Scientific Research Publishing

Socio-Epidemiological Aspects and Prognosis of Unassisted Deliveries Arriving at Fousseyni Daou Hospital in Kayes

Sitapha Dembele[1]*, Mahamadou Diassana[1], Ballan Macalou[1], Alima Sibibe[2], Albachar Hamidou[2], Daouda Fomba[1], Mamadou Haidara[3], Famakan Kane[4], Cheickna Sylla[5], Amadou Bocoum[5], Sanogo Siaka Amara[5], Soumaila Traoré[6]

[1]Department of Gynecology and Obstetrics of the Fousseyni DAOU Hospital, Kayes, Mali
[2]Kayes Reference Health Centre, Kayes, Mali
[3]Reference Health Center of Kalaban-Coro, Bamako, Mali
[4]Bla Reference Health Centre, Ségou, Mali
[5]Department of Gynecology and Obstetrics of the CHU GABRIEL TOURE, Bamako, Mali
[6]Department of Gynaecology and Obstetrics of the Regional Hospital of SIKASSO, Bamako, Mali
Email: *dsitapha@gmail.com

Abstract

Introduction: The World Health Organization estimates that each year more than 20 million women suffer from the after-effects of unattended childbirth, of which 800 women die every day as a result of obstetric complications. **Objective:** Study the socio-epidemiological aspects and prognosis of unassisted deliveries arriving at the Fousseyni Daou De Kayes hospital. **Materials and Methods:** This was a descriptive, cross-sectional study with prospective collection, case-control that took place at the maternity ward of the Fousseyni Daou hospital in Kayes, from 1 January to 31 December 2021. **Results:** The frequency of unattended birth was 4.1%. The 30 - 35 age group was the most represented with 32.5%. In our study 58.1% of cases were out of school, 19.4% were primigestes and 39.4% were multiparous. In our series 60.6% of cases had given birth at home and 39.4% along the way. The majority of cases regretted having given birth without the assistance of qualified personnel in 45.6%. Maternal complications were dominated by perineal lesions in 14.4% of cases, haemorrhage of delivery in 25% of cases, severe anaemia in 30% of cases; 16.7% of newborns were in poor condition, 13.6% were fresh stillbirths, 15.6% of newborns had obstetric trauma. The maternal death rate on arrival was 3%. **Conclusion:** The frequency of unassisted childbirth is high in the Kayes region. Its complications can be serious for both the mother and the newborn.

Keywords

1. Introduction

For several decades, African leaders have been looking for ways to improve women's childbirth conditions, with a view to reducing maternal and neonatal death rates as much as possible [1]. The World Health Organization estimates that each year more than 20 million women suffer from the after-effects of unattended childbirth, of which 800 women die every day as a result of obstetric complications. In Africa, many mothers do not have access to modern health care services, with an estimated 60% - 80% of women in developing countries continuing to give birth at home without any assistance or with the help of unskilled people and usually in an unsanitary environment [2]. Zouhairou S [3] in Timbuktu, Kané S [4] at the Reference Health Center of Commune II in Bamako, Tchango N [5] in Cameroon, Cissé B.O [6] in Gao reported respectively 8.04%, 5.1%, 37.4% and 4.5% rate of unassisted deliveries. Certain factors have a significant impact on the choice of place of delivery, including level of education, prenatal follow-up, age of the patient, multiparity and socio-economic level [7]. The risks reported by most authors are cervical, perineal and/or vaginal wall tears, uterine rupture and sometimes postpartum hemorrhage that can lead to maternal death. To overcome this phenomenon with serious obstetrical and socio-economic consequences, for more than a decade or so, many initiatives have been implemented with the aim of bringing health-care services closer to the population, as well as improving the quality of services. Among these various reforms we have: the safe motherhood program, the adoption of a population policy that gives pride of place to the health of mothers and children, the sectoral health policy, free caesarean section, active management of the third period of childbirth, and refocused antenatal consultations. Despite its provisions, few studies have been conducted on the consequences of this mode of delivery on the mother or the newborn in Mali, particularly in the Kayes region, which is why we decided to initiate this work at the Fousseyni DAOU hospital in Kayes.

