

The intergenerational transmission of socioeconomic inequalities in overweight and obesity from mothers to their offspring in South Africa, 2017: a decomposition analysis

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Background

- Overweight and obesity impact the health capital of parents and offspring.¹
- In South Africa, 13% of children were overweight; and 27% and 41% of women aged 15 years and above were overweight and obese, respectively in 2016.²
- This study estimates and decomposes the socioeconomic inequality in the intergenerational transmission of overweight and obesity in South Africa.



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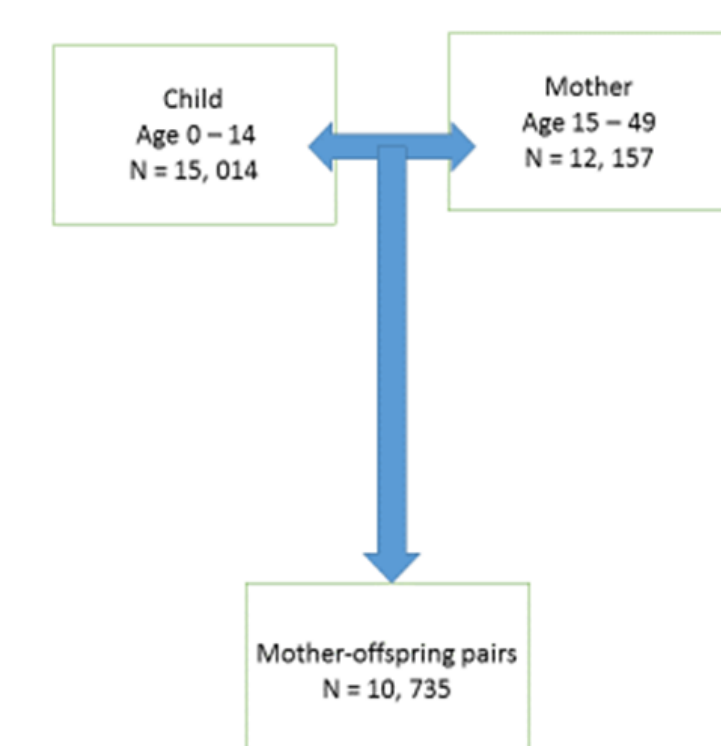
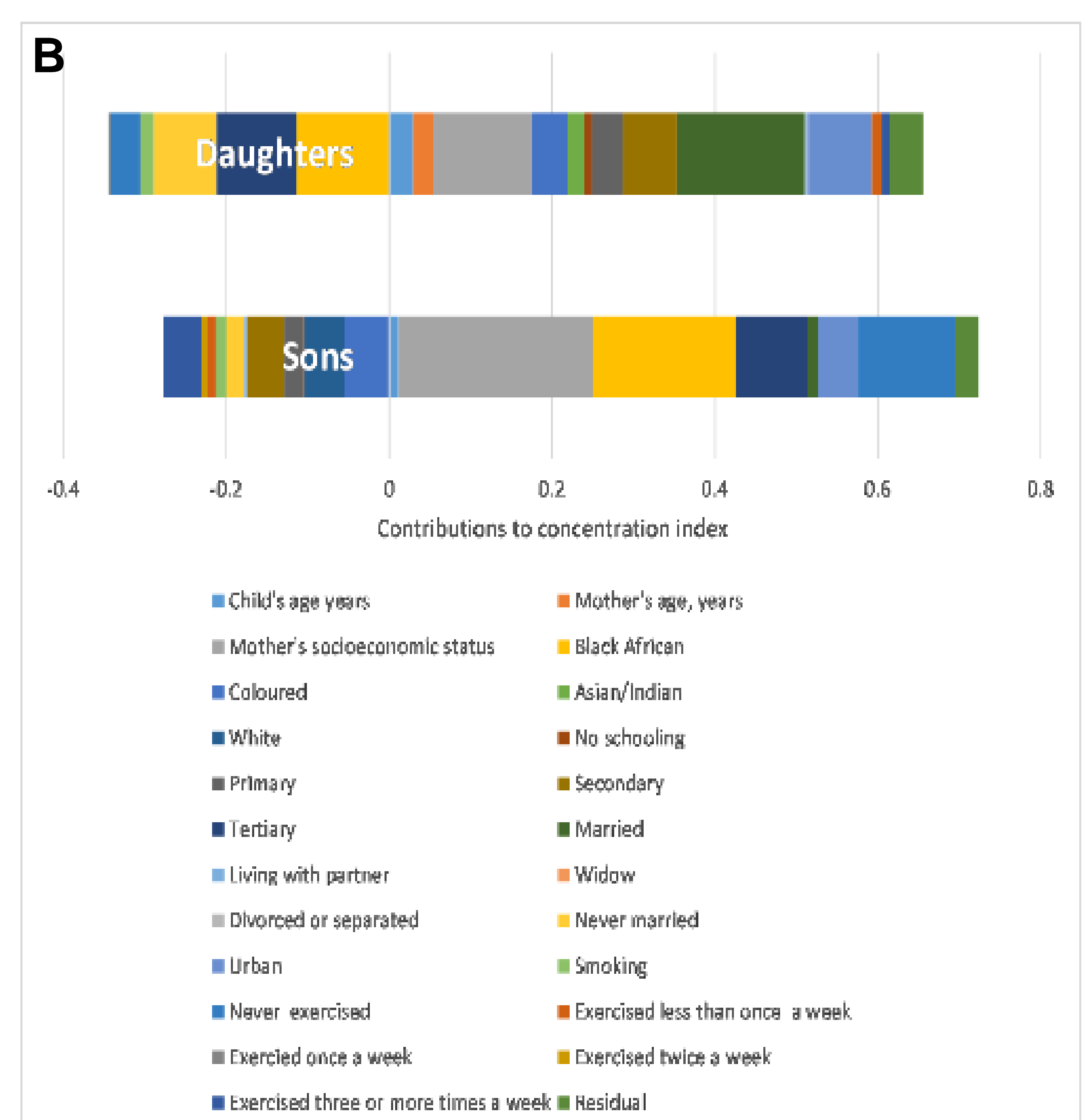
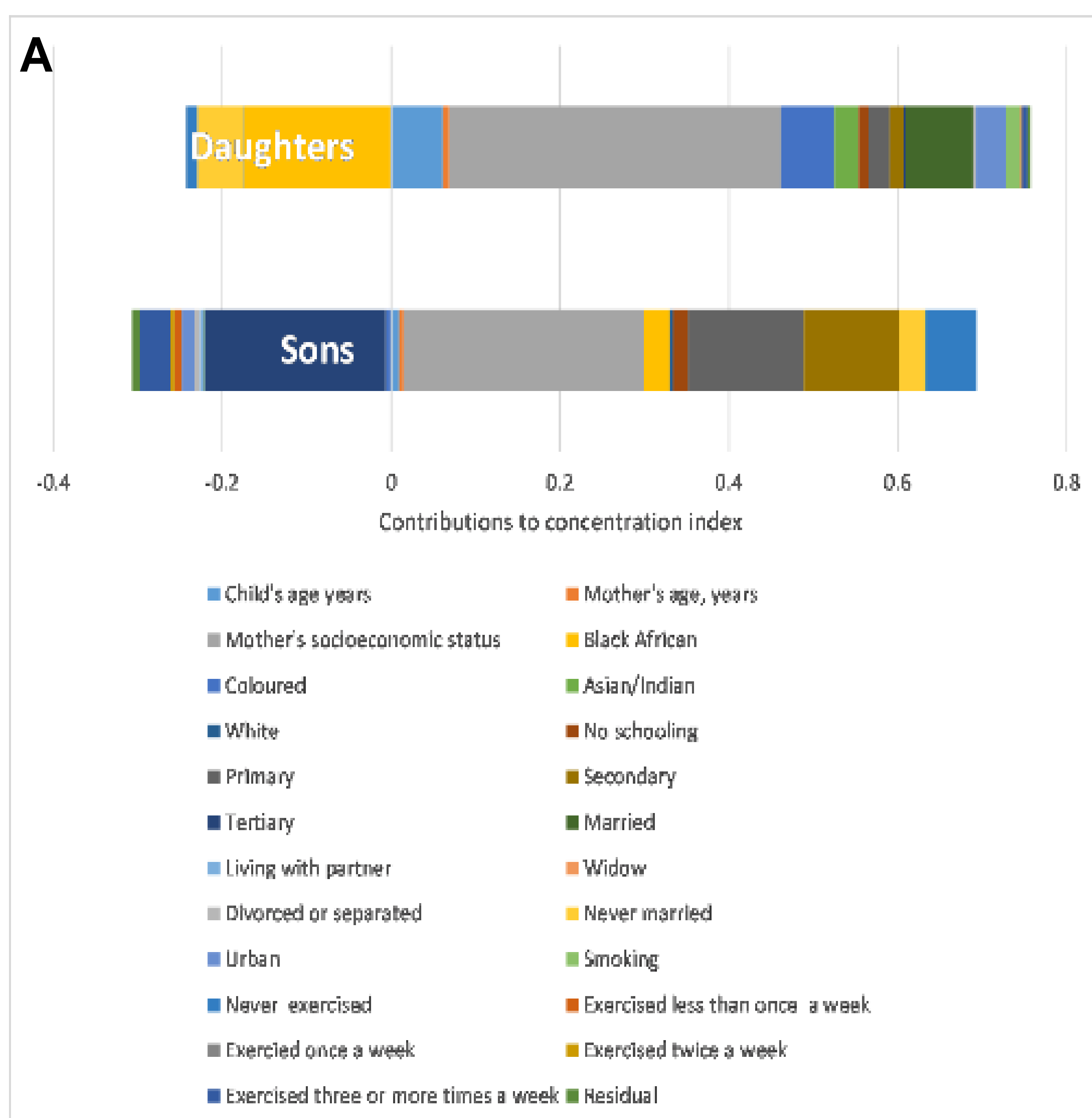


