REGIONAL DISPARITIES IN FERTILITY PREFERENCES AND DEMAND FOR FAMILY PLANNING SATISFIED BY MODERN METHODS ACROSS LEVELS OF POVERTY

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DHS Analytical Studies No. 71

Regional Disparities in Fertility Preferences and Demand for Family Planning Satisfied by Modern Methods across Levels of Poverty

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PREFACE

The Demographic and Health Surveys (DHS) Program is one of the principal sources of international data on fertility, family planning, maternal and child health, nutrition, mortality, environmental health, HIV/AIDS, malaria, and provision of health services.

One of the objectives of The DHS Program is to analyze DHS data and provide findings that will be useful to policymakers and program managers in low- and middle-income countries. DHS Analytical Studies serve this objective by providing in-depth research on a wide range of topics, typically including several countries and applying multivariate statistical tools and models. These reports are also intended to illustrate research methods and applications of DHS data that may build the capacity of other researchers.

The topics in this series are selected by The DHS Program in consultation with the U.S. Agency for International Development.

It is hoped that the DHS Analytical Studies will be useful to researchers, policymakers, and survey specialists, particularly those engaged in work in low- and middle-income countries.

Sunita Kishor
Director, The DHS Program

ABSTRACT

Research has highlighted disparities in family planning outcomes by wealth and by region separately. This analysis examines regional disparities within specific poverty groups. Twelve USAID family planning priority countries with recent DHS or AIS surveys were selected for the analysis, including 11 DHS surveys (Democratic Republic of Congo (DRC), Ethiopia, Ghana, Haiti, Malawi, Nepal, Nigeria, Pakistan, Rwanda Uganda, and Zambia) and one AIS survey (Mozambique). The measure of absolute poverty used in the analysis was comparable across the surveys. Households were divided into three groups to define the level of poverty: not extremely poor, extremely poor but not asset poor, and extremely poor and asset poor. Two outcomes were examined for women in union: ideal number of children and demand for family planning satisfied by modern contraceptive methods. The analysis examined regional disparities in these outcomes within each of the three poverty groups using descriptive statistics, maps, and regression analyses.

The results showed patterns specific to individual countries. In some countries, including Haiti, Malawi, and Rwanda, few or no regional disparities were apparent. In others, one or a few clustered regions stood out from the rest by having worse outcomes across all poverty groups (for example, Somalia region in Ethiopia). Other countries showed more regional variability in just one of the three poverty groups. This was especially true in several countries for demand for family planning satisfied by modern methods among the extremely poor and asset poor group. These results highlight the need for family planning programs to focus on specific regions where disparities exist, and on poverty groups where little of the demand for family planning is satisfied by modern methods.

KEY WORDS: absolute poverty, regional disparities, fertility preferences, ideal number of children, demand for family planning satisfied by modern methods

1   INTRODUCTION

DHS Program Comparative Reports No. 48, *Absolute Poverty, Fertility Preferences, and Family Planning Use in FP2020 Focus Countries,* used DHS data from 31 countries to analyze women's fertility preferences and family planning outcomes and their association with poverty (Staveteig, Gebreselassie, and Kampa 2018a). An important strength of the study was its use of an absolute poverty measure based on unsatisfied basic needs in conjunction with ownership of certain assets. Households were categorized into four poverty groups: non-poor, poor, extremely poor but not asset poor, and extremely poor and asset poor. Since the level of household poverty was assessed based on a standard set of criteria for ownership of assets and unsatisfied basic need for these same assets, the poverty measure allowed for comparisons across countries and over time. The analysis showed significant reductions in poverty in all countries, together with an improvement in modern contraceptive prevalence (mCPR) among married women. The authors also found substantial differences in fertility preferences and family planning outcomes within each poverty group, which implies that other factors beyond poverty could have an impact on these outcomes. It was suggested that further disaggregation of the outcomes by other factors including residence might shed light on the reasons for the disparities within poverty groups.

Building on Comparative Report 48, the present study investigates poverty levels among geographic regions within countries and examines women's fertility preferences and demand for family planning satisfied by modern methods at the subnational level, as well as regional variations in these outcomes associated with levels of poverty. Specifically, the study aims to answer the following research question: Are there any regional variations in women's ideal number of children and demand for family planning satisfied by modern contraceptive methods within each poverty level?

Family planning is an important component of the targets for achieving universal access to sexual and reproductive health stated in the Sustainable Development Goals (SDGs). The SDGs build on decades of work; its 17 goals recognize that strategies to improve health and education, reduce inequality, and foster economic growth are critical to ending poverty and other deprivation. The central role of family planning in achieving the SDGs across the five themes of people, planet, prosperity, peace, and planning has been well recognized (Starbird, Norton, and Marcus 2016). The authors observe that family planning is linked to human rights, gender equity and empowerment, and maternal and child health, while it also plays a role in economic development and in shaping environmental and political futures (Starbird, Norton, and Marcus 2016). Regarding poverty, family planning plays an important role in creating human capital, in that women with more access to family planning are more likely to have more schooling, work in the formal sector, and achieve larger economic gains (Miller 2009; Starbird, Norton, and Marcus 2016).

Family Planning 2020, a global partnership to support the reproductive health rights of women and girls in 69 focus countries, has stimulated global efforts to improve access to quality family planning services through increasing financial commitments, generating a supporting political environment, and implementing effective family planning service delivery. Along with the programmatic investments, it is also important to monitor progress toward their goals and to improve performance in future programs.

In working to meet the objectives of the FP2020 initiative, there has been much focus on obtaining national-level estimates on the use of modern contraceptive methods (Cahill et al. 2018; Ewerling et al. 2018).

However, there is also acknowledgment that aggregate outcomes mask diversity in progress within a country. Estimates from India using the UN Family Planning Estimation Model indicate large disparities in mCPR among its 29 states, from 15%-70% (New et al. 2017). The difference between the best-performing region and the worst-performing region was 35 percentage points for the indicator of unmet need for family planning, and 66 percentage points for the indicator of demand for family planning satisfied by modern methods. Considerable regional variations were also found in changes in these family planning indicators over time.

Thus, it is important to recognize subnational differences. Studies have also acknowledged other differences among subgroups of people in relation to family planning, such as by urban-rural residence and household wealth quintiles. Subgroups of women, specifically the poor, uneducated, illiterate, young, and rural, need special or targeted efforts to increase the level of demand for family planning satisfied by modern methods (Ewerling et al. 2018).

This study focuses on 12 of the USAID family planning priority countries—Democratic Republic of the Congo (DRC), Ethiopia, Ghana, Haiti, Malawi, Mali, Mozambique, Nepal, Nigeria, Pakistan, Rwanda, Uganda, and Zambia. Previous research has highlighted regional variations in family planning within the countries. Using DHS data, a study in Ethiopia found significant regional variations in mCPR among women of reproductive age, from 3.8% in the Somali region to 56% in Addis Ababa (Lakew et al. 2013). In DRC, provinces that are in conflict have limited access to family planning services, while greater access is found in Kinshasa, which is reflected in its higher mCPR (FP2020). In Ghana, a study focused in the Upper East region of the country, one of the country's poorest regions, found lower contraceptive prevalence and higher levels of fertility and unmet need for family planning compared with the rest of the country (Bawah et al. 2019).

As noted, wealth and fertility are closely linked. In Haiti, household wealth was found to be inversely correlated with fertility (Ward, Santiso-Gálvez, and Bertrand 2015). In Malawi, fertility rates were highest in the central and northern regions (Machira and Palamuleni 2017). In Mali, in the Koulikoro, Mopti, and Sikasso regions, regionally targeted increases in social franchising in public-sector community centers that provided a range of contraceptive methods at low fixed prices had the effect of increasing access, choice, and use of family planning (Gold et al. 2017).

In Mozambique, across the indicators of modern contraceptive prevalence and demand for family planning satisfied by modern methods, there were notable differences among the subnational regions (The Demographic and Health Surveys (DHS) Program 2019). A study conducted in rural areas in Southern Mozambique showed that distance to health facilities was an important determinant of using family planning services (Agadjanian et al. 2015)—indicating that even within rural areas other regional or geographical factors contribute to access. Analysis of data collected across Nepal found limited interregional differences in use of contraception; however, differences between urban and rural areas were significant (WHO 2016). A study analyzing patterns of unmet need for family planning across Nigeria found that the northern part of the country had lower levels of unmet need (Bamgboye and Ajayi 2016). The study also noted a change in the pattern of unmet need. Whereas in 2007 the South Western zone of the country had the highest portion of unmet need, in 2012 this shifted to the South-South zone (Bamgboye and Ajayi 2016). In Rwanda, place of residence was also found to be associated with increased contraceptive prevalence (Muhoza, Rutayisire, and Umubyeyi 2016). In the Northern region of Uganda, decades of

conflict have impeded development efforts, which has resulted in lower uptake of modern contraceptive methods compared with the rest of the country (Burke et al. 2018). In Zambia, a study found that region of residence was one of the most important predictors of unmet need for spacing births and that the highest proportion of women with an unmet need for contraception resided in the Eastern region (Imasiku et al. 2013).

While studies have clearly shown the importance of poverty and geographic regions in fertility and family planning practices, little research has focused on subnational variations within the same poverty groups. This analysis addresses this gap by examining how fertility preferences and demand for family planning satisfied by modern methods differ across regions among married women within each of three absolute poverty groups: not extremely poor; extremely poor but not asset poor; and extremely poor and asset poor.

2   DATA AND METHODS

2.1   Data

Twelve countries with recent DHS surveys that are USAID family planning priority countries were selected for the analysis. The selections tried to include countries in different positions on the modern mCPR S-curve: low (below 15%), medium (15%-54%), and high (55% and above) (Track20 ND). However, only two countries have recent DHS surveys in the low mCPR category, and only one USAID family planning priority country is in the high mCPR category. Table 1 presents the final selection of countries and surveys included in the analysis, and Figure 1 shows them on the map. The analysis focuses on currently married women age 15-49 from these surveys.

Table 1   Countries selected for the analysis

Country	Survey	mCPR	Number of regions	Interviewed households	Interviewed women 15-49
Congo Democratic Republic	2013-14 DHS	low	11	18,171	18,827
Ethiopia	2016 DHS	medium	11	16,650	15,683
Ghana	2014 DHS	medium	10	11,835	9,396
Haiti	2016-17 DHS	medium	11	13,405	14,371
Malawi	2015-16 DHS	high	3	26,361	24,562
Mozambique	2015 AIS	medium	11	7,169	8,204
Nepal	2016 DHS	medium	7 (provinces)	11,040	12,862
Nigeria	2013 DHS	low	6	38,522	38,948
Pakistan	2017-18 DHS	medium	8	11,869	12,364
Rwanda	2014-15 DHS	medium	5	12,699	13,497
Uganda	2016 DHS	medium	15	19,588	18,506
Zambia	2013-14 DHS	medium	10	15,920	16,411

Note: In Pakistan, the regions of Azad Jammu and Kashmir (AJK) and Gilgit Baltistan had a separate sampling selection. In AJK, 1,697 households and 1,720 women were interviewed, and in Gilgit Baltistan, 974 households and 984 women.

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Figure 1   Countries used in the analysis, by their level of modern contraceptive prevalence
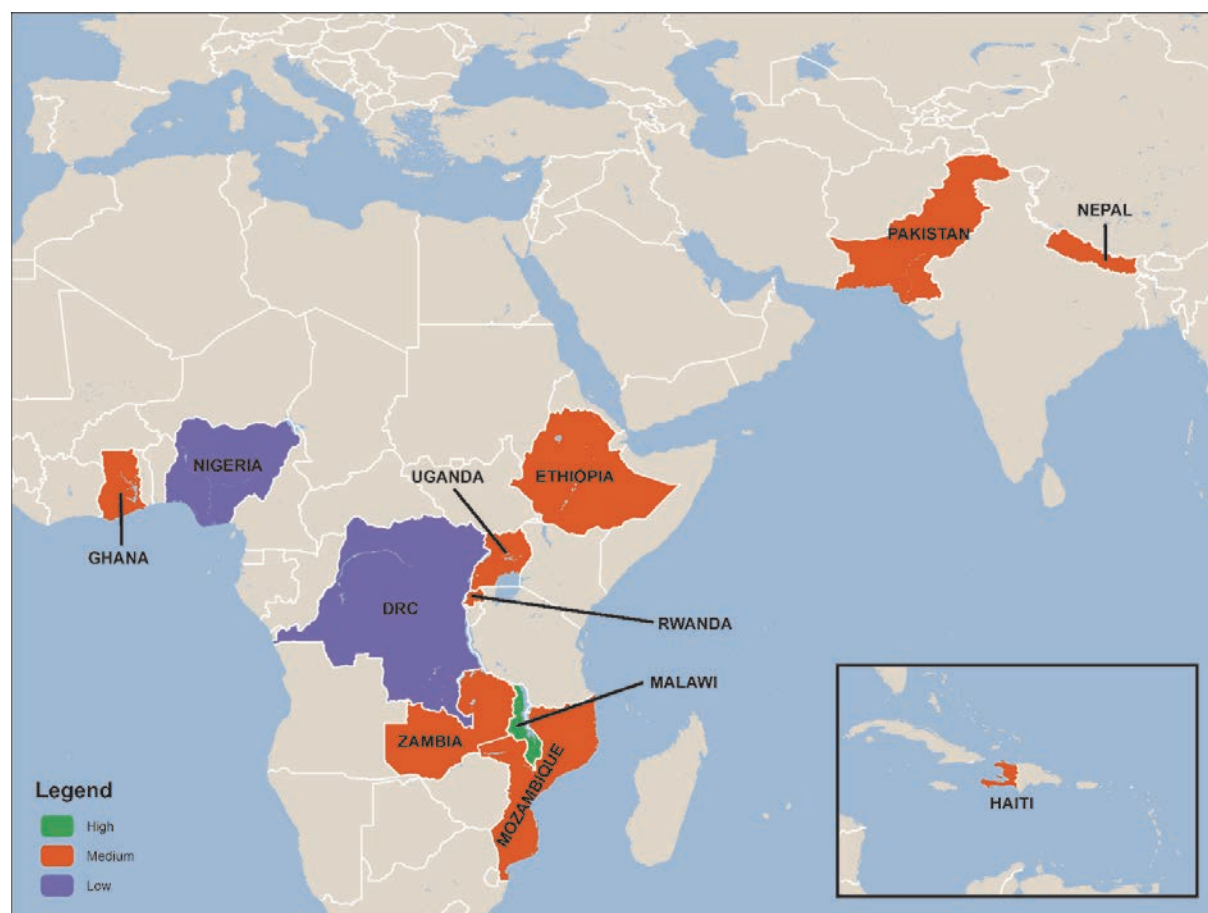
2.2   Variables

2.2.1   Absolute poverty

The absolute poverty measure developed by Staveteig, Gebreselassie, and Kampa (2018b) was used in the analysis. To construct this variable, households are identified as whether or not they have four unsatisfied basic needs and/or are considered asset poor.

The four unsatisfied basic needs are:

- Inadequate water or sanitation: The household does not have access to improved sanitation or drinking water, and the time required to reach their source of drinking water is 30 minutes or more.
- Inadequate floors: The household has earth, dirt, mud, dung, or clay floors.
- Insufficient schooling: The household has no working-age adult de jure member (age 15-64) with at least 5 years of education, or there are no adult de jure members in the household.
- No electricity: The household has no electricity.

Asset poor households are households that do not have a car or truck and that do not have more than one of the following small assets: bicycle, radio, telephone (landline or mobile), television, refrigerator, or

motorcycle/scooter. Based on these definitions, Staveteig, Gebreselassie, and Kampa (2018b) grouped households into four categories:

- Non-poor: The household does not have any of the four unsatisfied basic needs.
- Poor: The household has one unsatisfied basic need.
- Extremely poor but not asset poor: The household has two or more unsatisfied basic needs but is not asset poor.
- Extremely poor and asset poor: The household has two or more unsatisfied basic needs and also is asset poor.

For our study, however, a preliminary analysis of these four poverty levels by region for the countries selected (Table 1) indicated that in most of the countries there were very few observations in the non-poor and poor categories. Therefore, we grouped these two categories into a single category representing households that were not extremely poor. Thus, this analysis has only three categories of household poverty: not extremely poor; extremely poor but not asset poor; extremely poor and asset poor.

2.2.2 Outcome variables

The two outcome variables examined are ideal number of children, representing fertility preferences, and demand for family planning satisfied by modern methods.

Ideal number of children: The DHS survey asks women the number of children they would like to have in their whole life. For women with living children, the survey asks them to think about the time before they had any children, before answering the question. Only numerical responses are considered for the ideal number of children, and non-numerical responses such as "up to God" or "unsure" are considered as missing data.

Demand for family planning satisfied by modern methods (DSMM): Women using any method of contraception are considered to have a met need for family planning. Women with unmet need for family planning are those who do not want to become pregnant within the next 2 years but are not using contraception. Together, the met need and the unmet need represent the total demand for family planning. Demand satisfied was calculated as the percentage of women who have a met need divided by the total demand. For the DSMM indicator this was restricted to women using a modern contraceptive method. Modern contraceptive methods include female sterilization, male sterilization, pill, IUD, injectables, implants, male condom, female condom, emergency contraception, vaginal methods, and lactational amenorrhea method (LAM).

2.2.3 Region

Within each country the study analyzed differences in poverty levels by region, as well as regional differences in the outcomes by poverty level. For Nepal, the provinces are used instead of regions. For Pakistan two regions, Gilgit Baltistan and Azad Jammu and Kashmir (AJK), have a separate sampling weight compared with the other regions of the country and cannot be included in the totals for the outcomes. These two regions also cannot be included in any of the regression analyses.

2.4　Methods

2.4.1　Descriptive

Three main descriptive tables are shown for each country in the analysis: one for the percent distribution of the absolute poverty levels for each region; one for the mean ideal number of children within each poverty level for each region (except for Mozambique, which did not have this indicator in the 2015 AIS survey); and one for the percent of demand for family planning satisfied by modern methods within each poverty level for each region. Any percentages or means based on fewer than 50 unweighted observations are not displayed in the tables.

2.4.2　Mapping

In this report three types of maps are produced that correspond to the descriptive tables. For each country, one map shows the percent distribution of the absolute poverty measure for each region, another map shows the mean number of children in each region for each poverty level, and a third map shows the percentage of demand for family planning satisfied by modern methods in each region for each poverty level. Any percentages or means based on fewer than 50 unweighted cases are not displayed in the maps and are represented in the legend as "insufficient data".

Maps that show the levels of the outcomes by region were produced in Stata 15 using the *grmap* command, while maps that show the distribution of the poverty levels were produced in ArcGIS. To produce the maps, polygon shape files were merged with the DHS data files that contain the variables of interest collapsed to the region level. Water areas were superimposed on the maps using polygon shape files for water areas in each country obtained online from DIVA-GIS.[1]

2.4.3　Regressions

For each survey, a regression model is fit for both outcomes at each poverty level with region as the main independent variable. These models answer the research question of whether there are regional variations in ideal number of children or demand for family planning satisfied by modern methods within the poverty groups. The results show, for instance, whether fertility preferences among women in the extremely poor and asset poor group differ between one region and a reference region. A region with a sufficient number of observations across the three poverty categories is set as the reference for comparison.

Regressions are performed at the individual level. Logistic regressions are fit for outcome variable on demand for family planning satisfied by modern methods, and Poisson regressions are fit for the outcome variable on ideal number of children. For both outcomes, the control variables include parity, education, and place of residence. For logistic regressions, the adjusted odds ratios are reported, while for Poisson regression the adjusted relative risk ratios are reported. These estimates are found in the Appendix tables and summarized in the text using equiplots[2] figures. For these regressions, the main limitation was the sample size, as many regions had very few observations in one of the three poverty levels studied. This could produce unreliable estimates with very wide confidence intervals.

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[1] DIVA-GIS: http://www.diva-gis.org.
[2] Equiplot: http://www.equidade.org/equiplot.php.

3   RESULTS

Table 2 summarizes the overall level of the outcomes for each survey. As the table shows, women's mean ideal number of children reported in the survey ranges from 2.2 in Nepal to 7.1 in Nigeria. Nepal is the only survey where mean ideal number of children is near replacement-level fertility. The Mozambique AIS survey did not include information on women's reported ideal number of children, and therefore an estimate could not be produced. DSMM ranges from 16% in Congo DRC to 75% in Malawi. These percentages correspond to the levels of mCPR in these surveys. Among the countries, DRC has the lowest mCPR, while Malawi has the highest.

Table 2   Mean ideal number of children and demand for family planning satisfied by modern methods (DSMM) for currently married women age 15-49

Country	Survey	Mean ideal number of children	Percentage of women with DSMM
Congo Democratic Republic	2013-14 DHS	6.6 [6.4,6.7]	16.3 [14.5,18.2]
Ethiopia	2016 DHS	4.9 [4.8,5.1]	60.6 [57.5,63.6]
Ghana	2014 DHS	4.7 [4.6,4.8]	39.2 [36.6,41.9]
Haiti	2016-17 DHS	3.0 [3.0,3.1]	44.0 [42.1,45.9]
Malawi	2015-16 DHS	3.9 [3.8,3.9]	74.6 [73.5,75.7]
Mozambique	2015 AIS	NA	50.4 [47.4,53.3]
Nepal	2016 DHS	2.2 [2.2,2.2]	56.0 [54.3,57.8]
Nigeria	2013 DHS	7.1 [7.0,7.2]	31.3 [29.6,33.0]
Pakistan	2017-18 DHS	3.9 [3.8,4.1]	48.6 [46.7,50.4]
Rwanda	2014-15 DHS	3.6 [3.6,3.7]	65.8 [64.1,67.4]
Uganda	2016 DHS	5.1 [5.0,5.2]	51.6 [49.9,53.3]
Zambia	2013-14 DHS	5.1 [5.0,5.2]	63.8 [62.1,65.5]

NA - Not available

The study results are presented below by country. The mapping for ideal number of children and demand for family planning satisfied by modern methods cannot be compared across countries due to the varying scales used. The same scale could not be used across countries because the distributions of these outcomes differ by country within regions and poverty levels.

3.1   Congo Democratic Republic (DRC)

3.1.1   Poverty levels

At the national level in DRC, most married women (71%) live in extremely poor and asset poor households, while 17% live in extremely poor but not asset poor households, and 12% live in not extremely poor households. All the regions in DRC except Kinshasa have a very high proportion of women in extremely poor and asset poor households (Figure 2). The highest proportion is found in Bandundu and Equateur regions, both at 86% (Appendix Table 1). For a majority of the regions, the extremely poor and asset poor group represents approximately three-fourths of all women. In Kinshasa, however, the great majority of women live in households in the not extremely poor group (85%).

