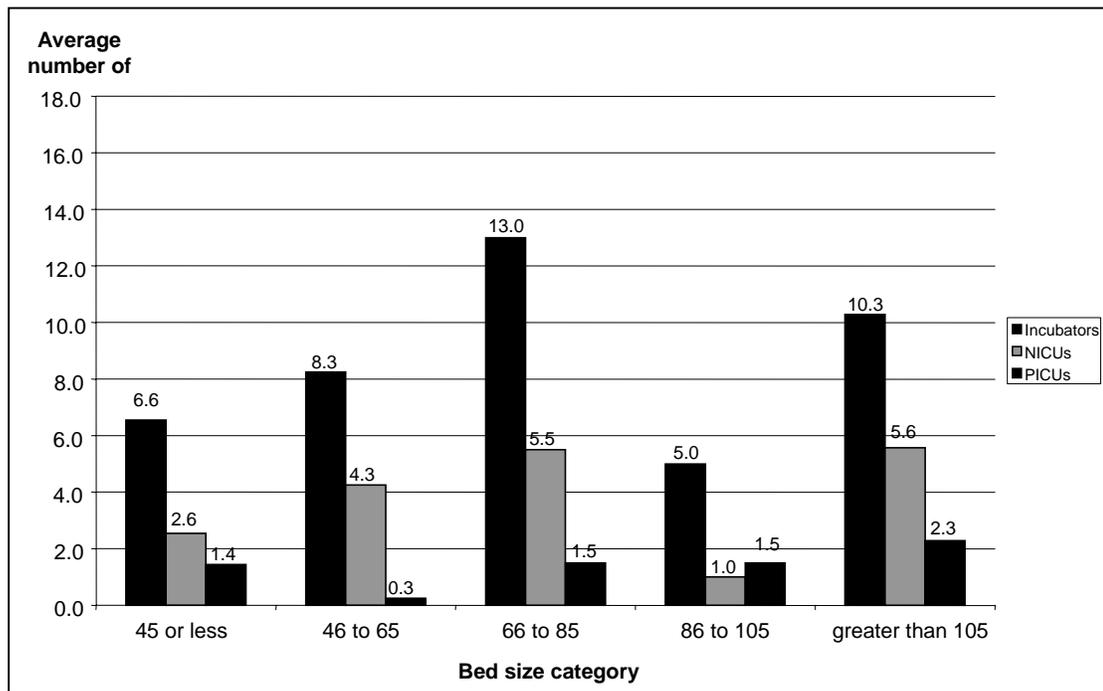
Of paramount concern in this study is the availability of hospital labor and delivery rooms. Figure 11 illustrates the distribution of labor and delivery rooms among various bed size categories. Hospitals with 45 or fewer beds had on average two labor preparation rooms, hospitals of 46 to 65 beds had three rooms, hospitals of 66 to 85 beds and 86 to 105 beds had one room, and hospitals with more than 105 beds had three rooms. There were on average two delivery rooms for hospitals in three bed groups: 45 or less, 66 to 85, and 85 to 105. Hospitals in the two remaining bed size categories, 46 to 65 and greater than 105, averaged three delivery rooms. The average number of beds in a delivery room was consistent across hospital bed groups. In summary, for hospitals with 105 beds or fewer, the delivery room infrastructure exhibits little variation. The exception is specialized maternity hospitals that are in the range of 46 to 85 beds, and acute care facilities with more than 105 beds.

Figure 11: Average Number of Rooms and Beds for Delivery Purposes



Most hospitals surveyed offer neonatal intensive care services. However, as illustrated in Figure 12, the distribution of incubators, neonatal intensive care units (NICUs), and portable intensive care units (PICUs) varies by hospital bed size.

Figure 12: Average Number of Incubators, NUCUs, and PICUs



In summary, the vast majority of hospitals offered comprehensive maternal and child health services. The specific services surveyed – OB/Gyn, neonatal, prenatal, postnatal, and family planning services – are readily available at most acute care hospitals in East and West Amman. In addition, a majority of hospitals offer the typical categories of ancillary and support services including clinical laboratory, pharmaceutical, and radiological services. The only significant variation in reproductive health services by hospital bed cohorts is in the provision of subspecialty services, such as NICUs and PICUs care units. Overall, a significant reproductive health care infrastructure exists among private hospitals in the areas where HIPP beneficiaries are located.

