

Maternal and Neonatal Mortality in Fana Health District, Koulikoro, Mali

Yusuf Samaké^{1,6*}, Sema keita^{1,6}, Kanthé Djibrilah^{5,6}, Cheickna Sylla^{4,6}, Moumine Traor^{1,6}, Solomane Traoré^{3,6}, Diallo Oura², Demba Diarra², HAMadou Coulibaly^{2,6}, Lassana Kanté^{4,7}

¹Fana Reference Health Centre, Koulikoro, Mali

²Regional Health Directorate of Koulikoro, Mali

³National Institute of Public Health, Bamako, Mali

⁴Centre Hospitalo-Universitaire Gabriel Touré in Bamako, Mali

⁵Markala Reference Health Center, Ségou, Mali

⁶National Centre for Scientific and Technological Research in Bamako, Mali

⁷Faculty of Medicine and Odonto-Stomatology of Bamako, Mali

DOI: [10.36347/sjmcr.2023.v11i04.076](https://doi.org/10.36347/sjmcr.2023.v11i04.076)

| Received: 07.03.2023 | Accepted: 24.04.2023 | Published: 28.04.2023

*Corresponding author: Dr Youssouf Samake

Fana Reference Health Centre, Koulikoro, Mali

Abstract

Original Research Article

The aim was to assess maternal and neonatal deaths. **Materials and Methods:** This was a cross-sectional retrospective study on the evolution of the trend of maternal and neonatal deaths in the fana health district from 01 January 2018 to 31 December 2022. **Results:** We recorded the following assisted delivery rates: 69.19% in 2018; 74.44% in 2019; 73.35% in 2020; 80.47% in 2021 and 79.13% in 2022. The maternal death rates in the fana health district from 2018 to 2022 are 0.20, 0.26, 0.44, 0.43 and 0.47 per 1000 live births, respectively. The neonatal death rate in the Fana Health District from 2018 to 2022 is 1.9; 1.7; 1.1; 1.4 and 1.0 per 1,000 live births. Maternal death rates in the Koulikoro region and Mali from 2018 to 2022 evolved as follows: 0.28; 0.26; 0.32; 0.32 and 0.32 costs 0.48; 0.43; 0.48; 0.49 and 0.42 per 1000 live births, respectively. Neonatal death rates in the Koulikoro region and Mali from 2018 to 2022 evolved as follows: 1.8, 1.6, 1.6; 2.2 and 2.4 on the 2.4; 2.3; 2.2; 2.3 and 2.2 per 1000 live births, respectively. **Conclusion:** Maternal and neonatal mortality rates remain a priority problem in developing countries, including ours, but we believe that the creation of the SO NUB and SONUC structures and the recruitment of qualified personnel could really reduce the rates obtained.

Keywords: Evolution, Trend, Maternal deaths, Neonatal deaths.

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INTRODUCTION

Worldwide, approximately 830 women die every day from preventable causes related to pregnancy and childbirth; 99.0% of all maternal deaths occur in developing countries. Maternal mortality is higher in rural areas and in the poorest communities. The risk of complications and death from pregnancy is higher in younger adolescent girls than in older women [1]. Between 1990 and 2010, Africa reduced maternal mortality by 41% [2] but this rate varies from one country to another.

OBJECTIVE

To assess the evolution of the trend in maternal and neonatal death rates in the fana health district by

determining the evolution of the rates of assisted deliveries and maternal and neonatal deaths in health care settings at the national level, in the Koulikoro region and in the health district of Fana. To complete the main etiologies and the difficulties and constraints.

MATERIALS AND METHODS

We conducted from 01 January 2018 to 31 December 2022 a cross-sectional retrospective study on the evolution of the trend of maternal and neonatal deaths in the fana health district.

RESULTS

The year 2021 recorded the highest rate of assisted deliveries at 80.47%. Figure 1 shows this trend.