Figure 2   Percent distribution of married women by absolute poverty at the regional level, Congo Democratic Republic 2013-14 DHS
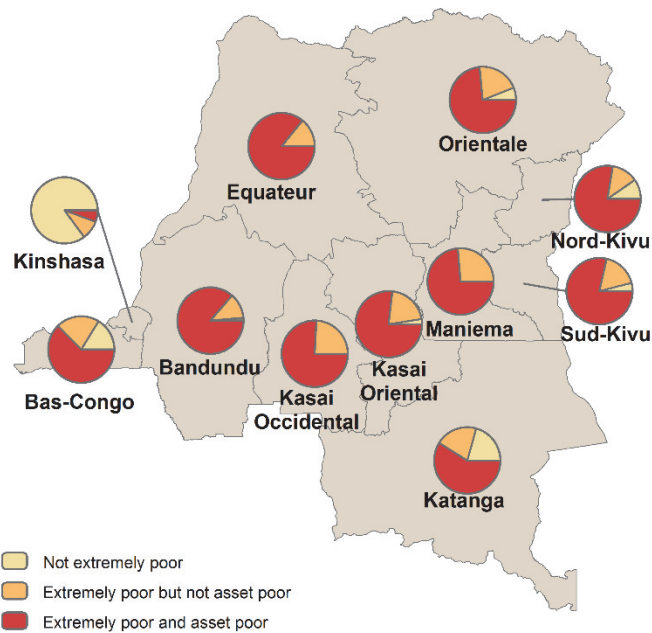
3.1.2 Ideal number of children

The overall mean ideal number of children in DRC varies by poverty group, at 5.1 for women in not extremely poor households, 6.4 in extremely poor but not asset poor households, and 6.9 in extremely poor and asset poor households (Appendix Table 2).

Figure 3 shows the mean ideal number of children in each region by poverty group. The maps show that the highest means are in the extremely poor and asset poor group. The southern regions including Katanga, Kasai-Occidental, and Kasai-Oriental have the highest means in the two extremely poor groups—at over 7 children for the extremely poor but not asset poor group, and over 8 for the extremely poor and asset poor group (Appendix Table 2). The lowest average number of ideal children is found in the not extremely poor group—lowest in Bas-Congo at a mean ideal number of 4.4 children. In several regions, however, there are not enough observations in this poverty group to provide a reliable estimate.

Figure 3   **Mean ideal number of children by poverty group and region among married women, Congo Democratic Republic 2013-14 DHS**

Note: Kasai-Occd. is Kasai-Occidental and Kasai-Ornt. is Kasai-Oriental.

A Poisson regression was fit for each poverty level with region as the main independent variable to observe the variation in the ideal number of children among regions after adjusting for urban-rural residence, woman's education, and parity. Figure 4 shows significant variations by region compared with the reference region of Katanga. The relative risk ratios and their significance level are also shown in Appendix Table 2.

In the not extremely poor group, Kasai-Occidental and Kasai-Oriental have a significantly higher ideal number of children compared with Katanga region. Kinshasa, Bas-Congo, Equateur, and Orientale have a significantly lower ideal number of children compared with Katanga. In the extremely poor but not asset poor group, all the regions except Kasai-Occidental, Kasai-Oriental, and Maniema have a significantly lower ideal number of children compared with Katanga region. In the extremely poor and asset poor group, all regions except Kasai-Occidental and Sud-Kivu have a significantly lower number of ideal children compared with Katanga. This indicates that regional disparities in fertility preferences exist even within the same absolute poverty group.

Figure 4   Adjusted relative risk ratios with 95% confidence intervals of the ideal number of children, Congo Democratic Republic 2013-14 DHS.
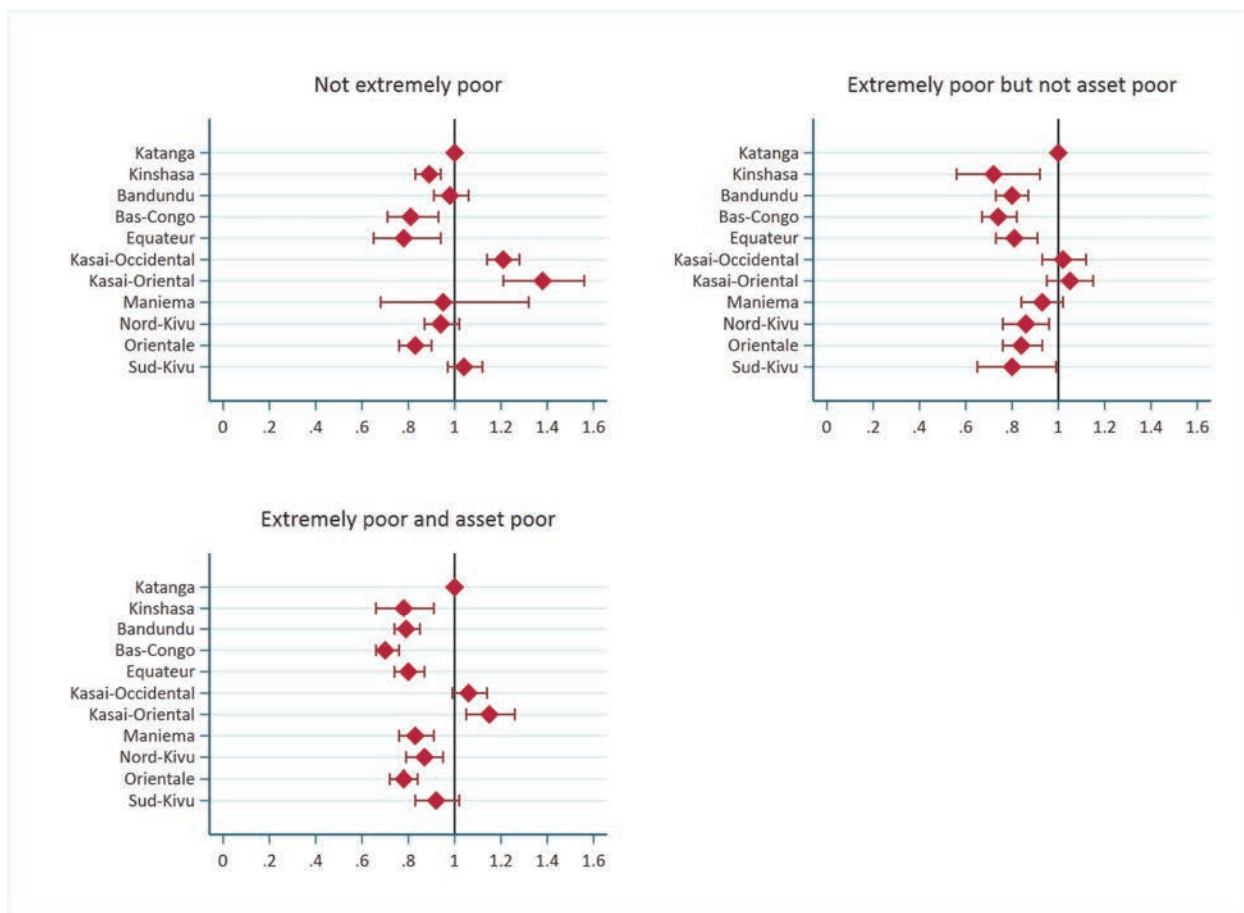
Note: Katanga is the reference region.

3.1.3   Demand for family planning satisfied by modern methods

In DRC the percent of DSMM is 28% in the not extremely poor household group, 20% in the extremely poor but not asset poor group, and 12% in the extremely poor and asset poor group (Appendix Table 3). Figure 5 shows the percent of DSMM in each region. Only three regions have enough observations to give a reliable estimate for the not extremely poor group. In the Bas-Congo region women in this poverty group have the highest level of DSMM (49%). Generally, women in households that are extremely poor but not asset poor have higher levels of DSMM compared with women in extremely poor and asset poor households. The lowest percent of DSMM is found in Katanga region within the extremely poor and asset poor group (4%).

Figure 5   Percent demand satisfied by modern methods by poverty group and region among married women, Congo Democratic Republic 2013-14 DHS
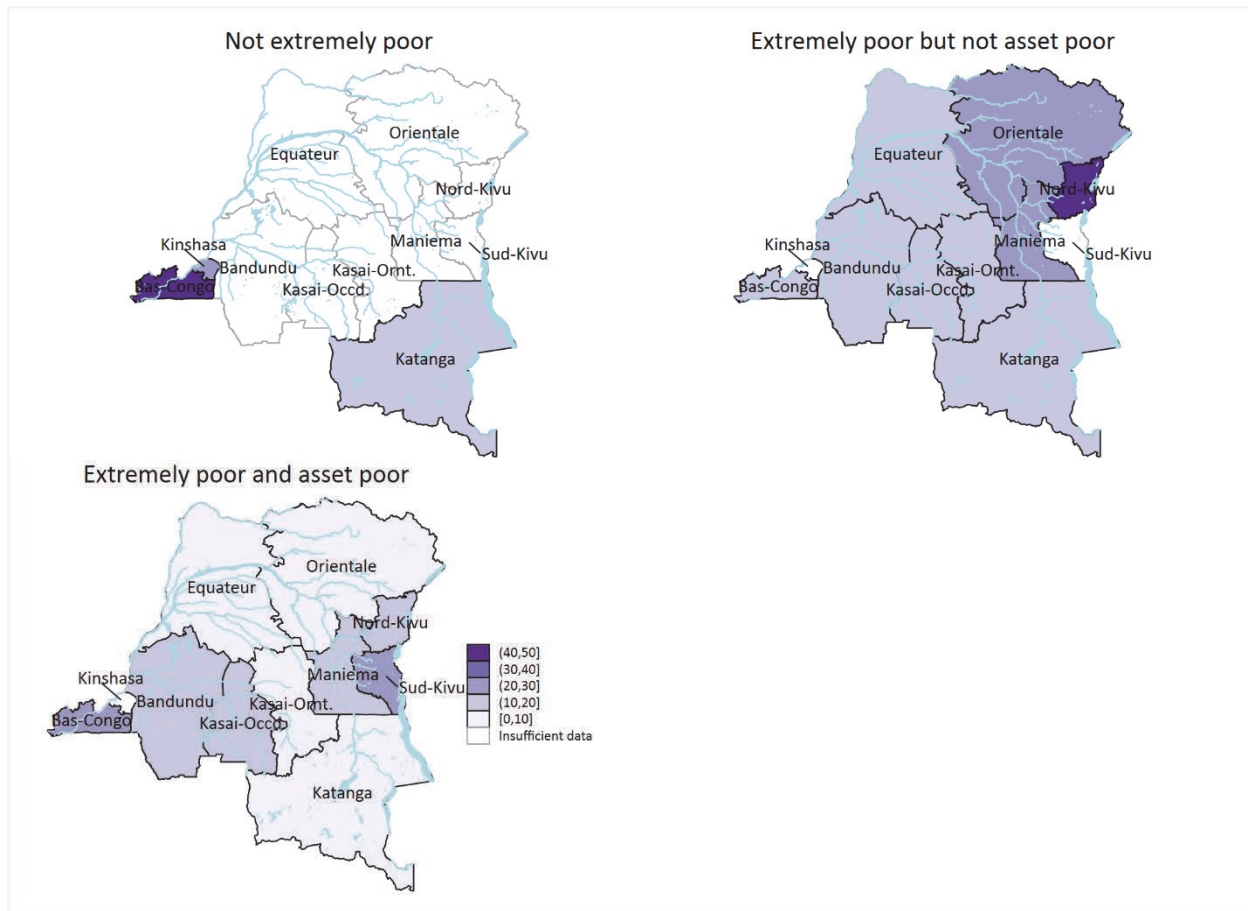
Note: Kasai-Occd. is Kasai-Occidental and Kasai-Ornt. is Kasai-Oriental.

A logistic regression was fit for each poverty level with region as the main independent variable to observe regional variations in DSMM controlling for urban-rural residence, education, and parity. Figure 6 shows that there are only a few significant variations by region compared with the reference region of Katanga. More significant variations are found for the extremely poor and asset poor group. The odds ratios and their significance levels are shown in Appendix Table 3.

For the not extremely poor group, Kinshasa, Bas-Congo, Nord-Kivu, and Sud-Kivu show significantly higher odds ratios for DSMM compared with Katanga region. However, estimates from Nord-Kivu and Sud-Kivu should be interpreted with caution as they are based on fewer than 50 observations. Because Maniema had only three observations in this poverty group, which produced an estimate with a very wide confidence interval and that is not significant, this region is excluded from the plot (AOR 5.4; 95% C.I. 0.2, 128.7). In the extremely poor but not asset poor group, Bas-Congo, Nord-Kivu, and Orientale have significantly higher odds ratios for DSMM compared with Katanga region. More significant variations are found in the extremely poor and asset poor group. Within this poverty group, Bandundu, Bas-Congo, Kasai-Occidental, Maniema, Nord-Kivu, and Sud-Kivu all have significantly higher odds ratios of DSMM compared with Katanga. This indicates that there are large variations in DSMM by region for this poverty

group, with some regions having seven to eight times significantly higher odds of DSMM compared with the reference region, although there are wide confidence intervals.

Figure 6   **Adjusted odds ratios with 95% confidence intervals of demand satisfied by modern methods, Congo Democratic Republic 2013-14 DHS**
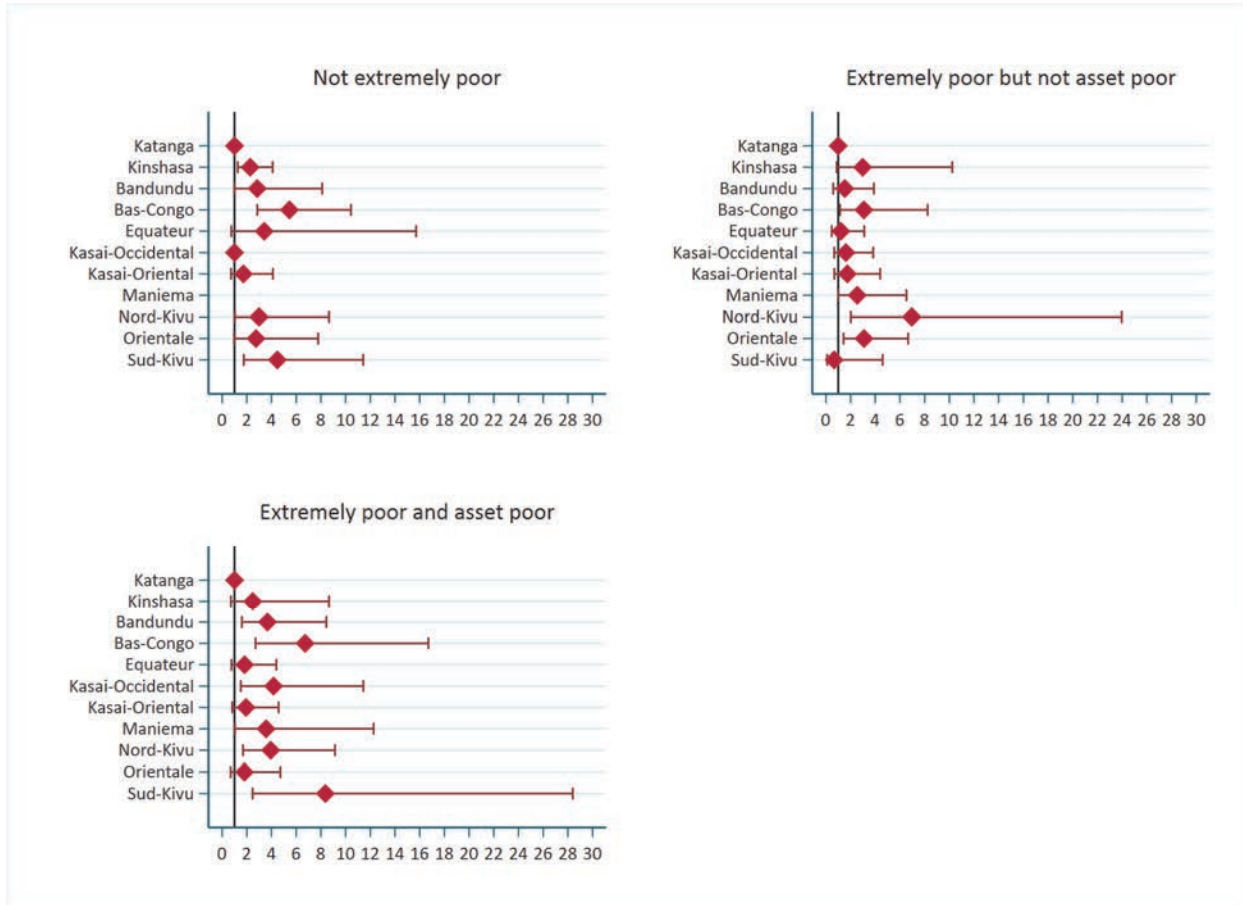
Note: Katanga is the reference region.

3.2   Ethiopia

3.2.1   Poverty levels

At the national level in Ethiopia, most women (78%) live in extremely poor and asset poor households. Most regions in Ethiopia except Addis Ababa, Dire Dawa, and Harari have a very high proportion of women in extremely poor and asset poor households (more than three-fourths in most regions) (Figure 7). The highest proportion is found in Somali region, at 86%, followed by the Southern Nations, Nationalities, and People's region (SNNPR), at 85% (Appendix Table 4). In Addis Ababa, however, the great majority of women live in households in the not extremely poor group (89%), while over half of women in Dire Dawa (56%) and Harari (51%) are also in this group.

Figure 7   Percent distribution of married women by absolute poverty at the regional level, Ethiopia 2016 DHS
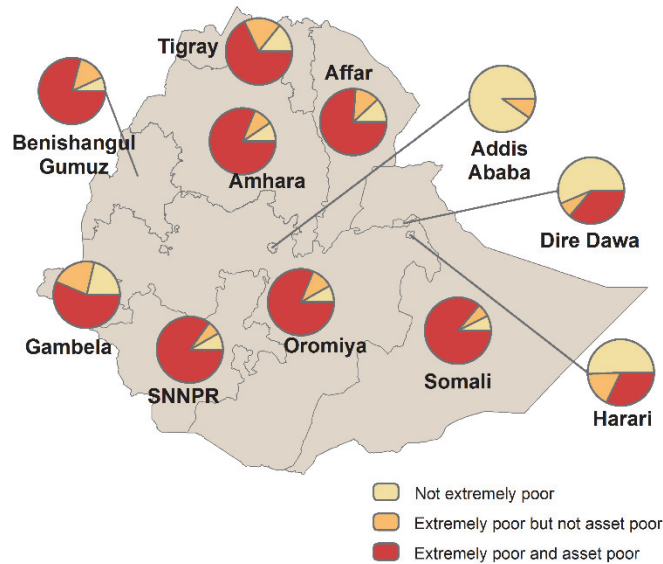
3.2.2   Ideal number of children

The overall mean ideal number of children in Ethiopia varies by poverty group, at 4.3 for women in not extremely poor households, 4.6 in extremely poor but not asset poor households, and 5.1 in extremely poor and asset poor households (Appendix Table 5).

Figure 8 shows the mean ideal number of children in each region by poverty group. The maps show that the highest means are found in Somali region in all three poverty groups. The mean ideal number of children in Somali region is approximately 11 in all poverty groups (Appendix Table 5). Several regions, including Tigray, Amhara, Oromiya, and Gambela, show an increase in the mean ideal number of children with an increase in the poverty level (Appendix Table 5). The lowest mean number of ideal children, at 3.5, is found in Addis Ababa in the extremely poor but not asset poor group. However, the confidence interval ranges from 2.8 to 4.1 for ideal number of children, which overlaps with the mean ideal number of children in several regions in the not extremely poor group (Appendix Table 5).

Figure 8   Mean ideal number of children by poverty group and region among married women, Ethiopia 2016 DHS
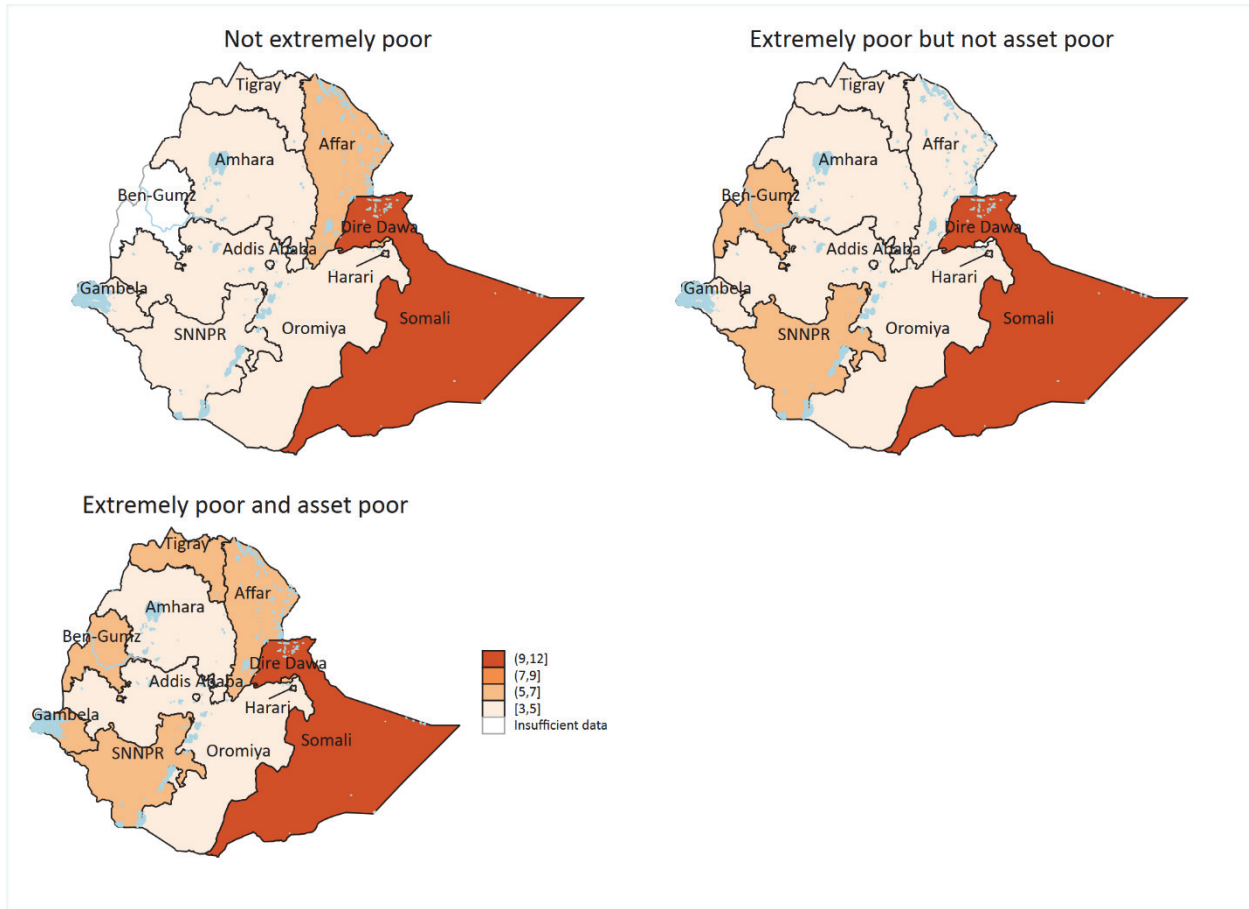
Note: Ben-Gumz is Benishangul-Gumuz.

Figure 9 summarizes the results from the Poisson regression fit for each poverty level in Ethiopia with region as the main independent variable. In the not extremely poor group and the extremely poor but not asset poor group there are few variations by region compared with the reference region, Tigray. More significant variations are found in the extremely poor and asset poor group.

