

## Evolution of the Cesarian Trend in a Context of Free in the Health District of Fana, Mali

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### Abstract

### Original Research Article

Caesarean section is a procedure allowing the extraction of the fetus and its appendages after surgical opening of the uterus by transabdominal rarely vaginally. **Objective:** To study the practice of caesarean section in a context of free education in the Fana health district. **Methodology:** This is a cross-sectional retro-prospective study on the evolution of the caesarean section trend in a context of free in the health district of fana from 01 January 2020 to 31 December 2022. **Results:** We recorded: 1303 caesarean sections distributed as suites: 363 in 2020 (2.26%); 481 in 2021 (2.93%) and 459 in 2022 (2.72%). 10,686 assisted deliveries in 2020 or 73.35%; 12,779 assisted deliveries in 2021 or 80.47% against 11,348 assisted deliveries in 2022 or 79.13%. The 20-2-9 age group was the most represented, i.e. 4-2.90% with extremes of 14 a n s and 45 a n s. 81.43% of patient nosinthe fana health district. The majority of our patients are married women, i.e. 93.48%. 85.42% of caesarianized women are housewives. Caesarean section completion rates evolved as follows from 2020 to 2022: 2.26%; 2.93% and 2.72%. At the same time the Koulikoro region obtained rates of 2.25%; 2.33% and 2.46% against 3.06%; 3.48% and 3.29% as national rates respectively in 2020; 2021 and 2022. **Conclusion:** Free caesarean section has led to an upward trend in the number of caesarean sections even if the objective national is not reached.

**Keywords:** Evolution, Trend, Caesarean section, Fana Health District.

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## INTRODUCTION

Caesarean section is a procedure for the extraction of the fetus and its appendages after surgical opening of the uterus by transabdominal rarely vaginally [1]. The caesarean section rate is less than 1.5% in some regions of Mali, the rate is 1.2% in Koulikoro according to the age of the United States for international development [2]. These rates are well below the recommendations of the World Health Organization (WHO), which sets a minimum caesarean section rate of 5.0% [3]. Thus, on 23 July 2005, the Government of Mali decided to cover the costs of caesarean section by the State. This care is provided in public hospitals, health centres in circles, communities in the district of Bamako and

establishments of the army health service. The aim of this decision is to make emergency obstetric care accessible to all pregnant women with clinical needs caesarean delivery in order to reduce maternal and neonatal mortality. This free of charge concerns all the direct costs related to the practice of caesarean section (preoperative examinations, caesarean section kits, surgery, postoperative treatment and hospitalization).

## OBJECTIVE

The aim was to evaluate the practice of caesarean section in a context of free access at the Fana Reference Health Center.

## MATERIALS AND METHODS

We conducted from 01 January 2020 to 31 December 2022 a cross-sectional retro-prospective study on the evolution of the caesarean section trend in a

context of free in the Fana Health District. Data were entered and analyzed using Epi Info version 7.1.5.2.

## RESULTS

### Socio-Demographic Documents:

**Table I: Distribution of patients by age group**

Age groups	Actual	Percentage
14-19 years	342	26,25
20-29 years	559	42,90
30-39 years	361	27,70
40-49 years	41	3,15
TOTAL	1303	100

The 20-29 age group was the most represented, i.e. 42.90% with extremes of 14 and 45 years.

**Table II: Distribution of patients by marital status:**

Marital status	Actual	Percentage
Bride	1277	98
Bachelor	26	2
TOTAL	1303	100

The majority of our patients are married women, 98%

**Table III: Distribution of patients by level of education:**

Educational attainment	Actual	Percentage
Out of school	1084	83,20
Primary	146	11,20
Secondary	65	5,00
Upper	8	0,60
TOTAL	1303	100

The majority of patients are not in school, i.e. 83.20%

**Table IV: Distribution of patients by profession:**

Profession	Actual	Percentage
Housewife	1113	85,40
Pupil/Student	76	5,80
Merchant	51	3,90
Other	63	4,90
TOTAL	1303	100

85.40% of caesareanized women are housewives

### Frequency:

We recorded a total of 1303 caesarean sections distributed as follows: 363 in 2020 (2.26%); 481 in 2021 (2.93%) and 459 in 2022 (2.72%). During the same period the district recorded 10,686 assisted deliveries in 2020 or 73.35%; 12,779 assisted deliveries in 2021 or 80.47% against 11,348 assisted deliveries in 2022 or 79.13%. At the same time, the Koulikoro region obtained caesarean section rates of 2.25%; 2.33% and 2.46% against 3.06%; 3.48% and 3.29% as national rates respectively in 2020; 2021 and 2022.