2. Materials and Methods

Our study took place in the gynecology and obstetrics department of the Fousseyni DAOU Hospital in Kayes. This was a cross-sectional, prospective, case-control descriptive study with matching two controls for a case of the same age range. It took place from January 1 to December 31, 2021. The study population consisted of all deliveries admitted to the maternity ward of the FOUSSEYNI DAOU Hospital in Kayes. We conducted a comprehensive sampling of all cases of unattended deliveries that were recorded in the ward during the study period. Our study included 160 cases of unassisted delivery and 320 controls (assisted births) according to the matching criteria. The following were included in this study:

- For cases all unassisted deliveries arriving at the hospital with a gestational age ≥ 28 SA, who have given their consent.
- For witnesses all assisted deliveries with a gestational age ≥ 28 SA, who have given their consent.

Not all unassisted and assisted deliveries with a term < 28 SA and unusable records were included in this study.

The quantitative variables were: age, gestation, parity, number of non-maternity deliveries, number of antenatal consultations, number of abortions and interreproductive interval. The qualitative variables were: place of residence and delivery, marital status, occupation, level of education, reason for admission, reasons for home birth, feelings after delivery, and complications related to unattended birth.

Data were collected on a survey sheet developed from the following media:

- obstetric records; the birth register; the reference/evacuation register;
- the register of antenatal consultations.

The data was entered on Word 2010 and analyzed on SPSS software version 2020. The statistical tests used were Khi^2 (PEARSON chi-square) and OR (oddratio). The differences found were considered significant for a P < 0.05. All parturient women were counselled with their informed consent. This consent was obtained at the patient's interview. Anonymity was respected.

Unattended birth is defined as any birth process that occurs in the mother's home, in any other home or en route, without the assistance of qualified health personnel.

3. Results

During our study period 3900 deliveries were collected, including 160 unassisted deliveries (cases), a frequency of 4.1%.

The 30 - 35 age group was the most represented in cases with a frequency of 32.5%.

The average age was 28.5 years with extremes of 15 and 42 years.

In our series 91.3% of cases were married, 6.9% were single and 1.9% were widowed. Housewives accounted for 78.8% of cases and 79.7% of controls. Multigestures were the most represented in cases with a frequency of 36.9% against 19.4% in controls. Multiparous were the ones represented with a frequency of 39.4%. The average parity was 3.25 with extremes 1 and 7. Data in relation to age are shown in Table 1.

In our series 60.6% of had given birth at home, 39.4% along the way.

Table 1. Distribution of women giving birth by age group.

Age range	CASE		INDICATOR	
	Number	%	Number	%
≤19 years	23	14.4	46	14.4
20 - 29 years	49	30.6	98	30.6
30 - 35 years	**52**	**32.5**	**104**	**32.5**
>35 years	36	22.5	72	22.5
Total	**160**	**100**	**320**	**100**

Khi^2 = 7.610; ddl = 3; P = 0.035.

We also found that 27.5% of cases gave birth without assistance, 28.8% with the help of a parent, 34.4% with the help of a traditional birth and 9.4% with the help of a matron. Delivery of the placenta was done at home in 53.8 of cases, en route in 16.2% of cases and hospital in 30% of cases. Cord section was done at home in 53.8 of cases, en route in 16.2% of cases and in hospital in 30% of cases. The main reasons for admission were the occurrence of a complication at 69%, obliged by his parents 28% and the need to obtain the birth certificate 3%.

In our series 45.6% of deliveries had reported feeling of regret after giving birth, 31.3% were without regret and 23.1% were anxious. Aspects of educational attainment are shown in Figure 1.

Tables 2-5 and Figure 2 show us the clinical aspects of complication.
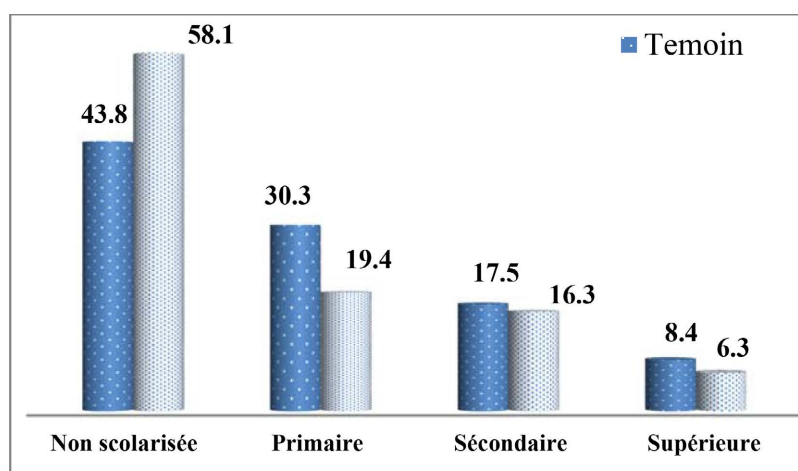
Figure 1. Distribution of women giving birth by level of education.

