

## Determination of Quality Assurance for Maternal and Child Health Services in Baghdad City

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الخلاصة:

**الهدف:** تهدف الدراسة إلى تحديد ضمان جودة الخدمات الصحية لرعاية صحة الأم والطفل في مدينة بغداد

**لمنهجية:** أجريت دراسة وصفية للمدة من ٢٨ تشرين الثاني ولغاية ١٠ تشرين الأول ٢٠٠٩. لغرض تحديد ضمان جودة الخدمات المقدمة للأم والطفل في مراكز الرعاية الصحية الأولية في مدينة بغداد، أختيرت عينة عشوائية (بسيطة) شملت (٣٤٩) مشتركاً ونتيجة لاختلاف الخصائص الديموغرافية للعينة للمدرسة وتنوّعها، فقد كانت الحاجة ماسة لعمل أربع استبانة موزعة كالآتي: الاستبانة الأولى لدراسة هيكلية الإدارة والبنية التي تقدّم فيها خدمات رعاية الأمومة والطفولة. أما الاستبانة الثانية، فكانت لدراسة الملاك الطبي العامل في مجال رعاية الأمومة والطفولة. وعلى غرار الاستبانة الثانية، كانت الاستبانة الثالثة لدراسة الملاك التمريضي العامل في مجال رعاية الأمومة والطفولة وقد بلغ مجموع هذه العينة (٧٢) ممرضة وممرضة ما الاستمارة الرابعة، فكانت لدراسة شريحة المستفيدات من خدمات رعاية الأمومة والطفولة وبلغ مجموع هذه العينة (٢٢٠) من المستفيدات من لرعاية. وقد جمعت البيانات من خلال استبانة خاصة لكل متغير بواسطة المقابلة الشخصية أو طريقة الإملاء الشخصي وقد استغرقت المقابلة (٦-١٠) دقائق لكل استبانة. حللت البيانات باستعمال برنامج SPSS وأنجزت عملية تحليل البيانات من خلال استعمال أسلوب التحليل الإحصائي الوصفي (التكرارات والنسب المئوية) والوسط الحسابي والتحليل الاستنتاجي (مربع-كاي، حساب الجودة).

**النتائج:** أظهرت نتائج الدراسة حول الهيكلية الإدارية بأنّ هناك تفاوت في توزيع المراكز الصحية حسب الرقعة الجغرافية مما تسبب في عدم استيعاب بعض المراكز الصحية لأعداد المراجعين لها وتفاوت بين رضا وعدم رضا إدارات المراكز الصحية حول التمويل المالي وطريقة وصول الأموال، لَمَّا بنايات المراكز الصحية هي الأخرى كانت دون المستوى المطلوب؛ فعدم كفاية الغرف كانت مشكلة عانت منها إدارات المراكز الصحية، فضلاً عن عدم وجود مكتبة أو قاعة محاضرات أدى إلى ضعف وانعدام دورات التدريب والتطوير للملاك أو ندوات التنقيف والتوعية الصحية للامهات المراجعات لمراكز رعاية الأم والطفل. وأشارت الدراسة إلى وجود نقص في دورات التدريب والتطوير وضعف في أداء بعض الواجبات للملاك الطبي من ناحية التدخين والكحول وإدمان الأدوية والأمراض الانتقالية للمرأة الحامل. وأشارت الدراسة إلى أنّ الملاك التمريضي فضلاً عن نقص دورات التدريب والتطوير، كان المستوى العلمي المتدني هو العلامة لأبرز هنا. ولم يختلف كثيراً حال المستفيدات من رعاية الأمومة والطفولة، فنقص دورات التنقيف والتوعية الصحية أثّر بشكل سلبي على مراجعات الأم الحامل لمراكز الرعاية الصحية الأولية وبالتالي تأثيره على صحة الأم والطفل.

**التوصيات:** أوصت الدراسة بضرورة إنشاء مراكز صحية جديدة لتقليل الزخم الحاصل على المراكز الصحية التي تعاني من كثافة سكانية عالية والتأكيد على إنشاء غرف كافية لبقية المراكز الصحية وإضافة مكتبة وقاعات دراسية وأوصت الدراسة بقطاع اهتماماً لجانب التدريب والتطوير للقوى العاملة في المراكز الصحية وخلق جوٍ إيجابي. لإعطاء المحاضرات والندوات التنقيفية لزيادة التوعية الصحية للمستفيدات من خدمات الرعاية الصحية الأولية في مدينة بغداد.