3.3 Distribution of Reproductive Health Staffing

Obtaining a picture of the staffing patterns in private hospitals is essential for the HIPP. However, staffing patterns fail to provide a comprehensive accounting of the total physician staff that are affiliated with a particular hospital. Much like physicians in the United States and elsewhere, private sector physician in Jordan are rarely employed as staff members of hospitals. Rather, they are typically in private practice with admitting privileges at one or more hospitals. That is, their professional relationships normally consists of a network of private sector hospitals. Figures 13 and 14 provide insight into the average numbers of OB/Gyn and pediatric physician and resident staff who are employed by private sector hospitals in Amman, by hospital bed size cohorts.

Figure 13: Average Number of OB/Gyn Physician Staff and Residents Employed

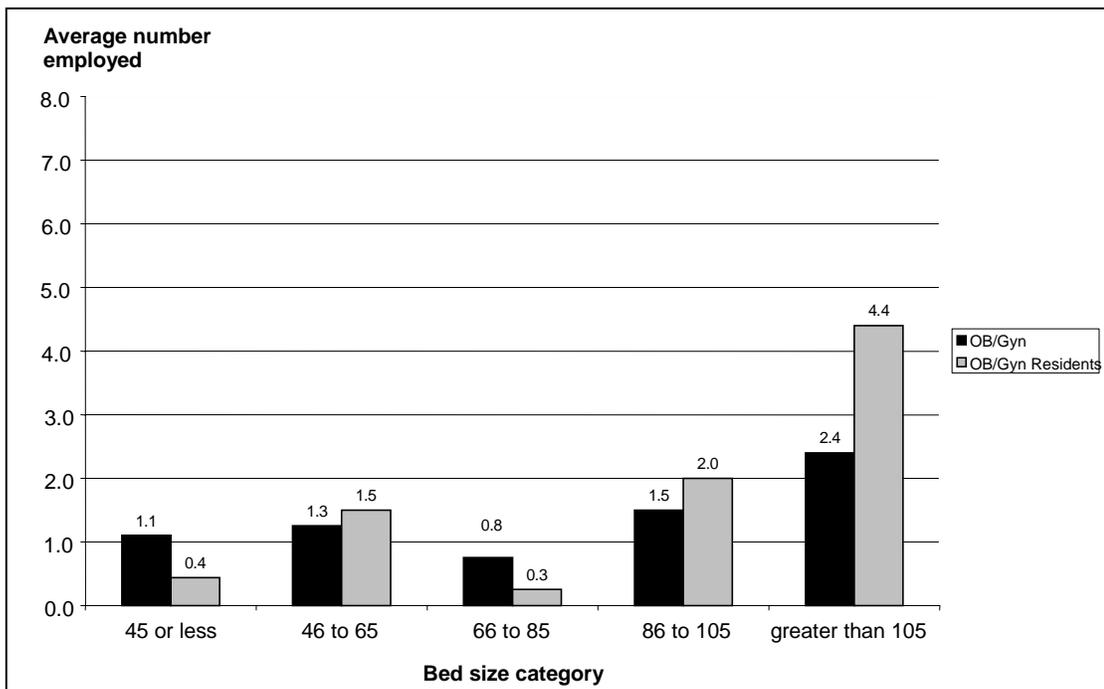
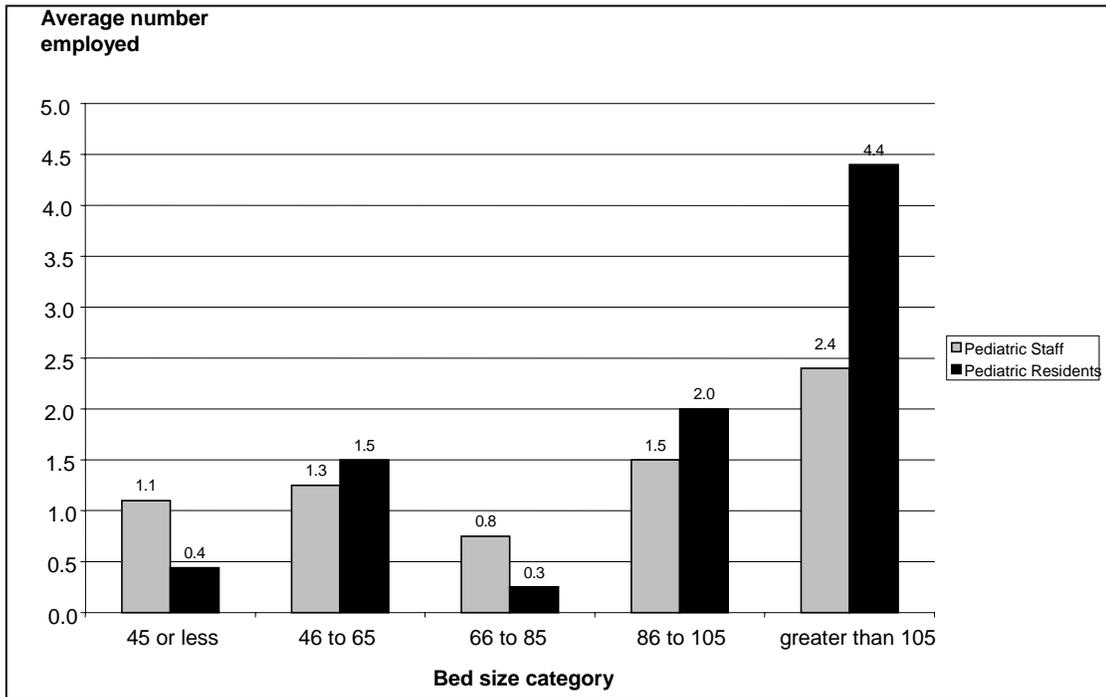