Table 2. Distribution of deliveries by number of antenatal consultations.

CPN Name	CASE		INDICATOR	
	Staff	%	Staff	%
None	86	53.7	15	4.7
<4	50	31.3	65	20.3
≥ 4	24	15.0	240	75.0
Total	160	100	320	100

Khi^2 = 6.410; ddl = 3; P = 0.093.

Table 3. Distribution of cases by reason for non-maternity birth.

Reason for delivery Actual Outside maternity	Effectifs	Percentage
Surprise by work	74	46.2
Lack of financial resources	15	9.4
Lack of transportation	28	17.5
Home birth habit	l43	26.9
Total	160	100

Immediate postpartum hemorrhage was the main complication observed with a 50%.

We hospitalized 48 cases for severe anaemia, 19 for high blood pressure and its complications, and 11 for endometritis and puerperal psychosis. We recorded 3% of maternal deaths on arrival.

In cases 83.3% of newborns were alive versus 98.1% in controls, 13% were fresh stillbirths in cases versus 1.9% in controls and 3.1% were macerated still-births in cases versus 0% in controls. In our series 24.4% of cases were referred to paediatrics compared to 21.9% to controls.

4. Discussion

Our study carried out at the Fousseyni DAOU hospital in Kayes from January 1

Table 4. Distribution of births by type s of complication.

Type of complications	Case		Witnesses	
	Staff	%	Staff	%
HPPI	80	50	20	6.3
Partial retention of the placenta	30	18.8	10	3.1
Total retention of the placenta	10	6.2	0	0
Cervical tear	13	8.1	4	1.3
Vaginal tear	4	2.5	0	0
Dischirure pisrinisale	23	14.4	6	1.9
HTA and its complications	19	11.9	0	0
Eclampsie	15	9.4	0	0
HELL P Syndrome	4	2.5	0	0
Late complications	11	6.8	0	0
Endométrite	6	3.7	0	0
Puerperal psychosis	5	3.1	0	0
No	50	31.3	300	93.8

Khi^2 = 221,893; ddl = 7; P = 0.000.

Table 5. Distribution of newborns by birth trauma.

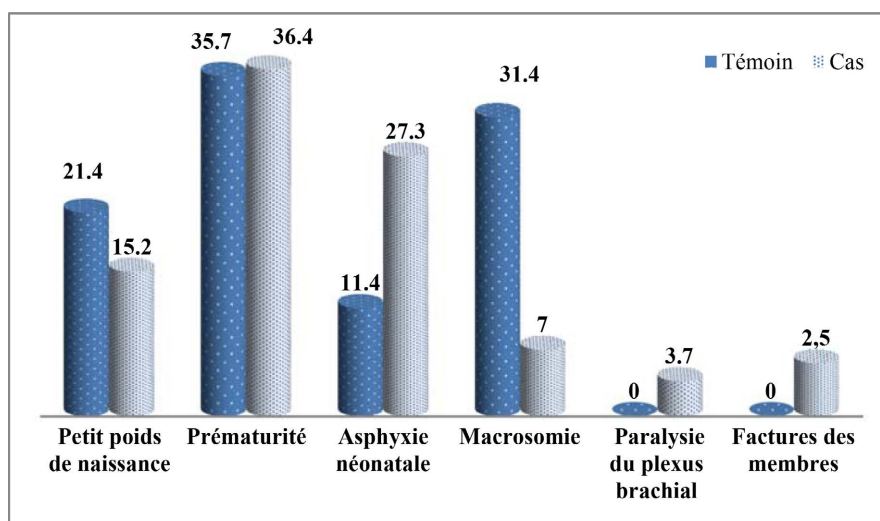| Type of trauma	CASE		TESTIMONY	
	Effectifs	%	Effectifs	%
Brachial plexus paralysis	6	4.4	0	0
Fracture of limbs	4	2.9	0	0
Sero-sanguine lump	15	11.1	6	1.9
No injuries	110	81.5	308	98.1
Total	135	100	314	100

Figure 2. Distribution of newborns by reason for paediatric reference.