In the not extremely poor group, Somali and Dire Dawa regions have a significantly higher ideal number of children compared with Tigray region, while Oromiya region has a slightly lower ideal number of children compared with Tigray region (Figure 9 and Appendix Table 5). In the extremely poor but not asset poor group, only the Somali region has a significantly higher number of ideal number of children compared with Tigray region, while in Amhara, Oromia, and Addis Ababa the number is significantly lower. In the extremely poor and asset poor group, both the Somali and Dire Dawa regions have a significantly higher ideal number of children compared with Tigray region, while Amhara, Oromiya, SNNPR, and Harari have a significantly lower ideal number of children. This shows that there are several regional disparities in fertility preferences within the extremely poor and asset poor group. In addition, across the poverty groups, the Somali region consistently shows a significantly higher number of ideal number of children compared with Tigray region (Figure 9).

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Figure 9   Adjusted relative risk ratios with 95% confidence intervals of the ideal number of children, Ethiopia 2016 DHS
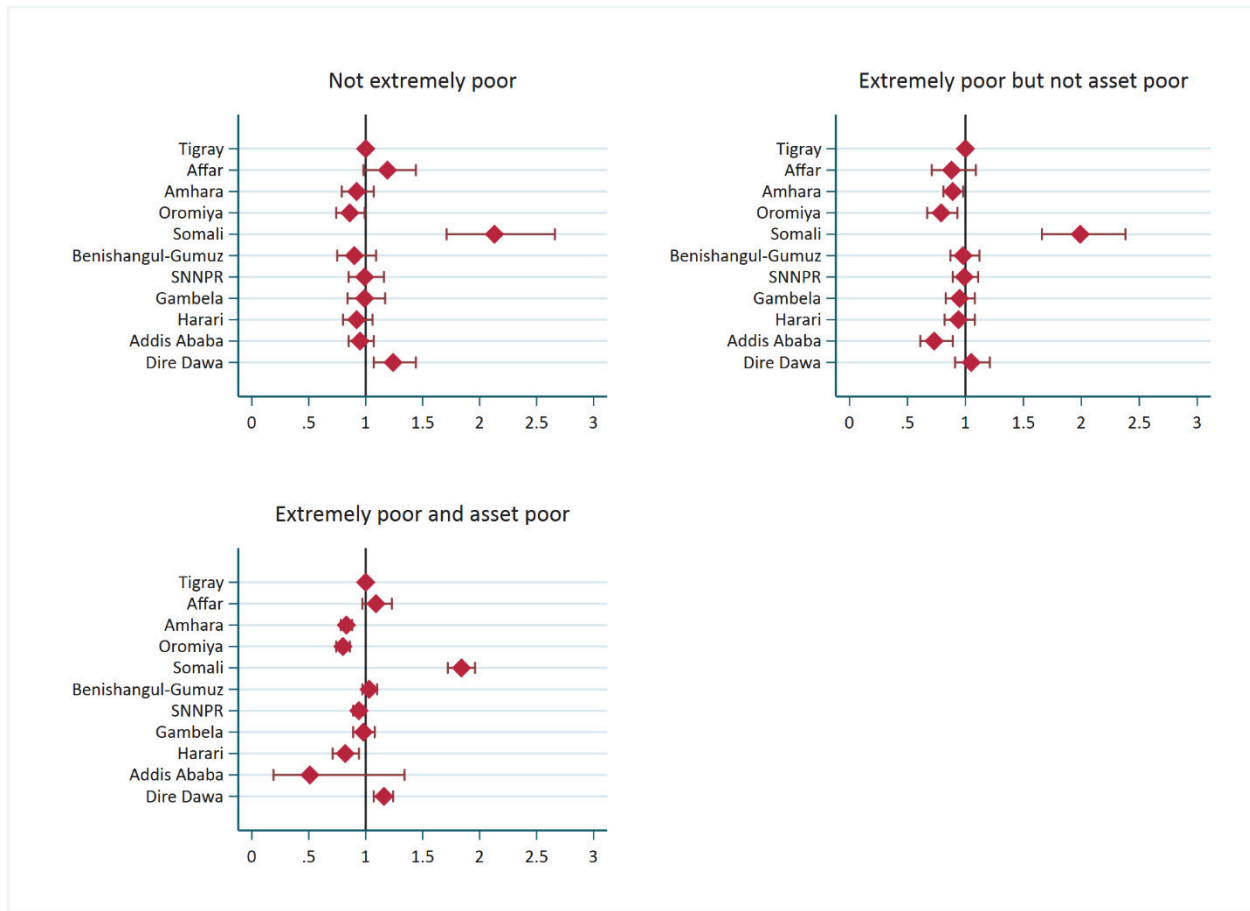
Note: Tigray is the reference region.

3.2.3   Demand for family planning satisfied by modern methods

In Ethiopia the level of DSMM is 77% for women in not extremely poor households, 75% in extremely poor but not asset poor households, and 56% in extremely poor and asset poor households (Appendix Table 6). Figure 10 shows the percent of DSMM in each region. The percent of DSMM is highest in the not extremely poor group; in four regions (Affar, Dire Dawa, Somali, and Benishangul-Gumuz), however, there were not enough observations to give a reliable estimate. Women in the not extremely poor group in the Amhara region have the highest level of DSMM (85%). The lowest percent of DSMM is found in the extremely poor and asset poor group, where only 4% of women in the Somali region have demand for family planning satisfied by modern methods, followed by 15% of women in Affar region.

Figure 10   Percent demand satisfied by modern methods by poverty group and region among married women, Ethiopia 2016 DHS
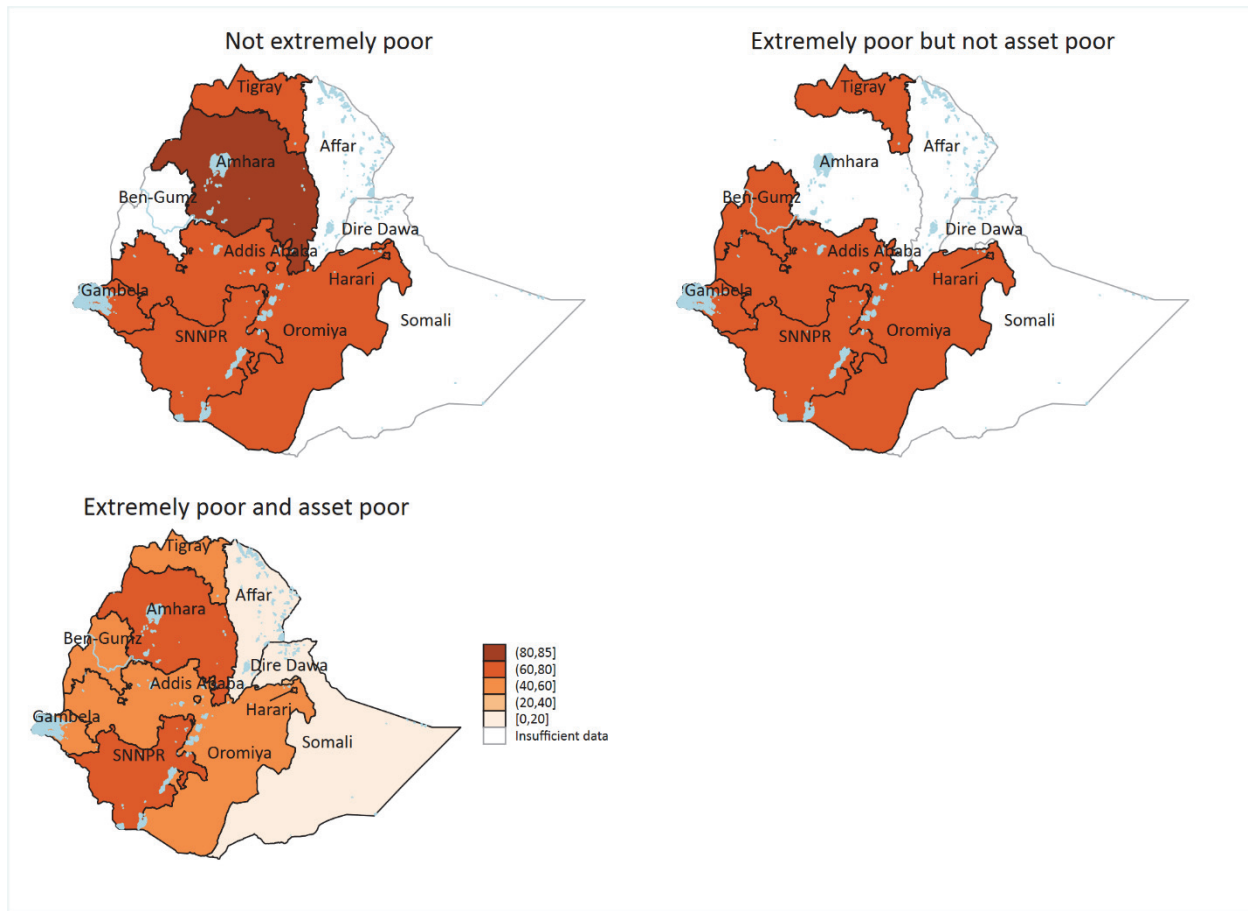
Note: Ben-Gumz is Benishangul-Gumuz

Figure 11 shows that there are only a few significant variations by region in the first two poverty groups compared with the reference region of Tigray. More significant variations are found in the extremely poor and asset poor group. The odds ratios and their significance level are shown in Appendix Table 6.

In the not extremely poor group, only the Somali region has a significant adjusted odds ratio, but this is based on fewer than 50 observations and therefore should be interpreted with caution. This is also the case for three regions (Affar, Somali, and Harari) with significant findings in the extremely poor but not asset poor group. More significant findings based on a sufficient number of observations are found in the extremely poor and asset poor group. Within this group, Affar, Amhara, Oromiya, Somali, Benishangul-Gumuz, Harari, and Dir Dawa all have significantly lower odds ratios of DSMM compared with Tigray.

Figure 11   Adjusted odds ratios with 95% confidence intervals of demand satisfied by modern methods, Ethiopia 2016 DHS
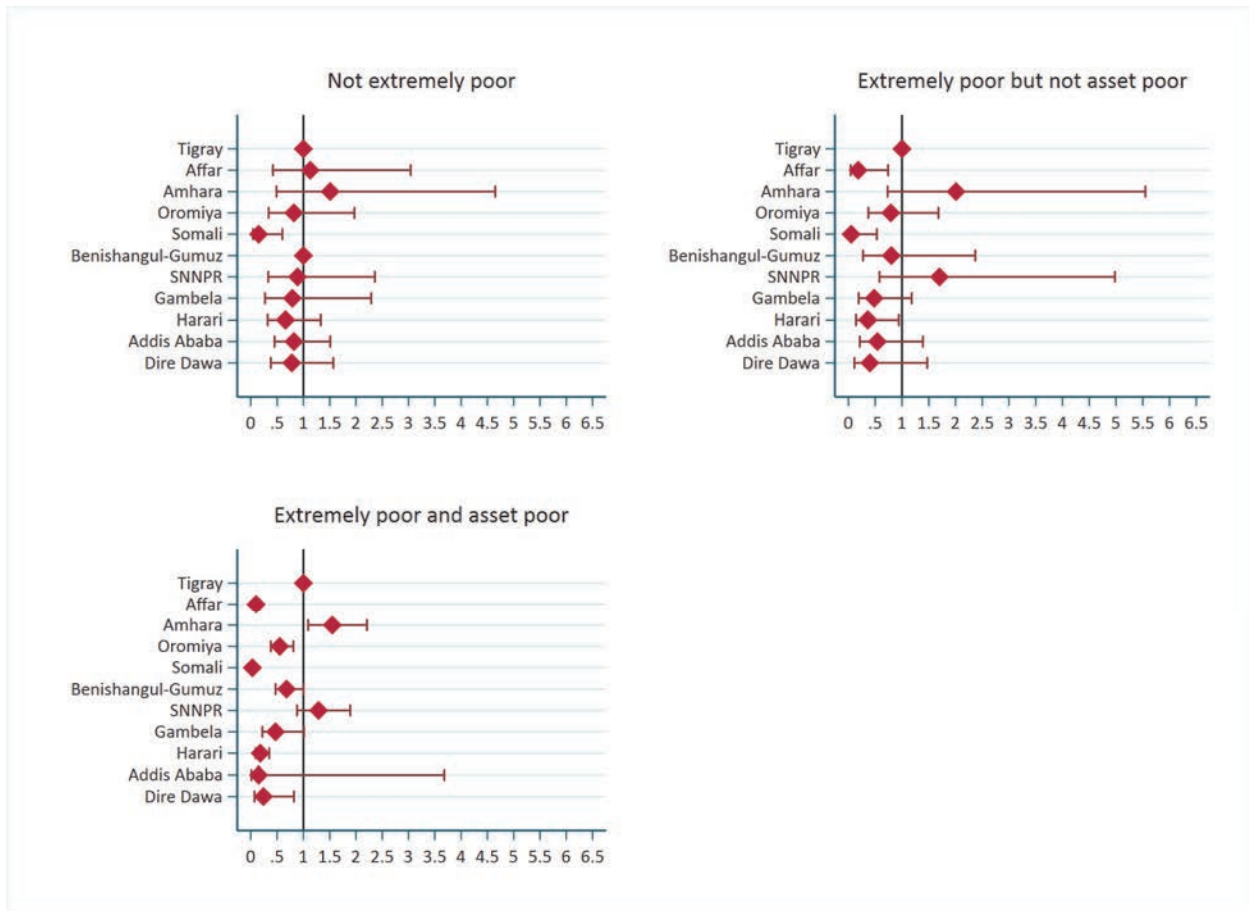
Note: Tigray is the reference region.

3.3   Ghana

3.3.1   Poverty levels

At the national level in Ghana, most women (74%) live in not extremely poor households. In all regions except Upper West, Upper East, and Northern, a very high proportion of women are in the not extremely poor group (Figure 12). The highest proportion is found in Greater Accra, at 95% (Appendix Table 7). Approximately one-fifth of women in Upper West, Upper East, and Northern regions live in extremely poor and asset poor households.

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Figure 12   Percent distribution of married women by absolute poverty at the regional level, Ghana 2014 DHS

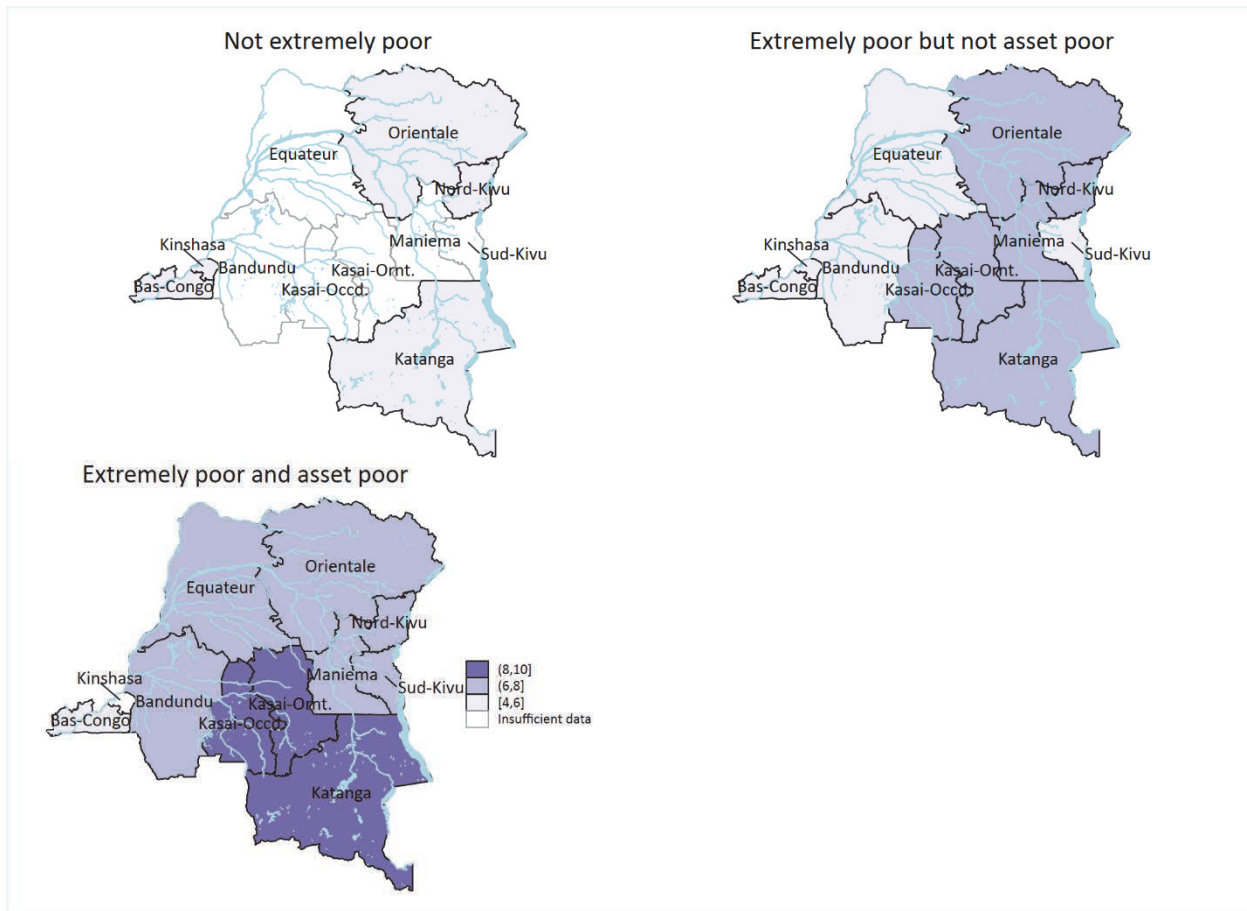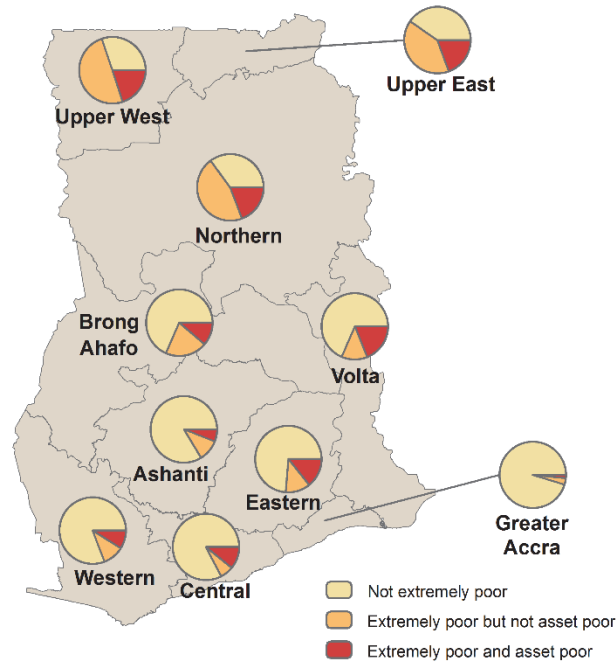### 3.3.2 Ideal number of children

The overall mean ideal number of children in Ghana is 4.3 for women in not extremely poor households, 5.6 in extremely poor but not asset poor households, and 5.6 in extremely poor and asset poor households (Appendix Table 8).

Figure 13 shows the mean ideal number of children in each region by poverty group. The maps show that the highest means are found in the extremely poor and asset poor group. Within each poverty group, the Northern region has the highest mean ideal number of children, at approximately 7 in all three groups (Appendix Table 8). The lowest mean number of ideal children, 3.8, is found in Greater Accra in the not extremely poor group.

Figure 13   Mean ideal number of children by poverty group and region among married women, Ghana 2014 DHS
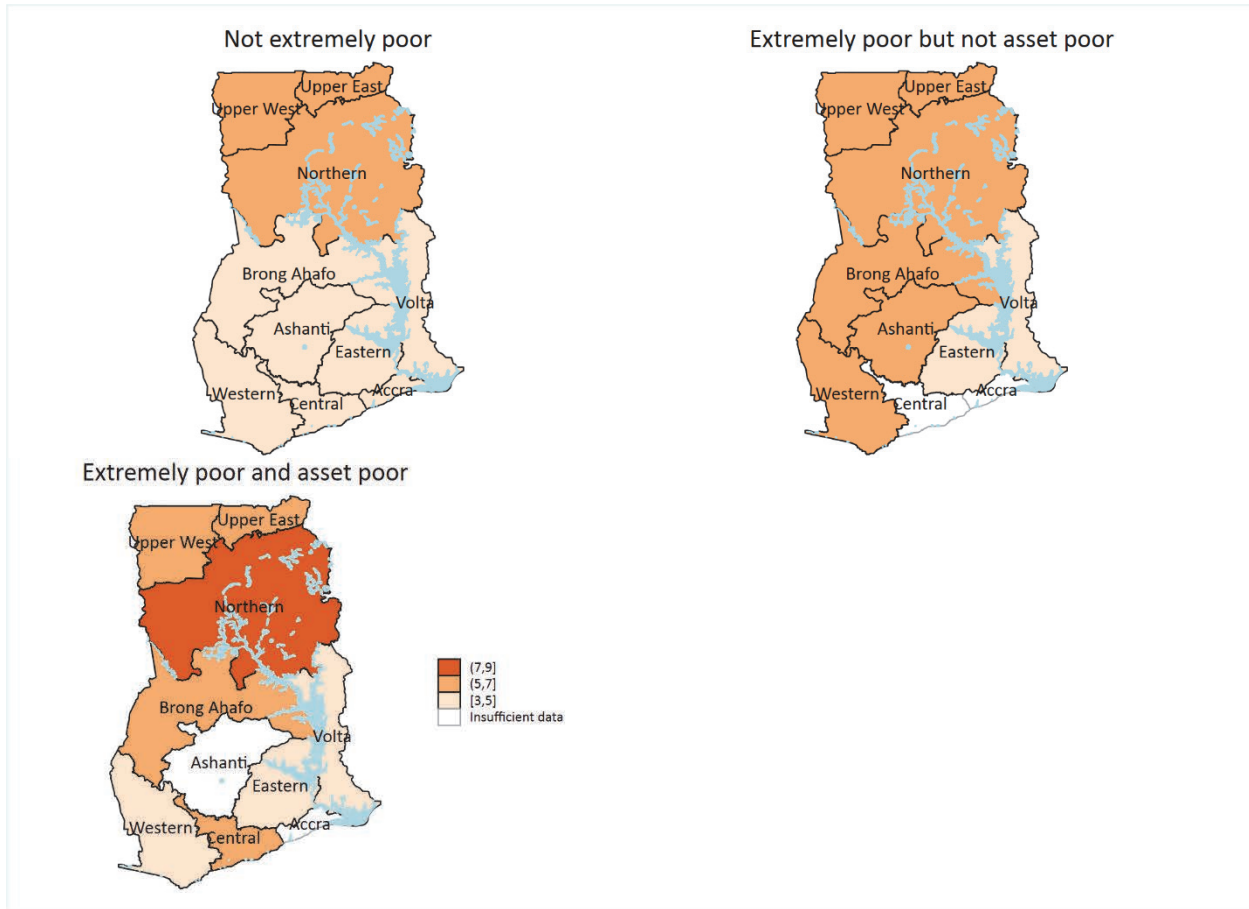
Note: Accra is Greater Accra.

