

Long-term trends in obesity and overweight in women in Ghana (2003–2023)

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Background

In Ghana, overweight and obesity prevalence among women (20-49 years) reached an all-time high of 50% in 2022. This study explored the long-term trends in overweight and obesity among women of reproductive age in Ghana, using an age-period-cohort analysis. It aims to understand what drives these trends, help to determine what the prevalence of obesity and overweight is likely to be in the future, and inform policy making and public health surveillance in Ghana.

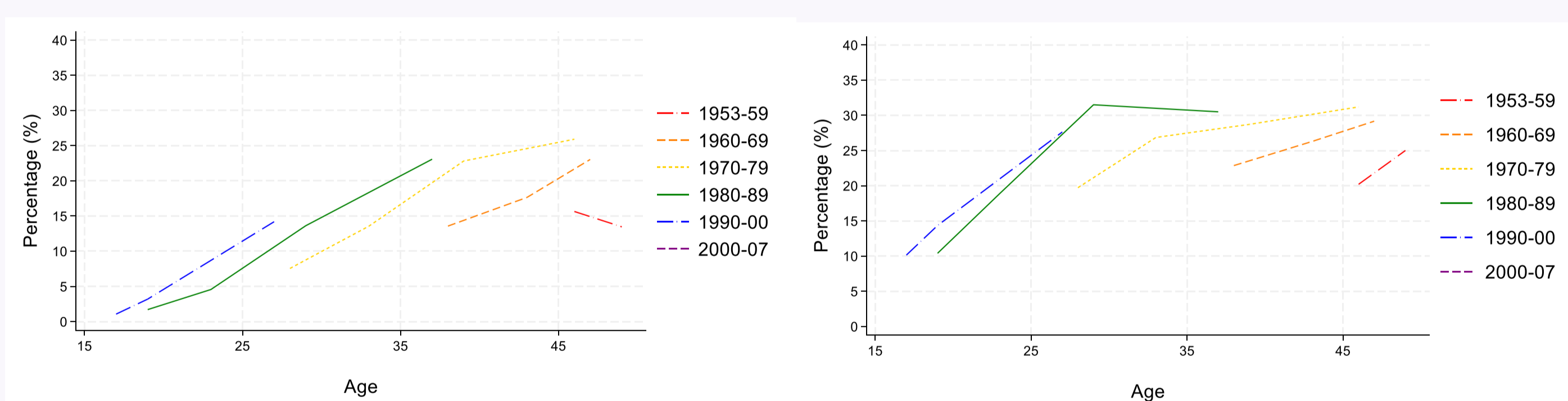
Methods

We used data from the **Ghana Demographic and Health Survey** containing information on women of reproductive age (15 to 49 years). Data collected between 2003 and 2022 provided cohorts born between 1953 and 2007. **Age-period-cohort (APC) analysis** was used to disentangle the effects of age, time (period), and generation (cohort) on trends in the **prevalence of obesity and overweight**, enabling investigation of two-year age groups and ten-year birth cohorts, between 2003 and 2022.

Results

The prevalence of overweight and obesity increased by age in all birth cohorts (Fig1).

Fig 1: Age trends by 10-year birth cohort for the prevalence of (i) obesity and (ii) overweight

