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Evaluating the Quality of Primary Health Care Services in Primary Health Care Center in Najaf Governorate

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Abstract

Background: Quality of care is considered as a critical component of the health-care delivery system that must be prioritized. In reality, primary health care includes a wide range of essential services, increasing the importance of evaluating its quality. **Aim of study:** To evaluate primary health care services in Najaf governorate by applying quality standards and indicators of health centers. **Materials and Methods**: This is a descriptive, cross-sectional study conducted at 23 randomly selected (simple sample) Primary Health Centers in Najaf governorate. Data were collected during the period starting (November 2020-February2021). **Results:** The average percentage of Immunization Unit was 58.39%. While (91.3%) of PHCCs were poor regarding the presence of medical staff according to the standards. 95.7% of the study centers had a good score for provide all vaccines in the institution. As for Health promotion unit, the study found that a high percentage of PHCCs had good indicators. **Conclusion:** The current study shows there are clear deficiencies in standards including; medical staff, medical units, and 1st & 4th antenatal visit.

Keywords: Primary health care,quality, Immunization, Maternal health care, Health promotion, Najaf governerate.

Introduction:

Quality of care is an important aspect of health care delivery system that should be given a priority. The fact that primary health care includes the provision of many services that are essential that heightens the importance of assessing its quality[1]. Quality of primary health care services provided is an important issue, good quality of primary health care is crucial for improved health status of populations. High quality services are required to ensure that scarce resources for healthcare are used to derive their full impact. It is more than a concept essential to patient well-being , rather it is a critical factor in improving community health . Poor

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quality leads to more diseases and cost, loss of public confidence, loss of time, low staff morale, and also results in wastage of limited resources[2]. In Iraq, PHC is provided by the widespread primary health care centers throughout the country. Iraqi Ministry of Health (MoH) had developed a standardized package of basic health services that formed the core of service delivery in all PHC facilities with the aim of enhancing the quality of health services[3]. In lower and middle-income countries, primary health care works as a first point of contact between population and health care system. Most of these countries concentrate on health care center size rather than quality of health services delivered, wherever, good health care system performance leads to good health indicators[4]. Primary health care Services refer to essential health care" that is based on "scientifically sound and socially acceptable methods and technology, which make universal health care accessible to all individuals and families in a community. It is through their full participation and at a cost that the community and the country can afford to maintain at every stage of their development in the spirit of self-reliance and self-determination. In other words, PHC is an approach to health beyond the traditional health care system that focuses on health equity-producing social policy. PHC includes all areas that play a role in health, such as access to health services, environment and lifestyle. Thus, primary healthcare and public health measures, taken together, may be considered as the cornerstones of universal health systems[5].

Materials and Methods

This is a descriptive, cross-sectional study conducted at 23 randomly selected (simple sample) Primary Health Centers in Najaf governorate. There are 46 primary health care centers in Najaf, distributed in 6 primary health care sectors. The study included 23 centers (50% of the total) randomly (using simple sampling technique) from all sectors and then randomly take them from each sector according to the sector aggregation map. Data were collected through quality checklists developed by the Iraqi Ministry of Health and approved in this study. These checklists represent minimum standards for the quality of primary health care services. Which contains evaluation criteria for all units and programs in PHCCs. Analysis of data was carried out using the available statistical package of SPSS- 23 (Statistical Packages for Social Sciences- version 23). Data were presented in simple measures of frequency, percentage, mean, and standard deviation.

Results:

Immunization Unit

Table (1) represents the evaluation of immunization unit indicators. This table shows that

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95.7% of PHCCs had a good score for provide all vaccines in the institution. Regarding (BCG, Triple-containing and measles) vaccine coverage percentage calculated in immunization statistics at 90% for the past three months, the study found that 91.3% of PHCCs had a fair score. Also, there are 4 indicators out of 21 indicators had full score (100%) including the presence of a daily and permanent immunization record, Existence of a permanent and daily tetanus toxoid vaccine record, the presence of Safety Box is used during the session and Follow up on the way to properly administer the vaccine (quintet) in the left muscle.