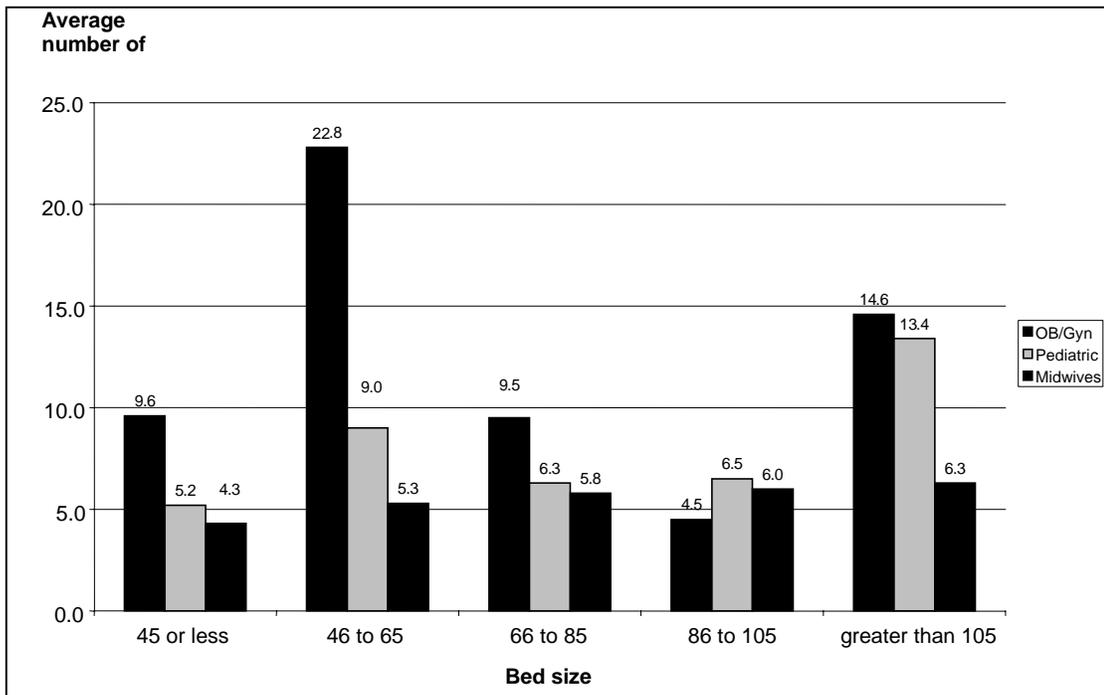
Figure 14: Average Number of Pediatric Physician Staff and Residents Employed, by Hospital Bed Size Category



On average there exists little variation in staffing patterns among OB/Gyn and pediatric physicians across bed size cohorts. With the exception of the larger categories of hospitals (those with 86 or more beds), hospitals averaged one staff OB/Gyn and pediatrician. This result was expected given that the vast majority of OB/Gyns and pediatricians are self-employed and have admitting privileges at hospitals throughout Amman and the remainder of the country.

