

# **Quality Assessment of Focused Antenatal Care services provided in Primary Health Care Facilities, at Gadaref State, Sudan, 2018.**

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**Introduction:** Gadaref State is the first state in Sudan that achieved more than 91% health insurance population coverage; however, its maternal deaths ratio was high. Therefore, the main challenges facing it was how to provide health services with accepted quality. High maternal deaths ratio is multi-factorial; however, antenatal care services are the mechanism for achieving the three universal health coverage objectives. The equity in access to health services; the quality of health services; and protected people against financial risk. World Health Organization promoted a new antenatal care services model called focused antenatal care services. The general objective of this study was to assess quality of focused antenatal care services provided in primary health care facilities, at Gadaref State. While the specific objectives were : to assess the requirements availability in primary health care facilities for provided focused antenatal care services;to determine of providers' adherence to national guidelines of focused antenatal care services; and to assess the pregnant mothers' satisfaction .

**Methods:** The assessment of focused antenatal care services quality was a cross-sectional health facility–based quantitative study. The assessment of the quality of FANC services in PHC facilities at Gadaref State was performed by using the Donabedian's quality assessment model. That is, assessment of the structure, process, and outcome quality dimensions. The assessment of the structure dimension of quality was performed by using the WHO six building blocks framework for health systems strengthening. That is, describes health systems in terms of six core components or “building blocks”: service delivery, health workforce, health information systems, access to essential medicines, financing, and leadership/governance.. The data collected from 32 PHC facilities by interviewer-administered checklist, from 32 services providers by self-administered questionnaire and from 422 pregnant mothers by exit interviewer-administered questionnaire. The frequencies and percentages of variables were a descriptive

statistics, while their significant relationships explored by chi-square test. The p-value at 95 % more than 0.05 considered statistically significant.

### **Results:**

The assessment of the structure dimension of quality was through the PHC facilities availability requirements for providing FANC services, the assessment of the process dimension of quality was through determining the providers' adherence to FANC national guidelines, and that of the outcome dimension of quality was through identifying the pregnant mothers' satisfaction toward the services provided.

The compliance to quality criteria in PHC facilities was 86.7%.The PHC facilities' requirement availability status was 81%.Which was statistically significant with locality's name. The providers' adherence status was 87%. Which was not statistically significant to any of the explanatory variables. The pregnant mother satisfaction status was 92%. Which was percentage was statistically significant with PHC facility name, locality name, with PHC facility type, location and ownership. The pregnant mother's satisfaction status was also statistically significant with previous pregnancy complications. Moreover, the satisfaction status was statistically significant with the pregnancy trimester at which the ANC visit started and the order of antenatal care visit during the current pregnancy. In addition, it was statistically significant with "it was the time to attend" as the reason for attended the antenatal care visit.

### **Discussion:**

The overall requirements availability percentage for providing FANC services was 81%. Which is good. However, when compared it with the other quality dimensions of this study, it was the lowest one.

The availability percentage of ANC registry, Foetoscope and Anti-tetanus toxoid vaccine were 100%.There was 17 out of 26 (65.4%) requirements availability components' items their availability percentage were equal to or above the overall percent.

There were two PHC facilities out of 32 (7.7%) that achieved 100% availability percentage. There was one FHU out of 22 (4.5%) and one FHC out of 10 (10%) that achieved 100% availability percentage. The highest availability percentage achieved by locality was 93%, while the lowest availability percentage was 54%.

The overall provider adherence percentage for providing FANC services was 86.1%. Which is good. However, when compared it with the other quality dimensions of this study, it was the middle one. The highest percentage of the provider adherence component was to clinical examination. While the lowest one was provider adherence to medication. There was three out of five (60%) of the provider adherence components percentage that achieved equal to or above the provider adherence average. The providers' adherence to laboratory tests was statistically significant with locality name.

The provider adherence components' items percentage to registering on ANC registry , measuring uterine height and to estimating the gestational age they achieved 100%.While the lowest was adherence to testing the urine for sugar, acetone, protein, and bilirubin. There were nine out of 13 (69.2%) of provider adherence' components items that achieved equal to or above the average.

There was twelve PHC facilities out of 32 (37.5%) that achieved 100% provider adherence percentage. There was eight FHU out of 22 (36.4%) and four FHC out of 10 (40%) that achieved 100% provider adherence percentage. There were two localities out of 32 (16.7%) that achieved 100% provider adherence percentage.

The overall pregnant mothers' satisfaction percentage was 91.9%. Which is excellent. When compared it with the other quality dimensions of this study, it was the highest one. The highest pregnant mothers' satisfaction components percentage was 95.5%, while the lowest percentage was 87.4%.There were two out of five (40%) pregnant mothers satisfaction components percentage achieved equal to or above the overall percentage. The service accessibility satisfaction component was statistically significant with locality name, type and ownership of PHC facility and with "it was the time to attend FANC services" as the reason for attended FANC

services. The service affordability component was statistically significant with locality name and with location and ownership of PHC facility. Moreover it was statistically significant with previous pregnancy complications, pregnancy trimester at which ANC visit was started and with "it was the time to attend FANC services" as the reason for attended FANC services. The component of service acceptability satisfaction was statistically significant with locality name and with type, location and ownership of PHC facility. Moreover, it was statistically significant with marital status of the pregnant mothers. In addition, it was statistically significant with the pregnancy trimester at which ANC visit started and with "it was the time to attend FANC services" and " I were sick " as the reasons for attended FANC services. The satisfaction toward services provider attitude component was statistically significant with locality name and ownership of PHC facility. In addition, it was statistically significant with "attended ANC before"(0.004), the pregnancy trimester at which ANC visit started and with "it was the time to attend FANC services" as the reasons for attended FANC services. The overall satisfaction component was statistically significant with locality name .Also it was statistically significant with attended ANC before, and with "it was the time to attend FANC services" as the reason for attended FANC services.

The highest pregnant mothers' satisfaction components item percentage was 97%, while the lowest percentage was 80%. There were ten out of 17 (58.8%) pregnant mothers' satisfaction components items achieved equal to or above the overall percentage.