Tabl 1 : Evaluation of immunization unit

Immunization unit	Poor		Fair		Good		Total	
	NO	%	NO	%	NO	%	NO	%
Provide all vaccines in the institution	-	-	1	4.3	22	95.7	23	100
BCG vaccine coverage percentage, calculated in the immunization statistic, at 90% for the past three months	1	4.3	21	91.3	1	4.3	23	100
OPV3 vaccine coverage percentage, calculated in the immunization statistic, at 90% for the past three months	1	4.3	22	95.7	-	-	23	100
Triple-containing vaccine coverage percentage, calculated in the immunization statistic, at 90% for the past three months	2	8.7	21	91.3	-	-	23	100
The Measles vaccine coverage percentage, calculated in the immunization statistic, at 90% for the past three months	1	4.3	21	91.3	1	4.3	23	100
MMR vaccine coverage percentage, calculated in the immunization statistic, at 90% for the past three months	3	13	15	65.2	5	21.7	23	100
Accuracy of documentation in the permanent vaccine registry (daily observation of deportation)	2	8.7	6	26.1	15	65.2	23	100
Accuracy of documentation in the record of children who have dropped out of vaccines (extracted from the permanent record)	-	-	3	13	20	87	23	100
Completing tetanus toxoid vaccine for pregnant women T- T- 2 Plus with following up on the record of tetanus vaccine (85%) for the past three months	23	100	-	-	-	-	23	100
the presence of a daily and permanent immunization record	-	-	-	-	23	100	23	100
Existence of a permanent and daily tetanus toxoid vaccine record	-	-	-	-	23	100	23	100
The immunization unit official and his assistant are trained, with an administrative order in the charge and his assistant	1	4.3	2	8.7	20	87	23	100
Place the vaccines inside the vaccine carrier during the vaccination session, and have a sponge on the vaccine holder with 3-4 partially melted ice blocks	1	4.3	4	17.4	18	78.3	23	100
Ensure that the needle cap is not returned after use	2	8.7	-	-	21	91.3	23	100
The presence of Safety Box is used during the session	-	-	-	-	23	100	23	100
Follow up the way to give the vaccine correctly (polio and Rota) orally	-	-	3	13	20	87	23	100
Follow up on the way to properly administer the vaccine (quintet) in the left muscle	-	-	-	-	23	100	23	100
Follow up the way to give the vaccine correctly (measles and mixed measles) subcutaneously	1	4.3	-	-	22	95.7	23	100
Follow up on the way to properly give the vaccine (pneumococcus) the right thigh muscle	1	4.3	-	-	22	95.7	23	100
The presence of a specific wall map with targets, indicating points and high-risk areas updated	-	-	21	91.3	2	8.7	23	100
There is an annual plan to monitor integrated vaccine coverage	1	4.3	21	91.3	1	4.3	23	100
Average percentage of Immunization Unit	58.39%							

Maternal health care unit

Average percentage of maternal care unit 53.07%. Some maternal care unit indicators had good evaluating score (100%) including; The pregnant and mothers form is available with 10% more than the monthly target, Pregnant and mothers card is available with 10% more

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than the monthly target, Measuring the blood pressure of the pregnant woman and the mother in a sitting position ,Folic acid is available (enough for at least one month) ,Verify the exchange of Ferro-folic or folic acid in the form with the ticket (3 mothers randomly per month) ,Follow-up on the accuracy of documentation in the record of pregnant and its conformity with the forms (checking three names randomly monthly from the record with the form).