As illustrated in Figure 15, there exists significant variation in nurse staffing patterns in the respondent hospital, when considered in terms of bed cohorts. Hospitals with 45 or fewer beds and those with 66 to 85 beds had on average 10 nurses assigned to the OB/Gyn department. Hospitals in the 46 to 65 bed range had on average 23 OB/Gyn nurses. This figure is significantly higher than that found among all bed cohorts, due to the prevalence of specialized OB/Gyn hospitals within this group.

Figure 15: Average Number of Nurses, by Specialty



3.4 HIPP Contractual Potential and MOH Relations

The MOH has a long-standing relationship with non-MOH hospitals in Jordan. MOH patients often seek emergency and referral services from the private sector, as well as from government-funded institutions such as the Royal Medical Services (RMS) and Jordan University Hospital (JUH). In fact, a few organizations, such as the JUH, have formal contractual relationships with the MOH and strictly enforced co-payment requirements for patients seeking treatment at that facility.

The two largest categories of MOH patients that receive services from these alternative sources are OB/Gyn patients, who usually use emergency room services, and renal dialysis patients, who are referred to an alternative facility. In fiscal year 2001, 4,182 obstetric patients were treated at non-MOH hospitals; this included 1,004 treated at private sector hospitals and 3,178 treated at the JUH.³ All the private hospitals responding to the survey stated that they would be willing to explore the possibility of providing OB/Gyn and newborn care to MOH patients in the HIPP. Overall, approximately 12 percent of hospitals surveyed had formal contractual relationships with the MOH.

As Figure 16 shows, of the hospitals that responded to the survey, 96 percent provided services to obstetric patients covered by MOH programs during the calendar year 2001. Nearly 8 percent provided services to MOH renal dialysis patients on a contractual basis.

³ In 2001, 1,110 renal dialysis patients were treated at non-MOH facilities. This included 414 treated by the RMS, 74 by the JUH, and 622 by private hospitals.

Figure 16: Percent of Private Hospitals that Provided Services to MOH Patients in 2001

