



## CASE STUDY

# EquityTool assessment for the identification of influences on use of modern contraceptives

University of Ghana researchers conduct a baseline survey on the efficacy of the National Health Insurance Scheme in removing cost as a barrier to modern contraceptive access.



METRICS FOR MANAGEMENT

**EQUITYTOOL**

## BACKGROUND

Sufficient access to modern contraception reduces pregnancy-related health risks for women, particularly adolescent girls, by increasing the time between births and reducing the need for abortions. Access to contraception also increases women's and girls' opportunities for educational, social, and financial empowerment. Women's access to contraception has significant positive impacts for their children, as well. Children born less than 3 years after an elder sibling have increased risk of infant death; that risk increases to 60% for those born less than 2 years after a sibling.<sup>1</sup>

Globally, the use of modern contraceptives among women of reproductive age has increased in the past decade, and now stands at about 77%. While this trend is also evident in sub-Saharan Africa (SSA) the pace has been much slower, with an average of only 22% of women of reproductive age in this region using modern contraception. Many factors influence this unmet need, including poverty.<sup>2</sup> Research consistently demonstrates that women from poorer households in SSA have less access to modern contraception than those from wealthier households.

In Ghana 28% of women (15-49) use modern contraceptives, and the country sought to address this access gap by including family planning services and commodities into the National Health Insurance Scheme (NHIS) in 2021, providing women registered with NHIS modern contraceptives free of charge.

1 <https://www.who.int/news-room/fact-sheets/detail/family-planning-contraception>

2 <https://pubmed.ncbi.nlm.nih.gov/35062968/>



## CHALLENGE: DETERMINING HOW WEALTH STATUS AFFECTS USE OF MODERN CONTRACEPTIVES

While the inclusion of family planning services and commodities into the NHIS theoretically ensures all Ghanaian women equal access to modern contraception, not much is known about actual impact on women's use of modern contraceptives and whether or not there are still disparities between the poor and wealthy in accessing and using family planning services and commodities. Additionally, concerns have arisen about the sustainability of family planning services under the NHIS.

To begin to address this evidence gap, researchers at the University of Ghana (UG) recently set out to measure the wealth status of women with NHIS, and determine its effect on use of family planning commodities such as modern contraceptives. One goal of the UG *Wealth Status of Women who Use Modern Contraceptives: A Baseline survey using the Ghana EquityTool* study was to provide an indication of whether the introduction of family planning into the NHIS has addressed the contraceptive access gap between poor and wealthy women.

## SOLUTION: SIMPLIFYING BOTH DATA COLLECTION AND WEALTH ASSESSMENT

The [EquityTool](#) is a simple and easy-to-use tool that allows users to measure relative wealth by comparing the wealth of respondents to the national or urban-only population of the country. It provides a short set of questions that can be incorporated into any survey platform and is free to use. The short set of questions facilitates easy, fast, and inexpensive data collection and analysis of wealth distribution. This allows for fast and accurate comparisons across programs and populations into five wealth quintiles (quintile 1 is the poorest, quintile 5 the wealthiest). EquityTool data lets users make near real-time adjustments in program delivery that increase organizational effectiveness and strengthen program outcomes.

The short EquityTool survey, which can be completed in a few minutes, measures household wealth based on country-specific questions that can be adjusted to the context. It is available for over 65 countries and survey questions are pre-translated into many local languages. Each country-specific EquityTool questionnaire identifies what percentage of respondents are in each national or urban wealth quintile, and supplies the appropriate statistical code and assessment instructions for analysis. Compatible with any data collection platform – even paper-based systems – the EquityTool requires only six to 18 questions from the DHS Wealth Index for a respondent's country, reducing the number of variables needed for accurate wealth assessment.

The *Wealth Status of Women who Use Modern Contraceptives: A Baseline survey using the Ghana EquityTool*, study was conducted between November 2023 and January 2024 at the Shai-Osu Doku and Ga East hospitals in the Greater Accra region of Ghana.

Most previous studies had used the Ghana Demographic Health Survey (GDHS) to quantify wealth status of women. Because the GDHS is time consuming and often difficult to answer and analyze, UG researchers used the EquityTool to simplify the wealth assessment the make the process of establishing a baseline more efficient. This study was also part of a larger research effort to test the effectiveness of a mobile health application on modern contraceptive use among women of reproductive age.

**We had the health and demographic surveillance system, which collects a lot of data, but it's quite bulky, and it really takes you some time to be able to capture all the information that you need. The EquityTool was a much simpler way of collecting the same information.**

**Kwame Kesse Adjei, Graduate Student, University of Ghana**

Using a pre and post, quasi experimental design, the UG researchers surveyed 568 women, between 16 and 49 years of age, who were receiving post-natal care at the study hospitals and who agreed to participate in the study. Data were collected by health facility staff with support from health workers, using KoboToolbox and exported into Stata for analysis. Data collectors were provided with one week of training prior to the start of the study. The mobile health application was implemented for 6 months after the baseline survey, and the endline (post) survey is currently underway.