to December 31, 2020 obtained an unassisted delivery rate of 4.1% (160/3900 cases of deliveries). This rate is higher than those obtained by Ouologuem A.D [8] at the Reference Health Center of Commune I of Bamako, Michel S [9] at the CHU G T of Bamako, and Akpadza J. K [10] Lomé, with respectively 3.8%, 3.01%; 3.3%; and 1.8%. However, our rate is lower than those of Cissé B.O [6] in Gao, Kane S [4] at the Reference Health Center of Commune II in Bamako, Kitsa et al. [11] in South Africa and Zouhairou S [3] in Timbuktu which find 4.5%, 5.1%, 8%, and 8.04%. In developing countries such as Mali, the high frequency of unattended childbirth can be explained mainly by socio-cultural constraints and ignorance of the risks of unattended childbirth by qualified personnel [4]. Indeed, a certain number of women who have given birth at home do not go to the maternity hospital, especially if they do not seem to present any problems at the end of childbirth. Women aged 30 - 35 were the most represented in our sample at 32.5%, the average age was 28.5 years. Keita A [1] at the Reference Health Center of Commune V Bamako, Dembélé S [12] at the Reference Health Center of Koutiala, Cissé B.O [6] in Gao, Touré B et al. [13] had found respectively an average age of 27.5 years, 26.6 years, 23.7 years and 24 years. We found that 58.1% of cases were out of school. This rate is higher than those of Kamaté Y.D. [14] at the Reference Health Center of Commune V of Bamako, Tiembré I. et al. [15] with 57.5% and 40% and lower than those of Zouhairou S [3] in Timbuktu from Kane S [4] to the Reference Health Center of Commune II of Bamako, and Toure B. et al. [13] who found 88.46%, 81.2%, and 79.76% respectively. Failure to attend school would expose the woman to the risk of unassisted childbirth. In our study 78.8% of the cases were housewives. This result is higher than that of Keita A [1] at the Reference Health Center of Commune V of Bamako which had found 61.58%. The precarious socio-economic situation of our cases would probably justify the choice of a home birth. Other causes may be added to the previous one, such as the delay in making the decision to go to the maternity ward in a timely manner, and the high cost of benefits that does not

seem to be within the reach of all procreators. This reflection brings us closer to the findings of Lavaud *et al.* [16] who reported in their series that unfavorable socio-economic conditions influence the place of delivery. This would reflect the general context of poverty that prevails in Mali. Multiparous are the most represented in our series avec 39.4%. Unassisted childbirth also concerns first-time mothers with 19.4% of cases, Keita A [1] at the Reference Health Center of Commune V of Bamako had found a rate of 41.87%. The fact that multiparous and large multiparous give birth at home can be explained by the duration of labour too fast and also by the notion of "experience gained" in previous deliveries [17]. Non-follow-up of pregnancy was observed in 53.7% of cases. This result is higher than the data reported by Kane S [4] to the Reference Health Center of Commune II of Bamako which had found 47.6%. In our series 69% of cases were admitted for occurrence of a complication, 28% for declaration of birth certificate. This result is higher than that of Kane S [4] at the Reference Health Center of Commune II of Bamako who had found 10% for occurrence of a complication and 16.6% for declaration of birth certificate. We found that 60.6% of cases had given birth at home, and 39.4% along the way, the majority had given birth with the help of the traditional midwife in 34.4%, matron in 9.4% and that of the parents in 28.8%, without any assistance in 27.5%, on the other hand Zouhairou S [3] in Timbuktu had found respectively 94.2% home birth 3.8% along the way and 75% delivery performed with the help of the traditional birth attendant, 19.2% by parents, 3.8% by matron and 1.9% without any help. In our series in cases delivery was made at home in 53.8% and cord section in 53.7%, in hospital delivery was carried out in 48% and cord section in 30.6%.

The majority of cases had regretted having given birth without the assistance of qualified personnel in 45.6%, this rate is lower than that of Kane S [4] at the Reference Health Center of Commune II of Bamako which had found 70.6%. Maternal complications were dominated by immediate postpartum haemorrhage. Perineal lesions were observed in 14.4% of cases. This rate is lower than that of Kane S [4] at the Reference Health Center of Commune II of Bamako which had found 17.7%, higher than that of Olivier [18] 4% and Zouhairou S [3] in Timbuktu 3.8%. The haemorrhage of delivery had been found in 25% of cases. We observed 5 cases of maternal death or 3.1%, this rate is higher than that of Kane S [4] at the Reference Health Center of Commune II of Bamako which had found 1 case of death recorded on arrival or 0.6%.