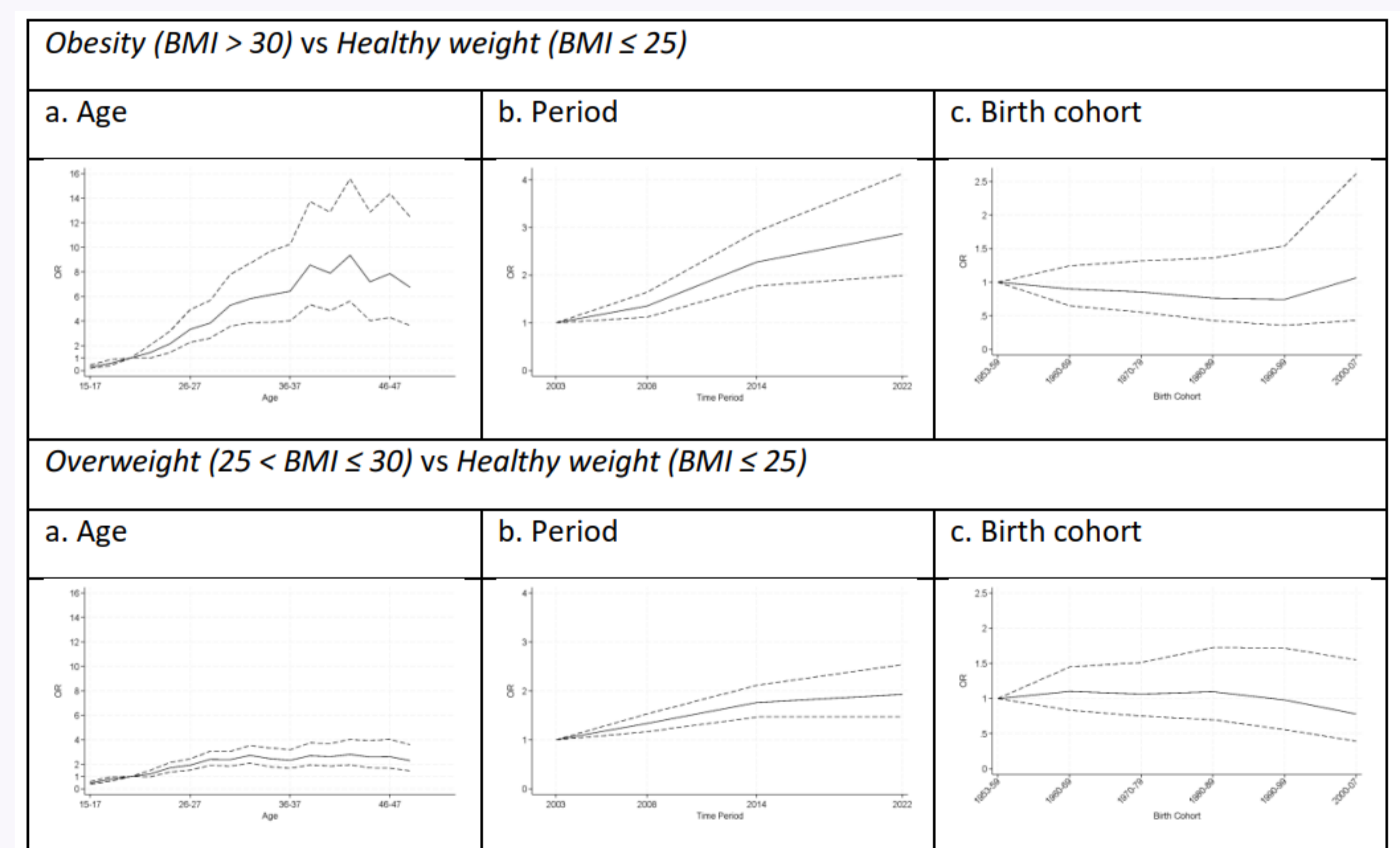


The prevalence of obesity increased with age until age 42-43 years (OR: 9.37; 95% CI: 5.63-15.59, vs 20-21 year olds) before levelling out (Fig2).

The prevalence of overweight and obesity increased significantly over time between

2003 and 2015 (overweight OR: 1.76; 95% CI: 1.47-2.11, obesity OR: 2.27; 95% CI: 1.77-2.91), before stabilising. Birth cohort had no effect (Fig2).

Figure 2: Age, Period and Cohort effects (Odds Ratios, with 95% confidence intervals) for (i) obesity and (ii) overweight



Conclusion

Although high, the increased prevalence of obesity and overweight in Ghana appears to be stabilising. However, the increased prevalence of obesity with age suggests that an ageing population could result in further increase in obesity prevalence in the future.