

## Availability And Utilization of Partograph Among Health Workers In Selected Primary Health Care Centres In Yenagoa Metropolis, South- South Nigeria.

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### Abstract:

**Background:** over 800,000 deaths occur globally every year of which some are from preventable causes related to child birth such as prolonged and obstructed labour. Maternal mortality and morbidity as a result of prolonged and obstructed labour can be prevented by the use of partograph which is an affordable and cost-effective tool. The utilization of partograph will contribute to curb the alarming number of deaths during labour and delivery process of women in developing countries. However, this study seeks to ascertain the availability and utilization of this simple but very important lifesaving tool in major primary health care centres in Yenagoa metropolis.

**Materials and methods:** This cross-sectional study investigated the availability and utilization of partograph using a self-administered structured questionnaire to enroll 60 health professionals from six purposively selected health care centres from twenty-one health care centres in Yenagoa metropolis. Convenience method was employed to enable the researchers to reach the respondents while on duty.

**Results:** The study showed that 86.7% of the respondent affirms the availability of partograph but 83.3% indicated that partograph is not made available for monitoring of every woman in labour. All respondents admit that partograph is an important tool for the management of women in labour but only 30% routinely utilized it. 56.7% of the respondents consider partograph has useful in obstetrics and 70% of respondents are of the opinion that it should be a managerial policy in all Primary Health Care Centres in the state that all women in labour should be monitored with the partograph.

**Conclusion:** Partograph is available but not adequate and utilization is poor.

**Keywords:** partograph, availability, utilization, health professional, labour

Date of Submission: 04-05-2020

Date of Acceptance: 18-05-2020

### I. Introduction

Maternal mortality is unacceptably high. About 295 000 women died during and following pregnancy and childbirth in 2017. The vast majority of these deaths (94%) occurred in low-resource settings, and most could have been prevented<sup>1</sup>. In 2017, according to the Fragile States Index, 15 countries were considered to be “very high alert” or “high alert” being a fragile state (South Sudan, Somalia, Central African Republic, Yemen, Syria, Sudan, the Democratic Republic of the Congo, Chad, Afghanistan, Iraq, Haiti, Guinea, Zimbabwe, Nigeria and Ethiopia), and these 15 countries had MMRs in 2017 ranging from 31 (Syria) to 1150 (South Sudan). The latest available data suggest that in most high income and upper middle-income countries, more than 90% of all births benefit from the presence of a trained midwife, doctor or nurse. However, fewer than half of all births in several low income and lower-middle-income countries are assisted by such skilled health personnel<sup>2</sup>.

### II. Materials And Methods

This cross-sectional descriptive study was carried out on health professionals which include physicians, Nurses and Community health extension workers in six (Igbogene, Azikoro, Amarata, Okaka, Opolo and Yenezuegene) Primary Health care centres in Yenagoa metropolis from September 2018 to April 2019. A total of 60 respondents both male and female of age 20 and above with 1-34 years’ work experience as a health professional and with history of working at least six months in the labour ward.

**Study Design:** Cross sectional descriptive study.

**Study Location:** This was carried out in the primary Health Care setting. Institutional based study in six (Igbogene, Azikoro, Amarata, Okaka, Opolo and Yenezuegene) Primary Health care centres in Yenagoa metropolis South- South Nigeria.

**Sample size:** 60 health professionals

**Sample size calculation:** Nil. As total population was utilized

**Subjects and selection method:** The primary health care centres were randomly selected from 21 primary health care centres in Yenagoa and a convenience method was used to collect data from all (60) health professionals in the selected primary health Care centres presented as follows.

S/N	Primary health care centre	Nurses/ midwives	Doctors	Community extension workers	health
01	King MallaSaseme Medical Center, Igbogene	7	3	3	
02	Primary Health Care Center, Opolo	2	2	4	
03	Primary Health Care Center, Okaka.	0	2	4	
04	Comprehensive Health Care Center, Azikoro	13	3	3	
05	Primary Health Care Center, Amarata	1	0	3	
06	Primary Health Care Center, Yenezegene	3	0	7	
	Total	26	10	24	

**Inclusion criteria:**

1. Primary health care centres
2. Availability of maternal and child health care services such as monitoring of labour till delivery.
3. Health care professional who are directly involved in the monitoring of labour till delivery such as the midwives, nurses, doctors, community health extension workers.

