

# An analysis of birth weight trends in Hospital Seri Manjung, Perak from 2018 to 2022

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## ABSTRACT

**Introduction:** Birthweight notably impacts newborn survival, growth, and maternal health. Low birthweight is tied to maternal malnutrition and health issues, causing intrauterine growth retardation. High birthweight increases complications like postpartum blood loss, birth injuries, future obesity risks, and infant health issues. **Objectives:** Our study was done to analyse the trends in birthweight at Hospital Seri Manjung, Malaysia. The specific aims were to assess the link between fetal birthweight and (maternal age, parity, head circumference) as contributing factors. **Materials and Methods:** Our work was a retrospective cohort study that analyzed birthweight trends and contributing factors from 1/2018 to 12/2022 (5 years), using data from labour room records. That included term singleton live births, excluding preterm births and fetal anomalies. The assessment tool was multiple regression analysis by JASP software (version 0.16.2.). **Results:** An increase of high birthweight ( $\geq 4000g$ ) was noted in all years, with highest percentage in 2019 (91.9%) and lowest in 2020 (62.5%). but most newborns were of normal birthweight. Maternal age 20-35 years were predominant (84-86%), while ages 11-19 were the lowest. Parity showed fluctuating trends, Head circumference data varied, but all factors had significant relationships to birthweight ( $p$ -value  $< 0.05$ ). Missing 2021 data impacted overall analysis. **Conclusion:** Our study found that birthweight increased over the 5 years, and Significant relationships were found between birthweight and maternal age, parity, and head circumference. Data quality had a limitation and potential errors due to year 2021 records.