

Trends in Regional and Socio-Economic Inequalities in Current Tobacco Use among Men aged 18-59 years in Nigeria: An analysis of Nigeria Demographic and Health Surveys (2003-2018)

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Tobacco use among adult men in Nigeria has decreased overall, but the gap between the most-advantaged and least-advantaged groups remains, with increased regional difference.

BACKGROUND

Concerns have arisen regarding the shift in the tobacco market to low- and middle- income countries (LMICs).

Nigeria, the most populous country in Africa, exhibits one of the lowest tobacco use prevalence on the continent.

In 2015, a comprehensive law was enacted to regulate all aspects of tobacco control. However, Nigeria's low MPOWER scores suggest significant potential for enhancing its tobacco control efforts.

Historically, health behavior in Nigeria has been masked by considerable socioeconomic and regional disparities.

This study aims to measure trends in regional and socioeconomic inequalities in tobacco use among men in Nigeria

METHODS

Data from four Nigeria Demographic and Health Surveys (DHS) was analyzed to measure both absolute and relative inequalities in current tobacco use.

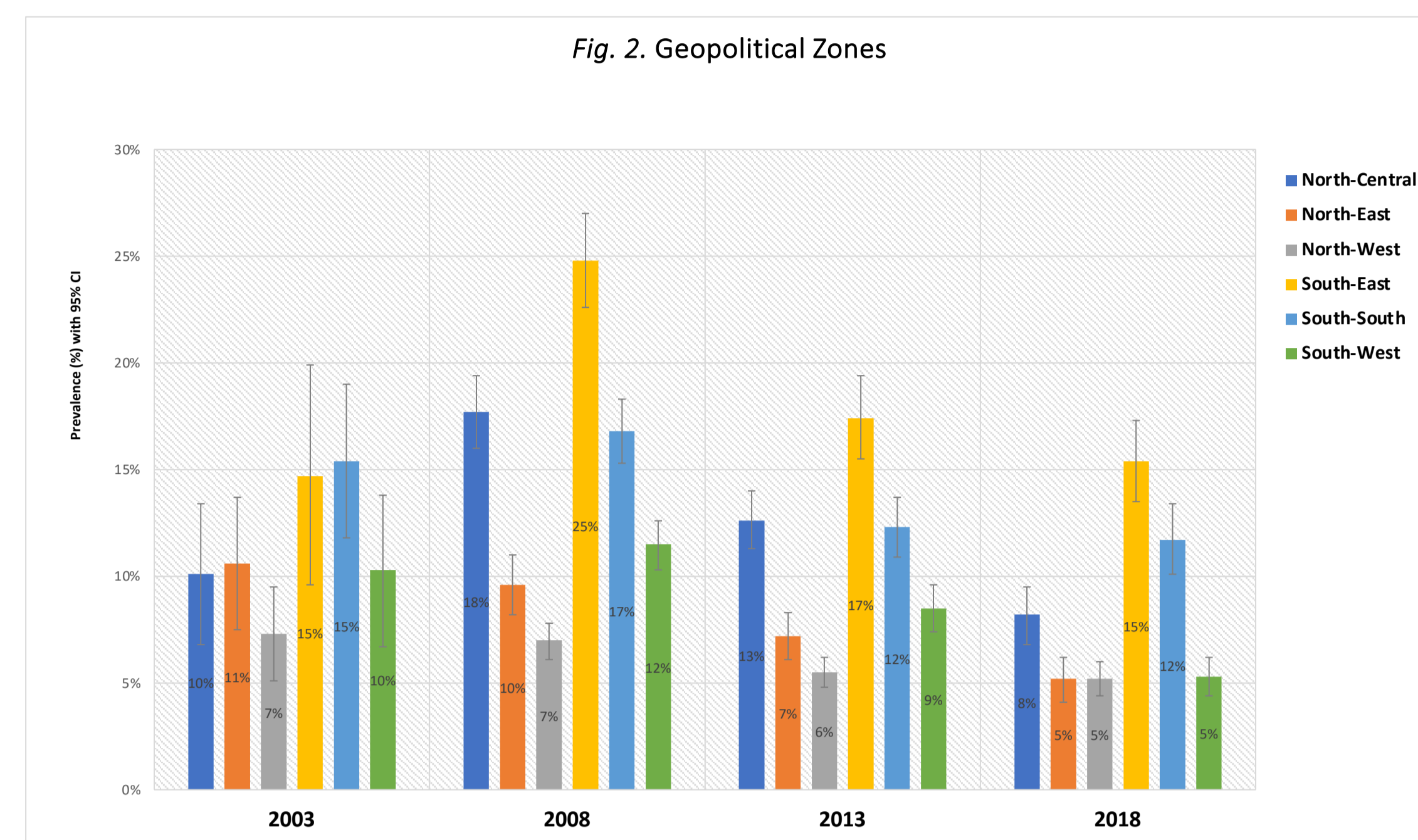
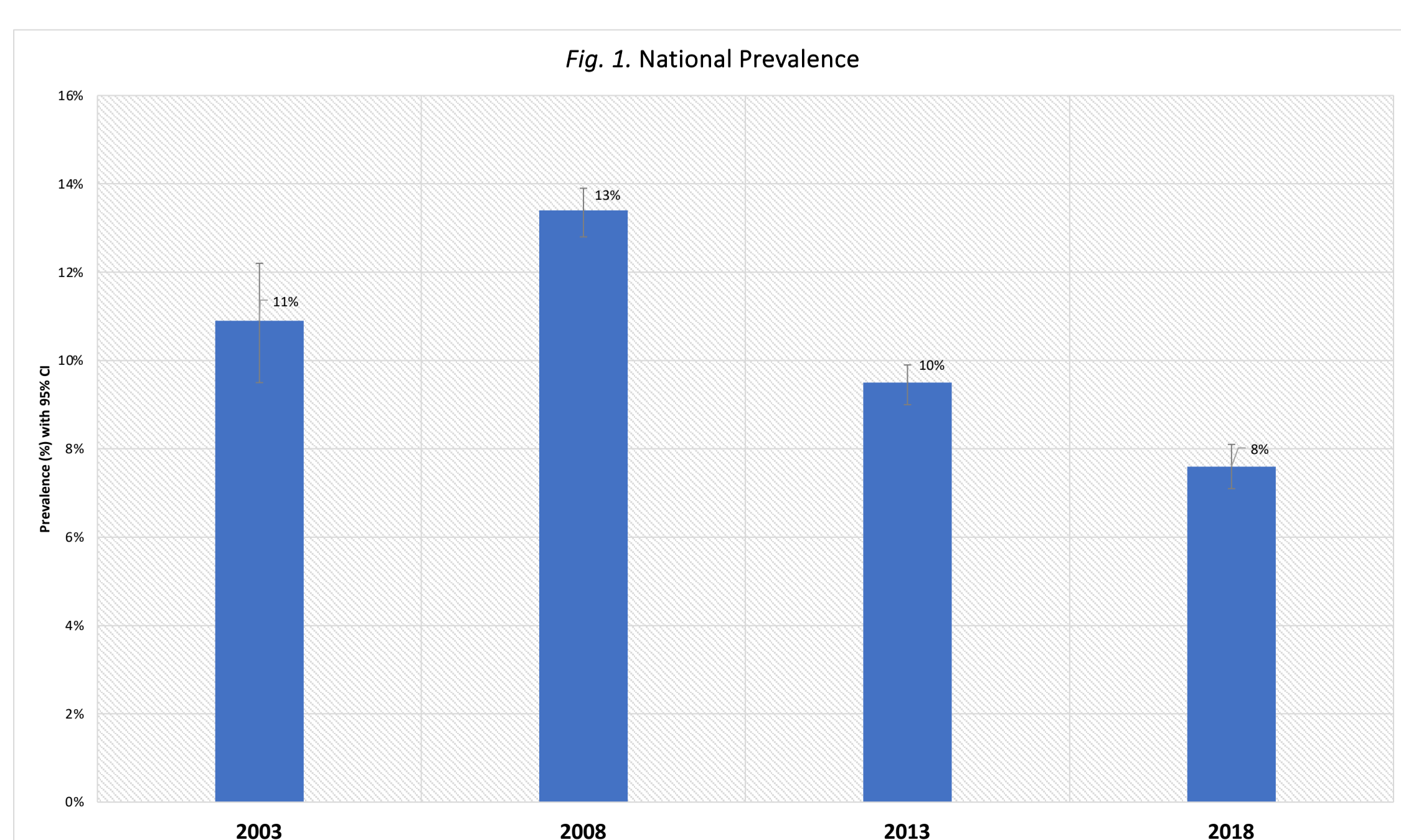
We used Absolute Difference (AD), Relative Ratio (RR), Between-Group Variance (BGV), Coefficient of Variation (COV), Slope Index of Inequality (SII), and Relative Index of Inequality (RII).

The analysis was stratified by geopolitical zones and settings, with wealth quintiles and educational attainment used to measure socioeconomic status.

All analysis were done using the WHO `healthequal` Stata command.

RESULTS

Between 2003 and 2018, tobacco use prevalence among men aged 18-59 years in Nigeria decreased from 11% to 8% (APC= -27.6%, $p = 0.270$). Across Nigeria's geopolitical zones, the BGV increased from 8.5 to 12.7, and the COV also increased from 26.80 to 46.7 between 2003 and 2018. The RR and AD between urban and rural settings decreased from 1.5 to 1.2 and 4.1% to 1.4%, respectively. During this period, educational and wealth-related absolute inequalities (SII) in tobacco use decreased (from 10.6% to 5.1% and 8.4% to 4.1%, respectively.) In contrast, both educational and wealth-related relative inequalities (RII) slightly increased (from 0.4 to 0.5 and 0.5 to 0.6, respectively).



