**Incidence, socio-economic inequalities and determinants of catastrophic health expenditure for diabetes care in South Africa**

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**Abstract**

**Background**

Direct out of pocket (OOP) payments for healthcare may cause financial hardship. For diabetic patients who require frequent visits to health centres, this is of concern as OOP payments may also limit access to healthcare. However, little is known about the extent of OOP payments and the incidence of catastrophic health expenditure for diabetic patients in a setting with subsidised healthcare in South Africa. This study assesses the incidence, inequalities and determinants of catastrophic health expenditure amongst diabetic patients in South Africa

**Methods**

Our study makes use of data from a unique cross-sectional survey that was conducted in 2017 at two tertiary public hospitals in Pretoria, South Africa. We estimate catastrophic health expenditure and impoverishment effects among diabetic patients using data collected from 396 randomly selected consenting patients. Healthcare costs related to diabetes care were classified as catastrophic if they exceeded a predefined threshold. Erreygers concentration indices (CI) were used to assess socio-economic inequalities in catastrophic expenditure and impoverishment among diabetic patients. A multivariate logistic regression was applied to identify the determinants of catastrophic health expenditure.

**Results**

The mean OOP health expenditure for diabetes care was 53 South African rands per patients per hospital visit. Depending on the threshold and method used, the incidence of catastrophic health expenditure due to diabetes care varied from 2% to 26%. Catastrophic health expenditure was concentrated amongst poor diabetic patients as indicated by the negative CIs. Being female, not having children and a household size of 5 people increases the risk of catastrophic health expenditure for diabetes care. Being non-African reduced the risk of catastrophic health expenditure.

**Conclusion**

Our study shows that financial protection of diabetic patients by public hospitals is limited. This observation suggests health financing interventions amongst diabetic patients should further target the poor and other determinants of catastrophic health expenditure. This is particularly important for the achievement of universal health coverage in South Africa.

Keywords: diabetes, catastrophic, impoverishment, determinants, South Africa