Figure 14 summarizes the results from the Poisson regression fit for each poverty level in Ghana with region as the main independent variable. Most of the significant variations between the regions and the reference region are found in the not extremely poor group and the extremely poor but not asset poor group. Within these poverty groups, Western, Central, Greater Accra, Volta, and Eastern regions have a significantly lower ideal number of children compared with Upper West, the reference. Northern region has a significantly higher ideal number of children compared with Upper West, and the remaining three regions are not significantly different from it. Northern region consistently has a significantly higher ideal number of children compared with Upper West in all three poverty groups. Very little variation is found in the extremely poor and asset poor group, with only two regions, Northern and Upper East, showing a significantly higher ideal number of children compared with Upper West. However, for this poverty category most regions have relatively few observations (eight regions have fewer than 100 observations).

Figure 14   Adjusted relative risk ratios with 95% confidence intervals of the ideal number of children, Ghana 2014 DHS
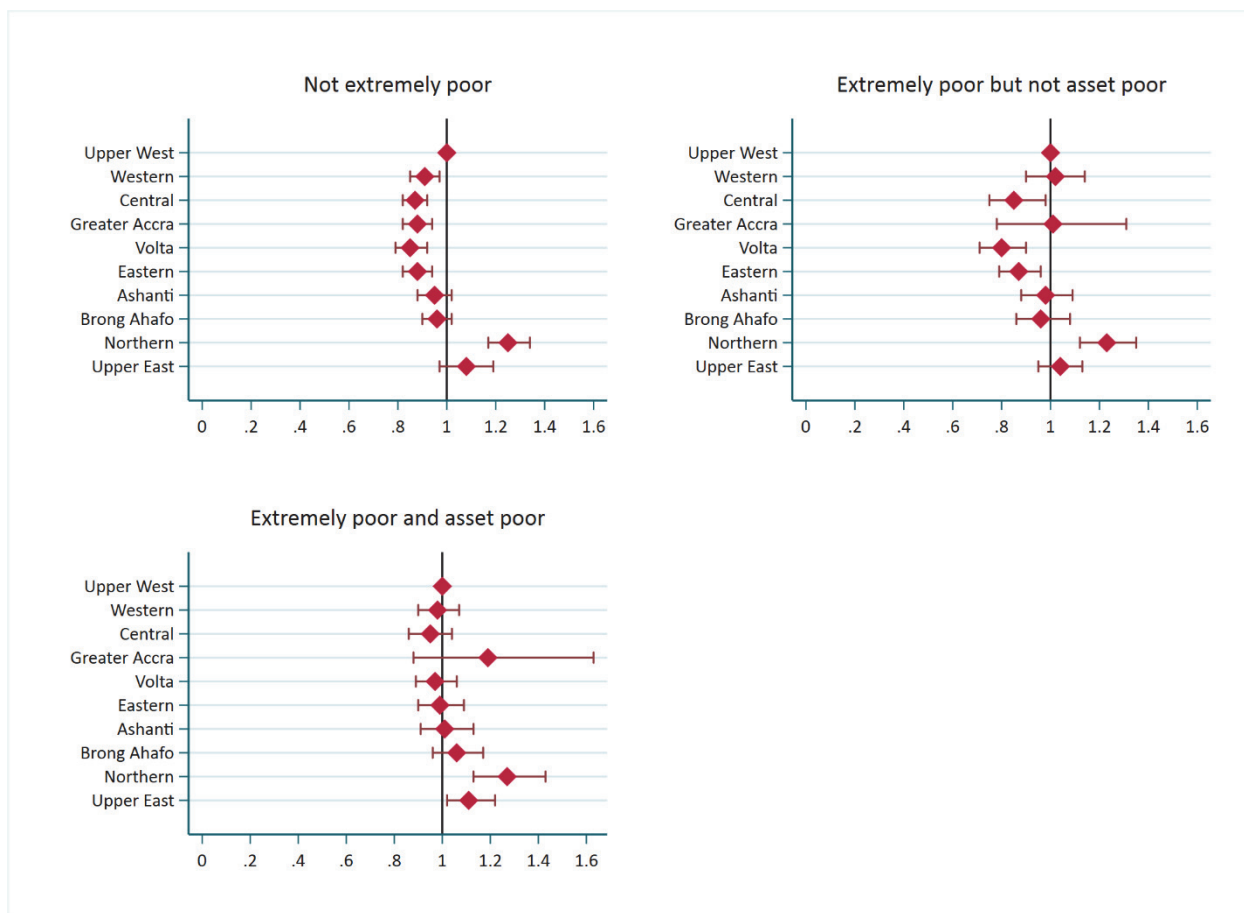
Note: Upper West is the reference region.

3.3.3   Demand for family planning satisfied by modern methods

In Ghana the level of DSMM is 40% for women in not extremely poor households, 38% in extremely poor but not asset poor households, and 36% in extremely poor and asset poor households (Appendix Table 9).

Figure 15 shows the percent of DSMM in each region. The percent of DSMM is the highest in the not extremely poor group; however, for many regions the other two poverty groups do not have enough observations to give a reliable estimate. The highest percent of DSMM in Ghana (54%) is found in Upper East region in the not extremely poor group. The lowest percent of DSMM is found in the extremely poor and asset poor group, with women in Northern region having the lowest percentage of demand for family planning satisfied by modern methods, at 23%.

Figure 15   Percent demand satisfied by modern methods by poverty group and region among married women, Ghana 2014 DHS
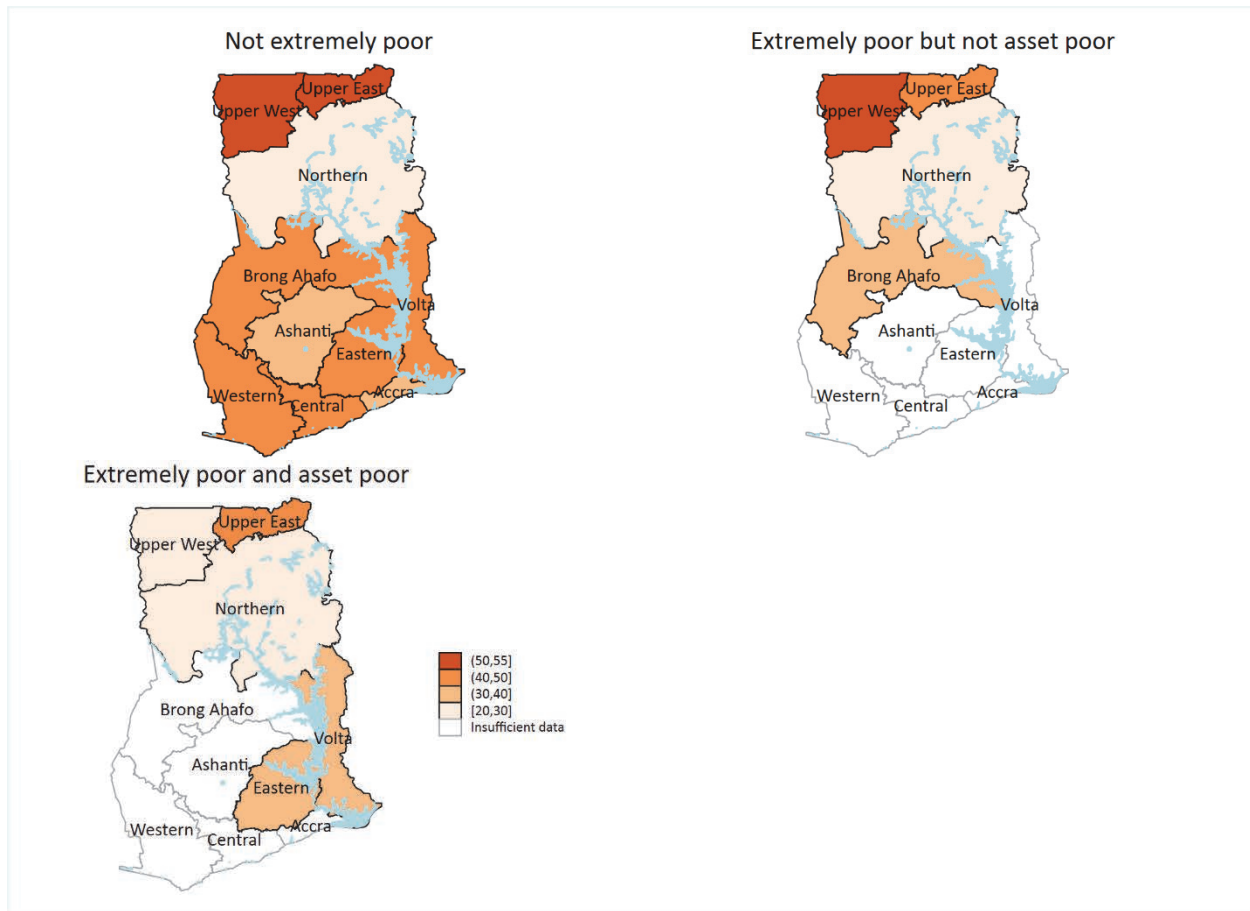
Note: Accra is Greater Accra.

Figure 16 shows that there is no evidence of variations by region compared with the reference region, Upper West, in the two extreme poverty groups. In addition, only three regions, Greater Accra, Ashanti, and Northern, have significantly lower odds of DSMM compared with the reference region. There are fewer than 100 observations in all regions within the extremely poor and asset poor group, and in 8 out of 10 regions in the extremely poor but not asset poor group (Appendix Table 9). This decreases the power of the models for these two poverty groups.

Figure 16   Adjusted odds ratios with 95% confidence intervals of demand satisfied by modern methods, Ghana 2014 DHS
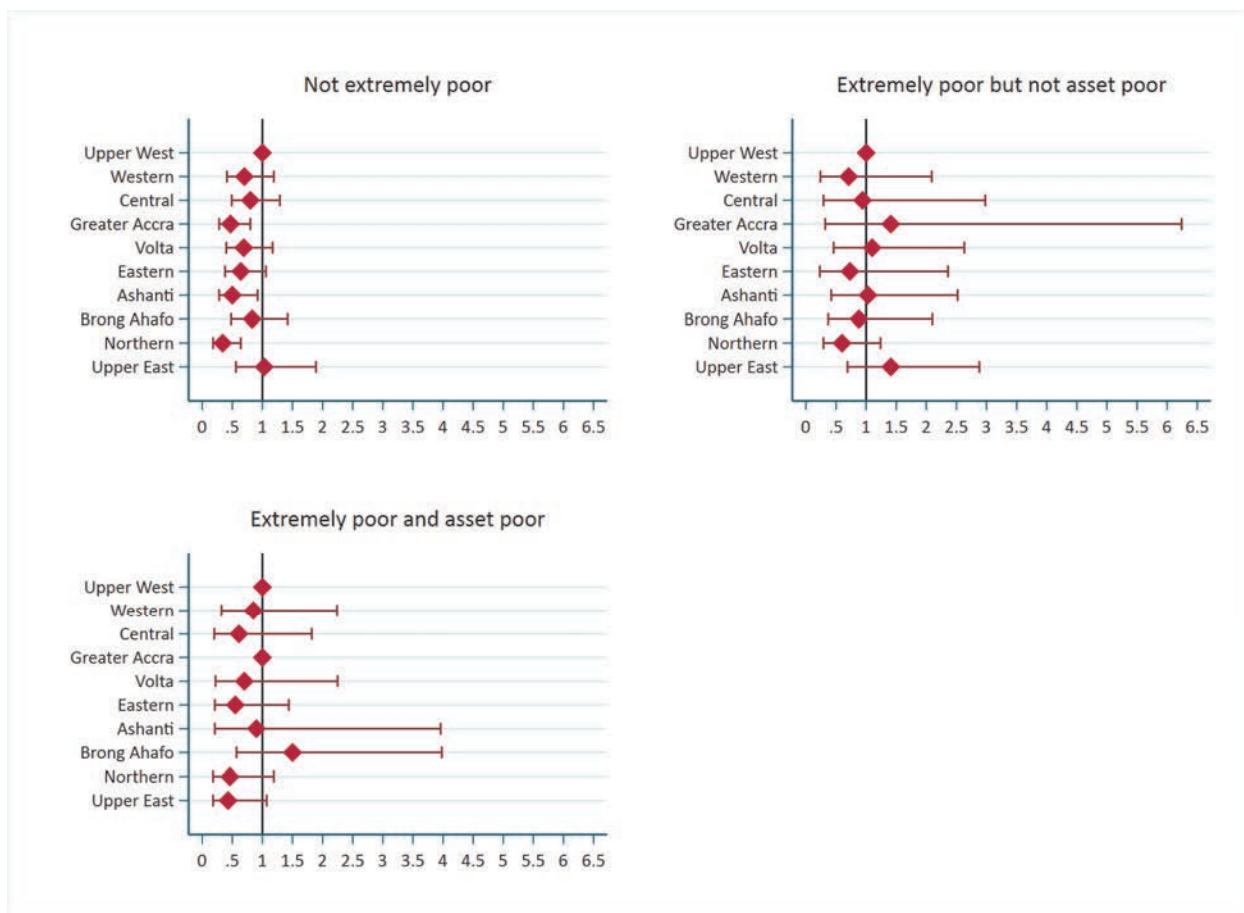
Note: Upper West is the reference region.

3.4   Haiti

3.4.1   Poverty levels

At the national level in Haiti, 45% of women live in extremely poor and asset poor households, 44% live in not extremely poor households, and 11% live in extremely poor but not asset poor households (Appendix Table 10). Figure 17 shows that in all regions except Aire Métropolitaine, Nord, and Nord-Est, more than half of women are living in extremely poor and asset poor households. The highest percentage of women in the extremely poor and asset poor group is found in Grande-Anse region, at 78% (Appendix Table 10). The region with Haiti's capital city, Aire Métropolitaine, has a very different distribution compared with the other regions in that 85% of women are in the not extremely poor group, while 9% are in the extremely poor and asset poor group, and 6% are in the extremely poor but not asset poor group. Following Aire Métropolitaine are Nord, Nord-Est, and Reste-Ouest regions with approximately 40% of women in the not extremely poor group.

Figure 17   Percent distribution of married women by absolute poverty at the regional level, Haiti 2016-17 DHS
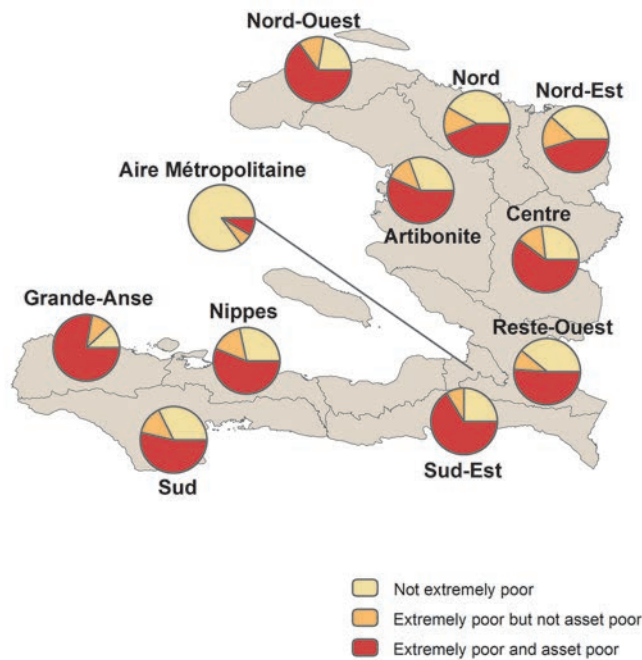
3.4.2   Ideal number of children

The overall mean ideal number of children in Haiti is 2.9 for women in not extremely poor households, 3.0 in extremely poor but not asset poor households, and 3.2 in extremely poor and asset poor households (Appendix Table 11).

Figure 18 shows the mean ideal number of children in each region by poverty group. Most regions in all three poverty groups have an ideal of approximately 3 children (Appendix Table 11). However, there is a slightly higher ideal number of children in the extremely poor and asset poor group compared with the other two groups. The highest mean, at 3.5 children, is found in Nord-Est region in the extremely poor and asset poor group, and the lowest (between 2.7 and 2.8) is found in Nippes and Aire Métropolitaine regions across the three poverty groups.

Figure 18   Mean ideal number of children by poverty group and region among married women, Haiti 2016-2017 DHS
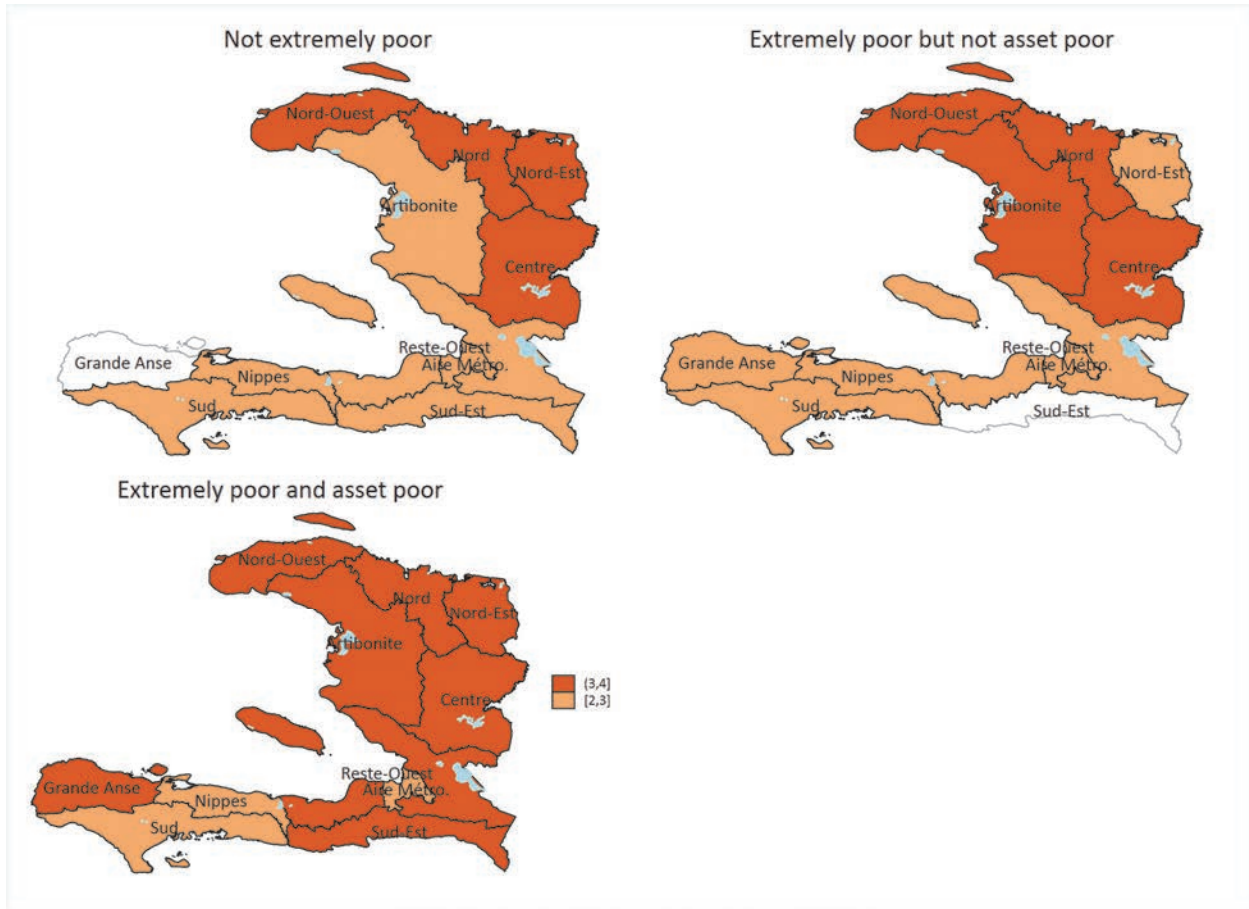
Note: Aire Métro. is Aire Métropolitaine.

Figure 19 summarizes the results from the Poisson regression fit for each poverty level in Haiti with region as the main independent variable. The results show few regional variations. In the not extremely poor group, Aire Métropolitaine, Grand-Anse, and Nippes have a marginally significantly lower ideal number of children compared with Nord region. There is no evidence of regional variations compared with the reference region in the extremely poor but not asset poor group. In the extremely poor and asset poor group, Aire Métropolitaine has a marginally significant lower ideal number of children compared with Nord region, and Nippes also has a significantly lower ideal number of children compared with Nord region (Appendix Table 11).

Figure 19   Adjusted relative risk ratios with 95% confidence intervals of the ideal number of children, Haiti 2016-2017 DHS
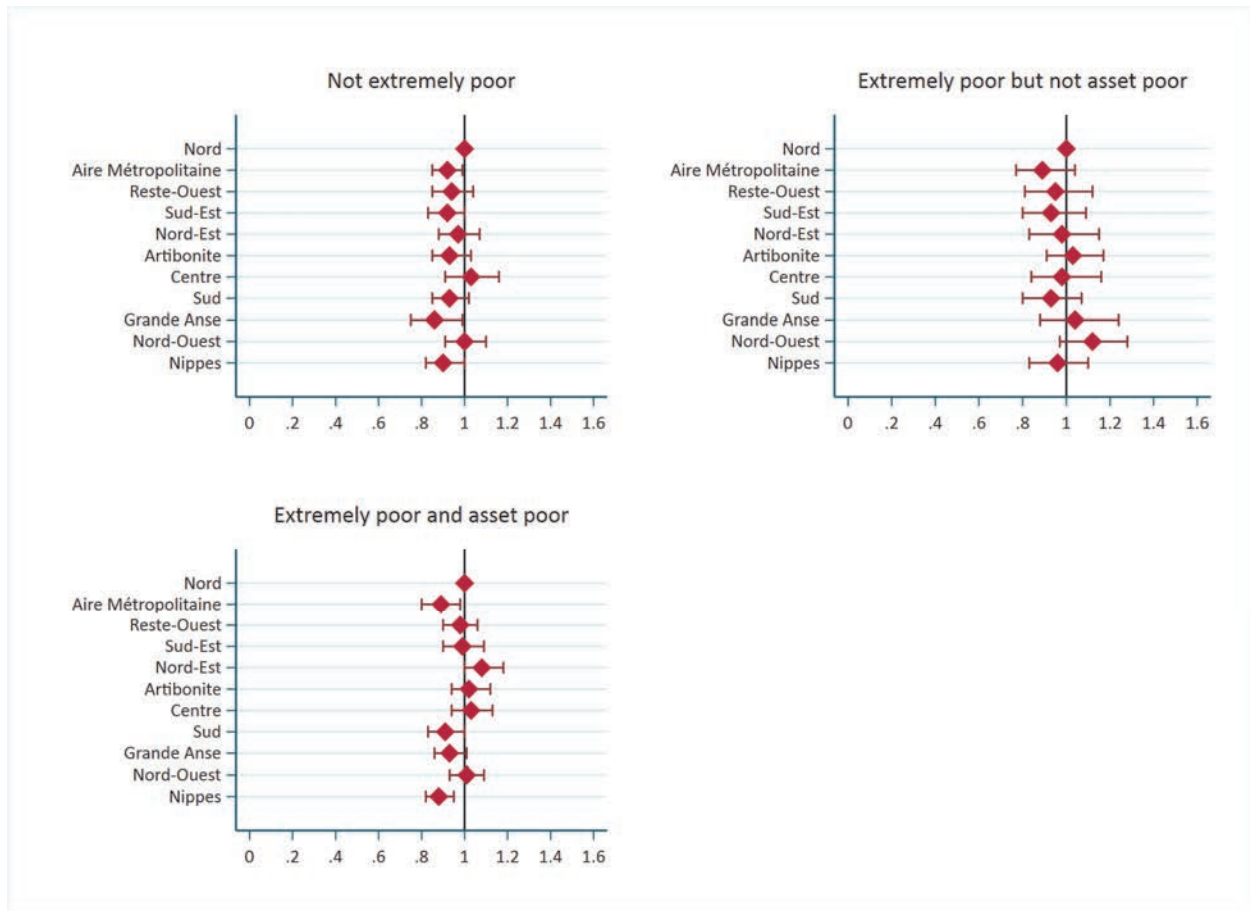
Note: Nord is the reference region.

