



DOI: <https://doi.org/10.56936/18290825-2.v18.2024-96>

**AN ANALYSIS OF MATERNAL DEATH DETERMINANTS  
IN A SINGLE LARGEST TERTIARY CARE CENTER  
OF COASTAL KARNATAKA, INDIA:  
A RETROSPECTIVE REVIEW OF 10 YEARS (2009-2018)**

**ANJALI M.<sup>1</sup>, SUJATHA B.S.<sup>2\*</sup>, NITHESH P.<sup>2</sup>, NITHIN D.<sup>3</sup>, RAGHAVENDRA R.<sup>3</sup>**

<sup>1</sup> Department of Reproductive Medicine, Kasturba Medical College, Manipal academy of Higher Education, Manipal, India

<sup>2</sup> Department of Obstetrics and Gynecology, Kasturba Medical College, Manipal academy of Higher Education, Manipal, India

<sup>3</sup> Department of Medicine, Kasturba Medical College, Manipal academy of Higher Education, Manipal, India

*Received 04.01.2024; Accepted for printing 30.04.2024*

**ABSTRACT**

**Introduction:** The United Nations has set a target to reduce global maternal deaths to less than 70 per 100,000 live births by 2030. However, despite high rates of institutional deliveries in Karnataka, a state in southern India, maternal mortality remains a significant challenge. This study aims to analyse a 10-year period of pregnancy-related deaths in a healthcare centre in Karnataka to identify the causes and avoidable factors contributing to maternal mortality.

**Material and Methods:** A comprehensive review of records from 2009 to 2018 was conducted, gathering data on socio-demographic features, obstetric and medical history, referral details, duration of hospital stay until death, cause of death, organ dysfunction at admission and avoidable factors contributing to maternal death by inputs from expert committee. The percentages of incidences of causes were determined and analysed using binary logistic regression.

**Results:** One hundred nine maternal deaths were reported during the study period. The majority of these deaths occurred in rural areas, with infections and obstetric haemorrhage being the primary causes. A significant number of deaths occurred within 24 hours of admission, including during the postpartum period, with approximately one-fourth of cases being critically ill and nearly half of the cases had multiorgan dysfunction. Delay in seeking health services (42.8%) and failure to recognize early features of infection (36.3%) emerged as a common contributing factor to maternal deaths. The presence of any delay in receiving obstetric care (odds ratio [OD]= 3.31), referral status (OD= 3.20), and rural residence (OD=3.06) were significant factors contributing to instability at the time of admission.

**Conclusions:** This study underscores the urgent need to address preventable factors contributing to maternal deaths in Karnataka. Strategies should focus on reducing delays in seeking care, improving recognition and management of infection during pregnancy and enhancing access to emergency obstetric services, particularly for women in rural areas.

**KEYWORDS:** maternal death, obstetric haemorrhage, coastal karnataka, delay in seeking care, organ dysfunction

**CITE THIS ARTICLE AS:**

Anjali M., Sujatha B.S., Nithesh P., Nithin D., Raghavendra R (2024). An analysis of maternal death determinants in a single largest tertiary care center of coastal Karnataka, India: A retrospective review of 10 years (2009-2018) ; The New Armenian Medical Journal, vol.18(2), p.96-107;

DOI: <https://doi.org/10.56936/18290825-2.v18.2024-96>

**ADDRESS FOR CORRESPONDENCE:**

Sujatha Bagepalli Srinivas, Associate professor  
Department of Obstetrics and Gynaecology Kasturba Medical College Manipal Academy of Higher Education  
Tiger Circle Road, Madhav Nagar, Manipal, Karnataka 576104, India  
Tel.: +91 8660778169  
E-mail: [bs.sujata@manipal.edu](mailto:bs.sujata@manipal.edu)