

Introduction

- Home childbirth in African countries majorly affected by the socio-economic factors, education, and community dynamics. Wealthier, educated mothers tend to opt for health facility deliveries, while community development and female autonomy also play significant roles (Dimbuene, 2017 Talukder, 2022).
- Thus, our study aimed to investigate the complex interplay between socio-economic and predictors of foeto-maternal characteristics of home childbirths in 12 African countries.

Methods

- A weighted sample of 121,000 women who had childbirths within five years preceding the survey using a most recent DHS data available at <https://www.dhsprogram.com/> were used.
 - STATA V15 software were used for the analysis.
 - The spatial interpolation, and condition indices measures (CIX) were used.
 - A bivariate and multivariate regression models were employed, accounting for design and clustering effects.
- Null model (I):** using a Likelihood Ratio Test (LRT), Intraclass Correlation Coefficient (ICC), Median Odds Ratio (MOR) and Proportional Change in Variance (PCV)
- ✓ **Model II:** Individual level predictors
 - ✓ **Model III:** Community level predictors
 - ✓ **Model IV:** Adjusted for both level (mixed)
 - ✓ Pseudo-multi-collinearity Dx (VIF>10 and CI>30 units) were used to adjust confounders.

Results

- The choice to give birth at home was significantly correlated with household wealth ($P<.001$).
- Women in the lower wealth quintiles were found to be more likely to choose home childbirth ($p<0.001$) and 4 times (AOR = 3.91; 95% CI: 3.89–5.19, $p<0.001$) high likely to be attended by unskilled birth attendants and three times more likely experience perinatal mortality ($p<0.001$).