3.4.3   Demand for family planning satisfied by modern methods

In Haiti the level of DSMM is 45% for women in the not extremely poor group, 47% in the extremely poor but not asset poor group, and 43% in the extremely poor and asset poor group (Appendix Table 12). Figure 20 shows the percent of DSMM in each region. In general, the percent of women with DSMM is highest in the extremely poor but not asset poor group. The highest percent of DSMM is found in Centre and Nord-Est regions (57%) in the extremely poor but not asset poor group. For this poverty group, however, many regions have insufficient data to provide a reliable estimate. The lowest percent of DSMM is found in Sud-Est region, at 32% in the extremely poor and asset poor group, followed by Reste-Ouest and Sud, at 34%.

Figure 20   Percent demand satisfied by modern methods by poverty group and region among married women, Haiti 2016-2017 DHS
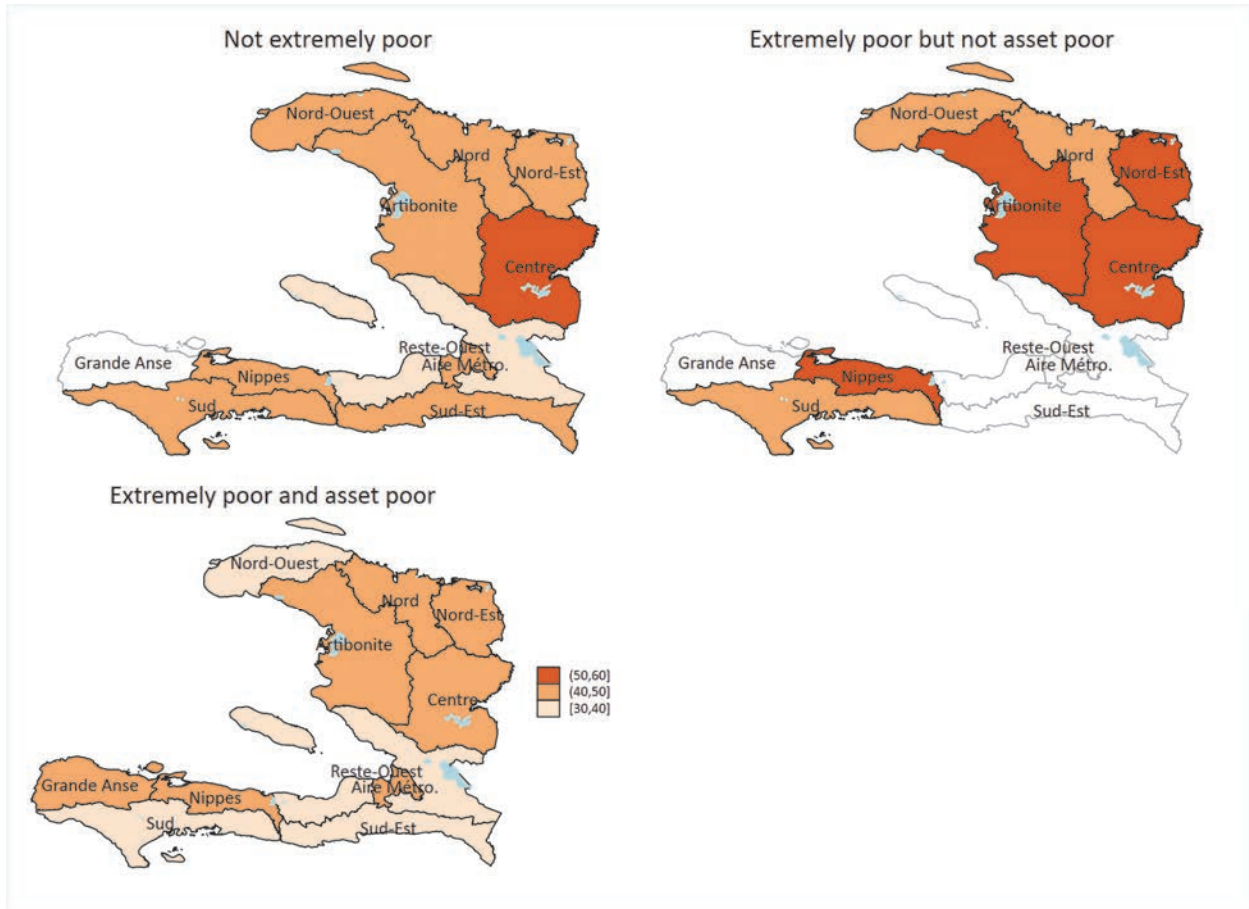
Note: Aire Métro. is Aire Métropolitaine.

Figure 21 and Appendix Table 12 show that there are few significant variations by region compared with the reference region. Within the not extremely poor group, only Centre region has marginally significantly higher odds of DSMM compared with Nord region. There is no evidence of variations compared with the reference region in the extremely poor but not asset poor group. Within the extremely poor and asset poor group, Reste-Ouest, Sud-Est, and Sud regions have significantly lower odds of DSMM compared with Nord region.

Figure 21   Adjusted odds ratios with 95% confidence intervals of demand satisfied by modern methods, Haiti 2016-2017 DHS
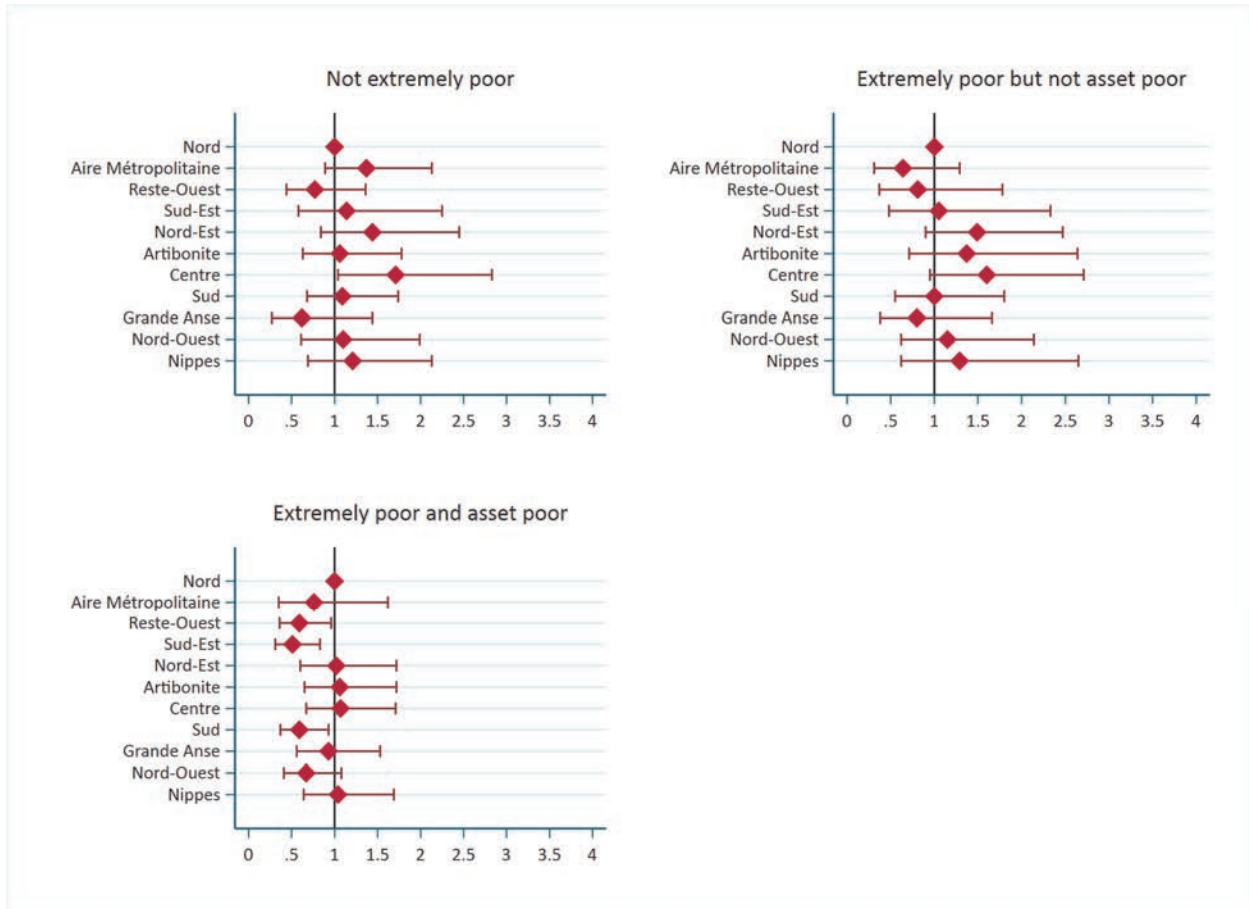
Note: Nord is the reference region.

3.5   Malawi

3.5.1   Poverty levels

At the national level in Malawi, 17% of women live in not extremely poor households, 30% live in extremely poor but not asset poor households, and 53% live in extremely poor and asset poor households (Appendix Table 13). Figure 22 shows that this national distribution generally is also found for each region. In all three regions, almost half of women are in the extremely poor and asset poor group.

Figure 22   Percent distribution of married women by absolute poverty at the regional level, Malawi 2015-16 DHS
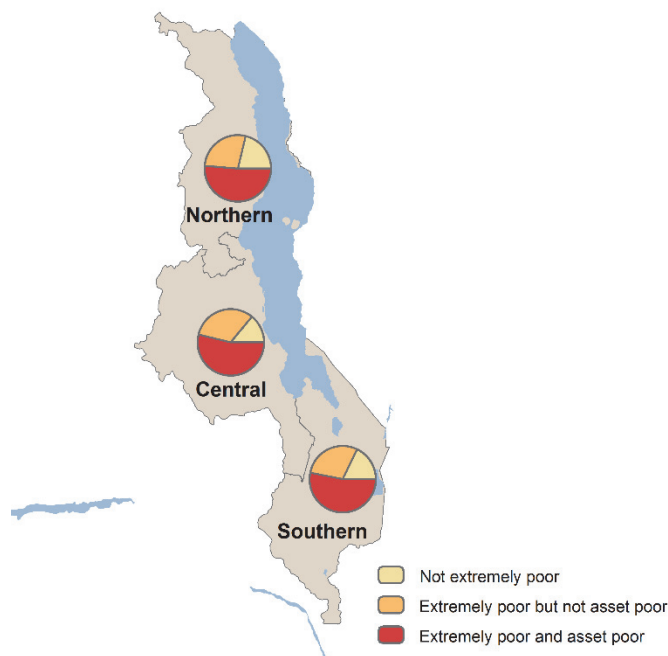
3.5.2   Ideal number of children

The overall mean ideal number of children in Malawi is 3.4 for women in not extremely poor households, 4.0 in extremely poor but not asset poor households, and 3.9 in extremely poor and asset poor households (Appendix Table 14).

Figure 23 shows the mean ideal number of children in each region by poverty group. There is generally little variation by region in the mean ideal number of children, from 3.3 in the Central region in the not extremely poor group to approximately 4.0 in all regions in the two extreme poverty groups.

Figure 23   **Mean ideal number of children by poverty group and region among married women, Malawi 2015-16 DHS**
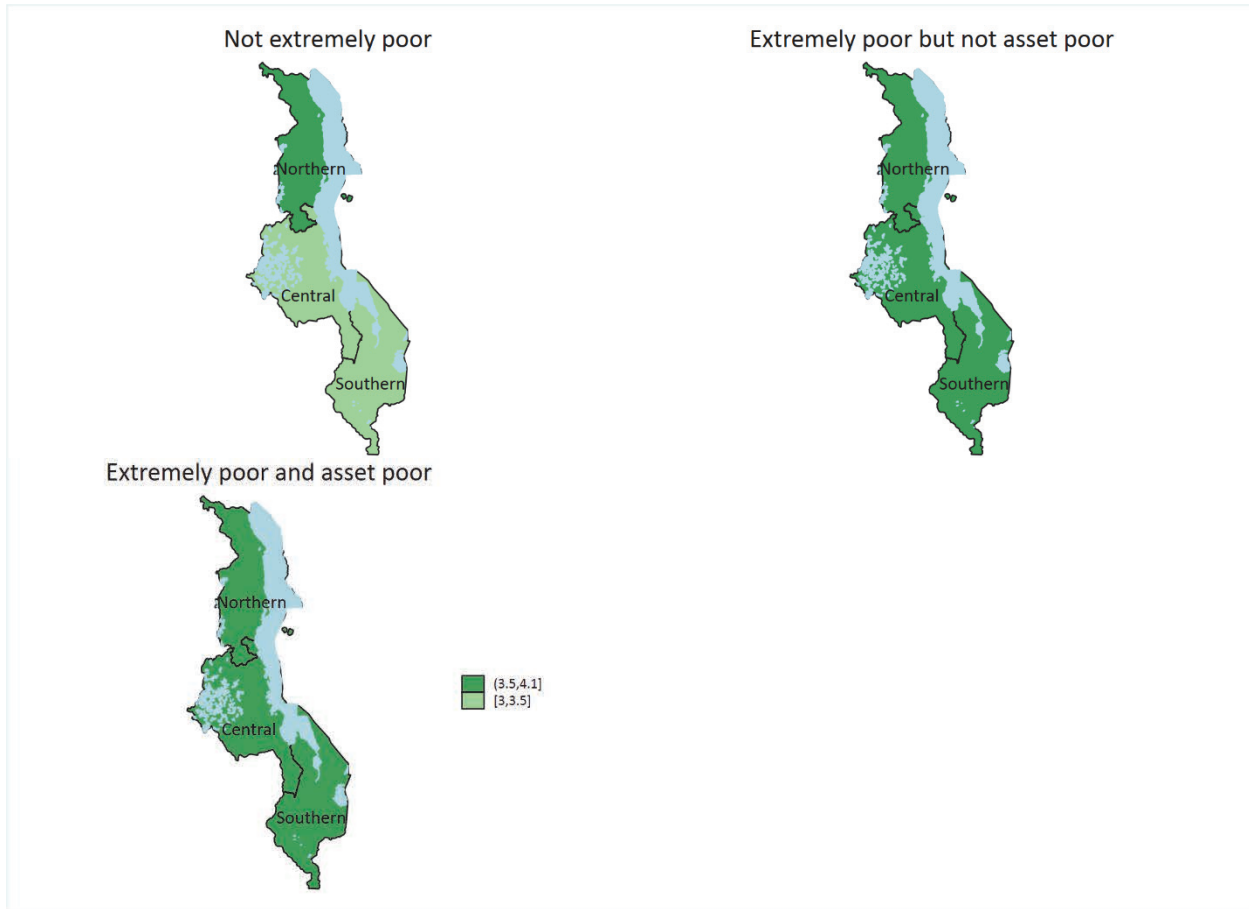
Similar to the findings in Figure 23, results shown in Figure 24 from the Poisson regression fit for each poverty level in Malawi with region as the main independent variable show no differences between the Central region and the Southern region compared with the reference Northern region.

Figure 24   Adjusted relative risk ratios with 95% confidence intervals of the ideal number of children, Malawi 2015-16 DHS

Note: Northern region is the reference region.

3.5.3   Demand for family planning satisfied by modern methods

In Malawi the level of DSMM is 77% for women in not extremely poor households, 76% in extremely poor but not asset poor households, and 73% in extremely poor and asset poor households (Appendix Table 15).

Figure 25 shows the percent of DSMM in each of the three regions. There are not many variations between the poverty levels in the regional distribution of DSMM. The lowest percent of DSMM is found in the Northern region in the extremely poor and asset poor group (66%), while the highest level is 80% found in the Central region in both the not extremely poor group and the extremely poor but not asset poor group (Appendix Table 15).

Figure 25   Percent demand satisfied by modern methods by poverty group and region among married women, Malawi 2015-16 DHS

Figure 26 and Appendix Table 15 show that only the Central region has significantly higher odds of DSMM compared with the Northern region across all three poverty groups. There is no evidence of differences in DSMM between the Southern region and the Northern region.

Figure 26   Adjusted odds ratios with 95% confidence intervals of demand satisfied by modern methods, Malawi 2015-16 DHS
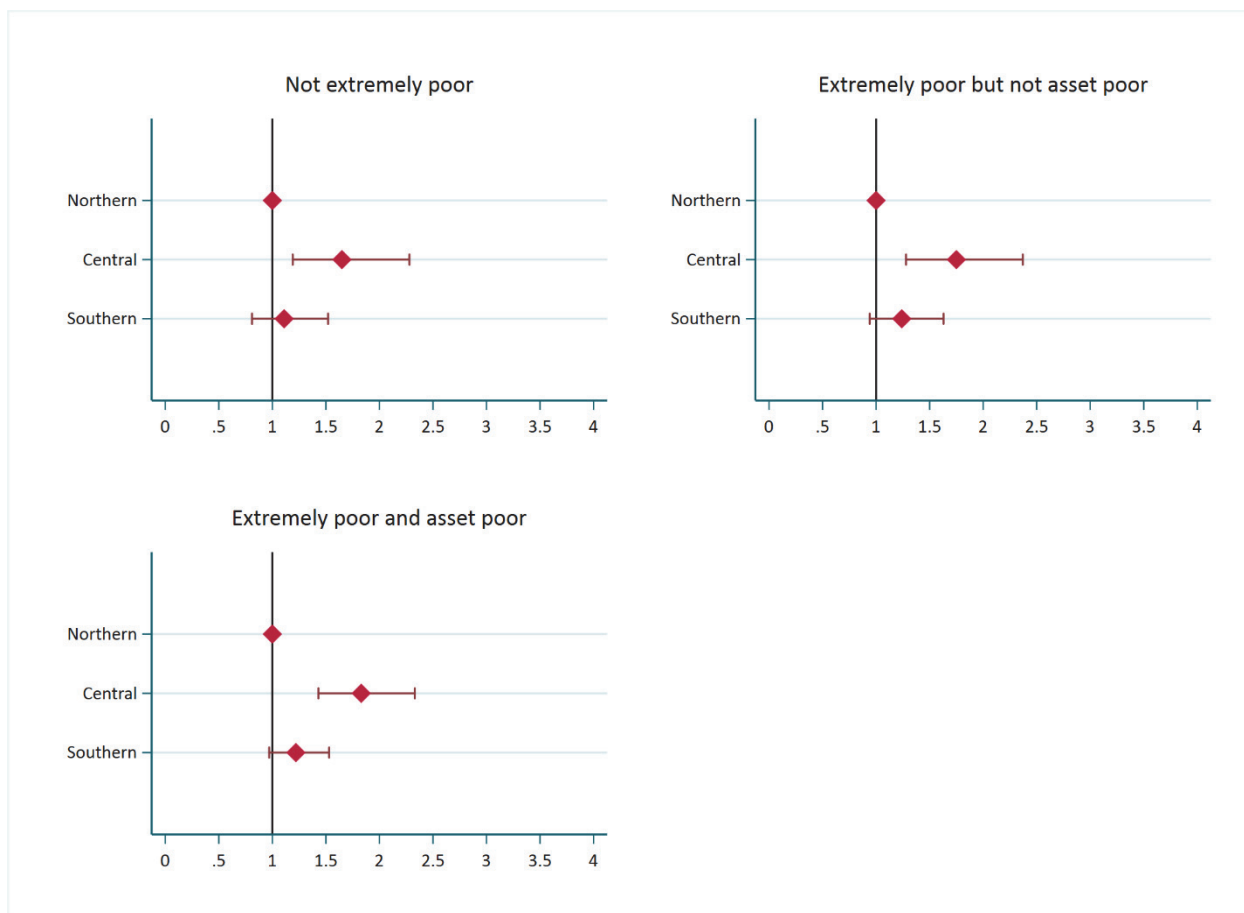
Note: Northern region is the reference region.

3.6   Mozambique

3.6.1   Poverty levels

At the national level in Mozambique, 47% of women live in extremely poor and asset poor households, 28% live in extremely poor but not asset poor households, and 24% live in not extremely poor households (Appendix Table 16). Figure 27 shows that in general the northern regions have a higher percentage of women in the extremely poor and asset poor group. The highest percentage of extremely poor and asset poor women are found in Nampula region, at 61% (Appendix Table 16). The two regions of Maputo Cidade and Maputo Provincia have a different distribution of poverty compared with the other regions, with most women in the not extremely poor group (94% and 74% respectively).

Figure 27   Percent distribution of married women by absolute poverty at the regional level, Mozambique 2015 AIS
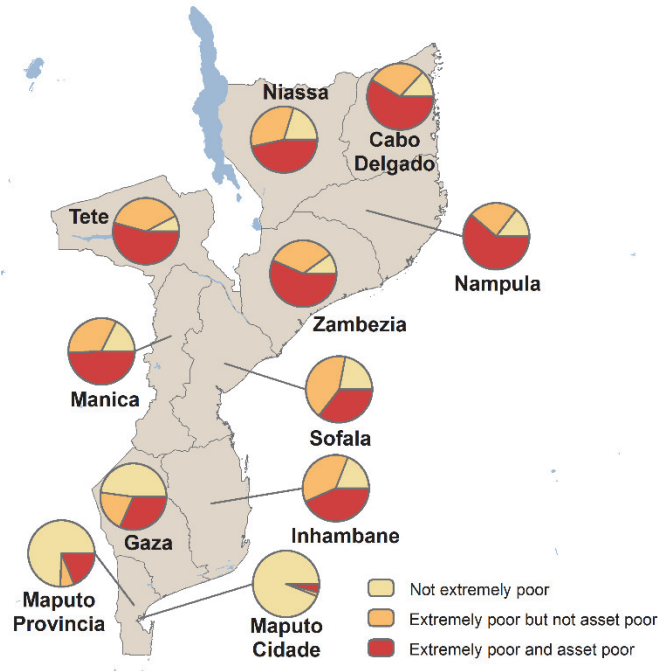
3.6.2   Demand for family planning satisfied by modern methods

In Mozambique the level of DSMM is 64% for women in not extremely poor households, 49% in extremely poor but not asset poor households, and 42% in extremely poor and asset poor households (Appendix Table 17).