Severe anaemia was the most common condition in women who gave birth without medical-obstetric assistance and the leading cause of hospitalization. We noted a rate of 30% in our series. This rate is lower than that of Zouhairou S [3] in Timbuktu 59.6%. However, the involvement of chronic anaemia prior to childbirth cannot be excluded. We collected 162 newborns in our series, among whom we recorded a case of twin pregnancy, 16.7% of these newborns had a bad state, this rate is higher than that of Zouhairou S [3] in Timbuktu 15.4% and lower than that reported by Keita A [1] at the Reference Health Center of Commune V of Bamako with 29.3%. Obstetric trauma in newborns was found in

15.6% of cases (3.7% brachial plexus paralysis, 2.5% limb fractures and 9.4% significant sero-blood bump), this rate is higher than that of Alexander J M *et al.* [19] and Cissé B.O [6] in Gao who had found respectively 1.1% and 8% obstetric trauma in newborns. The leading leading causes of reference for paediatric neonates were prematurity, neonatal asphyxia, low birth weight, limb fractures, brachial plexus paralysis and foetal macrosomia. In our series 13.6% of newborns were fresh stillbirths. This rate is lower than that of Sangala M [20] in Mopti with 24.8% and higher than that of Zouhairou S [3] in Timbuktu 5.8%. Hervé C, Caillard M [17] conclude that non-maternity delivery is a risk factor for neonatal death. In view of all these results, it seems obvious that unassisted childbirth presents a risk that must be explained to the population. To justify unassisted childbirth, we found in the first place the surprise by labor in 46.2% of cases and the usual home birth in 26.9% of cases; on the other hand Touré B *et al.* [13] in Burkina Faso and Akpadza J. K [10] in Lomé had recorded rapid delivery labour in 59.22% of cases, respectively. The lack of financial resources was mentioned by 9.4% of cases against 23.1% and 8.5% in the study of Zouhairou S [3] in Timbuktu and Akpadza J. K [10] in Lomé. The lack of means of transport was noted in 17.5%.

The limitations of this work: we could not obtain all the data, this is explained by the fact that the obstetric records, the delivery registers, the evacuation register, and the antenatal consultation logs of unassisted deliveries were poorly filled in (there was missing information).

We have encountered some difficulties in the admission of some patients with hemorrhagic complications due to lack of financial means to honor biological tests and prescriptions, and finally the estimation of the time between the home of some women who have given birth and the maternity ward.

5. Conclusion

Unattended childbirth is still a reality despite the increase in health facilities and remains a public health problem in developing countries. The frequency of unassisted deliveries is still high in the Kayes region. Complications are maternal-fetal dominated by delivery haemorrhage, clinical anaemia, soft tissue lesions and some obstetric trauma of newborns.

Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

References

[1] Keita, A. (2006) Home Deliveries Maternal-Fetal Prognosis at the Reference Health Centre of Commune V of Bamako. Medical Thesis, USTTB/FMOS, Bamako, 74 M21.

[2] World Health Organization (WHO) (1998) Life in the 21st Century: A Perspective for All. World Health Report, Geneva.

[3] Zouhairou, S. (2011) Unassisted Deliveries at Timbuktu Hospital. Medical Thesis, USTTB/FMOS, Bamako, 87.M233.

[4] Kane, S. (2010) Unassisted Childbirth in the Centre of Bamako's Commune II. Medical Thesis, USTTB/FMOS, Bamako, 97.M35.

[5] Tchango, N. (2015) Home Birth in Cameroon 7th African Population Conference. 34.

[6] Cissé, B.O. (2011) Study of Assisted and Unassisted Births in the Commune of Gao Concerning 398 Cases. Medical Thesis, USTTB/FMOS, Bamako, 73.M277.

[7] Toko, M., *et al.* (2018) Factors Associated with Home Birth in Benin. *Journal of Scientific Research of the University of Lomé*, 23, 165-176.

[8] Ouologuem, A.D. (2006) Unattended Delivery in the Referral Health Centre in Commune I of the District of Bamako. Medical Thesis, USTTB/FMOS, Bamako, 353.M80.

[9] Michel, S. (2005) Study on Unattended Deliveries at the Gynaecological-Obstetrics Department at the Gabriel Touré Hospital. Medical Thesis, USTTB/FMOS, Bamako, 96.M56.