### Abstract:

**Objective:** To determine the quality assurance for maternal and child health care services in Baghdad City.

**Methodology:** A descriptive study is conducted throughout the period of November 28th 2008 to October 10th 2009. A simple random sample of (349) is selected through the use of probability sampling approach. The study sample was divided into four groups which include (220) consumers, (35) medical staff, (72) nursing staff and (22) organization structure (primary health care centers). Data were collected through the use of assessment tools. It was comprised of four questionnaires and overall items included in these questionnaires are (116) items. The study included assessment of organization structure. Data were collected through the utilization of constructed questionnaire and the interview technique as a mean of data collection. Data analysis was performed through the use of descriptive statistical data analysis approach graphical presentation by bar-chart, frequencies, percentages and mean of scores and inferential statistical data analysis approach which is presented as chi-square procedure.

**Result:** The findings and conclusion of the study indicate that there is overload of target population on primary health care centers, poor designed building, statistical program and data reporting system was poor, decrease core financial support and inadequacy of funding for primary health care centers, there is increased demand and decreased supply of primary health care workforce and poor health education for consumers in primary health-care centers.

**Recommendations:** The study recommends the establishment of buildings for primary health care centers according to the numbers of consumers within geographical. A primary health care center must be having systems which accurately collect, analyze and organize data for program reporting use to project the supply of workforce and support of strategies of health education for consumers.

**Keywords:** Quality assurance; Maternal and Child; Health Services

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### Introduction:

Quality assurance, a specific type of controlling, refers to activities that evaluate, monitor, or regulate services rendered to consumers. In nursing, the goal of quality assurance is to ensure a quality product while meeting the intended purpose. Ideally, everyone in the organization should participate in quality assurance, because each individual benefits from it. On the other hand, quality control gives employees feedback about their current quality of care as well as how it can be improved. As direct caregivers, staff nurses are in an excellent position to monitor the impact of nursing practice on patient care <sup>(1)</sup>.

The primary goal of maternal and child-health nursing care can be stated simply as the promotion and maintenance of optimal family health to ensure cycles of optimal childbearing and childrearing. Maternal and child health nursing includes a high degree of independent nursing functions, because teaching and counselling are so frequently required, promoting health is an important nursing role, because this protects the health of the next pregnancy or childhood illness can be stressful and can alter generation. Family life in directions for policy makers, health care providers on the health of women and children in Baghdad City in order to act upon achieving the recommended plan of research both subtle and extensive ways in order to improve quality of life for women and children in specific, and the total population in general <sup>(2)</sup>.

### Methodology

A simple random sample of (349) subjects and settings was selected through the use of probability sampling approach. The study sample was divided into four groups which include (220) consumer, (35) medical staff, (72) nursing staff and (22) organization structure (primary health care centers). Data were collected through the use of an assessment tools. It was comprised of four questionnaires and the overall items included in these questionnaires were (116) items. The study included assessment of organization structure; such as workplace, materials, resources, and workforce, demographic characteristics of care providers and consumers and activities and duties of providers. Data were collected through the utilization of constructed questionnaire and the interview technique as a mean of data collection and keeping records of all available contacts that facilitate the access to the study sample. Interviews were conducted with directors of primary health care centers, consumers, medical staff and nursing staff. Quality assurance score was computed for the total score of each of its components. The scores were treated as poor for structure of (30-35), fair for structure of (36-41), and good for structure of (42-48). The scores were also treated as poor for medical staff (48-56), fair for medical staff (57-65), good for medical staff (66-75). The sores were also treated as poor for nursing staff (35-45), fair nursing staff (46-56), and good for nursing staff (57-58), and they were treated as poor for consumers (15-22), fair for consumers (23-30), and good for consumers (31-39).

**Results:**

**Table 1.** Assessment of organization structure

List	Item	Frequency	Percent
1	<b>Distance between primary health care center and hospital (km)</b>		
	1-4	7	31.8
	5-8	7	31.8
	9-12	2	9.1
	13-16	4	18.2
	17-20	2	9.1
	<b>Total</b>	22	100%
2	<b>Distance between primary health care center and sector (km)</b>		
	1-4	12	54.5
	5-8	6	27.3
	9-12	3	13.7
	13-16	0	00.0
	17-20	1	4.5
	<b>Total</b>	22	100%
3	<b>General consumers</b>		
	10000-22000	1	4.5
	23000-35000	3	13.6
	36000-48000	2	9.1
	49000-61000	11	50.0
	62000-	5	22.8
<b>Total</b>	22	100.0%	
4	<b>Sufficiency of financial resources</b>		
	Yes	8	36.4
	No	14	63.6
	<b>Total</b>	22	100%
5	<b>Design of building</b>		
	Yes	20	90.9
	No	2	9.1
	<b>Total</b>	22	100%
6	<b>Library presence</b>		
	Yes	4	18.2
	No	18	81.8
	<b>Total</b>	22	100%
7	<b>Computers availability</b>		
	Yes	1	4.5
	No	21	95.5
	<b>Total</b>	22	100%