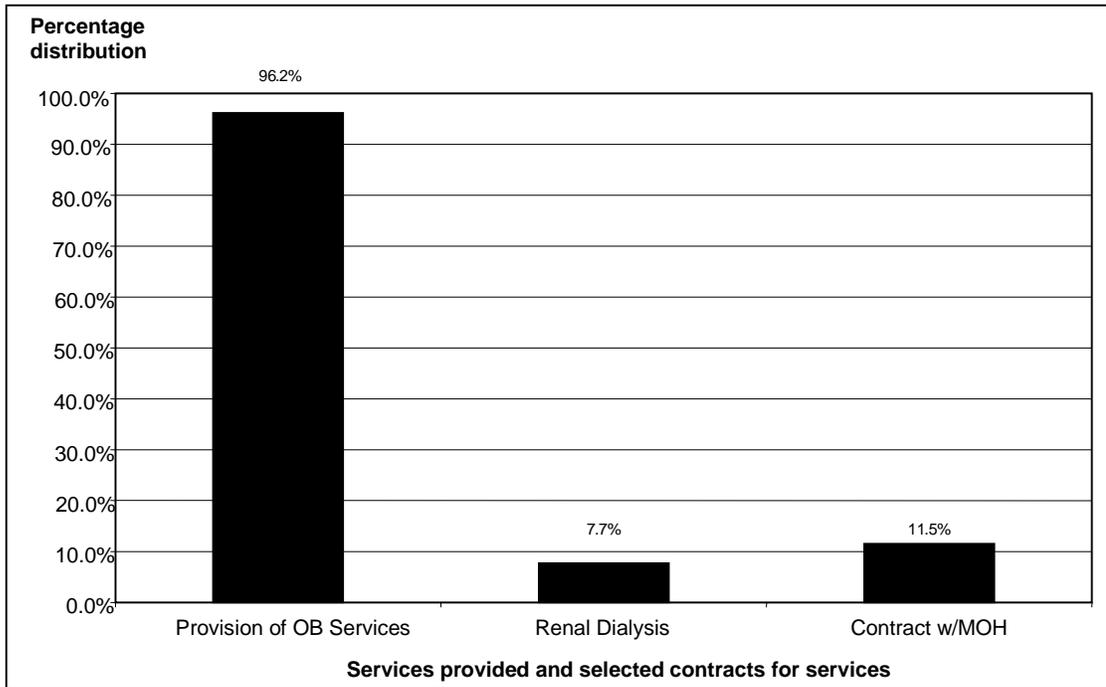
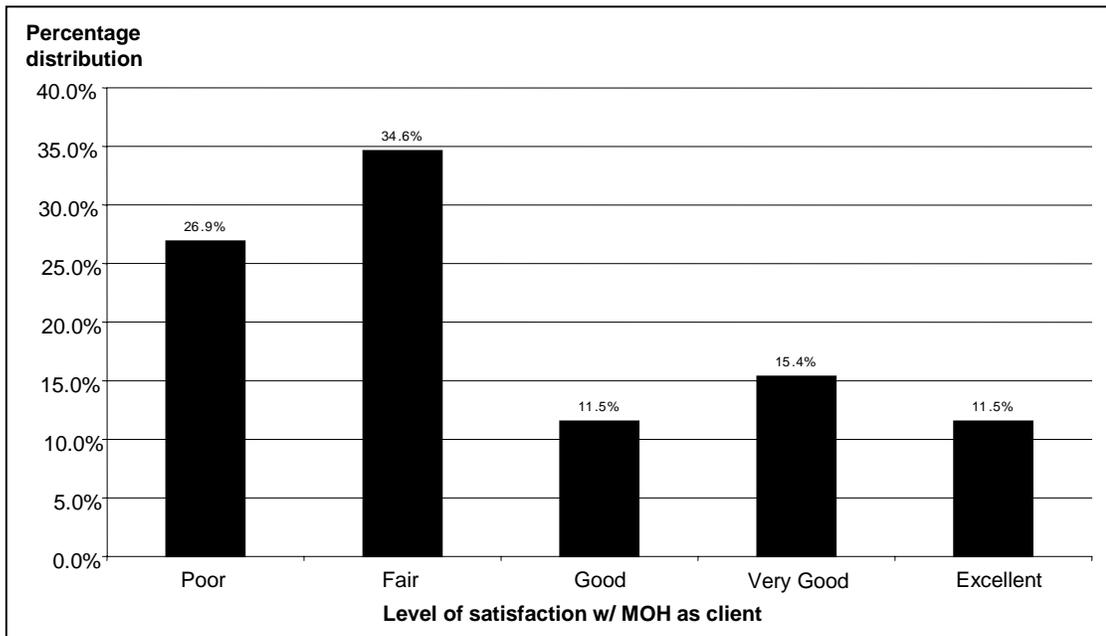


Figure 17 represents a summary of hospitals' levels of satisfaction having the MOH as a client, for all categories of MOH patients.