[10] Akpadza, J.K. (2004) delivery without Medical-Obstetrical Supervision in the Commune of Lomé. *SAGO Journal*, 5, 9-14.

[11] Kitsa, *et al.* (1997) The Prevalence of Docillary Deliveries in Khayelisha, Cape Town. *South African Medical Journal*, 85, 224-225.

[12] Dembélé, S. (2010) Evaluation of the Quality of Obstetric Care at the Reference Health Center of Koutiala. Medical Thesis, USTTB/FMOS, Bamako, 98.M310.

[13] Touré, B., *et al.* (2004) Epidemiological and Clinical Aspect of Unassisted Urban Births in Burkina Faso. *SAGO Journal*, 5, 36-41.

[14] Kamaté, Y.D. (2019) Study of Unassisted Home Birth in Two Districts of the Health District of Commune V of Bamako. Medical Thesis, USTTB/FMOS, Bamako, 80.M43.

[15] Tiembré, I., *et al.* (2009) Prevalence and Determinants of Home Births in the Commune of Yopougon. *Santé Publique*, 21, 499-506. (In Abidjan)

[16] Comb, C.A., Murphy, E.L. and Laros, R.K. (1991) Factors Associated with Postpartum Hemorrhage with Vaginal Birth. *Obstetrics & Gynecology*, 77, 69-76.

[17] Herve, C. and Caillard, M. (1986) Non-Maternity Deliveries and Sudden Infant Death Syndrome. 513-516.

[18] Olivier, S. (1994) Home Birth; Intensive Care Resuscitation. *Sciences Po Presses*, 10, 207-212.

[19] Alexander, J.M., *et al.* (2006) Fetal Injury Associated with Cesarean Delivery. *Obstetrics & Gynecology*, 108, 885-890.
https://doi.org/10.1097/01.AOG.0000237116.72011.f3

[20] Sangala, M. (2015) Maternal-Fetal Prognosis of Unattended Pregnancies at Sominé Dolo Hospital in Mopti. Medical Thesis, USTTB/FMOS, Bamako, 67.M309.

Fiche D'Enquete

ASPECTS SOCIO-ÉPIDÉMIOLOGIQUES ET PRONOSTIC DES ACCOUCHEMENTS NON ASSISTÉS ARRIVANT À L'HÔPITAL FOUSSEYNI DAOU DE KAYES

I. Identification de la Femme

N° Dossier / _____ /

Entrée : Date :   Heure :

Q1-Nom et Prénom : /_____/

Q2-Age (en année) /_____/_____/

Q3-Ethnie: /_____/

Q4-Etat matrimonial : /_____/

Q5-Profession   /_____/

Q6-Provenance : /_____/

Q7-Etat de la Route/_____/   1 = Butinée   2 = Latéritique   3 = Piste

Q8-Niveau d'instruction:

Q9-Antécédents obstétricaux: 1 = Gestité /___ /   2 = Parité: /___ /   3 = Enfant vivant: /___ /

4 = Avortement: /___ /   5 = Décédé /___ /

6 = Mort nés: /___ / a = frais b = macérés

7 = Accouchement hors maternité:/___ /   1 = Oui   2 = Non Si Oui nombre

8 = Intervalle intergénésique: /___ /

Q10-Antécédent Chirurgicaux: /___ /   1 = Césarienne,   2 = Autres à préciser……

Q11-Profession du procréateur: /_____/

Q12-Adresse par:/___/:   1 = Famille,   2 = Voisins du quartier,   3 = Venue d'elle-même

5 = Autre à préciser

Q13-Motif d'admission:/___ /   1 = Survenue d'une complication,   2 = Nécessite d'obtenir l'acte de naissance

3 = Obliger par les parents ou proches.