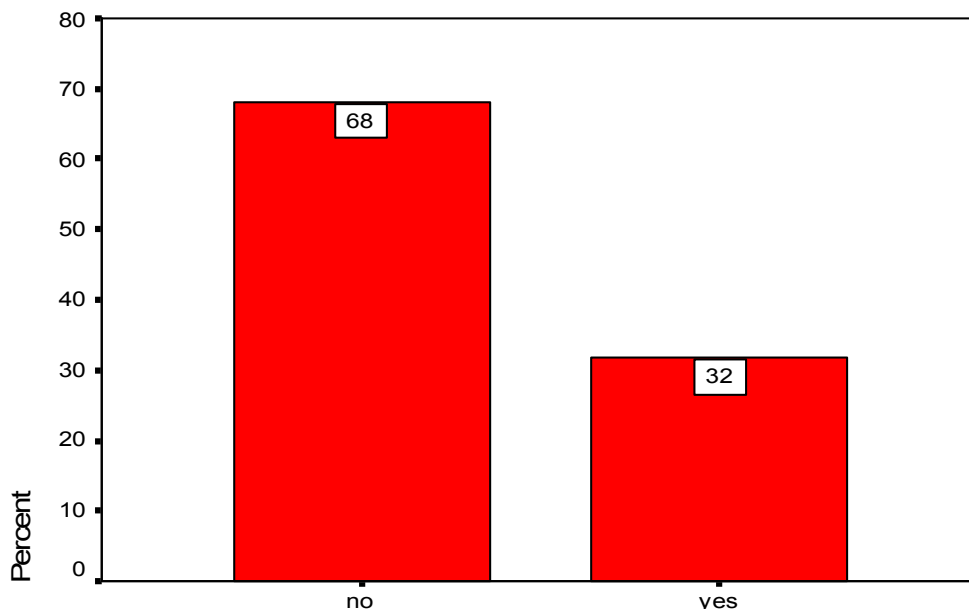
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Table 1. (continued)

List	Item	Frequency	Percent
8	<b>Availability of ultrasound</b>		
	Yes	8	36.4
	No	14	63.6
	Total	22	100%
9	<b>Availability of maintenance division</b>		
	Yes	10	45.5
	No	12	54.5
	Total	22	100%
10	<b>Availability of electricity all times</b>		
	Yes	18	81.8
	No	4	18.2
	Total	22	100%
11	<b>Availability of ambulance</b>		
	Yes	6	27.3
	No	16	72.7
	Total	22	100%
12	<b>Availability of newborn incubator</b>		
	Yes	0	00.0
	No	22	100%
	Total	22	100%
13	<b>Availability of length measure</b>		
	Yes	12	54.5
	No	10	45.5
	Total	22	100%
14	<b>Medications availability</b>		
	Yes	10	45.5
	Sometimes	9	40.9
	No	3	13.6
	Total	22	100%
15	<b>Medical supplies and laboratory materials availability</b>		
	Yes	8	36.4
	Sometimes	13	59.1
	No	1	4.5
	Total	22	100%
16	<b>Vaccine availability</b>		
	Yes	18	81.8
	Sometimes	4	18.2
	No	0	00.0
	Total	22	100%
17	<b>Waste management</b>		
	Container	2	9.1
	Incinerator	6	27.3
	Others	14	63.6
	Total	22	100%