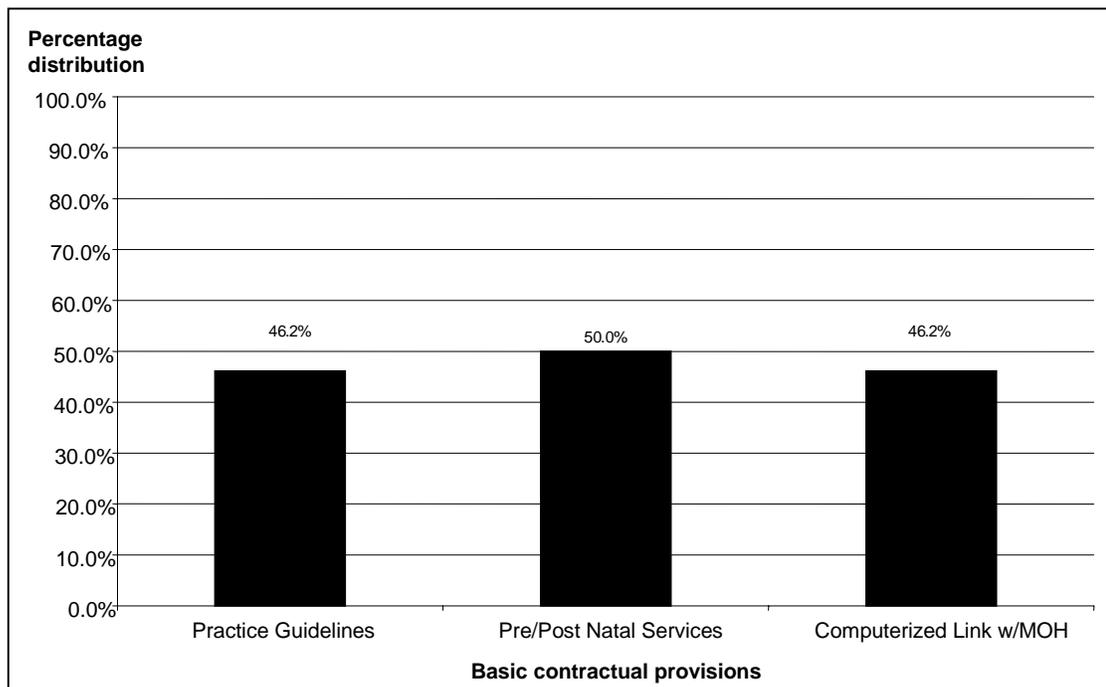
Figure 17: Hospitals Rankings of Satisfaction with MOH as Client



Thirty-five percent of hospitals surveyed expressed “fair” levels of satisfaction with the MOH as a client. Approximately 12 percent of hospitals surveyed viewed the MOH as a good client, 15 percent as a very good client, and 12 percent as an excellent client. Roughly 27 percent of respondents viewed the MOH as a poor client and 37 percent as a fair one. Of those respondents that expressed poor or fair assessments of the MOH as a client, 23 percent cited a chronic delay in payments as a source of dissatisfaction. Nineteen percent stated that the MOH does a poor job of assessing what constitutes an emergency case, 23 percent cited biased treatment of private sector hospitals by the MOH, and 12 percent cited inaccurate MOH diagnosis, lack of a uniform contract, or low reimbursement rates.⁴

Of additional concern to the MOH is the percent of private hospitals that would agree to specific aspects of the HIPP, such as incorporating clinical practice guidelines into their treatment protocols, as well as the bundling of prenatal and postnatal services into a comprehensive package of obstetric benefits. As previously mentioned, 100 percent of respondent hospitals stated that they would be willing to explore the possibility of participating in the HIPP. However, as depicted in Figure 18, only 46 percent of them stated that they would agree to incorporate clinical practice guidelines into their treatment protocols for HIPP beneficiaries. This is of import, because Jordanian health facilities do not typically have formally developed practice guidelines; however, the MOH and PHR*plus* (2002) have developed clinical guidelines for obstetric and pediatric services. The HIPP intends to require participating hospitals to follow these clinical guidelines and to measure their performance in relationship to compliance with the guidelines.

Figure 18: Percent of Hospitals that Would Agree to Specified Contractual Provision



⁴ For hospitals that do not have formal contractual relationships with the MOH, the Ministry will only provide reimbursement for those patients who are assessed as emergency cases. The burden of proof is on the hospital that provides the treatment, as well as on the patient.

Finally, an essential aspect of the HIPP is the computerized patient encounter system that has been developed by *PHRplus*. This system will track each patient encounter, and match that against the patient's diagnosis, service provider, and payment history. The system will be formally operated and managed by Implementation Unit personnel; however, eventually a computerized linkage between the IU and service providers is envisaged. As is also depicted in Figure 18, 46 percent of hospitals surveyed stated that they would be willing to link their existing computer network to the MOH for patient tracking and billing purposes. Hence, while 100 percent of hospitals are willing to explore the possibility of participating in the HIPP, a significant number of them are unwilling to participate in certain contractual provisions such as computerized patient tracking, the adoption of clinical practice guidelines, and the provision of pre- and postnatal services.

