

# Factors Associated with Healthcare Decision-Making Autonomy among Pregnant Women in West Africa

**Sarah Kyerewaa Obiri**

FOCOS Orthopedic Hospital

**Tausi Seleman Haruna**

Hubert Kairuki Memorial University

**Bright Worlanyo Aklamanu**

[aklamanub@gmail.com](mailto:aklamanub@gmail.com)

FOCOS Orthopedic Hospital

**Henry Ofori Duah**

Marquette University

**Emmanuel Angmorteh Mensah**

East Tennessee State University

**Derrick Nyantakyi Owusu**

East Tennessee State University

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## Research Article

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# Abstract

## Background

Healthcare decision-making autonomy is central to women's reproductive rights and maternal health. However, autonomy remains limited among many women in sub-Saharan Africa, particularly during pregnancy. This study examined factors associated with healthcare decision-making autonomy among pregnant women in West Africa.

## Methods

This study used pooled, nationally representative Demographic and Health Survey data from 12 West African countries. The analytic sample included 7,330 pregnant women aged 15–49 years. Healthcare decision-making autonomy was categorized as no autonomy, joint autonomy, and complete autonomy. Descriptive statistics, Rao–Scott chi-square tests, and multivariable ordinal logistic regression were used to examine factors associated with higher levels of autonomy. Adjusted odds ratios and 95% confidence intervals were reported, accounting for the complex survey design.

## Results

Overall, 62% of pregnant women reported no autonomy in healthcare decision-making, 28% reported joint autonomy, and 9.9% reported complete autonomy. In adjusted analyses, older age, higher education, current employment, unmarried status, and country of residence were significantly associated with greater autonomy. Compared with women aged 15–19 years, women aged 25–44 years had higher odds of being in a higher autonomy category. Education showed a graded association, with women who had higher education having more than twice the odds of greater autonomy compared with those with no formal education. Currently working women also had higher odds of greater autonomy, while rural residence was associated with lower odds. Substantial cross-country differences were observed, with higher autonomy in countries such as Ghana and Liberia and lower autonomy in Mali.

## Conclusion

Healthcare decision-making autonomy among pregnant women in West Africa remains low. Interventions to improve maternal health should strengthen women's education, economic empowerment, and rural access to supportive health systems while addressing household and sociocultural barriers that limit women's participation in healthcare decisions.

## Introduction

Women's autonomy in healthcare decision-making is widely recognized as a central component of reproductive health rights and a critical determinant of maternal and child health outcomes (Tura & Aluku, 2025). In low- and middle-income countries, particularly in sub-Saharan Africa, women's ability to make independent or joint decisions about their healthcare has been closely linked to increased use of maternal health services, including antenatal care, skilled birth attendance, and preventive health behaviors (Gebeyehu et al., 2022).

Despite its importance, women's autonomy in healthcare decision-making remains limited in many parts of sub-Saharan Africa. Evidence suggests that only about 36% of women in the region have autonomy over sexual and reproductive health decisions, with even lower levels reported in specific contexts and domains (Belachew, Negash, et al., 2023). In high-fertility settings, fewer than half of women report autonomy in healthcare decision-making, and substantial disparities across countries persist, with some nations reporting extremely low prevalence levels (Negash et al., 2023). These persistent gaps underscore structural inequalities rooted in gender norms, socioeconomic disadvantage, and limited access to education and employment.

The determinants of women's healthcare decision-making autonomy are multifaceted and operate at the individual, household, and contextual levels. Prior studies consistently identify age, education, employment status, wealth, and place of residence as key predictors of autonomy (Budu et al., 2020). Importantly, women's autonomy is not only a social or ethical concern but also a public health priority. Studies have shown that greater autonomy is linked to improved health-seeking behaviors, including higher uptake of preventive services such as cervical cancer screening and better care for childhood illnesses (Okyere et al., 2022). Conversely, limited autonomy has been linked to adverse outcomes, including delayed care-seeking, increased maternal and child morbidity, and poorer health trajectories across the life course (Idris et al., 2023). Therefore, improving women's decision-making power is integral to achieving global health targets, including reductions in maternal mortality and progress toward universal health coverage.