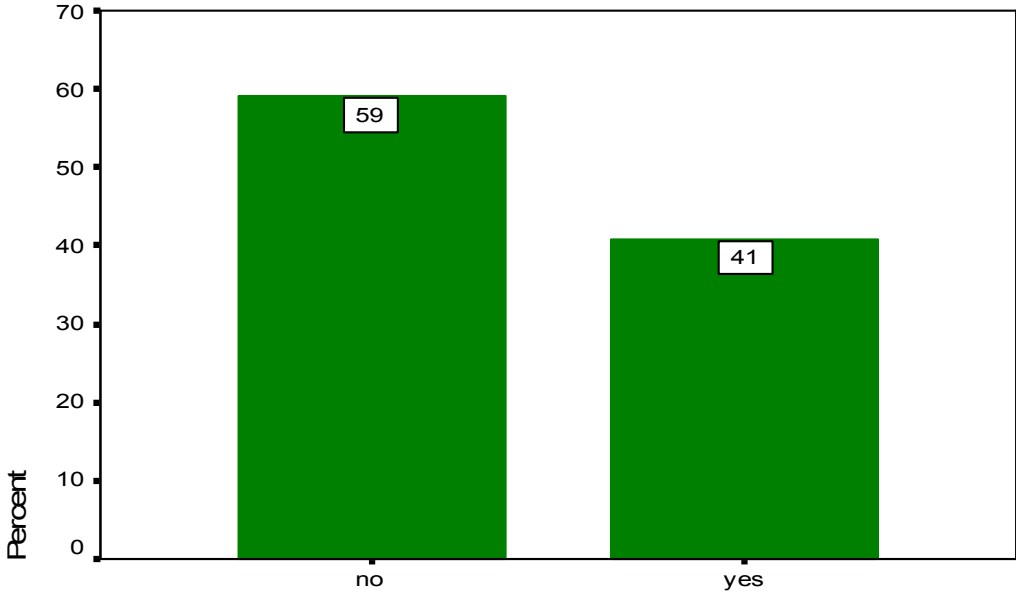
Results of (Table 1) reveals that most of the study sample (31.8%) of primary health care centers was (1-4) km and (5-8) km far from the hospital, (54.5%) of primary health care centers was far from the sectors (1-4) km, (50.0%) had general consumers 49000-61000, (63.6%) showed insufficient financial resources, (90.9%) of building designs as primary health care center, (59.1%) had insufficient rooms, (81.8%) do not have libraries,(95.5%) do not have computers, (63.6 %) do not have ultrasound examination, (54.5%) do not have maintenance division, (81.8%) do not have electricity all times, (72.7%) do not have ambulance, (100%) do not have newborn incubators, (54.4%) do not have length measure in maternal and child health care room, (45.5%) mentioned that medications are available, (59.1%) mentioned that medical supplies and laboratory materials are available sometimes, (81.8%) mentioned that vaccines are available, and (63.6%) mentioned that there was waste management by other ways.

**Figure 1.** Distribution of adequacy of funding for organization structure



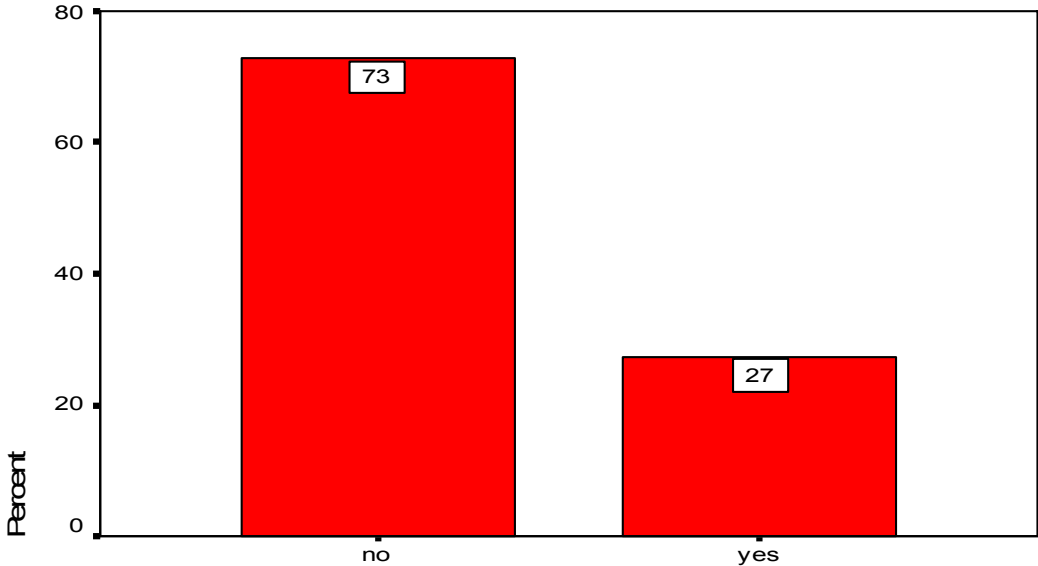
This figure indicates that the greater number of primary health care centers has inadequate funding (68 %).

Figure 2. Distribution of rooms in primary health care centers



This figure indicates that most of the primary health care centers has insufficient rooms (59%).

Figure 3. Distribution of classrooms availability in primary health care centers



This figure indicates that the greater number of primary health care centers does not have classrooms (73 %).