Table 2: Evaluation of Maternal health care unit

Maternal health care unit	Poor (0) (<50%)		Fair (1) (50%-80%)		Good (2) (>80%)		Total	
	NO	%	NO	%	NO	%	NO	%
Number of medical units according to standard	23	100	0	0	0	0	23	100
Number of medical staff according to standard	21	91.3	2	8.7	0	0	23	100
The number of health staff according to standard	0	0	22	95.7	1	4.3	23	100
Pregnant forms including all the required information and all fields are filled with a letter R in red for pregnant women at risk	13	56.5	0	0	10	43.5	23	100
Pregnant cards including all the required information and all fields are filled in with a letter R in red for pregnant women at risk	10	43.5	0	0	13	56.5	23	100
The pregnant and mothers form is available with 10% more than the monthly target	0	0	0	0	23	100	23	100
Pregnant and mothers card is available with 10% more than the monthly target	0	0	0	0	23	100	23	100
the existence of significance sign suspended in the gynecologist room, the health care staff and manager	20	87	0	0	3	13	23	100
Provide educational materials for pregnant women, mothers, and safe deliveries	5	21.7	0	0	18	78.3	23	100
A daily and permanent pregnant and maternal care record is available	1	4.3	0	0	22	95.7	23	100
The percentage achieved for the first visit of pregnant women during the past month is identical to the goal	14	60.9	9	39.1	1	4.3	23	100
The percentage achieved for the fourth visit of pregnant women during the past month is identical to the goal	23	100	0	0	0	0	23	100
The pregnant woman is sent to the dental examination once every three months and the mother after birth	0	0	19	82.6	4	17.4	23	100
Providing advice tools (booklet, cafeteria media, and folders)	0	0	8	34.8	15	65.2	23	100
The brochure is sufficient for two months	1	4.3	3	13	19	82.6	23	100
provide advice in quality (role of a nurse)	6	26.1	15	65.2	2	8.7	23	100
The nurse provides correct information during counseling	0	0	2	8.7	21	91.3	23	100
Laboratory tests: -HB. Blood Group, HBS, RBS, GUE,VDRL.(An amount sufficient for at least one month for each of them)	0	0	13	56.5	10	43.5	23	100
Measuring the blood pressure of the pregnant woman and the mother in a sitting position	0	0	0	0	23	100	23	100
Sonar examination is present (in case the sonar unit is in the center	0	0	21	91.3	2	8.7	23	100
On the first visit to the pregnant woman, she will measure the height and weight of the pregnant woman, and in the following visits she will correctly measure the pregnant woman's weight	0	0	1	4.3	22	95.7	23	100
Ferro-folic provides (quantity for at least 1 month)	0	0	0	0	23	100	23	100
Folic acid is available (enough for at least one month)	0	0	0	0	23	100	23	100
Verify the exchange of Ferro-folic or folic acid in the form with the ticket (3 mothers randomly per month)	0	0	0	0	23	100	23	100
Follow-up on the accuracy of documentation in the record of pregnant and its conformity with the forms (checking three names randomly monthly from the record with the form)	0	0	0	0	23	100	23	100
Follow up the accuracy of the monthly statistic for the previous month (check at least four paragraphs of the monthly statistic with the record)	0	0	6	26.1	17	73.9	23	100
he achieved rate of visiting the mother after giving birth during the past month is identical to the goal	23	100	0	0	0	0	23	100

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The fields for examining the mother after birth are fully indicated in the form and card of the pregnant and mother (checking 3 mothers per month)	1		22	95.7	0	0	23	100
All fields in the daily and permanent pregnant care record are ful	0		9	39.1	14	60.9	23	100
Average percentage of Maternal health care unit				53.07%				

Health promotion unit

Average percentage of health promotion indicators was 85.82%. There are 8 health promotion quality indicators had good score (100%), while other health promotion quality indicators had poor score (<50%) .

Table 3: Evaluation of Health promotion unit

Health promotion unit	Poor		Fair		Good		Total	
	No	%	No	%	No	%	NO	%
Health staff (2)	0	0	4	17.4	19	82.6	23	100
The existence of an administrative order regarding unit official and his assistant	0	0	0	0	23	100	23	100
Unit staff are trained in communication skills and otherprograms	3	13	0	0	20	87	23	100
implement Individual meetings.	2	8.7	0	0	21	91.3	23	100
Implementing weekly lectures that include programs (communicable, non-communicable diseases, child health care, pregnant care, nutrition, school health, water safety and health, other programs)	5	21.7	0	0	18	78.3	23	100
Implementing quarterly seminars	3	13	0	0	20	87	23	100
Follow up the record of individual meetings, weekly lectures, and seminars.	0	0	0	0	23	100	23	100
The presence of a list of the names of the lecturers, the titles of the lectures and their dates in the notice board clearly	0	0	0	0	23	100	23	100
The presence of a separate room for employees of the health promotion unit	8	34.8	0	0	15	65.2	23	100
Existence of a lecture hall and educational seminars with ventilation, air conditioning, and lighting.	11	47.8	0	0	12	52.2	23	100
Existence of health promotion unit supplies such as a computer, scanner, device, photocopy, amplifier, camera, printer, video CD	10	43.5	0	0	13	56.5	23	100
The presence of plasma screens (TV) with CDs and awareness materials (booklet folders, poster, and chairs)	4	17.4	0	0	19	82.6	23	100
The existence of an administrative order for members of the health promotion unit official in the primary health care council	0	0	0	0	23	100	23	100
Existence of a mechanism to coordinate work between the concerned and societal bodies in the care council within the geographical area of the health center	0	0	0	0	23	100	23	100
The presence of a record documenting health promotion activities in the primary health care council, sustainable and notarized	0	0	0	0	23	100	23	100
Photographic documentation of the council's work with the support authorities.	1	4.3	0	0	22	95.7	23	100
The presence of educational and awareness posters for various health topics in the examination room and inside the service delivery rooms and in the corridors and places to wait	0	0	0	0	23	100	23	100
Existence of a library to put work guides, publications, and pamphlets with a library with boxes to place the folders in the waiting areas and be accessible to the visitors	11	47.8	0	0	12	52.2	23	100
Health events are carried out according to the approved schedule	0	0	0	0	23	100	23	100
Average percentage of Health promotion unit				85.82%				