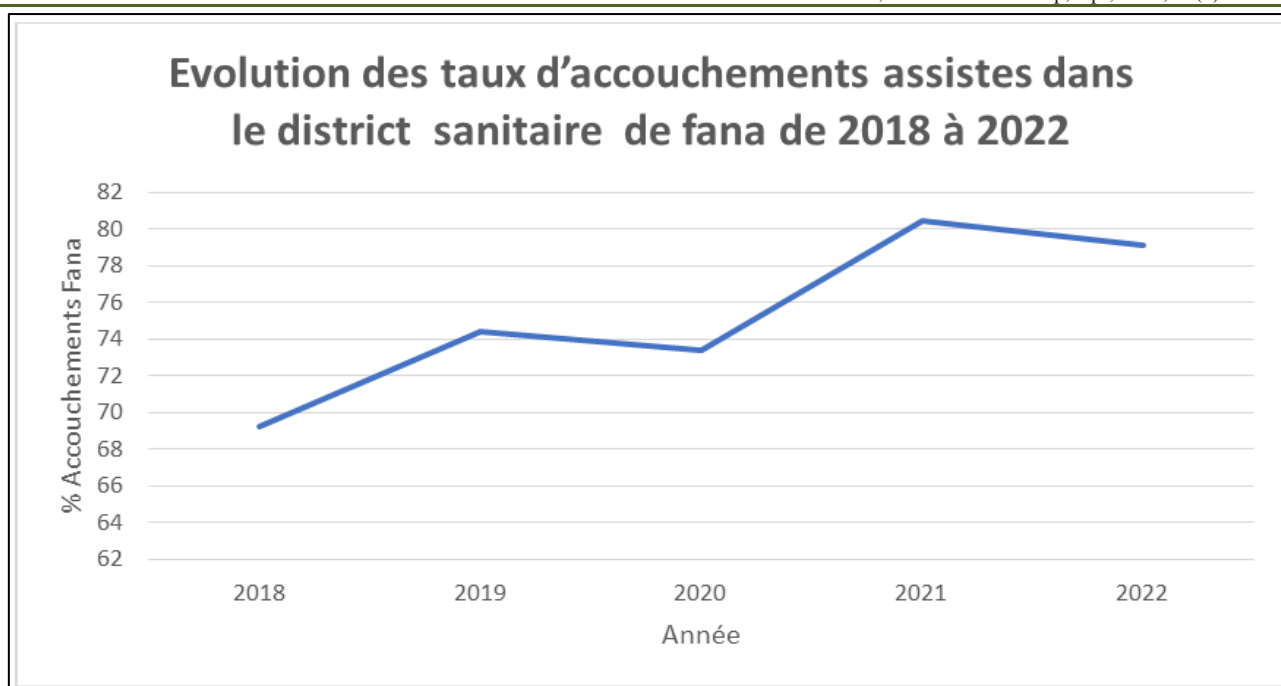


Figure 1: The evolution of assisted delivery rates in the Fana health district from 2018 to 2022

The highest maternal death rate was recorded in 2022 at 0.47 per 1000 live births. This is shown in Figure 2.