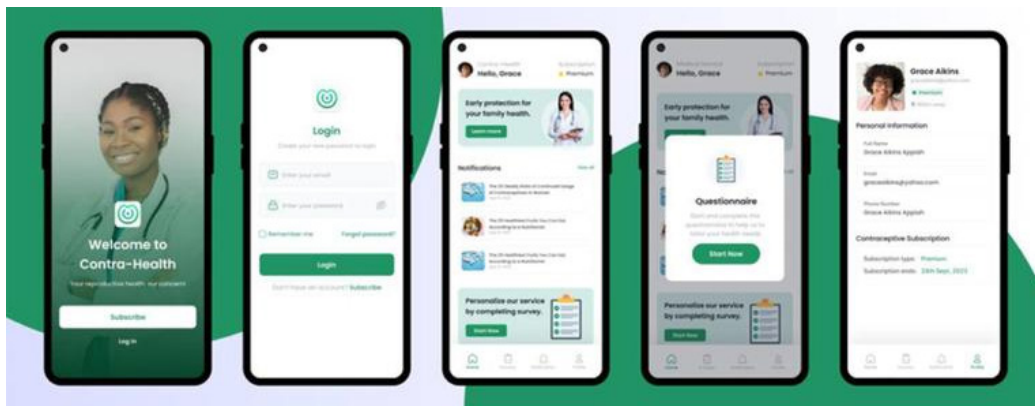
Initial data analysis included descriptive analysis followed by univariable and multivariable analysis at 95% confidence intervals, with a main outcome variable of 'ever use' of modern contraceptives, and background variables wealth quintile, age, religion, NHIS, education level and marital status. Wealth quintile was calculated using automated EquityTool calculations in Stata. All variables that had significant association with the outcome variable at p-value greater than or equal to 0.2 were included in a multivariable analysis.



**RESULTS: DEMONSTRATING THE SUCCESS OF NHIS IN REDUCING COST AS A BARRIER TO MODERN CONTRACEPTIVE USE**

Fifty-eight percent of the study respondents were married. The majority (90%) of respondents were Christian, and 10% were Muslim. Most respondents were Akans (41%) or Ewes (27%). Most respondents were self-employed (49%), though 17% worked in government, 12% were employed in the private sector, and 20% were not employed. More than 90% of respondents had some level of education. Ninety-six percent of women participating in the study had a valid insurance card.

EquityTool analysis showed that 37% of respondents were in the lowest wealth quintiles, with only 4% in the highest quintiles. Forty-seven percent of participants had used modern contraception at some point in their history. When assessing this data at the single variable level, there was no statistically significant association between wealth status and ever use of modern contraceptives [cOR 0.97, 95%CI (0.83-1.13)].



Participants' age and religion were the only significant variables associated with the use of modern contraceptives at the univariable level. After adjusting for other variables, religion remained the only significant variable associated with the use of modern contraceptives, with Christian women more likely to have ever used modern contraceptives than Muslim women.

The finding that wealth status did not affect the use of modern contraceptives among respondents is very encouraging, as it suggests that existing interventions, including the inclusion of family planning access in the NHIS, have been effective.

**I remember from a project that we did previously, there were some challenges and I had to look for a statistician. But with the EquityTool, I just had to go to the website, get the survey for Ghana, get the commands which was straightforward, and then we carried it out.**

**Kwame Kesse Adjei, Graduate Student,  
University of Ghana**

## NEXT STEPS

- The findings from this study indicate a need for maintaining sustainable NHIS funding to ensure access to modern contraceptives.
- As wealth is not a current barrier to modern contraceptive use in the catchment area, while religion is the main barrier, there may be value in channeling new efforts toward addressing religious impediments to improve the use of modern contraceptives.
- The UG researchers suggest that religious leaders be brought on board to help improve the use of modern contraceptives in the area.
- As other research in the catchment area had shown myths and misinformation contributing to the non-use of modern contraceptives, this might be another area to explore.
- As men often have primary decision-making power in families in the catchment area, interventions focused on male involvement may also be valuable.



## Lessons Learned

1. The inclusion of family planning access in the NHIS appears to have eliminated wealth status as a barrier to modern contraceptive use.
2. The inclusion of family planning access in the NHIS needs to be maintained, to maintain equitable access.
3. Religion appears to be the primary determinant of modern contraceptive use or non-use in the study population, suggesting new areas of intervention to explore.
4. The EquityTool provides a simple, user-friendly wealth assessment option that is less time consuming for both respondents and researchers than other methods.

M4M can help you create data-driven insights. For more information contact [partnerships@m4mgmt.org](mailto:partnerships@m4mgmt.org).