Integrated Management of Neonate and Child Health Unit

Average (range) percentage of IMNCH quality indicators was 77.78% , only ten indicators had good quality score (100%) .

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Table 4: Evaluation of Health Integrated Management of Neonate and Child Health Unit

IMNCH	Poor		Fair		Good		Total	
	NO	%	NO	%	NO	%	NO	%
the presence a suitable place for oral solution with all preparation requirements and counseling boards (single- use cups with a sufficient number, single-use spoons, clean water, one-liter container, kettle, table) and solution bags.	3	13	0	0	20	87	23	100
The presence of medical staff trained on IMNCH	6	26.1	0	0	17	73.9	23	100
The presence of health staff trained in IMNCH at least(2)	0	0	0	0	23	100	23	100
the availability of ARI supplies (nebulizer with Ventolin with normal saline continuously	0	0	0	0	23	100	23	100
Oral rehydration solution is given continuously according to plan A and plan B. (At least one case is observed during the evaluation period)	0	0	0	0	23	100	23	100
Accuracy of documentation in the register for the care of children under the age of five. (Check three names randomly monthly from the register with the form)	0	0	13	56.5	10	43.5	23	100
the presence of a scale to measure the child's weight and scale to measure height and operate correctly	0	0	0	0	23	100	23	100
The presence of a thermometer to measure the temperature.	0	0	0	0	23	100	23	100
Availability of tape to measure the head circumference for children under (2) years. Regular visits to children under one year (first week, 2 months, 4 months, 6 months, 9 months).Visits for children from 1 to 5 years(1 year, 1.3 years, 1.5 years, 4 years).	17	73.9	0	0	6	26.1	23	100
Making a growth chart on the child's periodic visits and measuring weight and height for all ages and head circumference under two years (checking three forms per month randomly)	0	0	9	39.1	14	60.9	23	100
Providing work guides for medical staff.	0	0	0	0	23	100	23	100
Providing work guides for health personnel.	0	0	0	0	23	100	23	100
Inclusion of all children under the age of five in the integrated care strategy by completing the form. (Checking two names from the ticket register and two names randomly from the immunization record and checking it with the IMNCH record	0	0	0	0	23	100	23	100
Inclusion of all children under the age of five in the integrated care strategy by completing the card. (Checking two names from the ticket register and two names randomly from the immunization record and checking it with the IMNCH record,	0	0	0	0	23	100	23	100
The follow-up to the accuracy of the monthly statistic for the previous month (check at least eight paragraphs (diarrhea without dehydration, diarrhea with some dehydration, pneumonia, glucopharyngitis, non-glucopharyngitis, weight loss, jaundice, another paragraph of the checker's choice) from the monthly statistic with the record.	0	0	19	82.6	4	17.4	23	100
spend antibiotics exclusively (check six tickets randomly from the pharmacy and compare them to categories according to the model and the guide)	0	0	23	100	0	0	23	100
monitoring the correct measurement of weight (3 children randomly per month)	0	0	0	0	23	100	23	100
monitoring the correct height measurement (3 children randomly per month).	0	0	2	8.7	21	91.3	23	100
Average percentage of IMNCH Unit				77.78%				

Discussion

Regarding (BCG, Triple-containing and measles) vaccine coverage percentage calculated in immunization statistics at 90% for the past three months, the study found that 91.3% of PHCCs had a fair score. This result is different with the finding of a study done in Iraq [6] which found that 87% of PHCCs had a good score for the BCG ,measles coverage and 73.9%for Triple-containing . Perhaps the reason is , even when services are offered, people are either unable to access them because of reluctance to leave home, transport interruptions,

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economic hardships, restrictions on movement, or fear of being exposed to people with COVID-19. Many health workers are also unavailable because of restrictions on travel or redeployment to COVID response duties as well as a lack of protective equipment.