Although a growing body of literature has examined women's autonomy in sub-Saharan Africa, most studies have focused on single countries or specific aspects of reproductive health, such as contraceptive use or maternal service utilization. Multi-country analyses that specifically examine healthcare decision-making autonomy among pregnant women, a particularly vulnerable population remain limited. Furthermore, there is a need to better understand how sociodemographic factors interact across diverse sociocultural contexts in West Africa, where health systems, gender norms, and economic conditions vary considerably. To address these gaps, the present study examines the factors associated with healthcare decision-making autonomy among pregnant women in twelve West African countries using nationally representative Demographic and Health Survey (DHS) data. By employing a pooled, multi-country approach, this study aims to provide a comprehensive assessment of the prevalence and determinants of autonomy in this population. Understanding these factors is essential for informing context-specific interventions and policies aimed at enhancing women's empowerment and improving maternal health outcomes across the region.

## Methods

### Data Source and Study Design

This study employed a cross-sectional analytic design using pooled data from the Demographic and Health Surveys (DHS) conducted across West Africa. DHS are nationally representative household surveys implemented by national statistical offices in collaboration with international partners and designed to generate comparable population-based data on health, nutrition, fertility, and maternal and child health outcomes across low- and middle-income countries. The DHS employs a stratified, multistage cluster sampling design. In the first stage, each country is stratified by administrative region and urban–rural residence. Within each stratum, enumeration areas (EAs) derived from the most recent national census serve as primary sampling units and are selected using probability proportional to size. In the second stage, a fixed number of households are systematically selected from each EA. All eligible women aged 15–49 years residing in selected households are invited to participate in the women’s questionnaire. The analysis used the most recent DHS data from 12 West African countries, including Burkina Faso, Benin, Gambia, Ghana, Guinea, Côte d’Ivoire, Sierra Leone, Liberia, Mali, Niger, Nigeria, and Togo. For this study, we used the individual Women’s data, also known as the Individual Recode (IR).

### Study Population

The analytic sample comprised 7,330 pregnant women aged 15–49 years with complete data on healthcare decision-making autonomy. Women were included if they reported being pregnant at the time of the survey and had non-missing responses for the outcome and covariates of interest.

### Study Variables

#### Outcome Variable

The outcome variable for this study was pregnant women’s health decision-making autonomy. This was derived from the variable “decisions on personal health care.” Pregnant women were asked, “Who usually decides on the respondent’s healthcare?” Five responses were recorded, “respondent alone,” “respondent and partner,” “husband/partner alone,” “someone else,” and “other.” This was recoded into three levels as “respondent alone = complete autonomy = 1,” “respondent and partner = joint autonomy = 2,” “husband/partner alone = no autonomy = 4,” and “someone else = no autonomy = 5.” Respondents who answered “other” were excluded. Therefore, the three levels of autonomy considered in this study were “No Autonomy,” “Joint Autonomy,” and “Complete Autonomy.” No Autonomy (husband/partner alone and someone else) was selected as the baseline for interpretation, as it is considered the lowest category for women’s health decision-making autonomy. Complete autonomy was considered a higher category for women’s decision-making autonomy. For this study, a pregnant woman’s autonomy was defined as the capacity of the woman to decide alone on her healthcare.

## Independent Variables

The independent variables included maternal age, educational attainment, current employment status, place of residence, household wealth index, marital status, and country of residence. All explanatory variables were treated as categorical. Maternal age was grouped into seven categories (15–19, 20–24, 25–29, 30–33, 35–39, 40–44, and 45–49 years), with pregnant women aged 15–19 years as the reference group. Educational attainment was classified as no education, primary, secondary, and higher education, with no formal education as the reference category. Place of residence was dichotomized as urban or rural, with urban residence as the reference group. Household socioeconomic status was measured using the DHS wealth index, a composite indicator of a household's cumulative living standard derived through principal component analysis of asset ownership, housing characteristics, and access to water and sanitation facilities. This index was grouped into poorest, poorer, middle, richer, and richest, with the poorest quintile used as the reference category. Employment status was coded as currently working or not currently working, with not currently working as the reference group. Marital status was categorized as married or not married, with married pregnant women serving as the reference group. Reference groups were selected to facilitate interpretability of the estimated associations and to enable meaningful comparisons across categories.