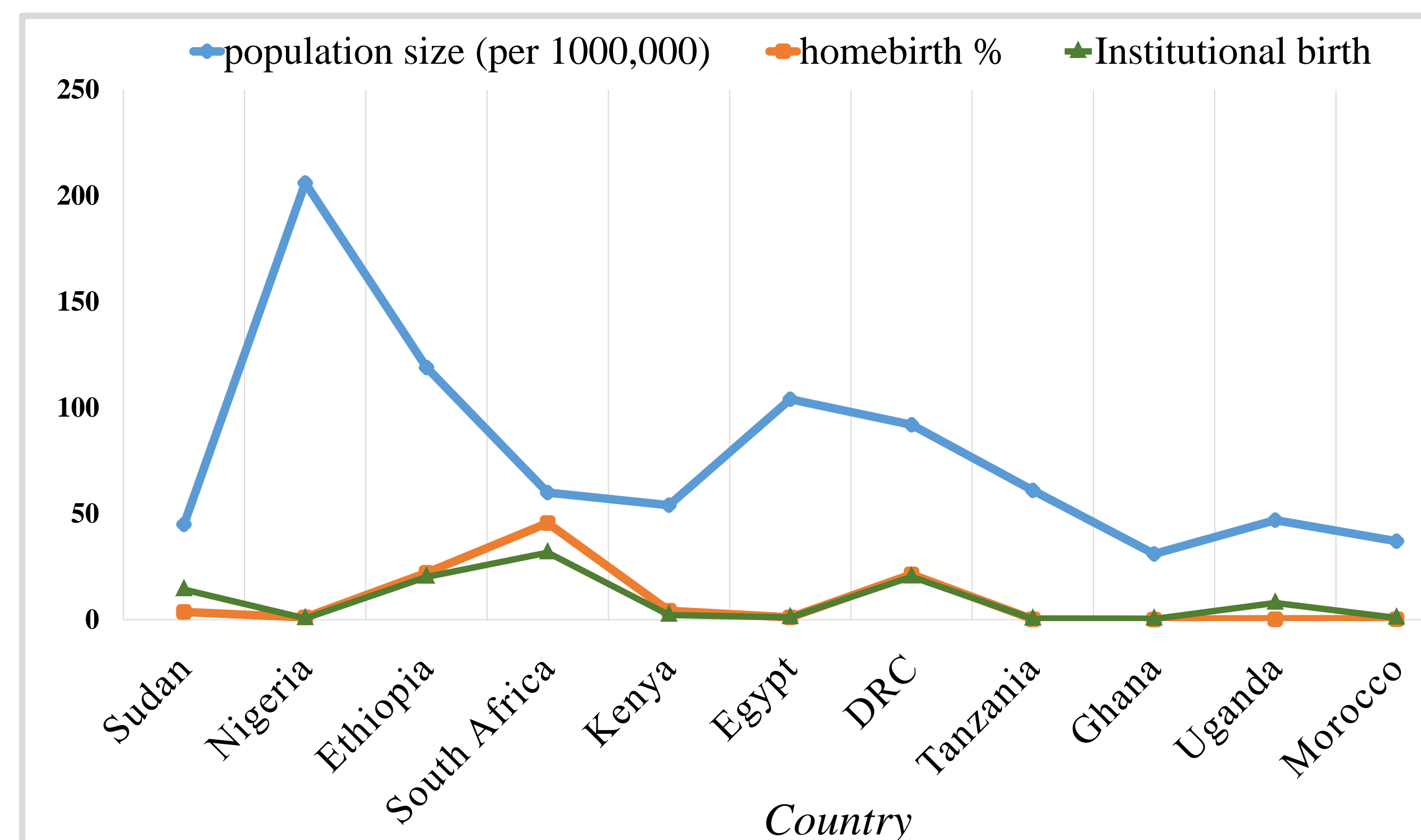


Figure 1: Childbirth practices by region (per population size) in Africa

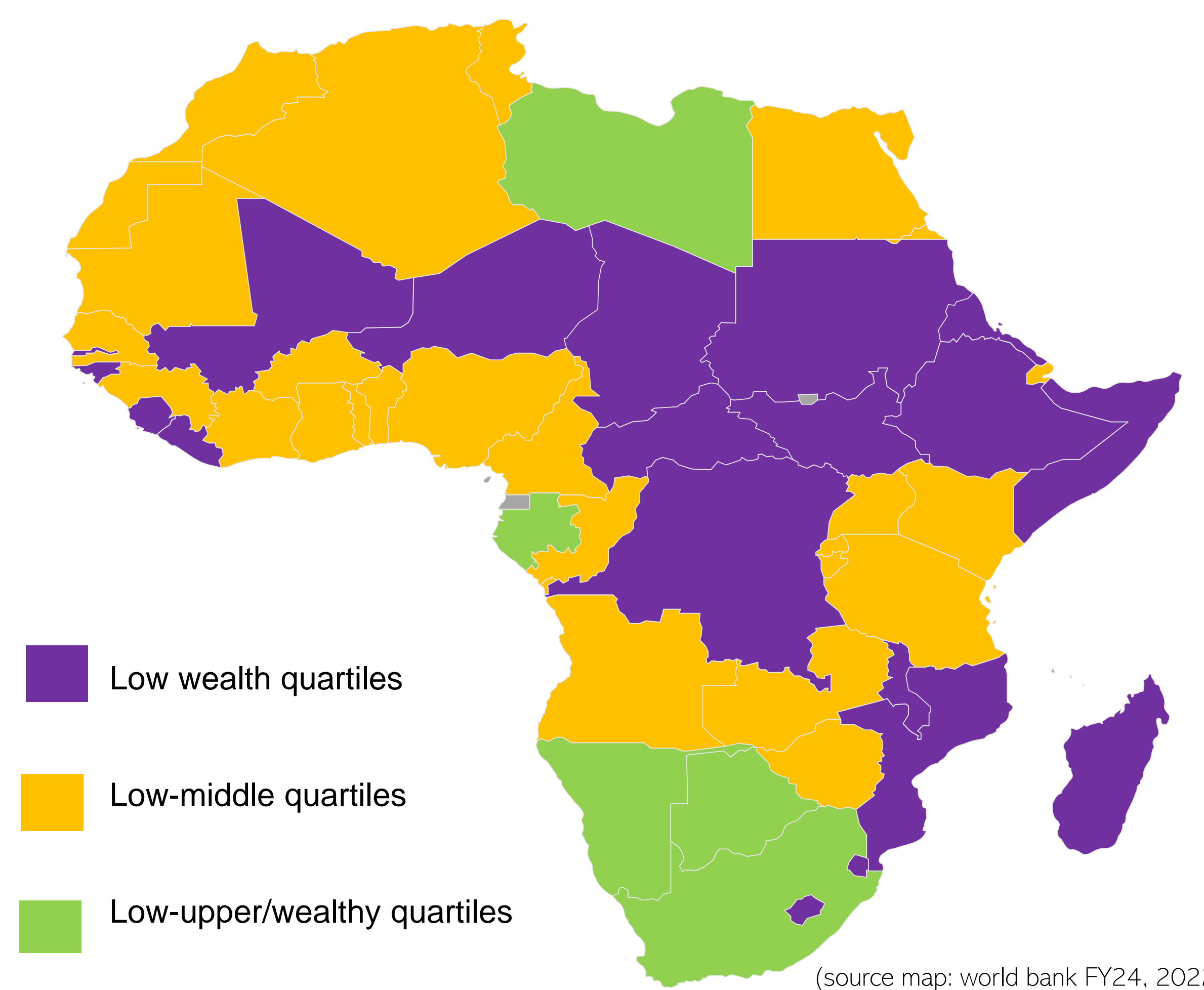


Figure 2: Wealth index categories of African countries

Table 1: Key findings of foeto-maternal home childbirth characteristics of the selected African countries.