From 2020 to 2022, the Koulikoro region recorded assisted delivery rates of 69.63%; 72.87% and 69.82% respectively against 55.13%; 60.02% and 54.63% as the national rate.

### EVOLUTION OF CESARIAN RATES IN THE FANA HEALTH DISTRICT, THE KOULIKORO REGION AND MALI FROM 2020 TO 2022

The national level obtained the highest caesarean rates during these three years with respectively 3.06%; 3.48% and 3.29% in 2020; 2021 and 2022

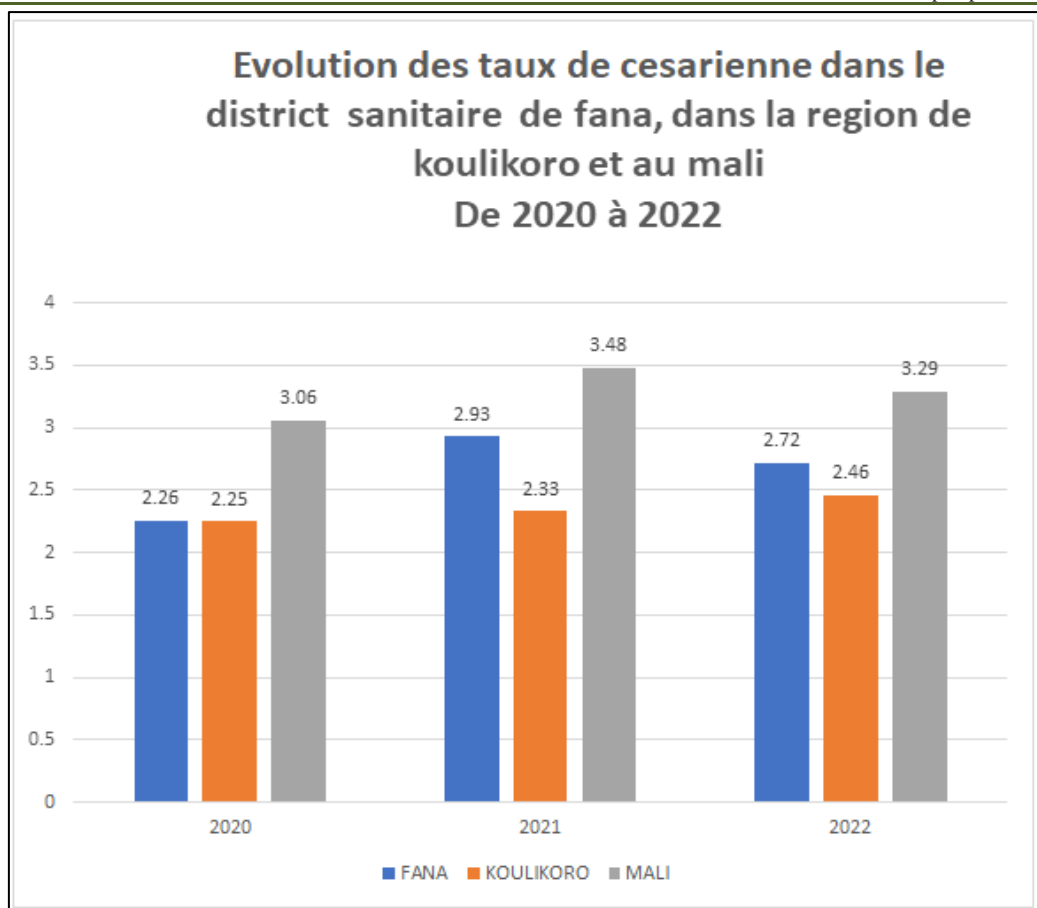


Figure: 1

**EVOLUTION OF ASSISTED DELIVERY RATES IN FANA HEALTH DISTRICT, KOULIKORO REGION AND MALI FROM 2020 TO 2022**

The health district of Fana recorded the highest delivery rates during the period of our study with respectively 73.35%; 80.47% and 79.13% in 2020, 2021 and 2022.