## Statistical Analysis

The R statistical programming language was used to conduct the analysis. Data were imported into R and cleaned using the appropriate packages. Descriptive statistics were calculated using frequencies. A chi-square test was used to describe the sociodemographic characteristics of the respondents and to assess their association with women's health decision-making autonomy regarding their own health. A multivariable Ordinal Logistic Regression was used to assess the independent association between the explanatory and outcome variables. Variable selection in the regression model was determined by significance associated with health decision-making autonomy in the bivariate analysis or as reported in previous studies. The Ordinal Logistic Regression was conducted using a single multivariable model. The coefficients were exponentiated to derive adjusted odds ratios (AORs) and corresponding 95% confidence interval (CI) estimates. Statistically significant results were set at the 0.05 alpha level. All univariate, bivariate, and multivariable analyses accounted for the complex survey design.

## Results

Table 1 presents the sociodemographic characteristics of the 7,330 pregnant women included in the analysis. The age distribution indicates that the study population was predominantly young to early middle-aged, with the largest proportion of participants aged 25–29 years (27%). Most respondents were married (84%), and most participants resided in rural areas (64%). Educational attainment was generally low, with over half of the women reporting no formal education (55%). The distribution of household wealth was relatively even across quintiles, although a slightly higher proportion of women were classified in the poorest, poorer, and middle wealth categories (each approximately 21%).

Regarding employment status, 61% of participants reported being employed at the time of the survey. With respect to healthcare decision-making autonomy, nearly two-thirds of pregnant women reported no autonomy over decisions related to their own healthcare (62%).

Table 1  
Sociodemographic characteristics of participants (N = 7330)

| <b>Variable</b>                  | <b>Frequency (n)</b> | <b>Weighted Percentages (%)</b> |
|----------------------------------|----------------------|---------------------------------|
| <b>Age (years)</b>               |                      |                                 |
| 15–19                            | 778                  | 11                              |
| 20–24                            | 1,738                | 24                              |
| 25–29                            | 1,999                | 27                              |
| 30–33                            | 1,538                | 21                              |
| 35–39                            | 927                  | 13                              |
| 40–44                            | 287                  | 3.9                             |
| 45–49                            | 62                   | 0.8                             |
| <b>Place of Residence</b>        |                      |                                 |
| Urban                            | 2,622                | 36                              |
| Rural                            | 4,708                | 64                              |
| <b>Education Level</b>           |                      |                                 |
| No education                     | 4,008                | 55                              |
| Primary                          | 1,264                | 17                              |
| Secondary                        | 1,778                | 24                              |
| Higher                           | 280                  | 3.8                             |
| <b>Wealth Index</b>              |                      |                                 |
| Poorest                          | 1,561                | 21                              |
| Poorer                           | 1,522                | 21                              |
| Middle                           | 1,545                | 21                              |
| Richer                           | 1,431                | 20                              |
| Richest                          | 1,271                | 17                              |
| <b>Current Employment Status</b> |                      |                                 |
| Not Currently working            | 2,847                | 39                              |
| Currently working                | 4,483                | 61                              |
| <b>Current Marital Status</b>    |                      |                                 |

| Variable                               | Frequency (n) | Weighted Percentages (%) |
|----------------------------------------|---------------|--------------------------|
| <b>Age (years)</b>                     |               |                          |
| Married                                | 6,156         | 84                       |
| Not Married                            | 1,174         | 16                       |
| <b>Country</b>                         |               |                          |
| Burkina                                | 742           | 10                       |
| Benin                                  | 828           | 11                       |
| Gambia                                 | 497           | 6.8                      |
| Ghana                                  | 514           | 7                        |
| Guinea                                 | 451           | 6.2                      |
| Ivory Coast                            | 573           | 7.8                      |
| Sierra Leone                           | 434           | 5.9                      |
| Liberia                                | 254           | 3.5                      |
| Mali                                   | 890           | 12                       |
| Niger                                  | 712           | 9.7                      |
| Nigeria                                | 1,040         | 14                       |
| Togo                                   | 395           | 5.4                      |
| <b>Health Decision Making Autonomy</b> |               |                          |
| No Autonomy                            | 4,580         | 62                       |
| Joint Autonomy                         | 2,023         | 28                       |
| Complete Autonomy                      | 727           | 9.9                      |

Cross-tabulation results indicate that sociodemographic characteristics were significantly associated with all three levels of healthcare decision-making autonomy among pregnant women in West Africa. Women's age, place of residence, educational attainment, household wealth index, current employment status, marital status, and country of residence were all statistically significantly associated with healthcare decision-making autonomy ( $p < 0.001$ ). (Table 2)

