

Changes in socioeconomic inequalities in overweight and obesity in South African women of childbearing age between 1998 and 2017: a decomposition analysis

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Background

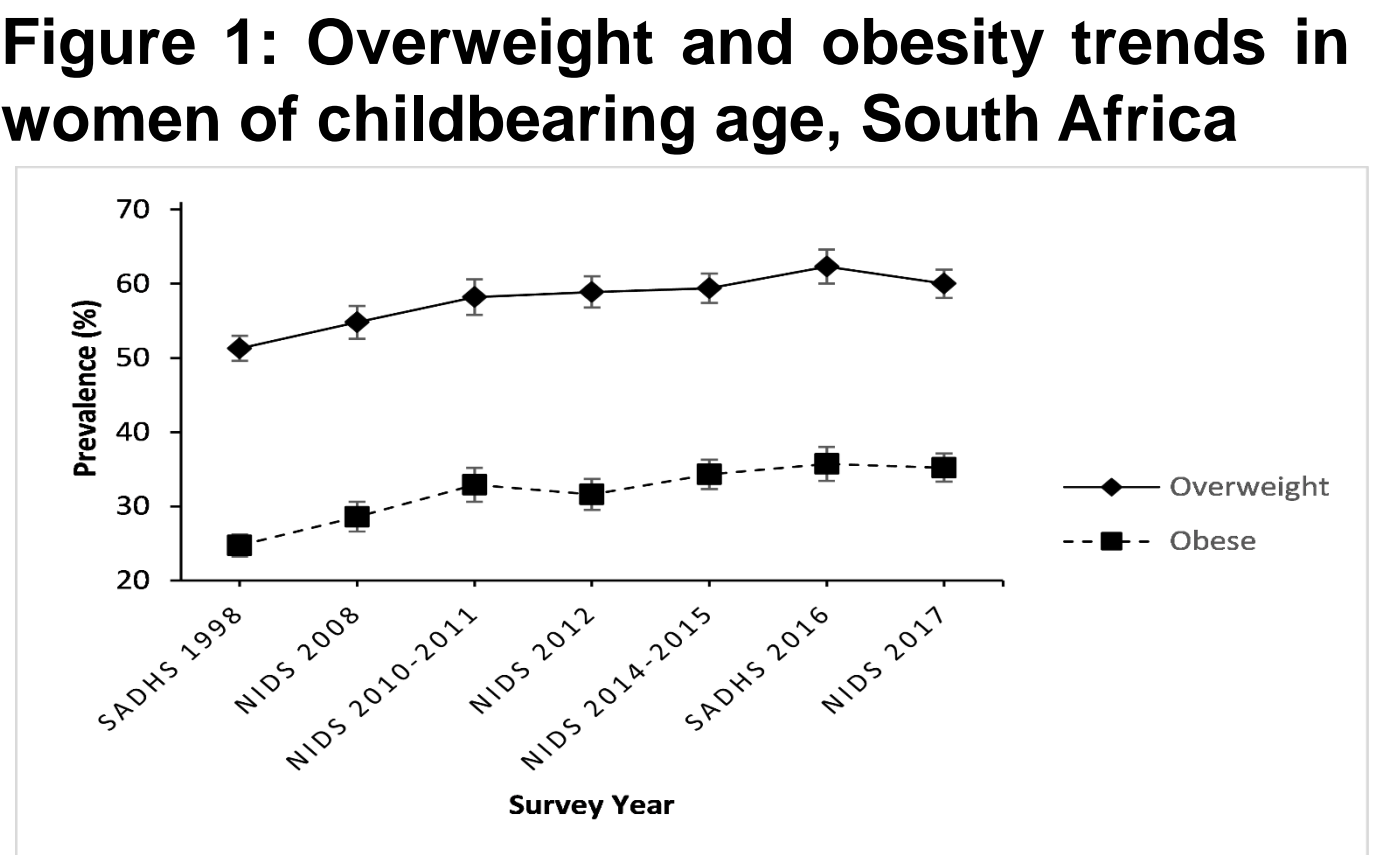
- Overweight and obesity in adult women not only contribute to deaths and disability from non-communicable diseases (NCDs) but cause obesity-related health problems in their offspring¹.
- The overweight and obesity prevalence among women of childbearing age (WCBA) has increased (Fig. 1), but associated socioeconomic inequality issues remain unclear.
- This study aims to assess the changing patterns in the socioeconomic inequality in overweight and obesity among South African non-pregnant WCBA between 1998 and 2017.



Image credit: © World Obesity

Methods

- Data come from the 1998 Demographic and Health Survey and the 2017 National Income Dynamics Study, which collected anthropometric and sociodemographic information. The study participants were non-pregnant WCBA aged between 15 and 49 years.
- The dependent variables used for the study were overweight and obesity. The concentration index (CI) was computed to assess the magnitude of socioeconomic inequality.
- The CI was decomposed to understand the drivers (i.e. contributions of determinants) of socioeconomic inequalities in obesity and overweight among non-pregnant WCBA. The Oaxaca decomposition and total differential approaches were used to identify and explore factors contributing to changes in socioeconomic inequalities.