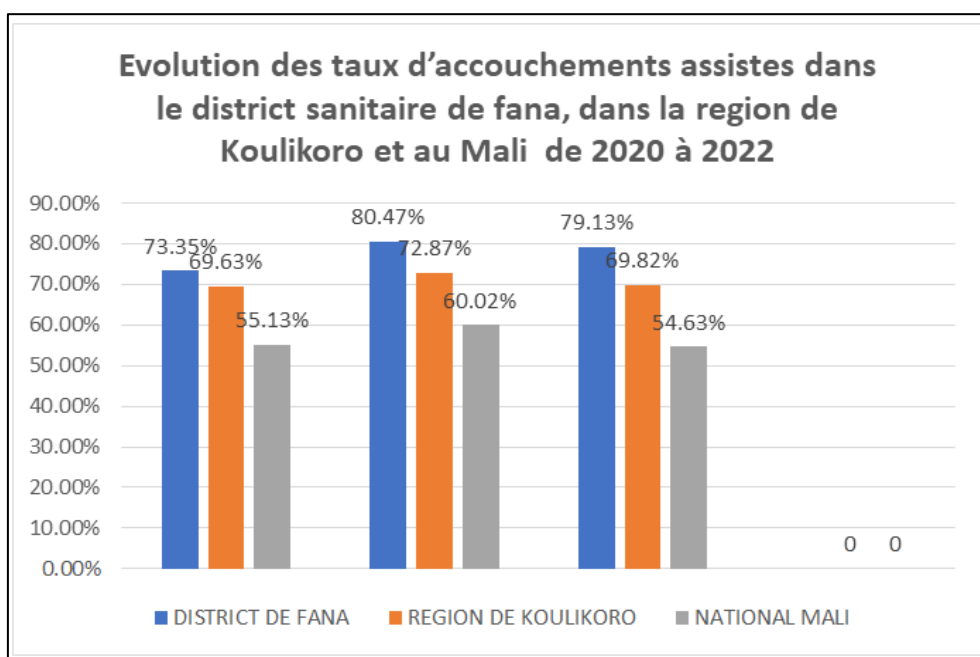


Figure: 2

## DISCUSSION

### Socio-Demographic Characteristics:

The age of caesarean section varied between 14 and 45 years; the age group 20-29 years was the most representative at 42.90%, optimal age at procreation. This result is slightly higher than that of Diallo A which found 37.6% (4). This could be explained by the concern of the doctor and the parents, which is all the more important the older the primiparous is (5). 93, 38% of caesareanized women were married, this predominance of married women was found by Ballo or 94.2% at the Kangaba CSRéf (6) which does not have a significant difference with our result. The profession of housewife was dominant, at 85.42 per cent, and the 83.19 per cent of women who were out of school could be explained by the fact that the study was carried out in rural areas and whose enrolment rate of girls remains low.

During the period of our study, we performed a total of 1303 caesarean sections distributed as follows: 363 in 2020 (2.26%); 481 in 2021 (2.93%) and 459 in 2022 (2.72%) and at the same time assisted delivery rates have also increased (73.35%; 80.45% and 79.17%). This evolutionary trend in cesarean and assisted delivery rates could be explained on the one hand by the creation of new health areas improving the geographical accessibility of populations to reproductive health services but also by the provision of 20 midwives by the SWEDD project and on the other hand by the revision of the conceptual framework of the reference/evacuation taking into account the CSCom village stage by the allocation of health areas in tricycle ambulances but especially the permanent availability of caesarean section kits, by the opening of a surgical antenna at the CSCom of Béleco, health area located 75 km from the CSRéf to shorten the time of management of obstetrical emergencies of ten (10) health areas all located behind the river and qualified human resources for the realization of the caesarean section. Our caesarean section completion rates of 2.26%; 2.93% and 2.72% respectively in 2020; 2021 and 2022 are not different enough from those of the Koulikoro region (2.25%; 2.33% and 2.46%) (8,9; 10) but lower than those of the national level which are 3.06%; 3.48% and 3.29% respectively in 2020; 2021 and 2022 (8; 9; 10) also below the national target of 5%. These discrepancies could be explained, on the one hand, by the provision of qualified human resources in the district of Fana and the Koulikoro region, well trained in SONU and equipped with adequate equipment capable of performing instrumental maneuvers, unlike many other districts of Mali where the maternity wards

of the CSCom are still run by unqualified personnel and, on the other hand, by operational indications.

### Difficulties Encountered in the Implementation of free Caesarean Section:

The delay in the delivery of the Kits; The incompleteness of the kits delivered; Delay in the reimbursement of caesarean section costs; Insufficient number of ambulances in good condition.

## CONCLUSION

The fact that caesarean section is free of charge has allowed us to observe an upward trend in the number of caesarean sections even if the national target is not reached. Further efforts are needed to increase the rate of cesarianization, which is a guarantee of the reduction of maternal and neonatal mortality.

**Conflict of Interest:** none.

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