**Exclusion criteria**

1. Less than one year working experience
2. Personnel not working in labour ward
3. Nursing/midwifery assistance

**Procedure methodology**

A letter of introduction from the Dean Faculty of Nursing sciences, Niger Delta University was obtained and presented to the management of the various institutions who after due consideration gave approval for the conduct of the study in the respective facilities. A written and verbal informed consent was obtained from the respondents. A self-structured questionnaire was administered to the respondents for data collection. The questionnaire had sections A, B, and C. Section A included Sociodemographic data such as age, sex, Name of primary health care centre Professional qualification, Years of experience as a health professional and Years of experience in labour monitoring. Section B has questions on availability of Partograph while Section C has questions on utilization of Partograph.

The total number of staff working in each of the primary health care centers were taken from the medical records department but their duty roster was obtained from the respective head of department. They were verbally informed of the study, were told when data will be collected and were assured that confidentiality will be strictly adhered to. Questionnaire was administered to respondents during breaks or at the close of work. And were retrieved immediately by the researchers after ensuring completeness. Two weeks was spent in each of the facilities for data collection and this was done at different shift duties of the respondents as guided by the duty roster.

**Statistical analysis:**

Data was analyzed using the Statistical Package for Social Sciences version 21.0 (SPSS 21.0) and was presented in tables using frequencies and percentages.

**III. Result**

**Table no 1** shows socio-demographic data of the respondent. 14(23.3%) of the respondent are from the ages of 20 and below and 46(76.7%) of the respondent are from the ages of 21-50; 41(68.3%) of the respondent were female and 19(31.7%) were males; 13(21.7%) of the respondent work in MC Igbogene, 19(31.7%) in CHC Azikoro, 4(6.7%) in PHC Amarata, 6(10.0%) in PHC Okaka, 8(13.3%) in PHC Opolo and 10(16.7%) in PHC Yenezuegene; 10(16.7%) were Doctors, 26(43.3%) Nurses /Midwives, and 24(40.0%) community health extension workers; 10(16.7%) of the respondents has working experience as health professional for 1-5 years, 22(36.7%) for 6-10 years and 28(46.7%) for 11 or more years; 18(30.0%) has experiences in monitoring of labour for 1-5years, 28(46.7%) for 6-10 years and 14(23.3%) for 11 or more years; 32(58.3%) of the respondent

said the total number of staff on duty were 3, 16(26.7%) said 4, 4(6.7%) said 5 and 8(13.3%) said 6 staff were on duty on the day of data collection.

**Table no 1:** shows Socio-Demographic Data of Respondents

variables	Frequency	Percentage (%)
<b>Age</b>		
20 and below	14	23.3
21-50	46	76.7
<b>Sex</b>		
Female	41	68.3
male	19	31.7
<b>Respondents from the primary health care centres</b>		
MC Igbogene	13	21.7
CHC Azikoro	19	31.7
PHC Amarata	4	6.7
PHC Okaka	6	10.0
PHC Opolo	8	13.3
PHC Yenezuegene	10	16.7
<b>Professional qualification</b>		
Medical doctor	10	16.7
Registered nurse/ midwife	26	43.3
Community health extension worker	24	40.0
<b>Years of experience as a health professional.</b>		
1-5 years	10	16.7
6-10 years	22	36.7
11 or more	28	46.7
<b>Years of experience in monitoring labour.</b>		
1-5 years	18	30.0
6-10 years	28	46.7
11 or more	14	23.3
<b>What is the total number of staff on duty today?</b>		
3	32	53.3
4	16	26.7
5	4	6.7
6	8	13.3

**Table no 2** shows the response for availability of partograph by respondents. 86.7% of the respondents admitted that partograph is available in their primary health care center but 83.3% respondents admit to the partograph not been made available for monitoring of every woman in labour.