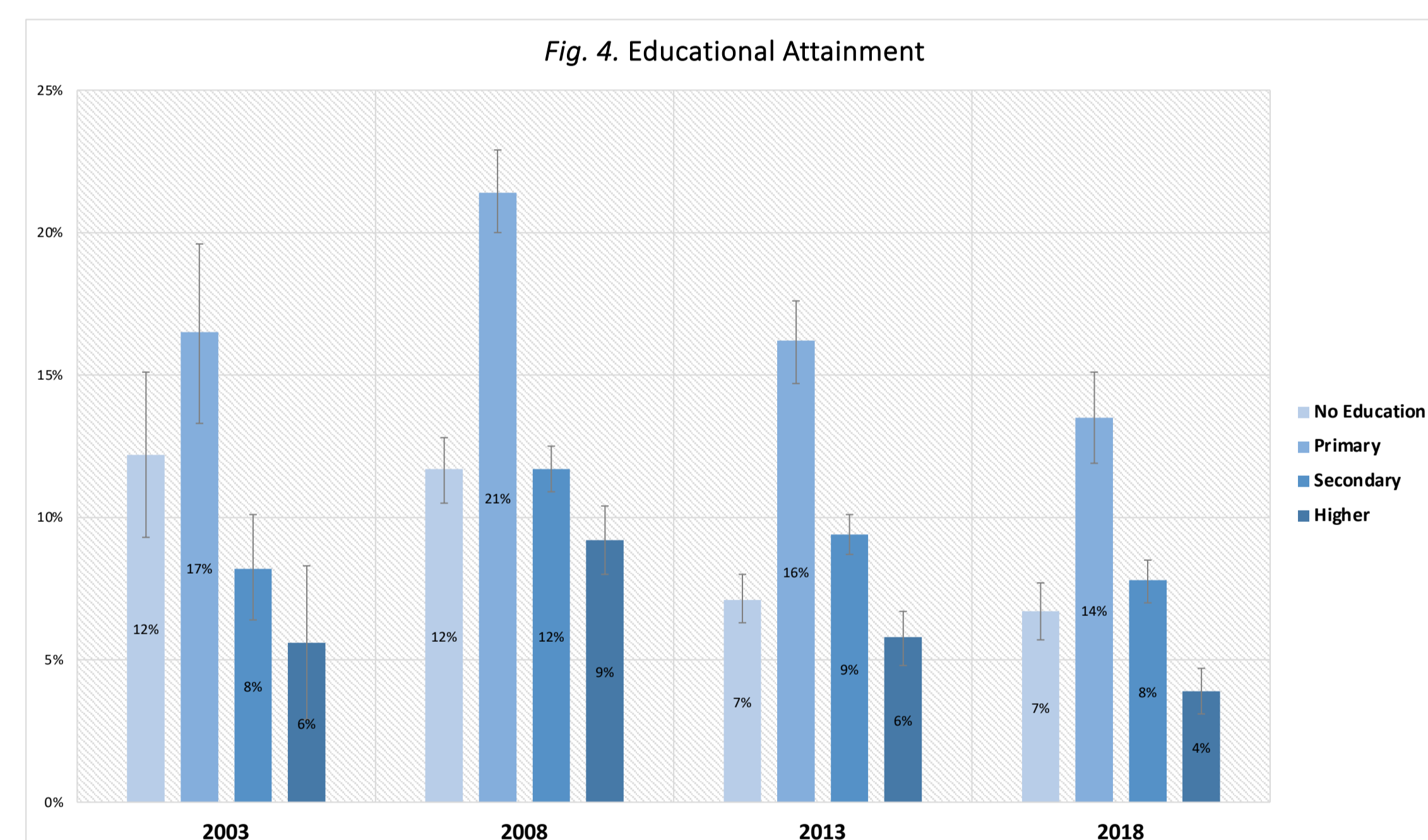
	2003	2008	2013	2018
BGV	8.5	30.1	14.2	12.7
COV	26.8	41.6	39.7	46.7

Table 1. Trends Tobacco Use Inequality among Adult Men in Nigeria: BGV & COV by Geopolitical Zone