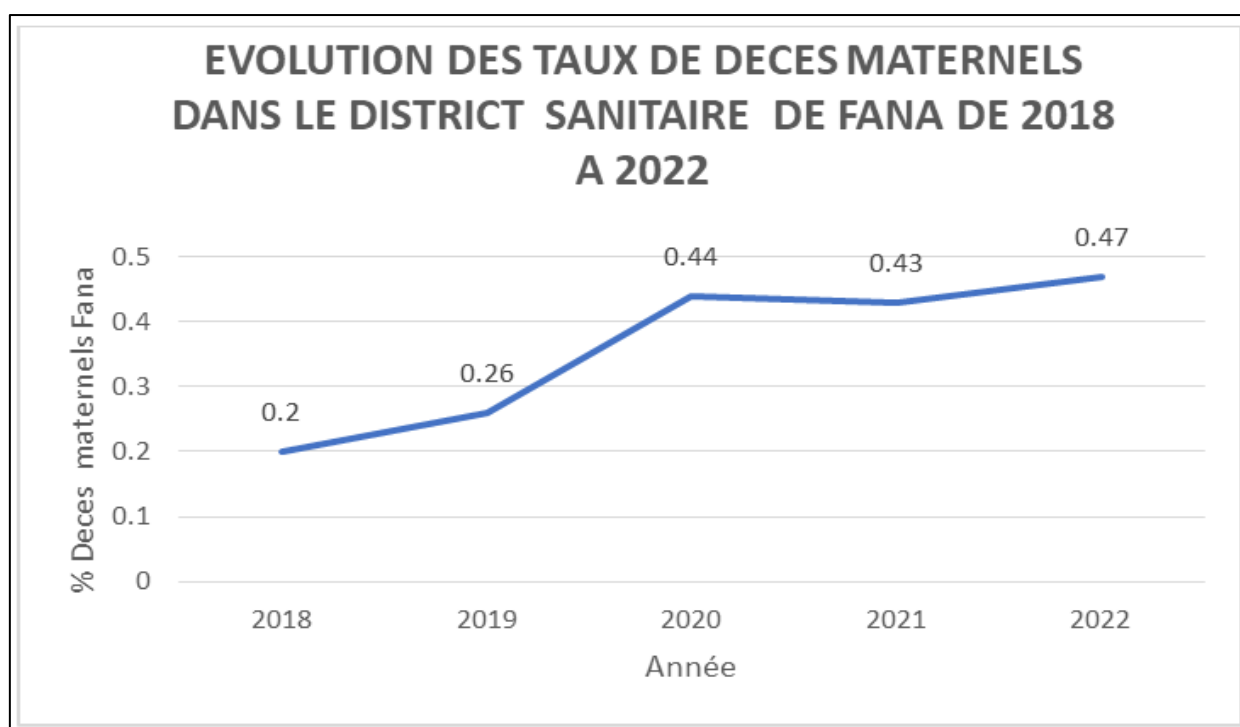


Figure 2: The evolution of maternal death rates in the fana health district from 2018 to 2022

Figure 3 shows us that 2018 recorded the highest neonatal death rate with 1.9 per 1000 live births.

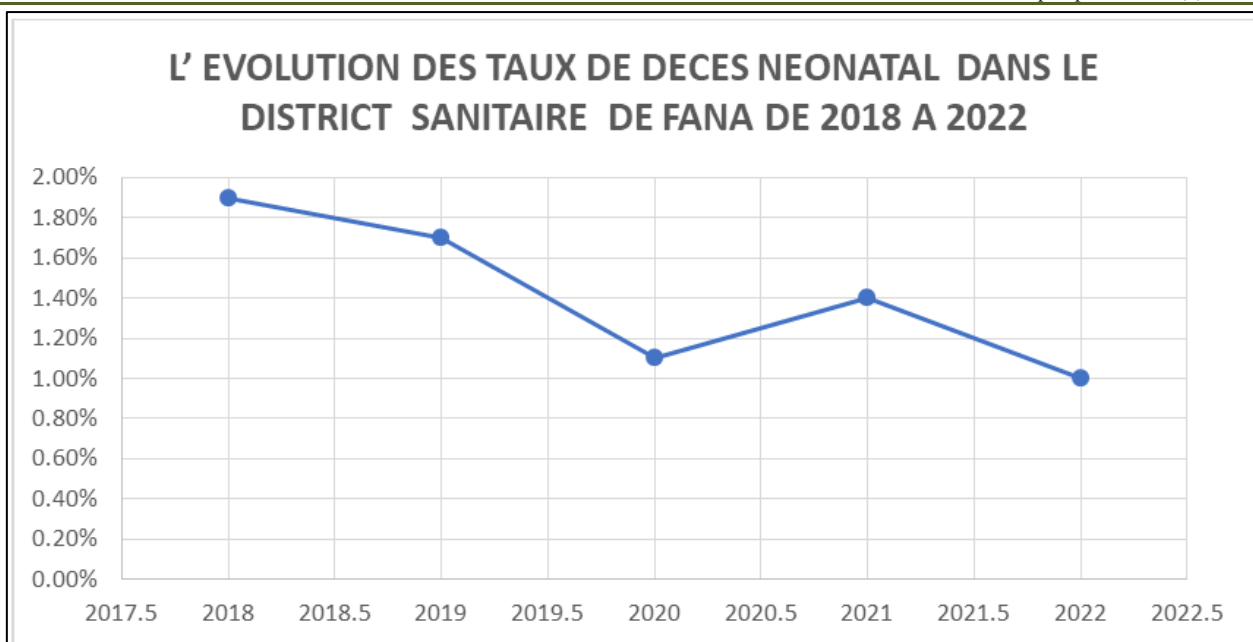


Figure 3: The evolution of neonatal death rates in the Fana Health District from 2018 to 2022.

