

# *Relationship between socioeconomic factors and tooth extraction in health subdistricts of the Cape Metro: an ecological study*

**Student: Tamsin Cracknell**

**Supervisor: Prof Hassan Mahomed**

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**Introduction:** Tooth extraction (TE) is a common treatment for diseased teeth that is largely preventable and can negatively impact patients' functional and psychological wellbeing. Research shows that socioeconomic disadvantages negatively affect dental health, although effects vary between populations.

**Aims and Objectives:** This study evaluated TE rates in relation to socioeconomic status (SES) in eight Cape Metro health subdistricts for the purpose of identifying strategic improvement targets.

## **Design: Ecological study**

**Methods:** Aggregate TE data from public healthcare facilities between 2011-2018 was obtained from the Western Cape Department of Health. South African National Census 2011 SES data included education, employment, income, access to water and flushing toilets, and

dwelling type. TE was compared between subdistricts over a six-year period and trended against SES.

**Results:** The district-level TE rate in the Cape Metro was consistent at approximately 5% for the study duration; however, individual subdistricts exhibited distinctive fluctuations. For all variables, lower SES correlated with higher TE rates. Opportunity variables such as education showed a slightly stronger influence than environmental variables such as utilities access.

**Conclusion:** While TE increased as SES decreased, further research is needed regarding possible causes for between-subdistrict variations and the effects of other variables. These findings may support the prevention efforts of the Western Cape Health Department