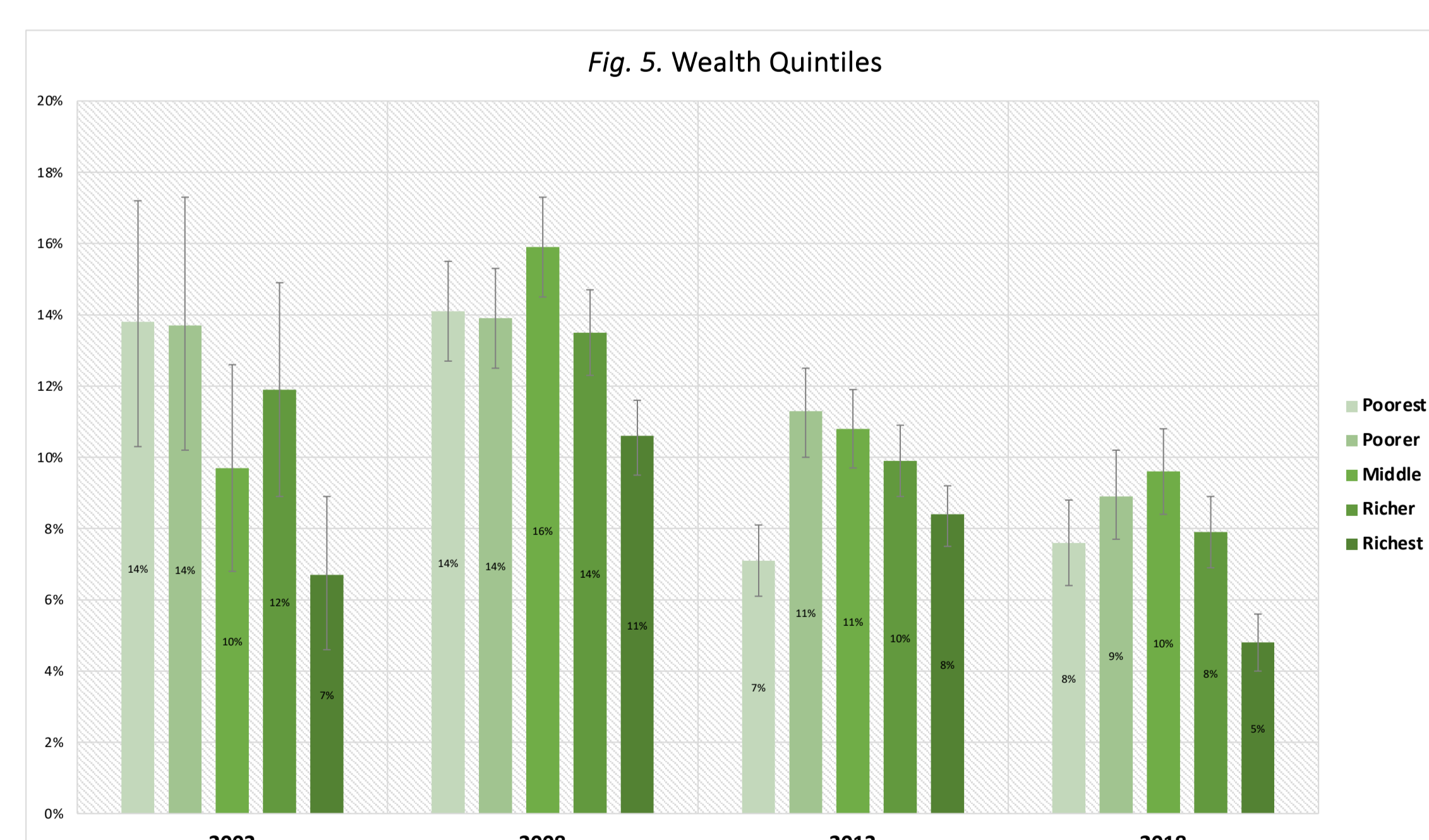
	2003	2008	2013	2018
AD	4.1	1.7	0	1.4
RR	1.5	1.1	1	1.2

Table 2. Trends Tobacco Use Inequality among Adult Men in Nigeria: AD & RR between Urban and Rural settings.



	2003	2008	2013	2018
SII	10.6	6.9	3.8	5.1
RII	0.4	0.6	0.7	0.5

Table 3. Trends Education-based Tobacco Use Inequality among Adult Men in Nigeria: SII & RII



	2003	2008	2013	2018
SII	8.4	4.5	0.4	4.1
RII	0.5	0.7	0.9	0.6

Table 4. Trends Wealth-based Tobacco Use Inequality among Adult Men in Nigeria: SII & RII

Fig. 1-5 Prevalence of Current Tobacco Use Among Men Aged 18-59 Years by National, Geopolitical Zone, Place of Residence, Educational Attainment, and Wealth Quintile: Nigeria Demographic and Health Surveys 2003(n=2103), 2008(n=13,929), 2013(n=14,977), and 2018(n=11,698)

CONCLUSIONS

The reduction in absolute inequalities across educational and wealth groups indicates an overall decrease in tobacco use. However, the increased regional difference and stable relative socioeconomic inequalities suggest persistent proportional disparities, highlighting the need for targeted interventions to address both regional and socioeconomic gaps.