In Figure 4, we observe the highest rates of assisted deliveries in 2021 in Fana and Koulikoro.

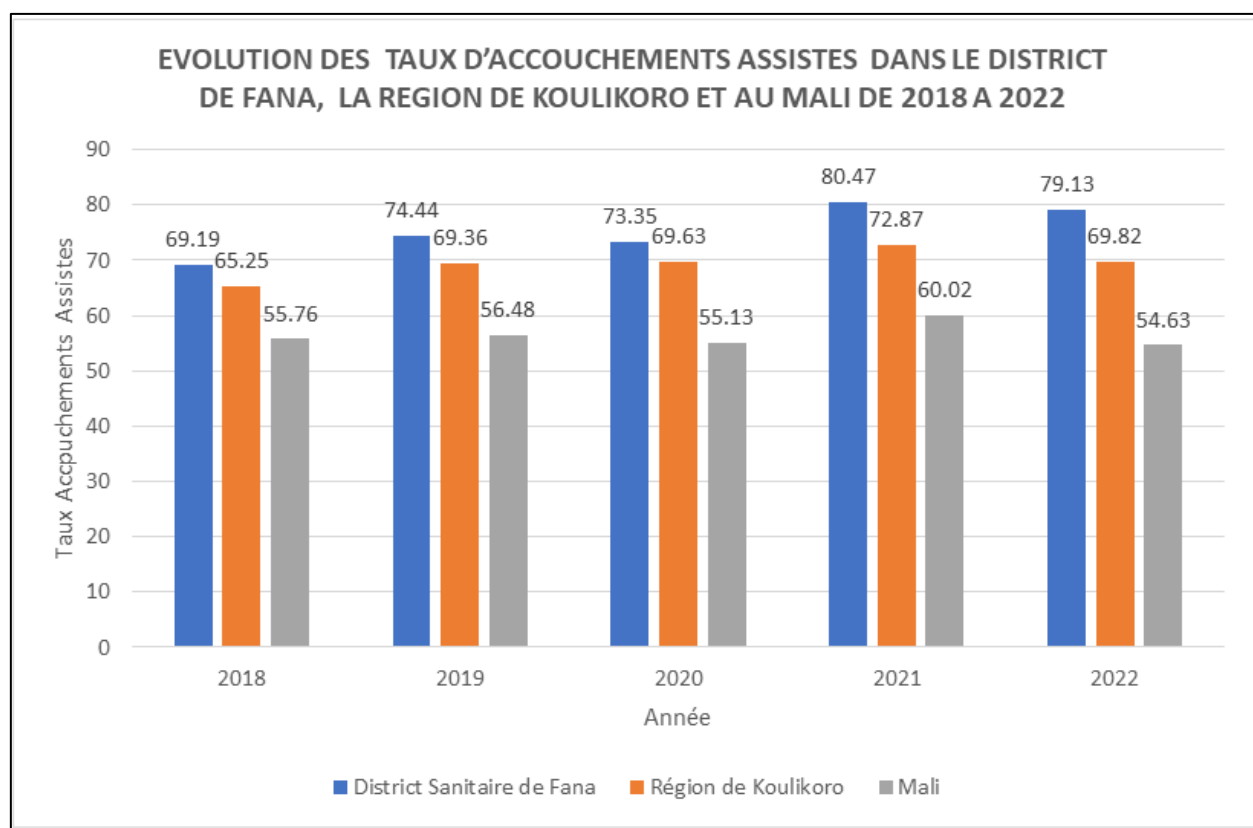


Figure 4: The evolution of assisted delivery rates in fana district, Koulikoro region and Mali from 2018 to 2022.

The highest rates of maternal deaths in health care settings per 1000 live births were observed in 2021 with 0.32 and 0.49 respectively in Koulikoro and Mali.