4. Conclusion

The Health Insurance Pilot Project was designed to provide the Ministry of Health with an improved method of contracting out for private sector services for HIPP beneficiaries. It seeks to expand the administrative capacity of the Health Insurance Directorate in the following ways: by developing a state-of-the-art patient tracking system, and through capacity building in the areas of contract design, contract monitoring and contract enforcement, and the training of personnel in various aspect of health services research, to include focus group design and survey implementation.

The vast majority of hospitals that responded to this HRH survey offer comprehensive maternal and child health services that are consistent with those in the basic benefits package of the HIPP. The specific services surveyed – obstetric/gynecology, neonatal, prenatal, postnatal and family planning – are available at most of the surveyed hospitals. In addition, a majority of hospitals offered the typical categories of ancillary and support services that are required by the HIPP, including clinical laboratory, pharmaceutical, and radiological services. The only significant variation in reproductive health services found among hospitals was in the provision of neonatal intensive care services, specifically the availability of permanent and portable units. Hence, based upon this survey, it appears that a significant infrastructure for delivering the services outlined in the HIPP benefits package exists in both East and West Amman.

To help assess the willingness of private sector hospitals to participate in the HIPP, *PHRplus* explored the extent to which both formal and informal relationships exist between the MOH and private sector hospitals in Jordan. The MOH has a long-standing relationship with private sector hospitals in Jordan, primarily for the provision of services to MOH renal dialysis and obstetric patients. Renal dialysis patients receive treatment based upon existing formal contractual links between the MOH and providers; treatment of obstetric patients stems primarily from the need for emergency services or from lack of bed availability in Al Bashir hospital. All hospitals stated that they would be willing to engage in contractual relationships with the MOH for the provision of the services specified under the HIPP. In fact, 96 percent of hospitals surveyed stated that they had provided treatment to MOH-sponsored patients in 2001. However, of those hospitals that had treated MOH patients, 62 percent expressed fair to poor levels of satisfaction with the MOH as a client. Hence, prior to implementing the HIPP, it is essential for the MOH to reassure clients that many of the areas of concern in the past, such as delayed reimbursement, disputes over diagnosis, and overall distrust of the private sector, will have to be resolved.

Annex A: Survey Instrument for HRH Survey

Capacity of Private Hospitals Hospital Director Interview

The Ministry of Health is interested in establishing formal contracts with certain private sector hospitals in Amman for the provision of Reproductive Health Services (to include prenatal, deliveries, postnatal, and family planning services). The idea is to pay a comprehensive fee for each pregnancy that would cover the costs of the antenatal, delivery, postnatal, and neonatal services. Women would be enrolled and designated to receive all inpatient and outpatient services from your hospital. Separate prices would be fixed ahead of time for normal deliveries, c-sections, and other types of pregnancies. The hospital would be required to make its own arrangements for compensating physicians, laboratories, pharmacies and other resources needed to provide the full scope of maternal services. The single, fixed price paid to the hospital would be the only type of payment received.

Date: / /

Interviewer Name:

Questionnaire Number _____

Interviewee's Name:

Interviewee's Title:

Hospital Name _____

Hospital Location

1. East Amman

2. West Amman

Contact Information:

Hospital Director _____

Telephone Number _____

Fax _____

Email _____

Address _____

General Information

Q1. Of the departments listed below, which are available in your hospital:
{note: circle all applicable answers}

- a. Obstetrics/Gynecology
- b. Internal Medicine
- c. Pediatrics
- d. Surgery
- e. Intensive Care Unit
- f. Neonatal Intensive Care Unit
 - 1. How many incubators are available_____
 - 2. How many intensive care incubators (NICU) are available_____
 - 3. How many portable intensive care incubators are available_____
- g. Cardiac Unit
 - 1. Cardiac Care Unit (CCU)
 - 2. Catheterization room
 - 3. Open-heart theatre
- h. Emergency room, How many imbalances _____
- i. Outpatient clinics
- j. Operating room_____ {note: ask for number of operating rooms}
- k. Clinical laboratory on the hospital's premises
- l. Radiology on the hospital's premises
- m. Pharmacy on the hospital's premises
- n. Other_____

Q2. Do you have computerized information system
1. Yes 2. No

If yes,

Q2.1 Please mention the computerized services you offer

Q3. Number of hospital beds _____

Q3.1 From the total number of beds, how many are dedicated beds for Obstetrical/
Gynecological services only_____

Reproductive Health Services

I would now like to ask you some specific questions concerning reproductive health services that are offered at your hospital.