Results

- Socioeconomic inequality in overweight and obesity among non-pregnant WCBA increased between 1998 (CI of 0.02 and 0.06, respectively) and 2017 (CI of 0.05 and 0.07, respectively), with consistently positive concentration indices (Table 1).
- Socioeconomic status contributes positively and profoundly to the socioeconomic inequalities in overweight and obesity (+156% and +131%, respectively), while the Black African population group contributes negatively to the socioeconomic inequality in 1998 (-270% and -106%, respectively). The same pattern was observed in 2017 (Fig 2).
- Both the Oaxaca decomposition and total differential approaches showed that the Black African population group is a major contributor to the changes in socioeconomic inequalities in both overweight (+123% and +83%, respectively) and obesity (+850% and +500%, respectively).

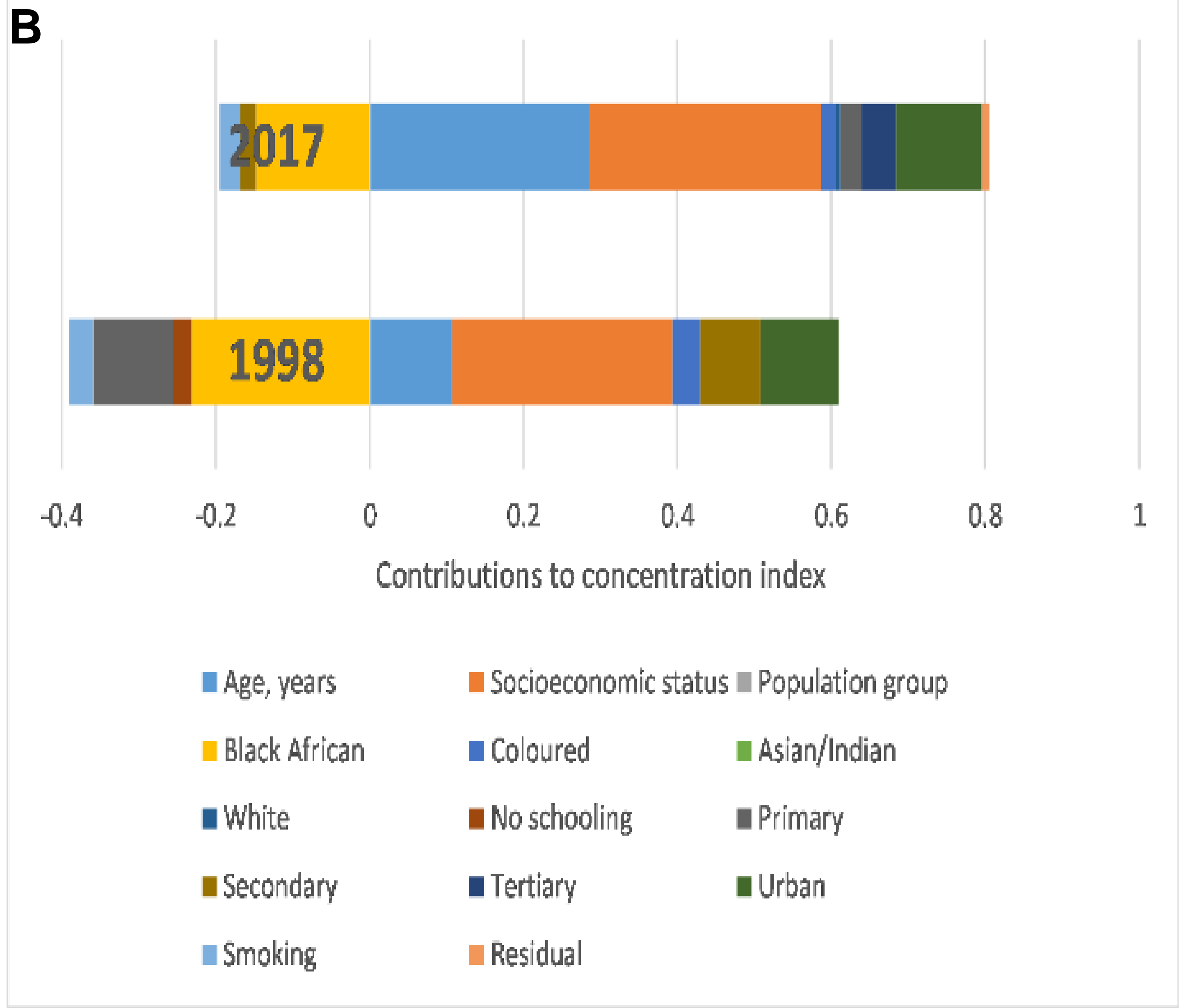
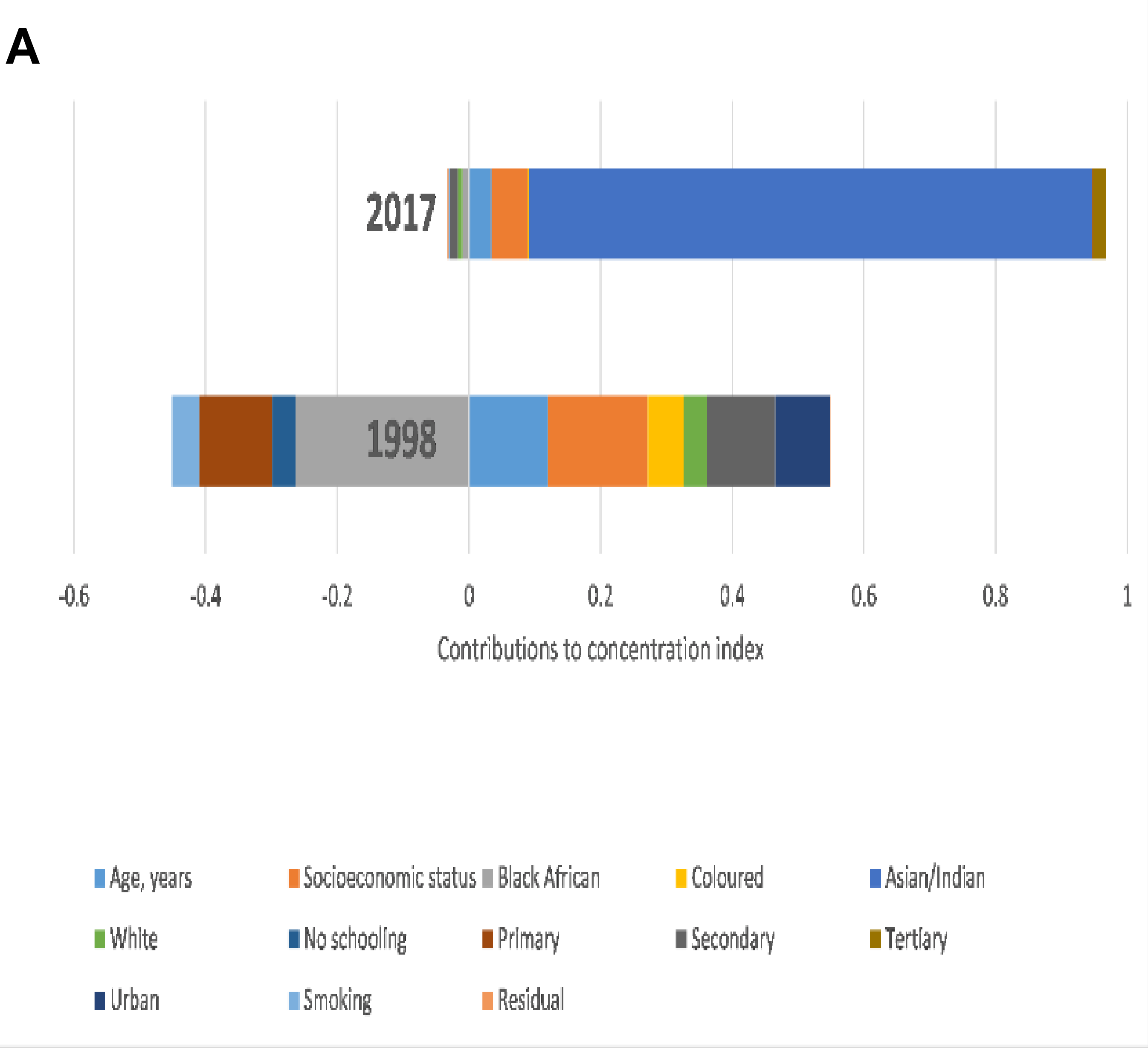
Conclusion

- Socioeconomic inequality in overweight and obesity among non-pregnant WCBA in South Africa widened between 1998 and 2017, with a consistent disadvantage for the rich.
- Focusing on the rich and specific population groups is one of the ways to reduce socioeconomic inequalities in overweight and obesity among South African non-pregnant WCBA.

Table 1: Concentration indices of overweight and obesity, 1998- 2017, South Africa

	1998	2017
Concentration indices		
Overweight	0.02	0.05
Obesity	0.06	0.07

Figure 2: Decomposition of the concentration indices of A) overweight and B) obesity among women of childbearing age 1998 - 2017. South Africa



References

1. Ojiegbe, IN, 2016, Int J Med Biomed Res, doi: <http://dx.doi.org/10.14194/ijmbr.5.1.3>

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