



## CASE STUDY

# Supporting Contraceptive Development with Pre-Trial User Preference Testing

Population Services International researchers employ the EquityTool to determine how wealth status affects women's preferences for innovative contraceptive options in Malawi.



METRICS FOR MANAGEMENT



## BACKGROUND

Globally, progress toward reducing unmet need for modern contraceptives has stagnated.<sup>1</sup> Contraceptive use also remains inequitable, with women and girls from lower wealth quintiles far less likely to use modern contraception than their wealthier counterparts. Contraceptive innovation to close these gaps is a critical need, but developing innovative contraceptive methods requires significant investment.

On-demand oral contraceptive pills (ODCPs), which are currently in development, are one potential innovative solution. ODCPs could be taken only as needed, either just before or after sex, providing a discrete, woman-controlled method that is easily started and stopped. ODCPs may be particularly appealing to women and girls who have infrequent or unplanned sex, or who want to limit their exposure to hormones.

## CHALLENGE: DETERMINING HOW WEALTH STATUS AFFECTS USER PREFERENCES FOR ODCPS

More than 70% of Malawians live below the international poverty line.<sup>2</sup> For low-income women and girls, cost can be a determining factor in contraceptive decisions, and past research has frequently demonstrated that unmet need for modern contraceptives is more common for women in lower wealth quintiles.

Market potential, as well as individual utility for novel products such as ODCPs, are increased when prospective users' perspectives are incorporated throughout the development process. A nuanced understanding of women's preferences is essential to reducing hidden barriers – especially those driven by inequalities – and to closing the gap in unmet need between wealthier and poorer women.

With clinical trials beginning to test the safety and efficacy of one ODCP formulation, researchers at Population Services International (PSI) recently sought to inform product development and marketing by understanding Malawian women and girls' values and preferences for ODCPs. Including equity measurement that is accurate, effective, and applicable to all the women in the study into surveys that were not onerous for respondents or costly to complete was vital to the success of the study.

## SOLUTION: EMPLOYING A SIMPLE, EASY-TO-USE, RELIABLE WEALTH ASSESSMENT TOOL

To meet this challenge, PSI used the EquityTool to estimate study participants' household wealth quintile, then used these quintiles to stratify data on ODCP preferences in Malawi based on differences in household wealth.

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

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

<sup>2</sup> <https://www.afdb.org/en/countries/southern-africa/malawi/malawi-economic-outlook>

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.

**I think it's hard to think of an organization out there that doesn't have some type of equity implication for the work that they're doing, whether it's to make their programs better and make sure they're reaching the right portion of the population or in, in our case, to design better programs and services up front that are going to meet the needs of lower income constituents.**

**Kristen Little, Senior Technical Advisor,  
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## METHODS: UNDERSTANDING THE CONTRACEPTIVE PREFERENCES WITH EQUITY IN MIND

The PSI study, *Preferences for on-demand contraceptive pills in Malawi: Using the EquityTool to Explore Heterogeneity by Wealth*, was conducted between March and May 2024, in two districts (Lilongwe and Machinga) in Malawi, to identify women's preferences regarding potential ODCP use. Lilongwe and Machinga were selected to represent two different regions – central and southern – as well as both rural and urban areas. Malawi's National Emergency Contraceptive Strategy (2020) is being implemented in both districts.

The PSI team conducted a representative household survey in Lilongwe and Machinga, recruiting 449 women and girls between the ages of 15 and 39 to participate in the study: 227 from Lilongwe and 222 Machinga. Informed, written consent was obtained from all participants, with parental consent also obtained for adolescent participants. Participants then completed a survey that included questions about demographics, sexual activity, experiences with

modern contraceptives, specifically emergency contraceptive pills (ECPs), and perspectives on a potential ODCP product. The survey also included a discrete choice experiment (DCE) with unlabeled alternatives to examine participants' value for five different attributes of a potential ODCP product. The attributes were chosen based on a review of the literature, formative research, and discussion with donors and product developers involved in upcoming ODCP trials. EquityTool questions were incorporated directly into these participant surveys and the research team used the codes supplied with the tool in their analyses. Because the study included both urban and rural areas, national wealth quintiles were used for EquityTool analysis, with some cases dichotomized into higher (quintiles 4 and 5) and lower (quintiles 1-3) socio-economic status (SES) groups.

## RESULTS: FORMULATION AND PACKAGING OPTIONS HAVE SIGNIFICANT IMPACT ON LOWER-WEALTH WOMEN'S CONTRACEPTIVE PREFERENCES

Most respondents were found to be in wealth quintiles 4 or 5, particularly in those participants residing in Lilongwe. Among sexually active participants, 86% had used contraception at some point in their history, and 14% had used ECPs, one of the few woman-controlled, on-demand contraceptive methods currently available. The proportion of women who had ever used contraceptives was similar for women from higher and lower SES households (85% vs. 87%), but wealthier women were more likely to have used ECPs (18% vs. 9%).

After receiving an overview of the proposed ODCP product, 78% of participants said they would be likely (38%) or very likely (40%) to try an ODCP if they were available in Malawi, with no significant variability by SES.

Reasons given for interest in ODCPs included that they seem private and discrete (35%) and convenient (27%), that they can be used only when having unprotected sex (30%), and that they would be useful if having infrequent sex (22%).

Participants' strongest preferences were for an ODCP with the highest effectiveness against unplanned pregnancy (product with 91% effectiveness vs. one with only 80%), and single-dose pack sizes rather than a 6-pack. Side effects that included spotting or irregular bleeding were preferred over delayed menstruation. While timing for taking an ODCP was not a significant driver of preferences for women in the lower SES group, higher SES women had a significant preference for pills that could be taken up to 24 hours pre-coitally versus one that could only be taken immediately before sex.

Preferences were largely similar when participants were stratified by wealth quintile, with the exception of preferred pack size. While women in higher wealth quintiles did not express strong preferences on ODCP pack size, women in the lower wealth quintiles significantly preferred single-dose packs to larger pack sizes, especially the 6-pill pack. All women preferred the higher effectiveness (91% vs 80% effectiveness), but this preference was even stronger for women in lower wealth quintiles.

## NEXT STEPS

- Insights from this study inform ODCP product development and introduction, and help to ensure that product introduction meets the needs and preferences of lower SES women and girls, helping to achieve greater equity.
- These lessons will also enable donors and other decision makers focused on increasing access to safe and effective contraception.
- PSI will conduct a related study in West Africa, using the EquityTool to support effective equity analysis.
- PSI will conduct further market research for ODCPs and other contraceptive products in the development pipeline.

### Lessons Learned

1. Equity measurement is a needed component of women's preference and access studies.
2. While all study participants preferred contraceptives with a higher effectiveness (91% vs 80% effective), this preference was even greater for women with lower wealth status.
3. For women with lower wealth status small package size was a significant preference, while wealthier women indicated less concern about package size.
4. Considering the needs of more resource-constrained women through the option of smaller pack sizes, or interventions like subsidies & vouchers will be important in ensuring equitable ODCP access should the pills become available.
5. The EquityTool provides reliable equity assessment without adding significantly to overall survey length.
6. Additional tools like the EquityTool, such as for out-of-pocket health spending, would be a big help for research.

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