**Table no 2** shows the response for availability of partograph by respondents

Variable	Frequency	Percentage (%)
Is the partograph available in your primary health care center?		
Yes		
No	52	86.7
	8	13.3
If yes, is it made available for monitoring of every woman in labour?		
Yes		
No	10	16.7
	50	83.3

**Table no 3** shows the utilization of partograph. All respondents admitted that is an important tool in the monitoring of labour but only 30% admitted to the routine utilization of this important tool. All respondents agreed to the fact that partograph is not used to monitor every woman in labour. 56% of respondents consider the partograph as useful in obstetric reviews. 70% of respondents is of the view that it should be a managerial policy that all women in labour should be monitored with the partograph in addition to other management protocols

**Table no 3:** shows the Utilization of partograph.

Variable	Frequency	Percentage (%)
Is the Partograph a tool for monitoring labour?		
Yes		
No	60	100
	0	0
If yes how often do you used it in labour monitoring in your health care center?		
All the time	18	30
Some times	35	58.3
Never	7	11.7
Is the Partograph used to monitor every woman in your Primary Health Care Center?		
No	60	100
Do you consider partograph useful in obstetric?		
Yes	34	56.7
No	26	43.3
Should it be a managerial policy that all women in labour should be monitored with a Partograph?		
Yes	42	70
No	18	30

#### IV. Discussion

Partograph is a graphic record of progress of labor, maternal and fetal condition plotted against time for intrapartum monitoring<sup>3,4</sup>. Its aim is to provide a pictorial overview of labor, to alert obstetric care providers about deviations in maternal, fetal condition and progress of labor<sup>5,6</sup>.

World Health Organization recommends the universal utilization of the partograph during labor<sup>7</sup>. Routine use of partograph is helpful to make better decisions for the diagnosis and management of prolonged and obstructed labor.

This study was carried out to ascertain the availability and utilization of partograph in selected primary health care centers in Yenagoa Metropolis Bayelsa state, South - South Nigeria.

It has been noted that knowledge and utilization of partograph in the management of labour is low among nurses, midwives and physicians in primary, secondary and private health care institutions in developing countries<sup>8,9,10</sup>. In 1999, which was before implementation of the MDGs, a study conducted in Enugu south east Nigeria identified lack of detailed knowledge of the partograph and noted only about 25% utilization of partograph in the routine management of labour<sup>11</sup>.

The findings from the study showed that majority 51(85%) of the respondent affirmed that partograph is available in their primary health care center but are not readily available to staff for utilization when monitoring women in labour. This is in accordance with other studies where it has been shown that non-availability of partograph is a reason for its non-utilization<sup>4,12,14, 17</sup>.

It is really sad that even in this era of the SDGs the situation has not really improved. Although all participants affirmed that partograph is an important tool in the monitoring of labour but only 30% of respondents reportedly used it routinely to monitor the progress of labour. This conforms to other reports from similar studies across varied African settings which have confirmed the low utilization of this cost-effective, labour-monitoring chart<sup>4,8,10,13-15</sup>. It is incongruent with a study carried out in Addis Ababa Ethiopia where over half of the obstetric care givers reported that they used the partograph to monitor mothers in labour<sup>16</sup>.

poor utilization of this tool could be part of the reasons accounting for the high maternal mortality in Nigeria and most developing countries of the world. This necessitates the need for hospital administrators to implement policies which bind every health professional responsible for labour monitoring to routinely use the partograph in accordance with WHO recommendations and the safe motherhood initiative<sup>18</sup>

It is about five decades since the introduction of partograph<sup>19</sup>, but it remains a challenging reality that health professionals across developing nations with poor maternal mortality still find it difficult to utilize this efficacious life-saving tool in the management of women in labour. This should be regarded as a national emergency and calls for a thorough relook into the existing health policies as well as health professional training guidelines.

After reviewing some past literature about the availability and utilization of partograph among the health workers, in comparison to this study it is observed that the utilization of partograph in both tertiary health care centers and primary health care centers is poor and its poor utilization is attributed partly to non-availability of partograph in all the studies reviewed. Few made mention of staff shortage, and time consuming. But they all recommended the training of staffs on the use of partograph in labour monitoring. So, poor utilization of partograph might be a contributing factor for the poor achievement of reduction of maternal mortality in Nigeria.

Pre-service and on-job training of obstetric care givers on the use of the partograph should be given emphasis. Mandatory health facility policy is also recommended to ensure safety of women in labour in public health facilities in Nigeria.

## V. Conclusion

Partograph is available in the health centers, but not available for monitoring of every woman in labour. Health professionals admit that the partograph is an important tool in labour monitoring but Utilization is poor.