Table 2

Factors associated with health decision-making autonomy among pregnant women in West Africa

| Variable                                                 | Overall       | No<br>Autonomy | Joint<br>Autonomy | Complete<br>Autonomy |             |
|----------------------------------------------------------|---------------|----------------|-------------------|----------------------|-------------|
|                                                          | N = 7330      | N = 4580       | N = 2023          | N = 727              | p-<br>value |
| <b>Age (years)</b>                                       |               |                |                   |                      | <<br>0.001  |
| 15–19                                                    | 778 (11)      | 576 (13)       | 154 (7.6)         | 48 (6.6)             |             |
| 20–24                                                    | 1,738<br>(24) | 1,172 (26)     | 449 (22)          | 117 (16)             |             |
| 25–29                                                    | 1,999<br>(27) | 1,225 (27)     | 577 (28)          | 198 (27)             |             |
| 30–33                                                    | 1,539<br>(21) | 879 (19)       | 455 (22)          | 205 (28)             |             |
| 35–39                                                    | 927 (13)      | 517 (11)       | 292 (14)          | 117 (16)             |             |
| 40–44                                                    | 287 (3.9)     | 174 (3.8)      | 78 (3.9)          | 35 (4.8)             |             |
| 45–49                                                    | 62 (0.8)      | 37 (0.8)       | 19 (0.9)          | 6 (0.9)              |             |
| <b>Place of Residence</b>                                |               |                |                   |                      | <<br>0.001  |
| Urban                                                    | 2,622<br>(36) | 1,390 (30)     | 909 (45)          | 323 (44)             |             |
| Rural                                                    | 4,708<br>(64) | 3,190 (70)     | 1,115 (55)        | 404 (56)             |             |
| <b>Education Level</b>                                   |               |                |                   |                      |             |
| No education                                             | 4,008<br>(55) | 2,793 (61)     | 894 (44)          | 321 (44)             |             |
| Primary                                                  | 1,264<br>(17) | 756 (17)       | 389 (19)          | 119 (16)             |             |
| Secondary                                                | 1,778<br>(24) | 937 (20)       | 619 (31)          | 222 (30)             |             |
| Higher                                                   | 280 (3.8)     | 93 (2.0)       | 121 (6.0)         | 65 (9.0)             |             |
| <b>Wealth Index</b>                                      |               |                |                   |                      | <<br>0.001  |
| <sup>1</sup> n (%)                                       |               |                |                   |                      |             |
| <sup>2</sup> Pearson's $\chi^2$ : Rao & Scott adjustment |               |                |                   |                      |             |

| Variable                                                 | Overall       | No<br>Autonomy | Joint<br>Autonomy | Complete<br>Autonomy | p-<br>value |
|----------------------------------------------------------|---------------|----------------|-------------------|----------------------|-------------|
|                                                          | N = 7330      | N = 4580       | N = 2023          | N = 727              |             |
| Poorest                                                  | 1,685<br>(83) | 1,059 (23)     | 1,059 (23)        | 1,059 (23)           |             |
| Poorer                                                   | 1,059<br>(23) | 1,006 (22)     | 1,006 (22)        | 135 (19)             |             |
| Middle                                                   | 1,545<br>(21) | 974 (21)       | 406 (20)          | 165 (23)             |             |
| Richer                                                   | 1,431<br>(20) | 833 (18)       | 445 (22)          | 53 (21)              |             |
| Richest                                                  | 1,271<br>(17) | 707 (15)       | 423 (21)          | 141 (19)             |             |
| <b>Current Employment Status</b>                         |               |                |                   |                      | <<br>0.001  |
| Not Currently<br>working                                 | 2,847<br>(39) | 2,138 (47)     | 521 (26)          | 188 (26)             |             |
| Currently working                                        | 4,483<br>(61) | 2,441 (53)     | 1,502 (74)        | 539 (74)             |             |
| <b>Current Marital<br/>Status</b>                        |               |                |                   |                      | <<br>0.001  |
| Married                                                  | 6,156<br>(84) | 3,930 (86)     | 1,685 (83)        | 1,685 (83)           |             |
| Not Married                                              | 1,685<br>(83) | 1,685 (83)     | 1,685 (83)        | 1,685 (83)           |             |
| <b>Country</b>                                           |               |                |                   |                      | <<br>0.001  |
| Burkina                                                  | 742 (10)      | 544 (12)       | 132 (6.5)         | 66 (9.1)             |             |
| Benin                                                    | 828 (11)      | 481 (10)       | 291 (14)          | 56 (7.7)             |             |
| Gambia                                                   | 497 (6.8)     | 317 (6.9)      | 135 (6.7)         | 45 (6.1)             |             |
| Ghana                                                    | 514 (7.0)     | 135 (2.9)      | 196 (9.7)         | 183 (25)             |             |
| Guinea                                                   | 451 (6.2)     | 291 (6.3)      | 130 (6.4)         | 30 (4.1)             |             |
| Ivory Coast                                              | 573 (7.8)     | 347 (7.6)      | 148 (7.3)         | 78 (11)              |             |
| <sup>1</sup> n (%)                                       |               |                |                   |                      |             |
| <sup>2</sup> Pearson's $\chi^2$ : Rao & Scott adjustment |               |                |                   |                      |             |