Figure 28 shows the percent of DSMM in each region. In general, the percent of women with demand for family planning satisfied by modern methods is highest in the not extremely poor group. Several regions within this poverty group have a level of DSMM above 60%, as the figure shows. Two regions did not have enough observations to give a reliable estimate. The lowest percent of DSMM, 29%, is found in Zambezia region in the extremely poor and asset poor group. However, two regions did not have enough observations to give a reliable estimate for this poverty group.

Figure 28   Percent demand satisfied by modern methods by poverty group and region among married women, Mozambique 2015 AIS
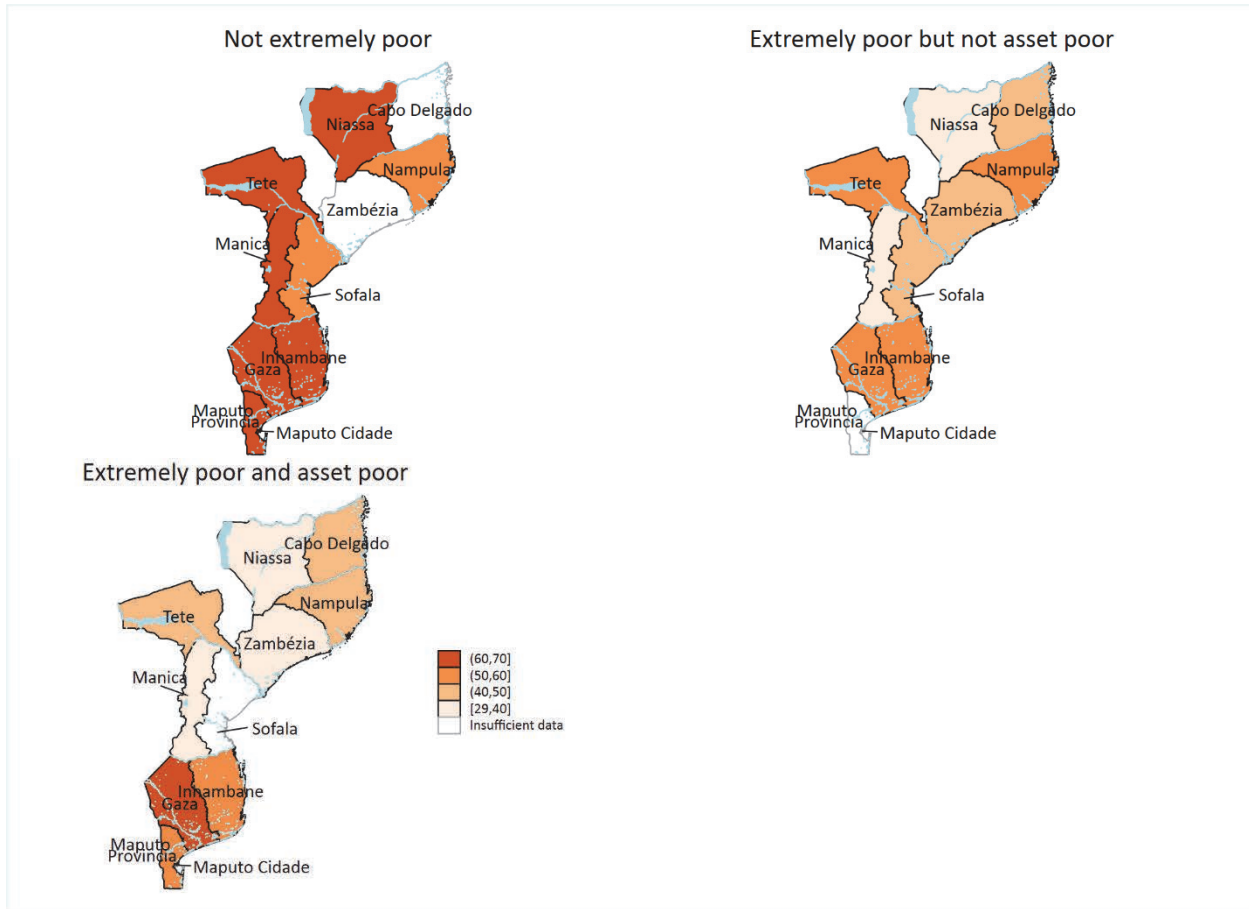
Figure 29 shows that in the extremely poor and asset poor group there are only three regions with significantly higher odds of DSMM compared with Niassa region, the reference. These are Tete, Inhambane, and Gaza regions. The levels of statistical significance for Tete and Inhambane regions are marginal (Appendix Table 17). There are no significant odds ratios for the other two poverty groups.

Figure 29   Adjusted odds ratios with 95% confidence intervals of demand satisfied by modern methods, Mozambique 2015 AIS
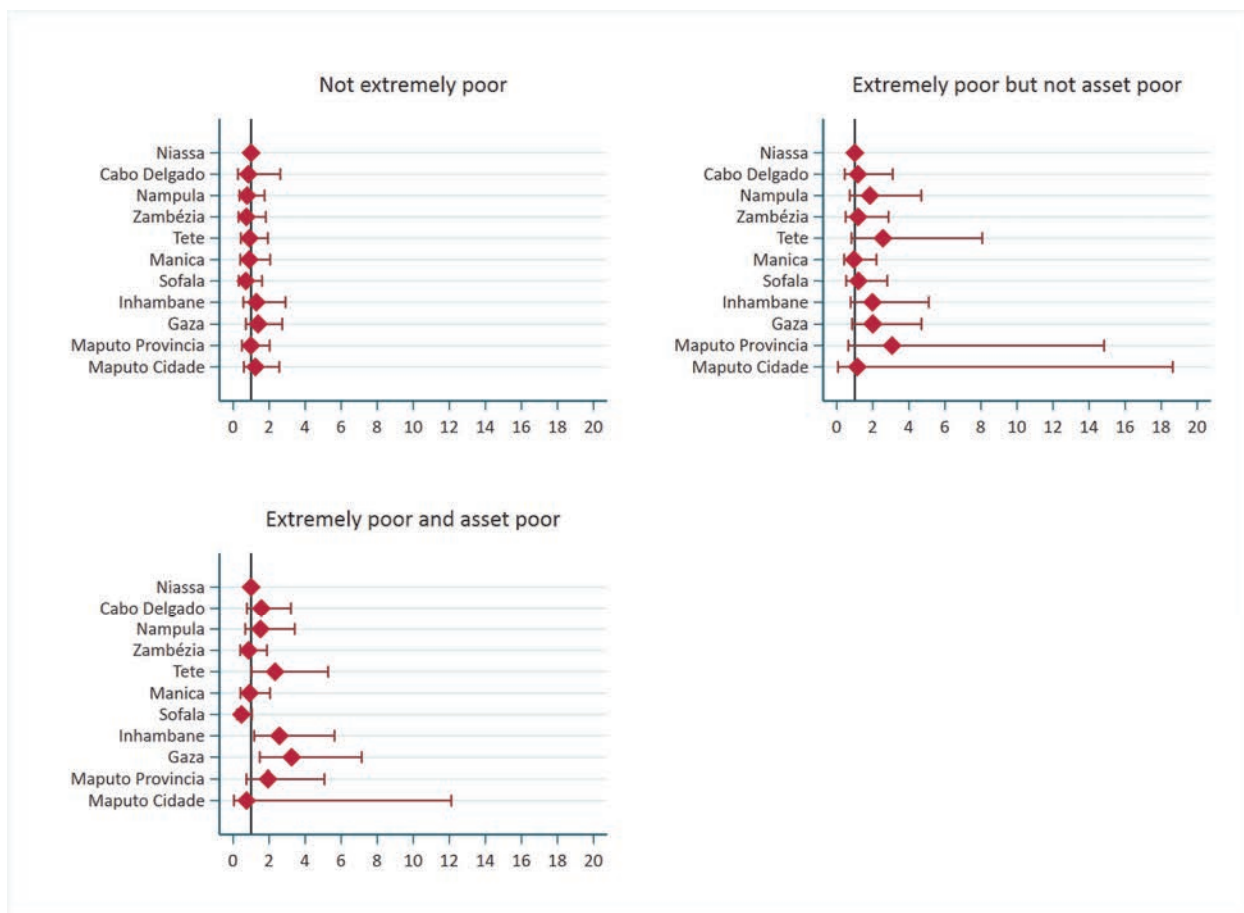
Note: Niassa is the reference region.

3.7   Nepal

3.7.1   Poverty levels

At the national level in Nepal, 63% of women live in not extremely poor households, 31% live in extremely poor but not asset poor households, and 7% live in extremely poor and asset poor households (Appendix Table 18). Figure 30 shows that Provinces 1, 3, 4, 5, and 7 have a high proportion of women in the not extremely poor group (60% and above). Province 2 has a higher proportion of women in the extremely poor but not asset poor group (53%), and Province 6 has the highest proportion of women in the extremely poor and asset poor group (33%).

Figure 30   Percent distribution of married women by absolute poverty at the regional level, Nepal 2016 DHS
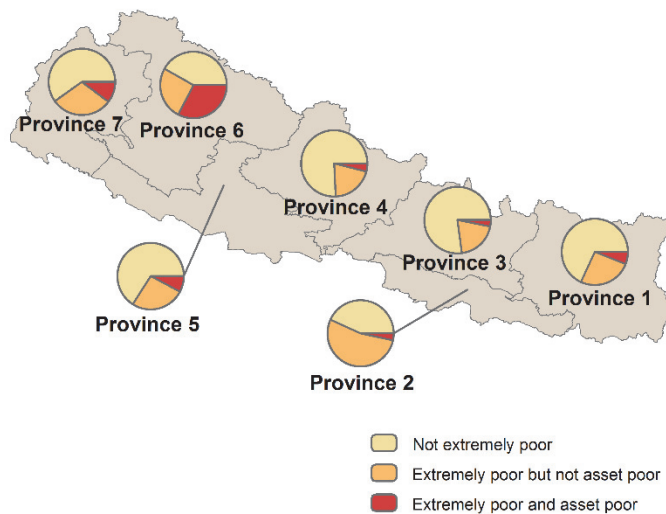
3.7.2   Ideal number of children

The overall mean ideal number of children in Nepal is 2.1 for women in the not extremely poor group, 2.4 in the extremely poor but not asset poor group, and 2.4 in the extremely poor and asset poor group (Appendix Table 19).

Figure 31 shows the mean ideal number of children in each region by poverty group. There is generally little variation in the mean ideal number of children by region. Most provinces are in the range of 2.0-2.5 for mean ideal number of children in all three poverty groups. Province 2 has the highest mean ideal number of children, with a range of 2.5-2.7 across the three poverty groups.
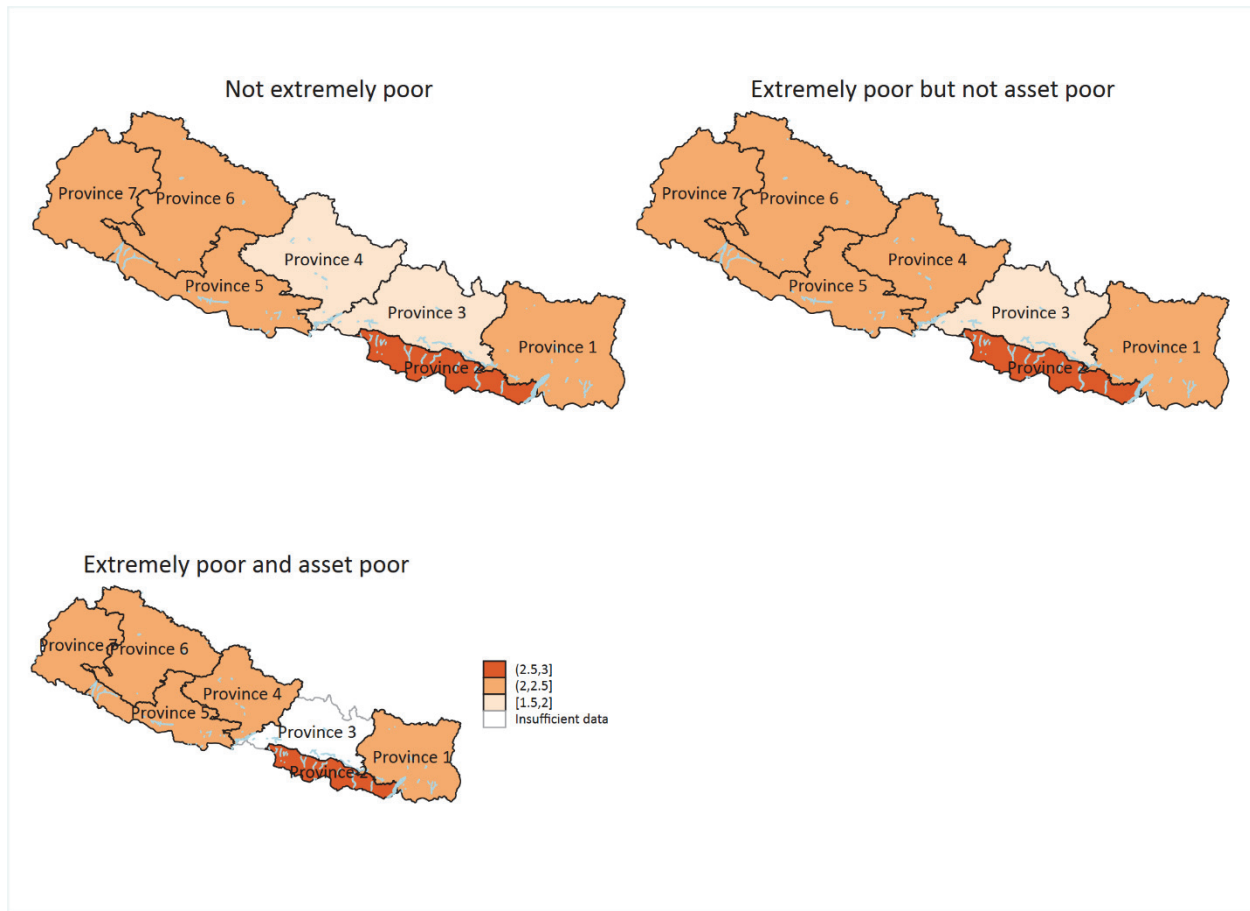
Figure 32 summarizes the results from the Poisson regression fit in Nepal for each poverty level with region as the main independent variable. There are few regional variations compared with the reference region, Province 1. In the not extremely poor group, Province 2 has a significantly higher ideal number of children compared with Province 1. In Province 6, the ideal number of children is also higher but only marginally significant. For Province 3, it is marginally significantly lower compared with Province 1. In the extremely poor but not asset poor group, both Province 3 and Province 7 have a significantly lower ideal number of children compared with Province 1, and for Province 2 it is significantly higher. In the extremely poor and asset poor group, only Province 2 has a significantly higher ideal number of children compared with Province 1 (Appendix Table 19).

Figure 32   Adjusted relative risk ratios with 95% confidence intervals of the ideal number of children, Nepal 2016 DHS
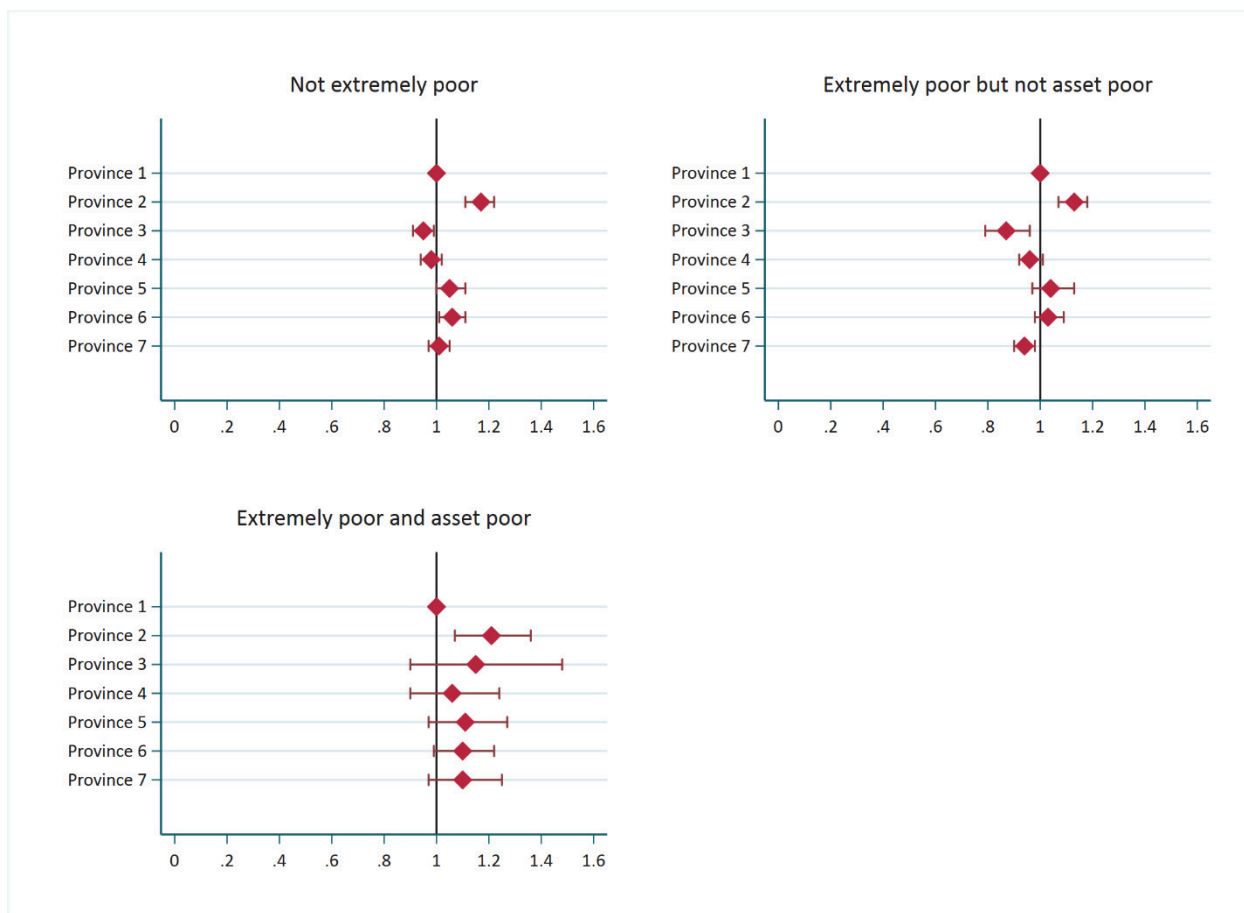
Note: Province 1 is the reference region.

3.7.3   Demand for family planning satisfied by modern methods

In Nepal the level of DSMM is 55% for women in not extremely poor households, 58% in extremely poor but not asset poor households, and 56% in extremely poor and asset poor households (Appendix Table 20).

Figure 33 shows the percent of DSMM in each region. In general, there is not much variation between the regions and poverty groups. For the not extremely poor poverty group, four regions have a level of DSMM above 60% while two regions have the lowest level of DSMM, at 47% (Appendix Table 20). The highest percent of DSMM is found in Province 7 in the extremely poor but not asset poor group (65%). Almost half of women in the other regions in this poverty group have their demand for family planning satisfied by modern methods. Three regions in the extremely poor and asset poor group did not have enough observations to produce a reliable estimate.

Figure 33   Percent demand satisfied by modern methods by poverty group and region among married women, Nepal 2016 DHS
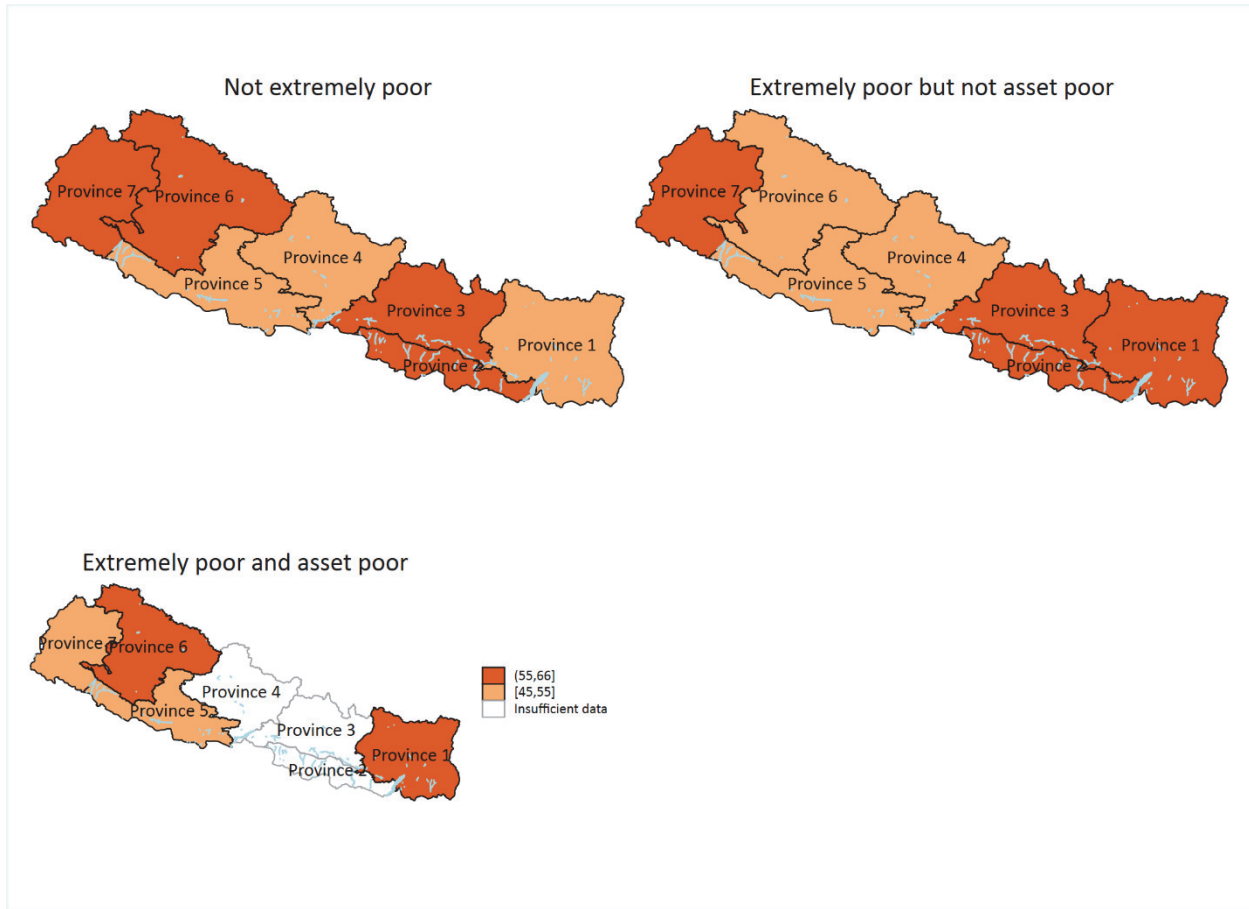
Figure 34 shows that there are only three regions (Provinces 2, 3, and 6) in the not extremely poor group that have significantly higher odds of DSMM compared with Province 1. The statistical significance for Province 2 is marginal (Appendix Table 20). There are no significant odds ratios in the other two poverty groups.