**Table 2.** Determination of quality assurance for maternal and child health services

Level Variables	Poor 30-35		Fair 36-41		Good 42-		Total		
	f	%	f	%	f	%	f	%	
Structure	4	18%	11	50%	7	32%	22	100%	
	Poor 48-56		Fair 57-65		Good 66-		Total		
Medical Staff	13	37%	7	20%	15	43%	35	100%	
	Poor 35-45		Fair 46-56		Good 57-		Total		
Nursing Staff	17	24%	29	40%	26	36%	72	100%	
	Poor 15-22		Fair 23-30		Good 31-		Total		
Consumers	156	71%	51	23%	13	6%	220	100%	
<b>Total</b>								349	

f=Frequency; %=Percent

The quality assurance for results out of this table presented that most of the organization structure is fair (50%), medical staff is good (43%), nursing staff is fair (40%), and consumers are poor (71%).

## Discussion

Analysis of this assessment depicts that most of primary health care centers and hospitals was located within next near hoot, but few of them was within a distance which is constrict faraway and falcate the standards. Most of the primary health care centers were located nearby the sectors (Table 1).

Health center provides services at times and locations that assure accessibility and meet the needs of the population to be served. Health center physicians have admitting privileges at one or more referral hospitals, or other such arrangement to ensure continuity of care<sup>(3)</sup>. Population (consumers) of (49000-61000) has sought health care from half of the primary health care centers. This is on one hand. On other hand, one quarter of primary health care centers, presented health care services to more than (62000) consumers (Table 1).

Consumers who were in concerted valuation to the standard. Population-based health care means the relationship between women's primary health care and population-based health care and use of population-based care in the provision of prenatal care<sup>(4)</sup>.

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Concerning the availability of financial resources, more than half of the primary health care centers does not receive sufficient financial resources which plays a critical factor in the operation of these centers. Furthermore, more than half of the health care centers receives inadequate funding (Table 1).

Health centers maintain accounting and internal control system appropriate to the size and complexity of the organization reflecting generally accepted accounting principles <sup>(3)</sup>.

The design of the building for the majority of the health -care center was inappropriate for rooms, libraries, classrooms, computers, ultrasound, ambulances, and newborn incubators had lacked availability in primary health care centers maintenance division. Length measure and medications were moderately available. Electricity and vaccines were available in most of the primary health care centers. Moreover, the counseling for waste management of the primary health care centers uses other level, institution (hospital or other primary health care centers) for the purpose of waste management (Table 1 and Figure 1-3).

Everyone involved in primary health care services delivery needs to be committed to ensuring the quality and safety of such services. Again, this must also include an active voice for consumers. Structure and clinical changes must be based on an infrastructure that is able to adapt to the rapidly changing environments those with new technologies <sup>(5)</sup>.

The quality assurance is determined through assessment of its components as being statistically examined. The analysis indicated that this quality is determined as fair for organization structure, good for more than one third of the medical staff, fair for more than one third of the nursing staff, and poor ones for almost two thirds of consumers. In sum, the quality of maternal and child health care services is considered as inadequate ones for the most. So, we can tell about the quality throughout determination of mean of scores for items of each component (Table 2).

### 6.1. Conclusions

1. There is an overload of target population on primary health care centers, more than (60000) consumers.
2. Poor design of building, where the libraries were unavailable, insufficient rooms, unavailability of classroom, ventilation and lighting were moderate, and some equipment were unavailable such as ultrasound, computers and ambulance with incubator.
3. Statistical program and data reporting system were poor. Primary health care centers used documentary method of data documentation.
4. Decrease core financial support and inadequacy of funding for primary health care centers need.
5. There is an increased demand and a decreased supply of primary health care workforce. The nursing shortage has affected the supply of adequately prepared nursing of high educational level.
6. Poor strategies of training and development for nursing staff.



## **Recommendations:**

The study recommends that:

1. Establishment of buildings for primary health care centers according to the number of consumers within geographical area, taking into accounts the global standards and sustainability.
2. Good design features of the buildings that include a single reception point on entering a building, classroom availability and dissemination of educational tools, rooms sufficiency, generous amounts of light and ventilation, saving energy, and saving waste management, and availability of tools and instruments according need of primary health care centers such as length measure for pregnant women, ultrasound, computers and library of primary health care centers.
3. Statistical program and data reporting system: Primary health care centers must have systems which accurately collect, analyze and organize data for program reporting which support management in decision making.
4. Increase core financial support for primary health care.
5. Use to project the supply of workforce, diploma level and registered nurses.
6. Provision of adequate funding for programs to increase the size of the primary health care nurses of high educational level.

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