II. Historique de la Grossesse

Q14-Consultation prénatale /___ / 1 = Oui   2 Non

a) Nombre:/___ /   b) Auteur/_____/

c) Lieu/___ /   1 = CSCOM,   2 = CSRF,   3 = Clinique privée.

d) Bilan prénatal Biologique /___ /   1 = Oui   2 = Non

Echographie /___ / 1 = Oui 2 = Non

e) Prophylaxies: SP/___ /   1 = Oui,   2 = Non   Si oui dose

VAT/___ /   1 = Oui,   2 = Non   Si oui dose

Supplémentions en fer /___ / 1 = Oui   2 = Non

III. Examen a L'Entree

Q15-Examen physique:

-Etat des Conjonctives /_____/

-Tension artérielle /_____/

-Température /_____/ Pouls maternel /_____/

Q16-Etat général de la patiente /___ /   (1 = bon,   2 = passable,   3 = altéré)

Q17-Conscience de la patience /___ /   (1 = conservée, 2 = obnubilée, 3 = Coma: score de Glasgow à……)

Q18-Lieu de l'accouchement/ ___ /   1 = Domicile   Date: Heure:

                                                                2 = En cours de route: /___ / 2 a = Taxi, 2b = Voiture personnelle

                                                                4 = Autres à préciser

Q19-Qualification de la personne ayant assistée l'accouchement: /_____/

   1 = Aucune assistance,   2 = Tante,   3 = Accoucheuse traditionnelle,   4 = matrone

Q20-Lieu de délivrance /_____/   Date: Heure:

   1 = Domicile: /_____/ a = spontanée = artificielle = active

   2 = Hôpital: Date: Heure:

   3 = En cours de route

Q21-Lieu de section du cordon   /_____/   oui/non

   1 = Domicile: Date: Heure:

   2 = Hôpital: Date: Heure:

   Auteur /_____/ a = elle-même = parents = autres à préciser…

Q22-Placenta et membranes /_____/   1 = Complet   2 = Incomplet 3 = Non vu

Q23-Rétention placentaire /___ /   1 = Oui   2 = Non

                                                                Si oui 1a = totale   1b = partielle

Q24-Périnée /___ /   1 = Intact   2 = Déchirure périnéale: /___ /

                                                                2a = Simple   2b = complète   2c = complique

Q25-Autres lésions des parties /____/   1 = Col,   2 = vagin,   3 = vésicale,   4 = urétrale, 5 = Aucune

IV. Traitement et Soins a L'Hopital

Q26-Hospitalisation /_____/   1 = Oui   2 = Non

Si Oui cause:

Q27-Revision utérine: /_____/   1 = Oui,   2 = Non

                                                                Si Oui résultat: /_____/

                                                                a = cavité utérine régulière, b = solution de continuité

Q28-Hémorragie de la délivrance: /_____/   1 = Oui   2 = Non

                                                                Si Oui traitement

Q29-Refection: /_____/   1 = périnéale: /_____/   1a = Oui   1b = Non

                                                                2 = cervicale: /_____/   2a = Oui   2b = Non

                                                                3 = vaginale: /_____/   3a = Oui   3b = Non

Q30-Transfusion sanguine: /_____/   1 = Oui   2 = Non

Q31-Surveillance après l'admission   -TA: /_____ / _____/   -Rétraction utérine: /_____/ 1 = Oui   2 = Non

Q32-Evolution de la mère: /_____/   1 = vivante   2 = Décédée: Lieu:/_____/

                                                                Cause: /_____/

V. Examen du Nouveau-Ne

Q33-Nombre d'enfant: /____/

Q34-Etat du nouveau-né   J1 /___/   J2 /____/   a = normal,   b = mauvais

Q35-Score D'APGAR à l'arrivée: J1 /___/   J2 /____ /   1 = 0 - 6,   2 = 7 - 10

Q36-Poids (en gramme)   J1 /_____/g   J2 /_____/g

Q37-Taille (en centimètre)   J1/_____/cm J2 /_____/cm

Q38-Sexe   J1 /_____/   J2 /____/   1 = M   2 = F

Q39-Réanimation: /_____/   1 = Oui   2 = Non   Si oui cause……………

Q40-Malformations /____/   1 = Oui   2 = Non

Q41-Autres lésions /____/:   1 = Ecchymoses,   2 = fracture,   3 = bosse séro-sanguine,   4 = aucune

Q42-Evolution du nouveau-né   J1/___/   J2/___/

                                   1 = Vivant: 2 = Mort-né: 3 = Décédé

Q43-Refere /___/   1 = Oui   2 = Non

VI. Raison des Accouchements Hors Maternité

Q44-Raison des accouchements hors maternité:/_____/

    1 = Surprise par le travail d'accouchement.   2 = Manque de moyens financiers

    3 = Manque de transport   4 = Autres à préciser: …………….

Q45-Sentiment après l'accouchement: /_____/   1 = Satisfaction,   2 = Anxiété,   3 = Regret,

    4 = Déception,   5 = Indifférence