| Variable                                                 | Overall       | No<br>Autonomy | Joint<br>Autonomy | Complete<br>Autonomy | p-<br>value |
|----------------------------------------------------------|---------------|----------------|-------------------|----------------------|-------------|
|                                                          | N = 7330      | N = 4580       | N = 2023          | N = 727              |             |
| Sierra Leone                                             | 434 (5.9)     | 240 (5.2)      | 173 (8.5)         | 21 (2.9)             |             |
| Liberia                                                  | 254 (3.5)     | 78 (1.7)       | 124 (6.1)         | 52 (7.1)             |             |
| Mali                                                     | 890 (12)      | 753 (16)       | 87 (4.3)          | 50 (6.8)             |             |
| Niger                                                    | 712 (9.7)     | 589 (13)       | 97 (4.8)          | 26 (3.6)             |             |
| Nigeria                                                  | 1,040<br>(14) | 555 (12)       | 394 (19)          | 90 (12)              |             |
| Togo                                                     | 395 (5.4)     | 249 (5.4)      | 115 (5.7)         | 31 (4.2)             |             |
| <sup>1</sup> n (%)                                       |               |                |                   |                      |             |
| <sup>2</sup> Pearson's $\chi^2$ : Rao & Scott adjustment |               |                |                   |                      |             |

An ordinal logistic regression model was fitted to examine factors associated with increasing levels of pregnant women's healthcare decision-making autonomy (from no autonomy to joint and complete autonomy). In this analysis, higher odds indicate a greater likelihood of being in a higher autonomy category.

After adjustment, age was positively associated with healthcare decision-making autonomy among pregnant women. Compared with those aged 15–19 years, those aged 25–29 years (aOR = 1.3; 95% CI: 1.03, 1.62), 30–34 years (aOR = 1.51; 95% CI: 1.20, 1.90), 35–39 years (aOR = 1.56; 95% CI: 1.20, 2.03), and 40–44 years (aOR = 1.67; 95% CI: 1.16, 2.39) had significantly higher odds of being in a higher autonomy category. Place of residence remained a significant predictor, with rural pregnant women having lower odds of higher autonomy than urban women (aOR = 0.83; 95% CI: 0.71, 0.98). Educational attainment showed a strong positive association with autonomy. Relative to pregnant women with no formal education, those with primary (aOR = 1.18; 95% CI: 1.00, 1.39), secondary (aOR = 1.37; 95% CI: 1.16, 1.60), and higher education (aOR = 2.37; 95% CI: 1.71, 3.27) had progressively higher odds of greater healthcare decision-making autonomy.

Marital status was also associated with autonomy, as pregnant women who were not married had higher odds of being in a higher autonomy category than married women (aOR = 1.19; 95% CI: 1.11, 1.32). Regarding household wealth, only pregnant women in the richest wealth quintile had significantly lower odds of higher autonomy than those in the poorest quintile (aOR = 0.84; 95% CI: 0.89, 0.97). Employment status was also a strong predictor of autonomy. Pregnant women who were currently working had more than twice the odds of being in a higher healthcare decision-making autonomy category than those not currently working (aOR = 1.75; 95% CI: 1.49, 2.04), after controlling for other factors.