Characteristics	West	East	South	North	p
No first ANC visit	59.5%	64.4%	86.3%	32.8%	< 0.001
Skilled birth	19.6%	12.70%	35.3%	42.7%	< 0.001
Caesarean sections (Cs)	15.5%	16.2%	35.7%	46.6%	<0.05
Perinatal mortality/1000LB	27.5	24.9	19.0	10.5	< 0.001

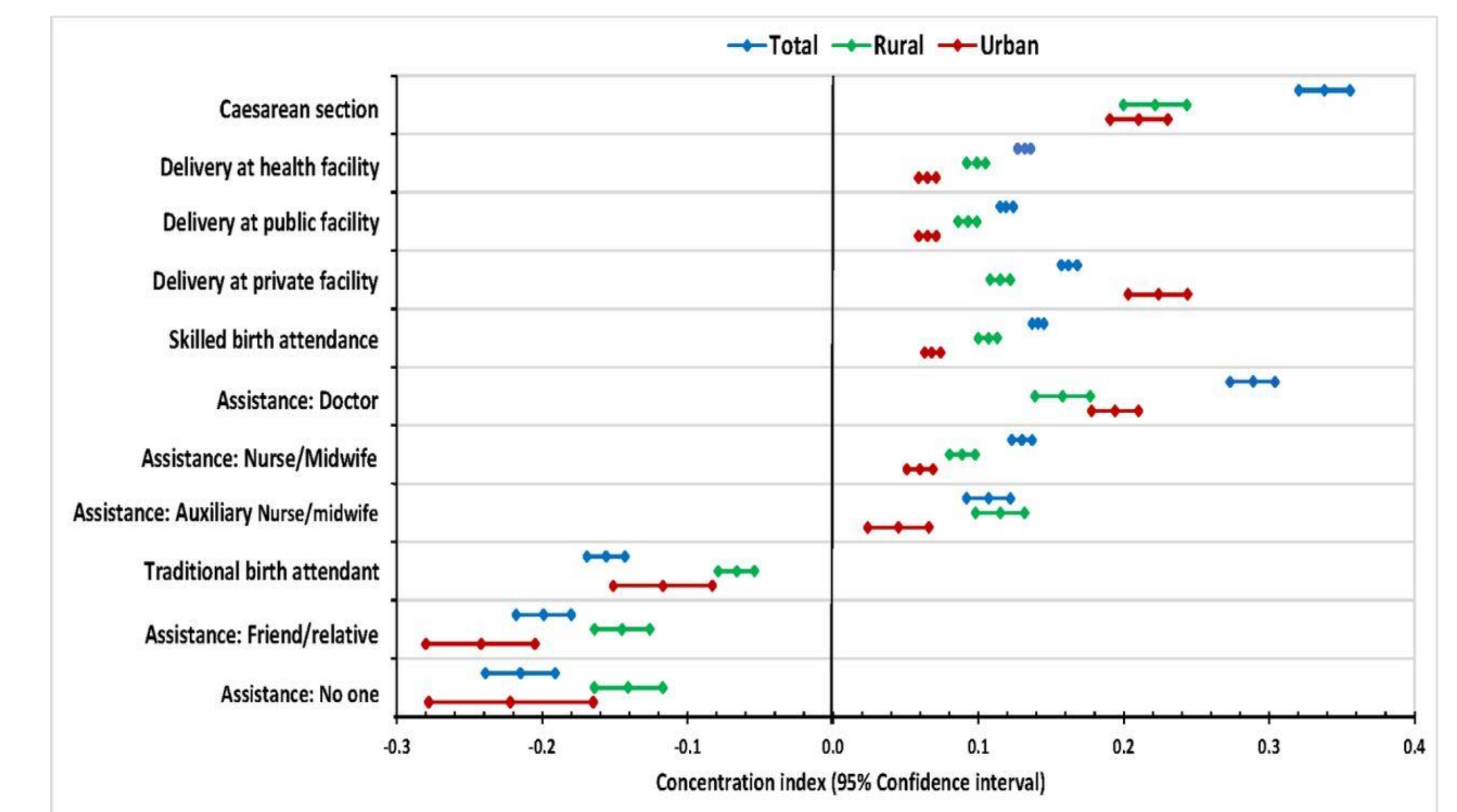


Figure 3: Concentration indices of birth assistance and C/s providers in 12 African Countries.

Conclusion

- Improving perinatal care services with well-trained birth attendants and strict risk identification, regardless of the place of birth, will improve the outcome of childbirth and would be cheaper and easier to carry out instead of persuading women to give birth institutionally.

References

- Tsala Dimbuene, Z., Amo-adjei, J., Amugsi, D.A., Mumah, J.N., Izugbara, C.O., & Bégué, D. (2017). Women's Education and Utilization of Maternal Health Services in Africa: A Multi-country and Socioeconomic Status Analysis. Journal of Biosocial Science, 50 6, 725-748 .
- Talukder, A., Anik, B., Hossain, M.I., Haq, I., & Habib, M.J. (2022). Socioeconomic and demographic factors for mothers' delivery at home: A comparative study among BDHS 2007, 2011 and 2014. Asian Journal of Social Health and Behavior, 5, 10 - 17.

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