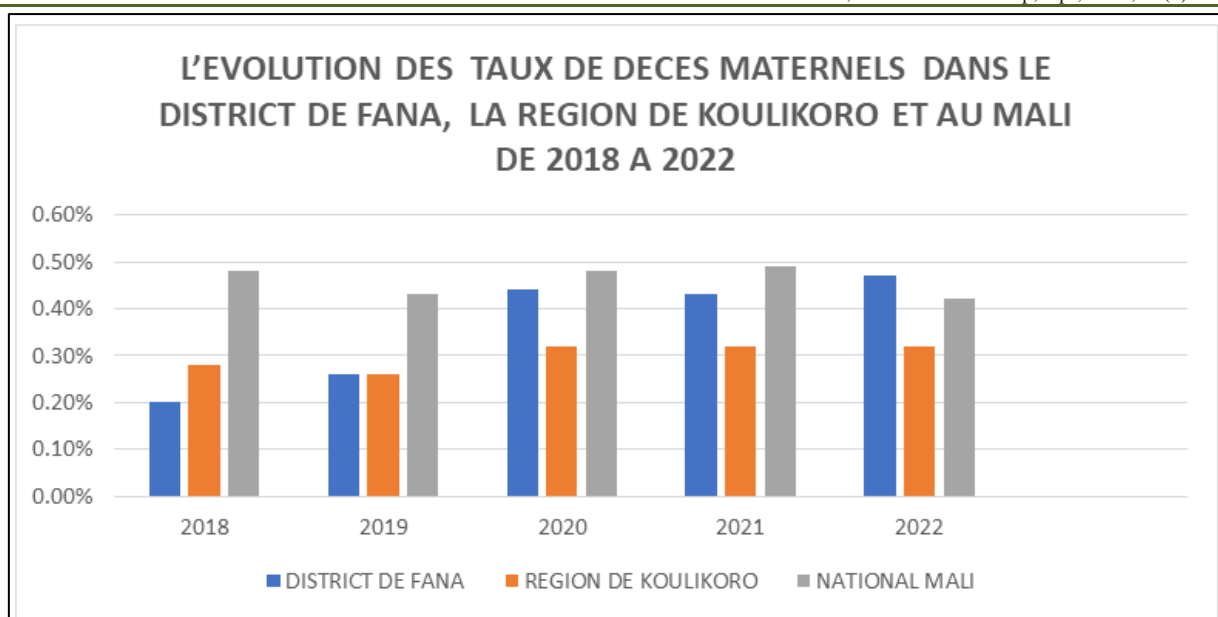


Figure 5: The evolution of maternal death rates in the province of Fana, the region of Koulikoro and Mali from 2018 to 2022