Finally, Substantial cross-country variation in autonomy was observed. Compared with Burkina Faso (reference), pregnant women in Benin (aOR = 1.58; 95% CI: 1.21–2.07), Ghana (aOR = 5.68; 95% CI: 4.19–7.70), Guinea (aOR = 1.51; 95% CI: 1.10–2.09), Côte d'Ivoire (aOR = 1.75; 95% CI: 1.25–2.45), Sierra Leone (aOR = 1.71; 95% CI: 1.28–2.28), Liberia (aOR = 4.58; 95% CI: 3.27–6.40), and Nigeria (aOR = 1.51; 95% CI: 1.16–1.95) had significantly higher odds of greater autonomy. In contrast, pregnant women in Mali had significantly lower odds of higher autonomy (aOR = 0.53; 95% CI: 0.39–0.73). Associations for Gambia, Niger, and Togo were not statistically significant after adjustment. (Table 3)

Table 3  
Multivariable ordinal logistic regression on factors associated with health decision-making autonomy among pregnant women in West Africa

| Variable                                                                                  | OR   | 95% CI       | aOR  | 95%          |
|-------------------------------------------------------------------------------------------|------|--------------|------|--------------|
| <b>Age (years)</b>                                                                        |      |              |      |              |
| 15–19                                                                                     | ref  |              | ref  |              |
| 20–24                                                                                     | 1.35 | [1.08, 1.68] | 1.09 | [0.87, 1.36] |
| 25–29                                                                                     | 1.79 | [1.43, 2.23] | 1.30 | [1.03, 1.62] |
| 30–34                                                                                     | 2.18 | [1.74, 2.73] | 1.51 | [1.20, 1.90] |
| 35–39                                                                                     | 2.26 | [1.76, 2.89] | 1.56 | [1.20, 2.03] |
| 40–44                                                                                     | 1.90 | [1.36, 2.66] | 1.67 | [1.16, 2.39] |
| 45–49                                                                                     | 1.93 | [0.95, 3.92] | 1.45 | [0.80, 2.66] |
| <b>Place of Residence</b>                                                                 |      |              |      |              |
| Urban                                                                                     | ref  |              | ref  |              |
| Rural                                                                                     | 0.56 | [0.49, 0.63] | 0.83 | [0.71, 0.98] |
| <b>Education Level</b>                                                                    |      |              |      |              |
| No education                                                                              | ref  |              | ref  |              |
| Primary                                                                                   | 1.50 | [1.29, 1.74] | 1.18 | [1.00, 1.39] |
| Secondary                                                                                 | 2.0  | [1.73, 2.31] | 1.37 | [1.16, 1.60] |
| Higher                                                                                    | 4.29 | [3.19, 5.76] | 2.37 | [1.71, 3.27] |
| <b>Current Marital Status</b>                                                             |      |              |      |              |
| Married                                                                                   | ref  |              | ref  |              |
| Not Married                                                                               | 1.52 | [1.28, 1.80] | 1.19 | [1.11, 1.32] |
| <b>Wealth Index</b>                                                                       |      |              |      |              |
| Poorest                                                                                   | ref  |              | ref  |              |
| Poorer                                                                                    | 1.08 | [0.91, 1.28] | 1.10 | [0.92, 1.32] |
| Middle                                                                                    | 1.25 | [1.04, 1.49] | 1.16 | [0.96, 1.41] |
| Richer                                                                                    | 1.48 | [1.23, 1.78] | 1.01 | [0.88, 1.32] |
| Richest                                                                                   | 1.63 | [1.34, 1.98] | 0.84 | [0.89, 0.97] |
| <b>Abbreviations: CI = Confidence Interval, OR = Odds Ratio, aOR= adjusted Odds Ratio</b> |      |              |      |              |