In this study, 87% of PHCCs were good regarding the presence of trained staff (unit official and assistant) in the immunization unit. This result disagreed with the findings of a previous study done in Iraq [7]which found that 68.6% of the study sample indicated to the absence of trained, experienced and committed staff in the immunization unit.

Regarding the Completing tetanus toxoid vaccine for pregnant women T- T- 2 Plus with following up on the record of tetanus vaccine (85%) for the past three months, the study shows that 100% of PHCs had a poor score. This result is in disagreement with the finding of a study done in Babil governorate [6] which found that 65.2% of the centers had a good score for Completing tetanus toxoid vaccine for pregnant women T- T- 2 Plus with following up on the record of tetanus vaccine (85%) for the past three months.This difference in coverage percentage of vaccine due to the Corona pandemic and the curfew it caused and people's fear of infection prevented them from vaccinating.

Concerning the presence of medical units, medical staff and The number of health staff according to standard the study showed that (100% and 91.3%) for medical units and medical staff respectively of PHCCs were poor and health staff (95.7%) of PHCCs were fair. This result is similar to those found by a study done inThi-qar governorate [8]which found that 93.8% of the centers had no medical units according to standards, 90.6% of PHCCs had no medical staff according to standards and 96.9% of PHCCs had Score 2 (>=75) for health staff according to standard. The present study shows that in the presence of health staff there are clearly deficiencies, because of misrepresentations, most health staff prefer to stay in same his living area and some health staff work strongly in delegation of medical tasks because doctors do not have them and this leads to their willingness to transfer them to other centers.

60.9% & 100% of study centers had poor in 1st & 4th antenatal visit respectively. This is because most pregnant women believe that there are inadequate maternal facilities provided in health centers, lack of female medical personnel, lack of available ultrasound and long waiting time, so these pregnant women attend private physicians or hospitals, and both of these causes may have an impact on maternal visits to PHC centers. The same result seen in a previous study done in Thi-qar governorate [8]which found that 65.6% of the study centers were poor for the rate achieved for the first visit of pregnant women during the past month,

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and 84.4% of the centers had a poor score for the rate achieved for the fourth visit of pregnant women during the past month. But our result disagree with USAID project reports that recorded the maternal units had very good quality score in brazil , new Mexico , Italia , Emirate[9] .

Most of the poor indicators in current study demonstrated that only 52.2% of PHCCs were good in the presence of lecture halls & seminars and most of the centers were built according to the oldest PHC services & programs yet PHC services & programs in continuous growth so most of these oldest centers either had no halls or halls but were used in more impotent services. This is similar to results in other reported study in Mosul 2010[10] but This result disagreed with the study conducted in Baghdad governorate [11]which showed that 90.9% of PHCCs had no lecture hall and educational seminars in the health center.

As for the existence of a library to put work guides, publications, and pamphlets with a library with boxes to place the folders in the waiting areas and be accessible to the visitors, the current study showed that only 47.8% of PHCCs were poorly. This result agreement with the previous study done in Babel City [6]which showed all PHCs (52.2%) had poor. The results of this study indicated that all PHCs (100%) had a full evaluating score regarding giving oral rehydration solution (ORS) according to plan A and plan B. This result agreement with another survey that was done in Babel [6]which showed 100% of the centers were good for giving ORS. A high percentage (43.5%) of PHCCs had a good score for accuracy of documentation in the register for the care of children under the age of five. This result is in agreement with the finding of the study done in Wassit governorate [11]which showed that all the centers had a good score for documentation in the register for the care of children under the age of five.

Regarding monitoring the correct measurement of weight and height, the study shows that 100% and 91.3% of PHCCs respectively, were good. These results differ from the findings of a previous study done in Salah al-Din [12] which showed that 59.5% of the centers were good for monitor the correct measurement of weight and height.

Conclusions

1. Poor 1st and 4th antenatal visit coverage rate .It results from cumulative effect from absence of gynecologist, absence of sonar, long waiting time and home visit.
2. Low coverage rate of most immunization and this is PHC centers duties, while the presence of all types of vaccines is PHC sectors duty.

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3. The highest evaluating percentage is for health promotion units, while the lowest percentage is for maternal units.

Recommendation

1. Providing a sufficient number of doctors, health and administrative personnel for the primary health care centers.
2. The current study proposes to hold monthly meets between the quality improvement teams in the Health Directorate to discuss all poor points and find a way to solve them.

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