Figure 34   Adjusted odds ratios with 95% confidence intervals of demand satisfied by modern methods, Nepal 2016 DHS
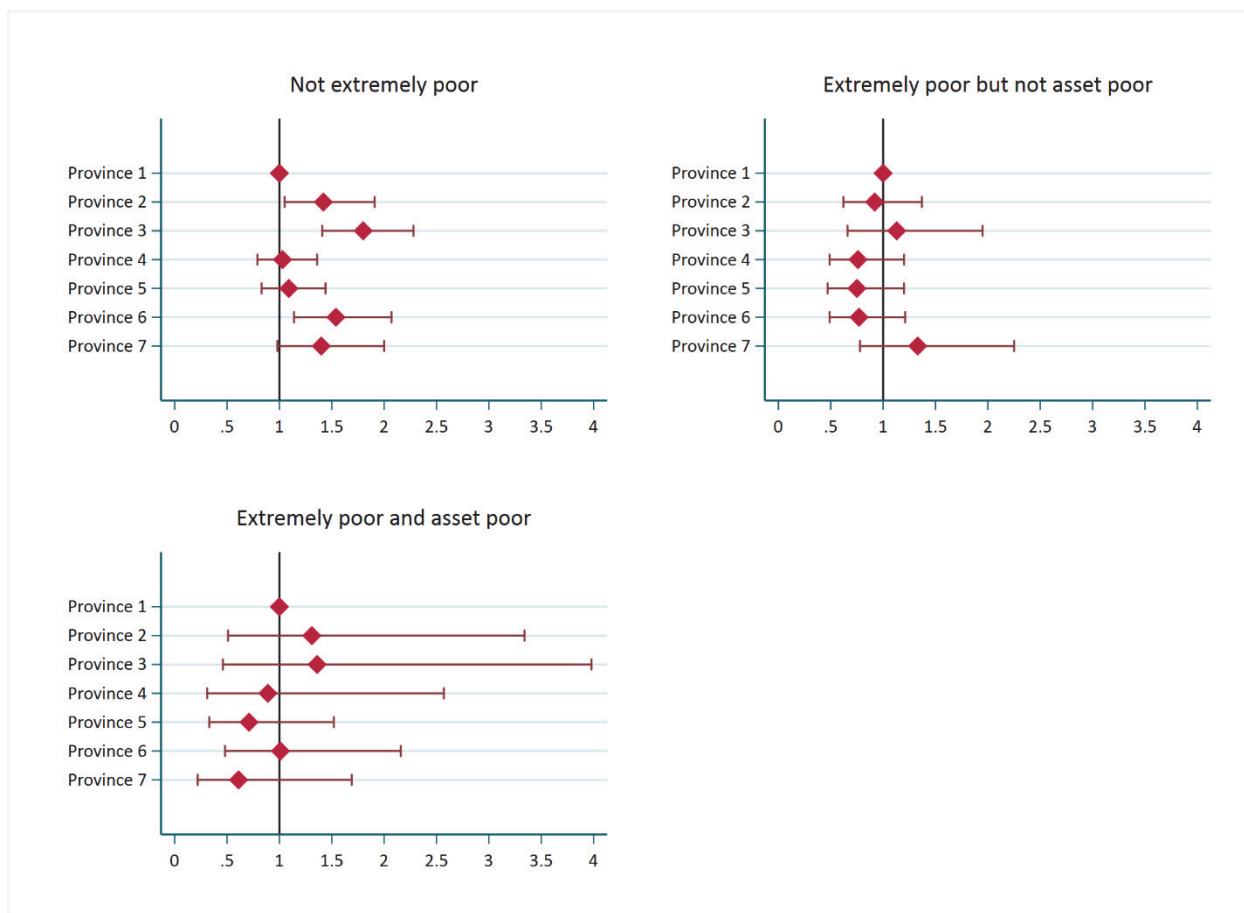
Note: Province 1 is the reference region.

3.8   Nigeria

3.8.1   Poverty levels

At the national level in Nigeria, 41% of women live in not extremely poor households, 31% live in extremely poor but not asset poor households, and 27% live in extremely poor and asset poor households (Appendix Table 21). Figure 35 shows that more than 60% of women in the South regions are in the not extremely poor group. The highest proportion of women in the extremely poor and asset poor group are in the North East and North West regions, at 43% and 37% respectively.
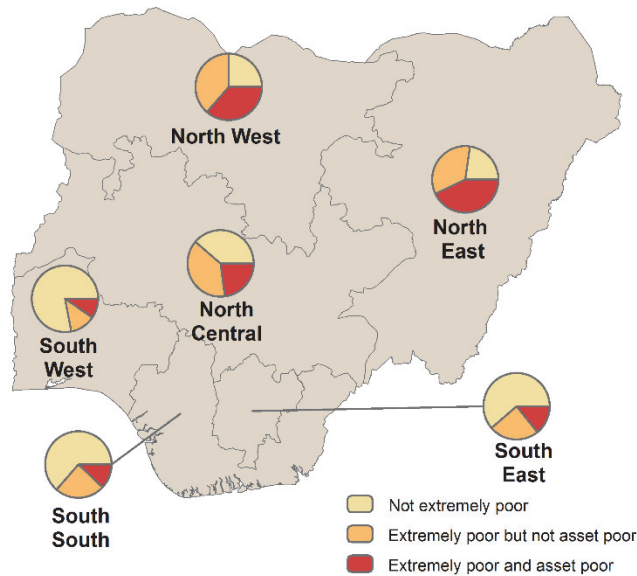
3.8.2   Ideal number of children

The overall mean ideal number of children in Nigeria is 5.9 for women in not extremely poor households, 7.9 in extremely poor but not asset poor households, and 8.2 in extremely poor and asset poor households (Appendix Table 22).

Figure 36 shows the mean ideal number of children in each region by poverty group. The highest means are found in the North East and North West regions across the three poverty groups (a mean ideal between 8 to 9 children). The lowest means are found in the not extremely poor poverty group, with the lowest at 4.5 for ideal number of children in the South West region.

Figure 36   Mean ideal number of children by poverty group and region among married women, Nigeria 2013 DHS
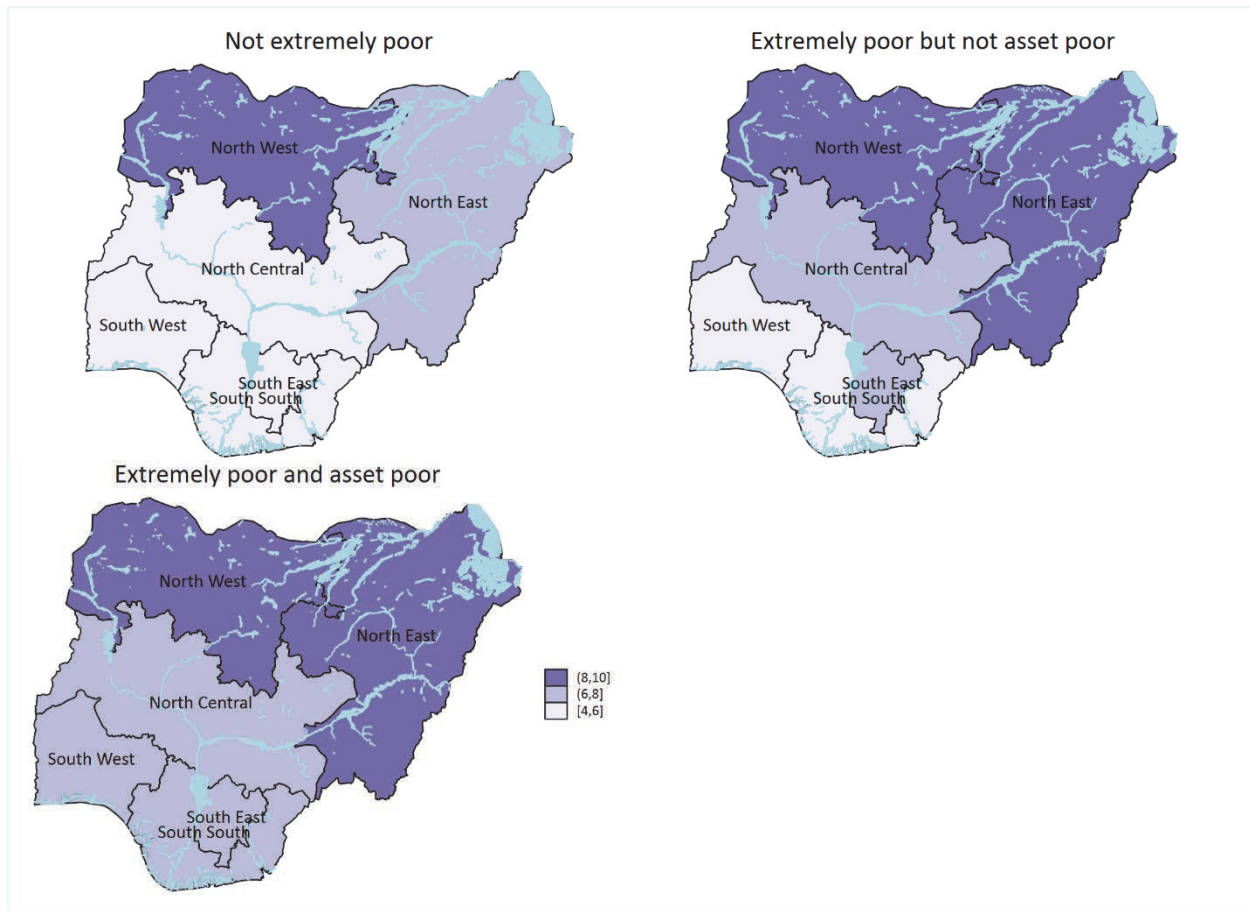
Figure 37 summarizes the results from the Poisson regression fit for each poverty level in Nigeria with region as the main independent variable. Across all poverty groups, the North East and North West regions have a significantly higher ideal number of children compared with the North Central region, the reference. Within the not extremely poor group, the South South region and the South West region have a significantly lower ideal number of children compared with the North Central region, although for the South South region the significance is marginal. The South East region also has a marginally significant higher ideal number of children in the extremely poor and asset poor group compared with the reference region.

Figure 37   Adjusted relative risk ratios with 95% confidence intervals of the ideal number of children, Nigeria 2013 DHS
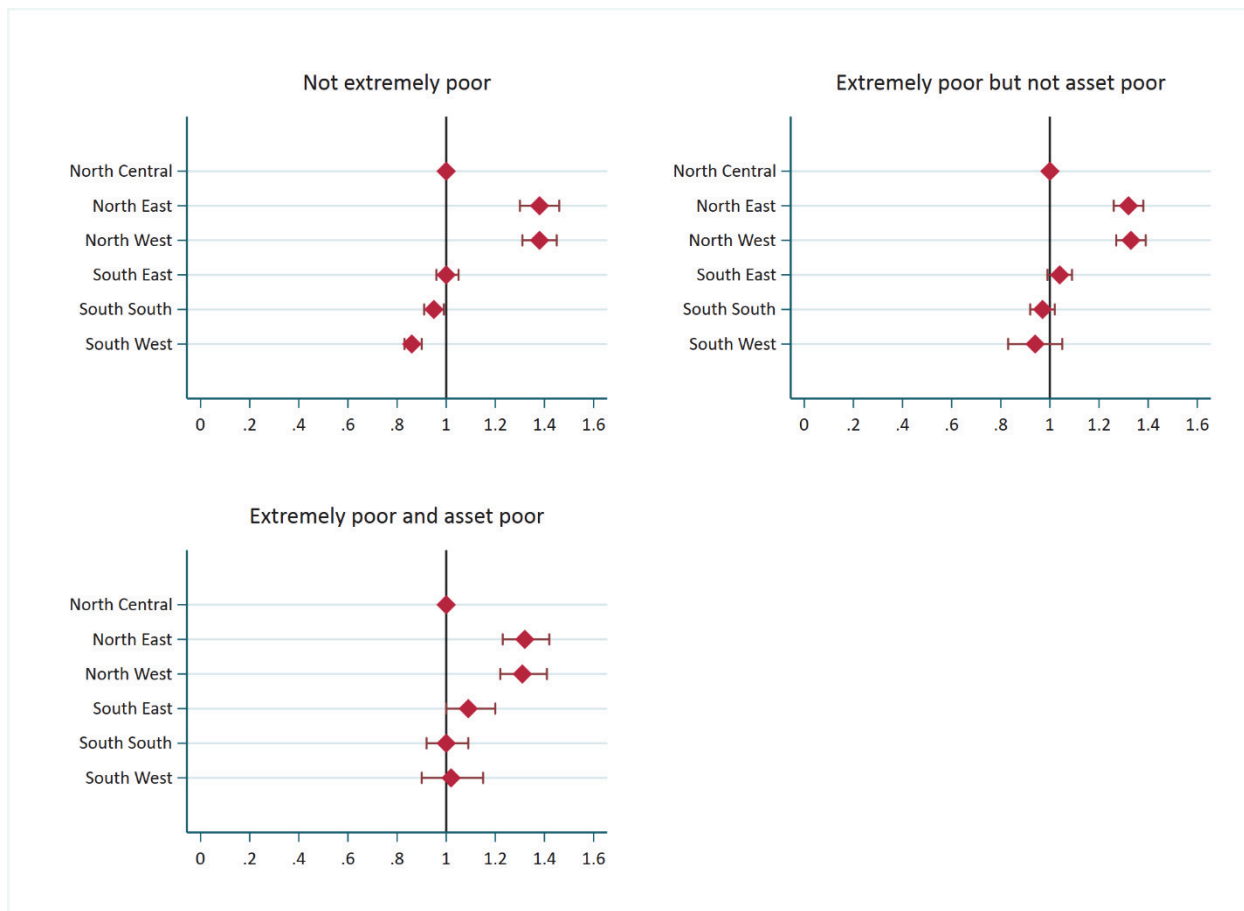
Note: North Central is the reference region.

3.8.3   Demand for family planning satisfied by modern methods

In Nigeria the level of demand for family planning satisfied by modern methods (DSMM) is 40% for women in not extremely poor households, 23% in extremely poor but not asset poor households, and 16% in extremely poor and asset poor households (Appendix Table 23).

Figure 38 shows the percent of DSMM in each region. In general, the percent of women with DSMM is the highest in the not extremely poor group. The highest level of DSMM is found in the not extremely poor group in the South West region, at 48%, followed by North Central and North West regions, at 41%. The lowest is found in the North East region in the extremely poor and asset poor group, at 7%, followed by the North West region, at 10% (Appendix Table 23).

Figure 38   Percent demand satisfied by modern methods by poverty group and region among married women, Nigeria 2013 DHS
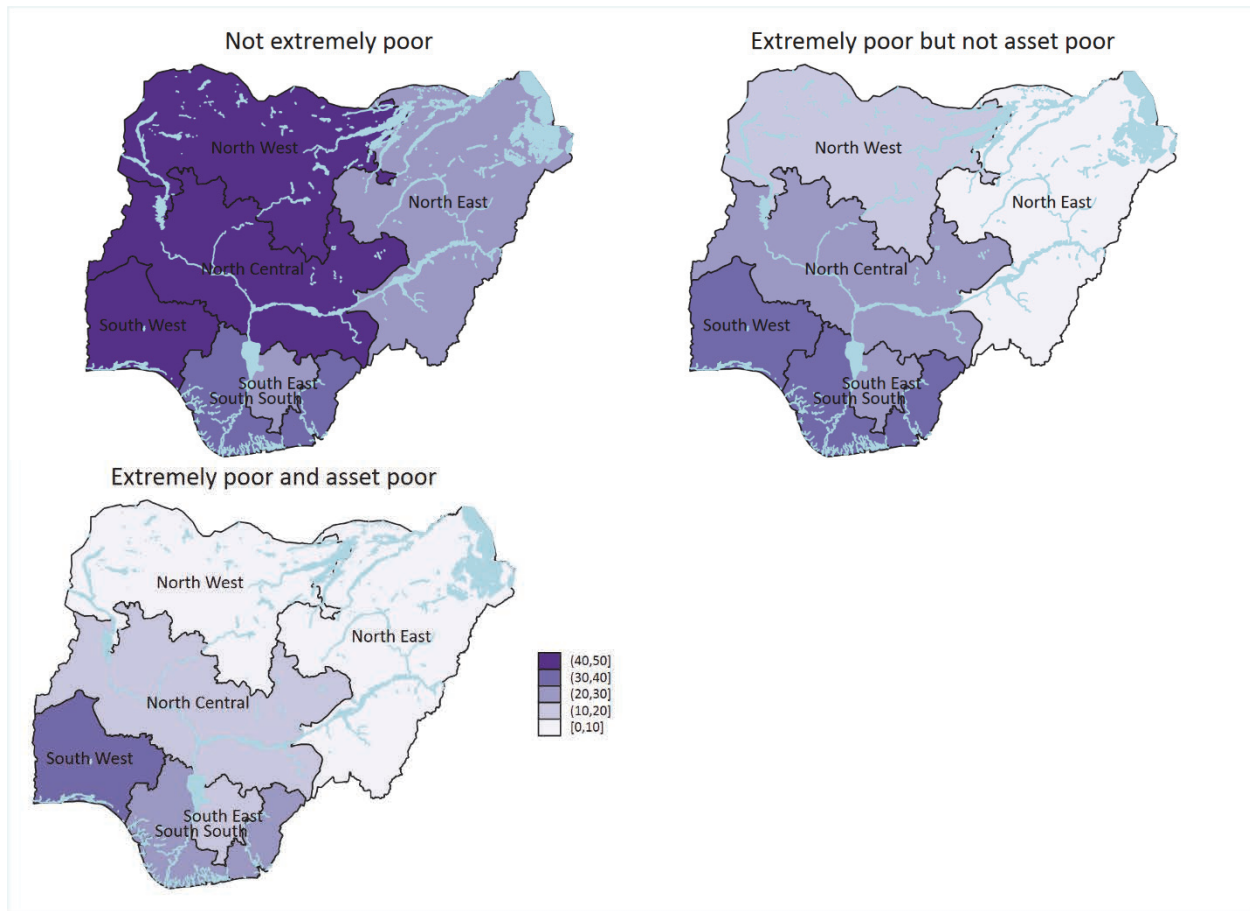
Figure 39 shows that three regions (North East, South East, and South South) in the not extremely poor group have significantly lower odds of DSMM compared with the reference North Central region. For the North East region, the odds of DSMM are significantly lower compared with the North Central region across all poverty groups. In the extremely poor and asset poor group, in addition to the North East region, the South East region also has significantly lower odds of DSMM compared with the reference region, but the significance is marginal (Appendix Table 23). The South West region has significantly higher odds of DSMM in the extremely poor and asset poor group compared with the North Central region.

Figure 39   Adjusted odds ratios with 95% confidence intervals of demand satisfied by modern methods, Nigeria 2013 DHS
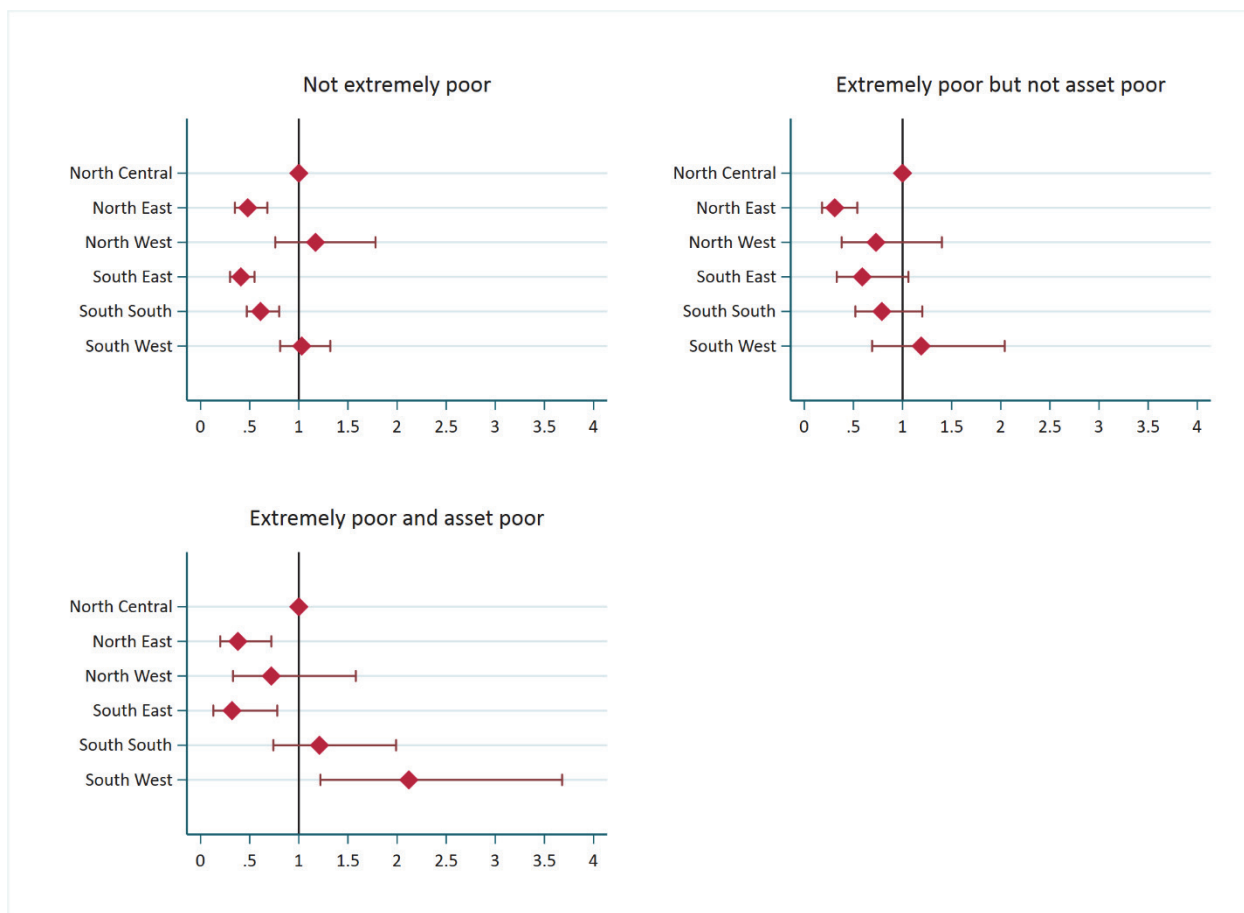
Note: North Central is the reference region.