| Variable                                                                                  | OR   | 95% CI        | aOR  | 95%          |
|-------------------------------------------------------------------------------------------|------|---------------|------|--------------|
| <b>Age (years)</b>                                                                        |      |               |      |              |
| <b>Current Employment Status</b>                                                          |      |               |      |              |
| Not Currently working                                                                     | ref  |               | ref  |              |
| Currently working                                                                         | 2.45 | [2.14, 2.81]  | 1.75 | [1.49, 2.04] |
| <b>Country</b>                                                                            |      |               |      |              |
| Burkina                                                                                   |      |               |      |              |
| Benin                                                                                     | 1.80 | [1.38, 2.34]  | 1.58 | [1.21, 2.07] |
| Gambia                                                                                    | 1.51 | [1.07, 2.13]  | 1.41 | [0.97, 2.07] |
| Ghana                                                                                     | 8.47 | [6.28, 11.42] | 5.68 | [4.19, 7.70] |
| Guinea                                                                                    | 1.42 | [1.03, 1.95]  | 1.51 | [1.10, 2.09] |
| Ivory Coast                                                                               | 1.84 | [1.32, 2.58]  | 1.75 | [1.25, 2.45] |
| Sierra Leone                                                                              | 1.91 | [1.45, 2.53]  | 1.71 | [1.28, 2.28] |
| Liberia                                                                                   | 5.22 | [3.78, 7.20]  | 4.58 | [3.27, 6.40] |
| Mali                                                                                      | 0.49 | [0.37, 0.67]  | 0.53 | [0.39, 0.73] |
| Niger                                                                                     | 0.55 | [0.39, 0.78]  | 0.73 | [0.51, 1.06] |
| Nigeria                                                                                   | 2.17 | [1.69, 2.78]  | 1.51 | [1.16, 1.95] |
| Togo                                                                                      | 1.53 | [1.10, 2.12]  | 1.26 | [0.90, 1.77] |
| <b>Abbreviations: CI = Confidence Interval, OR = Odds Ratio, aOR= adjusted Odds Ratio</b> |      |               |      |              |

## Discussion

The overall goal of our paper was to examine the factors associated with pregnant women's healthcare decision-making autonomy in twelve West African countries. Major findings from this study included: (i) healthcare decision-making for pregnant women in West Africa was made mainly by their husband or partner alone (62%); (ii) sociodemographic characteristics (age, education level, place of residence, current marital status, wealth index, and current employment status) showed an independent, significant relationship with healthcare decision-making across all levels of autonomy; (iii) sociodemographic factors with higher odds were associated with a greater likelihood of being in a higher autonomy category (independent autonomy).

The odds of being completely autonomous among pregnant women in West Africa increased with increased age. Specifically, pregnant women who were aged 25 years and above indicated a greater

likelihood of having complete autonomy compared to no autonomy. Similar patterns have been reported in other multi-site studies in sub-Saharan African countries (SSA) (Angola, Burkina Faso, Burundi, Chad, Democratic Republic of the Congo, Gambia, Mali, Niger, and Nigeria) (Belachew, Asmamaw, et al., 2023). Women aged 25 years and above reported having higher odds of decision-making on modern contraceptive use compared to those aged 15–24 years (Belachew, Asmamaw, et al., 2023). Another multi-analysis study in Burundi, Ethiopia, Kenya, Comoros, Malawi, Mozambique, Rwanda, Tanzania, Uganda, Zambia, and Zimbabwe reported that older-aged youth (20–24) was a significant determinant of health decision-making autonomy (Aragaw et al., 2023). This suggests that healthcare decision-making autonomy tends to increase with advancing age. The possible reasons may include increasing the level of maturity, confidence, and decision-making power (Acharya et al., 2010; Nigatu et al., 2014).

Our findings also showed a positive relationship between pregnant women's education level and their healthcare decision-making autonomy. Specifically, the odds of having complete autonomy, as opposed to no autonomy, were 3 times higher among pregnant women with higher education than among those with no education. Similar findings have been documented in SSA and East African countries, where the likelihood of women's health decision-making autonomy at a higher level increased with education level (Belachew, Asmamaw, et al., 2023; Darteh et al., 2019; Michael & Naidoo, 2025). Michael and Naidoo (2025) indicated that SSA women with higher education were twice as likely to make Sexual and Reproductive Health (SRH) decisions as their counterparts without formal education.

Education emerged as a significant predictor of health decision-making autonomy in multi-site studies from West Africa, SSA, East Africa, and Asian countries (Belachew, Asmamaw, et al., 2023; Darteh et al., 2019; Michael & Naidoo, 2025; Senarath & Gunawardena, 2009). This implies that education helps raise awareness among women, including pregnant women, enabling them to make autonomous, informed decisions regarding their health.

This study found that pregnant women residing in rural areas were less likely to make their own healthcare decisions than their counterparts. The findings are in line with those conducted in SSA, Asian countries, and LMICs (Darteh et al., 2019; Idris et al., 2023; Senarath & Gunawardena, 2009). Gebeyehu et al. (2022), in a systematic review of LMICs, reported that urban residents were almost twice as likely as rural residents to make independent decisions regarding maternal health services. The potential explanations include access and exposure to maternal and reproductive educational resources, such as radio, magazines, television, and internet use (Aboagye et al., 2022; Fatema & Lariscy, 2020; Sharma et al., 2024).