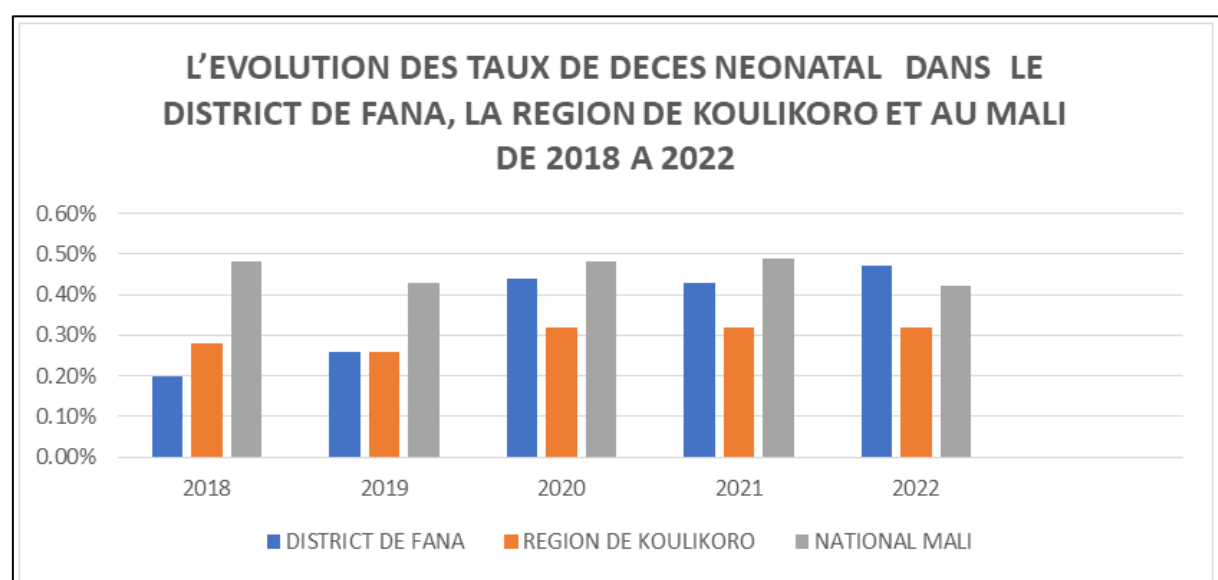


Figure 6: The evolution of neonatal death rates in fana district, koulikoro region and mali from 2018 TO 2022

DISCUSSION

During the period of our study, we achieved the following assisted birth rates: 69.19% in 2018; 74.44% in 2019; 73.35% in 2020; 80.47% in 2021 and 79.13% in 2022 against 65.25%; 69.36%; 69.63%; 72.87%; 69.82% and 55.76%; 56,48%; 55,13%; 60,02% ; 54.63% respectively in Koulikoro and Mali from 2018 to 2022 (3-4-5-6-7). These assisted delivery rates recorded by the district are higher than those recorded by the region and Mali. This evolving trend in district rates could be explained 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 Cscm village stage by equipping health areas with tricycle ambulances. At the same time we see an increase in maternal death rates in the district from 2018 to 2022 (0.20; 0.26; 0.44; 0.43 and 0.47 per 1000 live births) that are higher than the rates in the region (0.28; 0.26; 0.32; 0.32; 0.32 per 1000 live births) but comparable to national rates (0.48; 0.43; 0.48; 0.49 and 0.42 per 1000 live births). This upward trend in the district and these larger gaps in the region could be explained on the one hand by the training of qualified personnel on maternal and neonatal death audits, surveillance of perinatal maternal deaths and the response. Improved reporting and under-reporting of maternal deaths in health facilities.

For neonatal deaths, neonatal death rates decreased from 2018 to 2022 (-1.9; 1.7; 1.1; 1.4 and 1.0 per 1000 live births) in the district compared to 1.8; 1.6; 1.6; 2.2 and 2.4 compared to 2.4; 2.3; 2.2; 2.3 and 2.2 per 1000 live births respectively in 2018; 2019; 2020; 2021 and 2022 in Koulikoro and Mali (3-4-5-6-7). This state of affairs could be explained on the one hand by the recruitment of qualified staff and the equipment of the maternity wards of the Cscm thanks to the support and accompaniment of the SWED project and the PACSU (Project Accelerate Universal Health Coverage) and on the other hand by the opening of a year surgical centre at the Cscm of Beleco, health area located 75 km from the Cscm to shorten the time taken to take charge of obstetrical emergencies in ten (10) health areas all located behind the river but also by providing the district of Fana and the region of Koulikoro with qualified human resources, well trained in SONU and equipped with adequate equipment capable of performing instrumental maneuvers unlike many other districts of Mali or the maternity hospitals of the Cscm are still manned by unqualified personnel. The main direct causes of these maternal deaths found in our study are haemorrhage; eclampsia and postpartum infections; The main indirect causes of these maternal deaths are chronic anemia; sickle cell disease. These causes are consistent with those reported in the literature review, whose hemorrhages come in first place.

The challenges in reducing maternal and neonatal death rates in Fana Health District include: Lack of qualified human resources; The obsolescence of ambulances; The defective condition of the roads with frequent breakdowns of the ferry; The non-payment of the quotas shares of the reference / evacuation especially by the communities; Late use of health services.

- The low NPC 4 rate; Low contraceptive prevalence in some health areas.

CONCLUSION

Maternal and neonatal mortality rates remain a priority problem in developing countries including ours, but we believe that the creation of the SONUB and

SONUC structures and the recruitment of qualified personnel could really reduce the rates obtained.

Conflict of Interest: none.

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