## References

- [1]. Trends in maternal mortality: 2000 to 2017: estimates by WHO, UNICEF, UNFPA, World Bank Group and the United Nations Population Division. Geneva: World Health Organization; 2019.
- [2]. World Health Organization and United Nations Children's Fund. WHO/UNICEF joint database on SDG 3.1.2 Skilled Attendance at Birth. Available at: <https://unstats.un.org/sdgs/indicators/database/>
- [3]. The partograph for the prevention of obstructed labor. Mathai M Clin Obstet Gynecol. 2009 Jun; 52(2):256-69.
- [4]. Opiah MM, Ofi AB, Essien EJ, Monjok E Knowledge and utilization of the partograph among midwives in the Niger Delta Region of Nigeria. Afr J Reprod Health. 2012 Mar; 16(1):125-32
- [5]. Lavender T, Hart A, Smyth RMD. Effect of partograph use on outcomes for woman in spontaneous labor at term. Cochrane Database Syst Rev. 2008; 4:1–24.
- [6]. Shinde KK, Bangal BV, Singh KR. Study of course, of labor by using modified WHO partograph. IJBAR. 2012;3(5):391–396.
- [7]. World Health Organization partograph in management of labour. World Health Organization Maternal Health and Safe Motherhood Programme. Lancet. 1994 Jun 4; 343(8910):1399-404.
- [8]. Fawole AO, Hunyinbo KI, Adekanle DA Knowledge and utilization of the partograph among obstetric care givers in south west Nigeria. Afr J Reprod Health. 2008 Apr; 12(1):22-9.
- [9]. Oladapo OT, Daniel OJ, Olatunji Knowledge and use of the partograph among healthcare personnel at the peripheral maternity centres in Nigeria AOJ ObstetGynaecol. 2006 Aug; 26(6):538-41.
- [10]. Fawole AO, Adekanle DA, Hunyinbo KI Utilization of the partograph in primary health care facilities in southwestern Nigeria. Niger J Clin Pract. 2010 Jun; 13(2):200-4.
- [11]. Umezulike AC, Onah HE, Okaro Use of the partograph among medical personnel in Enugu, Nigeria. JMInt J Gynaecol Obstet. 1999 May; 65(2):203-5
- [12]. Asibong, U., Okokon, I. B., Agan, T. U., Oku, A., Opiah, M., Essien, E. J., & Monjok, E. (2014). The use of the partograph in labor monitoring: a cross-sectional study among obstetric caregivers in General Hospital, Calabar, Cross River State, Nigeria. International journal of women's health, 6, 873–880. <https://doi.org/10.2147/IJWH.S49188>
- [13]. Abebe F, Birhanu D, Awoke W, Ejigu T. Assessment of knowledge and utilization of the partograph among health professionals in Amhara region, Ethiopia. Science Journal of Clinical Medicine. 2013;2(2):1–17
- [14]. Okokon IB, Oku AO, Agan TU, Asibong UE, Essien EJ, Monjok E \_An evaluation of the knowledge and utilization of the partograph in primary, secondary, and tertiary care settings in calabar, South-South Nigeria. Int J Family Med. 2014; 2014():105853.
- [15]. Wakgari N, Tessema G, Amano A. Knowledge of partograph and its associated factors among obstetric care providers in North Shoa Zone, Central Ethiopia: a cross sectional study. BMC Res Notes. 2015;8:407 10.1186/s13104-015-1363-x
- [16]. Yisma E, Dessalegn B, Astatkie A, Fesseha N. Knowledge and utilization of partograph among obstetric care givers in public health institutions of Addis Ababa, Ethiopia. BMC Pregnancy and Childbirth. 2013;13:17 10.1186/1471-2393-13-17
- [17]. Sama, C. B., Takah, N. F., Danwe, V. K., Melo, U. F., Dingana, T. N., & Angwafo, F. F., 3rd (2017). Knowledge and utilization of the partograph: A cross-sectional survey among obstetric care providers in urban referral public health institutions in northwest and southwest Cameroon. PloS one, 12(2), e0172860. <https://doi.org/10.1371/journal.pone.0172860>
- [18]. WHO: World Health Organization partograph in management of labour. Lancet. 1994;343:1399–404.
- [19]. Phillpott RH, Castle WM. Cervicograph on the management of labor in primigravida II. The action line and treatment of abnormal labor. J ObstetGynaecol Br Commonw 1972;79:599-606.

Nkamare, Maureen Bunadoumene, et. al. "Availability And Utilization of Partograph Among Health Workers In Selected Primary Health Care Centres In Yenagoa Metropolis, South- South Nigeria." *IOSR Journal of Nursing and Health Science (IOSR-JNHS)*, 9(3), 2020, pp. 29-33.