This study also found that not being married was directly associated with pregnant women's complete healthcare decision-making autonomy. Pregnant women who were not married were 1.5 times more likely to make decisions alone than married women. This finding could reflect gender power relations and household decision-making structures, where the presence of a husband or partner may shift healthcare decision-making autonomy from complete autonomy to no autonomy or joint autonomy (Garrison-Desany et al., 2021).

While most studies have shown that the household wealth index is positively associated with women's healthcare decision-making autonomy (Darteh et al., 2019; Idris et al., 2023; Michael & Naidoo, 2025; Osamor & Grady, 2016), notably, our study indicated that pregnant women from the richest households were 16% less likely to make decisions alone compared to pregnant women from the poorest households. A similar pattern has been reported in Nepal, where women from richer households were less likely to have autonomy in making decisions regarding their own health compared with women from the poorer wealth quantile (Acharya et al., 2010; Seidu et al., 2021). This pattern could be explained by a stronger patriarchal structure and male dominance of financial resources in wealthier families, which can limit pregnant women's independent participation in health-related decisions (Anfaara et al., 2024; Severijns et al., 2024; Sunmola et al., 2021).

Pregnant women who reported working were about two times more likely to have complete autonomy on healthcare decisions compared to those who did not work. These findings are consistent with other studies conducted elsewhere in SSA, LMICs, and East African countries (Michael & Naidoo, 2025; Osamor & Grady, 2016; Seidu et al., 2021; Senarath & Gunawardena, 2009).

## **Strengths and limitations**

The key strength of this study was its use of weighted, nationally representative data from twelve West African countries, with a large sample size that enhances the generalizability of the findings. Additionally, pregnant women's health decision-making autonomy and sociodemographic factors were measured consistently across the multi-sites using DHS procedures, which strengthens the reliability and overall quality of the data. However, the interpretations and inferences made in this study limit conclusions about the causal relationships among the study variables. Also, because the measure of pregnant women's health decision-making autonomy was self-reported, it may be subject to social desirability bias.

## **Implications for practice, policy, and future research**

West African countries should continue to implement policies that focus on improving women's education and socioeconomic conditions. Moreover, West African countries should strengthen interventions that support pregnant women's healthcare decision-making autonomy by prioritizing those who reside in rural areas, have no formal education, are unemployed, and are married, by improving marital relations. While this study highlighted the association between pregnant women's healthcare decision-making autonomy and sociodemographic factors, a qualitative study could be conducted to explore the unique experiences of the facilitators and barriers pregnant women face when making pregnancy-related healthcare decisions across multiple sites.

## **Conclusion and Recommendations**

The results show that healthcare decision-making autonomy among pregnant women in West Africa remains very low. We also found that sociodemographic factors, including age, place of residence,

education level, wealth index, employment status, marital status, and country, significantly predict pregnant women's autonomy in healthcare decision-making across West African countries. The findings underscore the need to strengthen programs and interventions that enhance pregnant women's autonomy in healthcare decisions by addressing key sociodemographic factors.

## **Declarations**

## **Financial Declaration**

The authors did not receive support from any organization for the submitted work.

## **Conflict of Interest Statement**

The authors declare that there are no conflicts of interest regarding the publication of this study.

### **Consent to Publish**

**declarations:** Not applicable

## **Ethics, Consent to Participate**

Since the analysis was based on publicly available de-identified secondary data, no additional ethical approval or participant consent was required for this study.

### **Clinical Trial Number**

Not applicable

## **Author Contribution**

S.K.O conceptualized the study and wrote the introduction. D.N.O conducted the formal analysis and contributed to the interpretation of the findings. EAM wrote the discussion section. H.O.A, T.S.H and B.W.A contributed to manuscript revision and critical editing. All authors reviewed, read, and approved the final version of the manuscript.

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# Data Availability

The datasets analyzed during the current study are publicly available from the Demographic and Health Surveys (DHS) Program repository upon reasonable request and registration at the DHS Program website: <https://dhsprogram.com/data/available-datasets.cfm>. The study used secondary data from nationally representative Demographic and Health Surveys conducted across West Africa.

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