Q4. How many delivery rooms? _____

Q4-1 How many beds in each room? _____

Q4-2 How many labor preparation rooms? _____

Q5. Does the hospital have operating room(s) for C-Section operation?

1. Yes 2.No

If yes,

Q5.1How many? _____

Q5-2 it is close to the delivery room

Q6. Of the total number of Ob/Gyn. physicians, how many are staff employed by the hospital? _____

Q6-1 Of the total number of the pediatric physicians, how many are staff employed by the hospital? _____

Q6-2 How many resident Ob/Gyn physicians does your hospital employ? _____

Q6-3 How many resident pediatric physicians does your hospital employ? _____

Q7. How many nurses for the OB/Gyn services? _____

Q7-1 How many nurses for the pediatric services? _____

Q8. How many midwives (available in the delivery room)? _____

Q9. Total number of OB/Gyn patients admitted during the past year _____

Q9.1 How many were admitted as deliveries? _____

Q10. Percent (%) of these that were C-section deliveries? _____

Q11. Does your hospital have a separate delivery section?

1. Yes 2.No

Q12. Of the outpatients' services listed below, which are provided in your hospital?

{note: circle all applicable answers}

- a. Prenatal care
- b. Postnatal care
- c. Family planning

{note: if the hospital provides family planning ask Q13, if not skip to Q14}

Q13. Of the family planning services listed below, which do you provide:

{note: circle all applicable answers}

- 1. IUD
- 2. Pills
- 3. DMPA
- 4. Norplant Implants
- 5. Condoms
- 6. Vaginal methods
- 7. Tubal Ligation
- 8. Traditional Methods Counseling

Providing Services to MOH Patients

I would now like to ask you a few questions concerning the provision of reproductive health services to Ministry of Health insured patients.

Q14. Has your hospital provided maternity services to any Ministry of Health (MOH) emergency or referral patients over the past 12 months?

- 1. Yes
- 2. No

14.1 If yes, how many were admitted as:

1. Emergency_____

2. Referral _____

14.2 Of the numbers admitted how many were

a. Normal Delivery _____

b. C-section Delivery _____

Q15. Does your hospital now have a contract with the MOH?

- 1. Yes
- 2. No (skip to Q16)

If yes,

15.1 What services do you provide for MOH under this contract, please specify:

{note: Ask Question 16 to hospitals that have a contract with MOH and who have treated MOH patients as referral or emergency cases }

Q16. How would you rank your level of satisfaction with the MOH as a client?

1. Poor
2. Fair
3. Good
4. Very good
5. Excellent

{note : skip to Q17 if the answer of Q16 is 3, 4, 5 }

16.1 If you rank the level of satisfaction either 1 or 2, why?

Contracting with Ministry of Health

Q17. Would you be willing to explore the possibility of providing such services to the MOH?

1. Yes 2. No

{note 1: If No, ask 17.1,17.2 }

{note 2: If yes, skip to 17.3 }

17.1 Why or why not? _____

17.2 If these issues could be remedied would you reconsider providing such services under contract?

1. Yes 2. No

17.3 If your hospital had a contract with the MOH, would you agree to the following statements:
 {note: interviewer, please let him/her read the statements by him/herself }

Statements	1. Strongly agree	2. Agree	3. No opinion	4. Disagree	5.Strongly disagree
1. MOH would have access to the medical records of patients.					
2. MOH could conduct utilization review of such beneficiaries. (for example: allowing the MOH to pre-approve services that are not stated in the contract).					
3. Contractors would agree to provide care, according to clinical practice guidelines that would be developed by panels of specialists.					
4. Contractor would provide postnatal and family planning services.					
5. Availability of linkage between the computerized information system in your hospital (only for the records of the pilot project candidates) and the currently in procedure computerized information system in the Health Insurance Directorate/MOH.					

Thank you for your cooperation

Annex B: References

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