Figure 1: Study Flowchart

Methods

- Data come from the 2017 National Income Dynamic Study, which contained anthropometric and socioeconomic information.
- Non-pregnant mothers aged between 15 and 49 years and their offspring 0-14 years were included in the analysis.
- The key variables were the intergenerational transmission of overweight and obesity. This is defined as 1 if both a woman and her offspring are overweight/obese and 0 if this is not the case.
- Socioeconomic inequality assessed by the concentration index (CI): A positive index means that intergenerational transmission of overweight and obesity is more likely among the rich. A negative index means the opposite.
- This CI was decomposed to understand the drivers (i.e. contributions of the determinants) of socioeconomic inequalities in intergenerational transmission of overweight and obesity from mothers to their offspring.
- Analyses were stratified by offspring sex.

Figure 2: Decomposition of the concentration indices for intergenerational transmission of A) overweight and B) obesity from mothers to their offspring, 2017. South Africa



References

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Results

- The sample consisted of 10,753 mother and offspring pairs (Fig. 1).
- The concentration indices for the intergenerational transmission of overweight for boys and girls were 0.13 and 0.17, respectively (Table 1).
- The concentration indices for the intergenerational transmission of obesity were estimated at 0.27 for boys and 0.21 for girls.
- Maternal socioeconomic status and/or belonging to the Black African population group, relative to other population groups, are central determinants of the socioeconomic inequality in intergenerational transmission of overweight and obesity for boys and girls. A mother's lack of exercise (26.4%) is also a significant determinant of inequalities in the intergenerational transmission of obesity for boys (Fig. 2).

Conclusion

- Intergenerational transmission of overweight and obesity is more frequent among richer both boys and girls compared to their poorer counterparts.
- Interventions targeting the rich and specific mothers can help to reduce socioeconomic inequality in the intergenerational transmission of overweight and obesity for boys and girls. In addition, incentives to counteract poor exercise habits are likely to reduce socioeconomic inequality in the intergenerational transmission of obesity for boys.

Table 1: Concentration indices of the intergenerational transmission of overweight and obesity 2017, South Africa

	Sons	Daughters
Concentration indices		
Overweight	0.13	0.17
Obesity	0.27	0.21

Acknowledgement

The work reported herein was made possible through funding by the South African Medical Research Council (SAMRC) through its Division of Research Capacity Development under the National Health Scholarship Programme from funding received from the Public Health Enhancement Fund/South African National Department of Health. The content hereof is the sole responsibility of the authors and does not necessarily represent the official views of the SAMRC. JEA is supported by the South African Research Chairs Initiative of the Department of Science and Technology and the National Research Foundation.