3.9   Pakistan

3.9.1   Poverty levels

Overall in Pakistan, 72% of married women live in not extremely poor households, 23% live in extremely poor but not asset poor households, and 5% live in e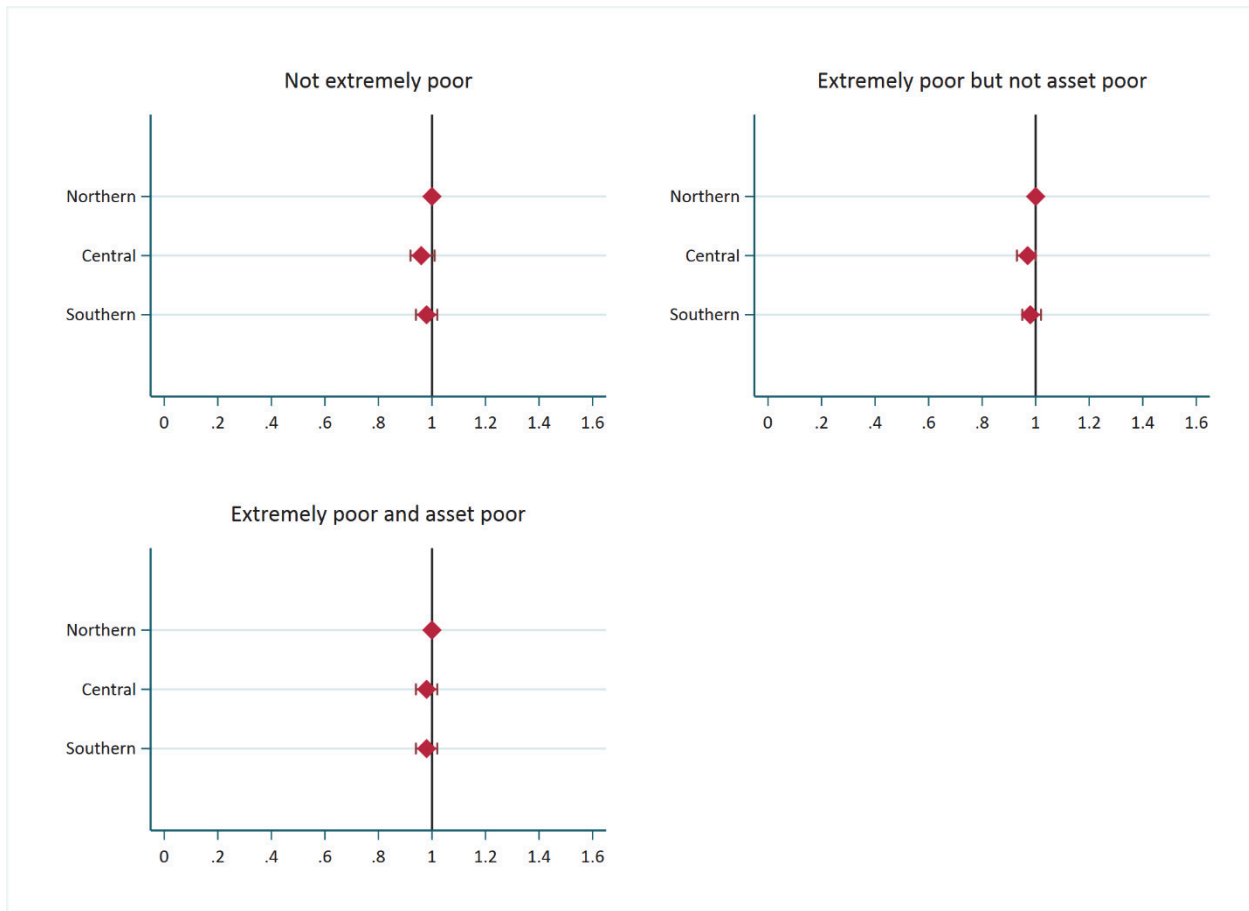xtremely poor and asset poor households (Appendix Table 24). Figure 40 shows the poverty level among the regions. The Federally Administered Areas (FATA) have the highest proportion of women in the extremely poor and asset poor group, at 18%, and ICT Islamabad and Gilgit Baltistan have the lowest proportion, at less than 1%. Conversely, FATA has the lowest share of women in the not extremely poor group, and ICT Islamabad and Gilgit Baltistan have the highest, at 95% and 90% respectively. In the other regions, 58%-80% of women live in not extremely poor households, while 3%-11% live in extremely poor and asset poor households.

Figure 40   Percent distribution of married women by absolute poverty at the regional level, Pakistan 2017-18 DHS
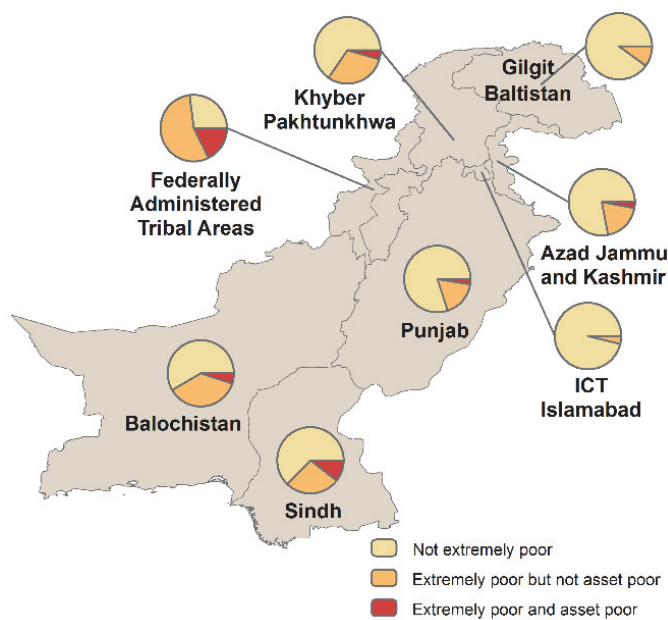
3.9.2   Ideal number of children

The overall mean ideal number of children in Pakistan is 3.6 for women in the extremely poor group, 4.7 in the extremely poor but not asset poor group, and 5.1 in the extremely poor and asset poor group (Appendix Table 25).

Figure 41 shows the mean ideal number of children in each region by poverty level. The highest means are found in the Balochistan and FATA regions across the three poverty groups (5-6 children). The lowest ideal mean is 3.1 children among women in the not extremely poor group in the ICT Islamabad region. Within each region, women in the two extreme poverty groups report a higher ideal number of children than women in the not extremely poor group.

Figure 41   Mean ideal number of children by poverty group and region among married women, Pakistan 2017-18 DHS
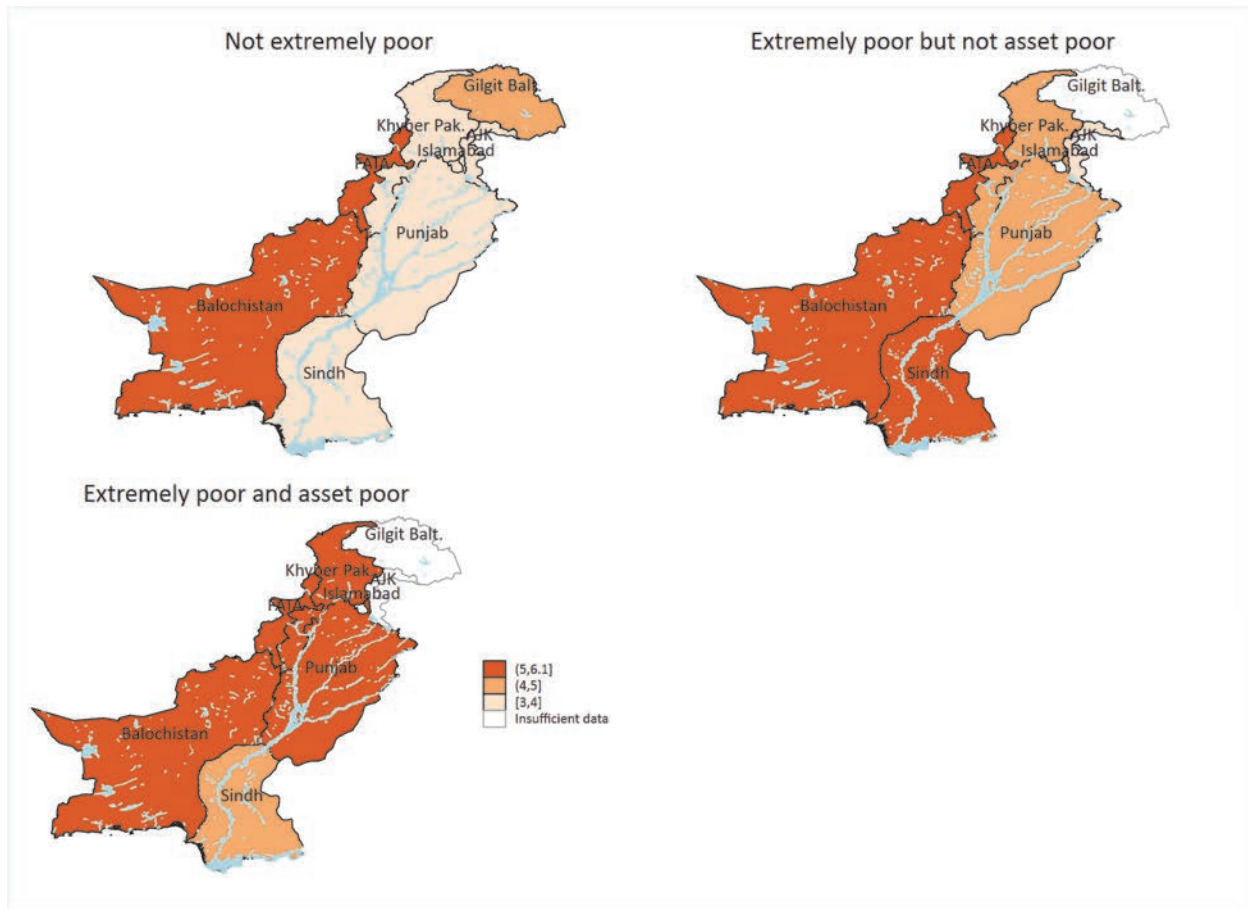
Note: FATA is Federally Administered Areas, AJK is Azad Jammu and Kashmir, Gilgit Balt. is Gilgit Baltistan, Khyber Pak. is Khyber Pakhtunkhwa, and Islamabad is ICT Islamabad.

Figure 42 plots the adjusted relative risk ratios of the ideal number of children for each region compared with the FATA region by poverty group. The FATA region is selected as the reference group because of its relatively large sample size of women in all three poverty groups. For the extremely poor and asset poor group, all regions have a significant lower mean ideal number of children compared with the FATA region, except Balochistan, which has a higher ideal number. Similar results are found for the extremely poor but not asset poor group, except that the difference is not statistically significant for the Sindh and Balochistan regions. For the extremely poor and asset poor group, there is no evidence of regional differences in mean ideal number of children compared with the FATA region.

Figure 42   Adjusted relative risk ratios with 95% confidence intervals of the ideal number of children, Pakistan 2017-18 DHS
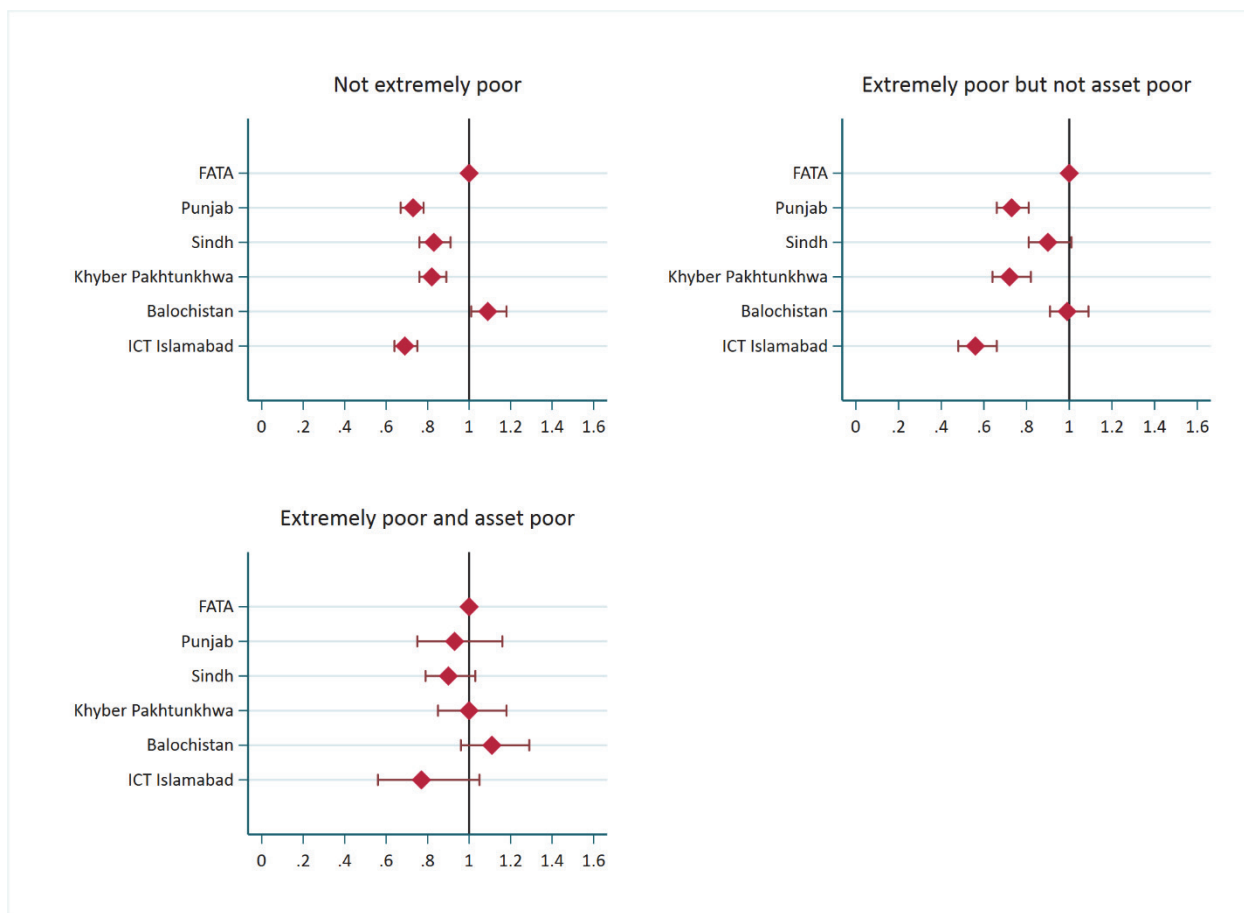
Note: FATA is the reference region.

3.9.3   Demand for family planning satisfied by modern methods

In Pakistan, about half of married women in not extremely poor households have their demand for family planning satisfied by modern methods, compared with 43% in extremely poor but not asset poor households, and 30% in extremely poor and asset poor households (Appendix Table 26). Figure 43 shows the regional levels of DSMM for each poverty group. In the not extremely poor group, five regions (Punjab, Sindh, ICT Islamabad, Gilgit Baltistan, and Khyber Pakhtunkhwa) show a high proportion of women with demand for family planning satisfied by modern methods, and three of these regions (Punjab, Sindh, and ICT Islamabad) have a level higher than the national average for this group. Punjab and Sindh also have a higher level of DSMM than the national average for the extremely but not asset poor group. The lowest level of DSMM is found in Azad Jammu and Kashmir among the extremely poor but not asset poor group, at 27%. Results for the extremely poor and asset poor group are suppressed for most regions due to a small number of observations in this group.

Figure 43   Percent demand satisfied by modern methods by poverty group and region among married women, Pakistan 2017-18 DHS
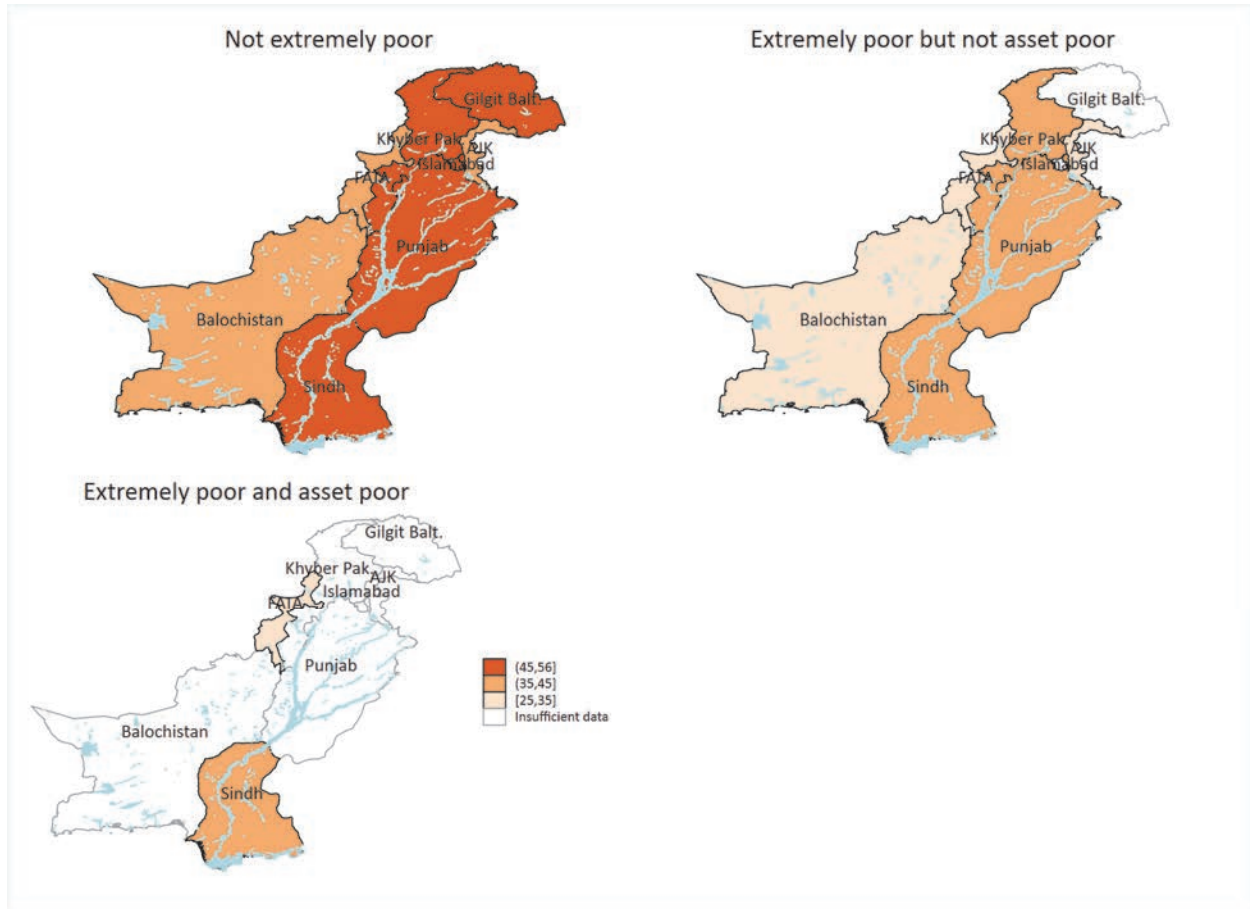
Note: FATA is Federally Administered Areas, AJK is Azad Jammu and Kashmir, Gilgit Balt. is Gilgit Baltistan, Khyber Pak. is Khyber Pakhtunkhwa, and Islamabad is ICT Islamabad.

Figure 44 shows the results of the logistic regressions that assessed differences in DSMM among the regions compared with the FATA region as the reference. Overall, the regions do not have a significantly different level of DSMM compared with the FATA region. A significant odds ratio (OR=3.2, p<0.01) is found for the extremely poor but not asset poor group in the ICT Islamabad region, but this result should be interpreted with caution given the small number of women in this group. The Gilgit Baltistan and Azad Jammu and Kashmir regions are not included in the regression analysis as a different sample design was used for these two regions.

Figure 44   Adjusted odds ratios with 95% confidence intervals of demand satisfied by modern methods, Pakistan 2017-18 DHS
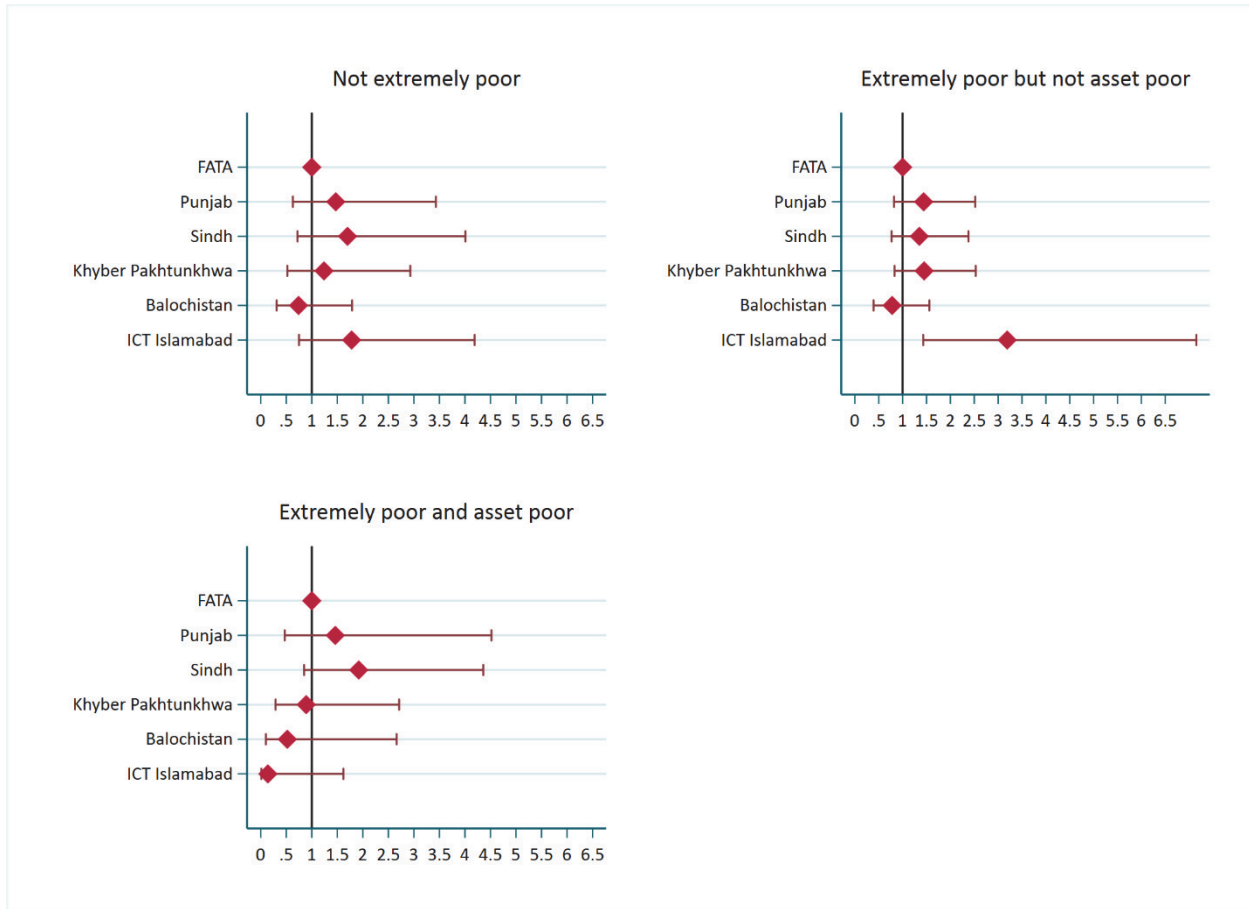
Note: FATA is the reference region.

3.10 Rwanda

3.10.1 Poverty levels

At the national level in Rwanda, 63% of married women live in extremely poor and asset poor households, 17% live in extremely poor but not asset poor households, and 21% live in not extremely poor households (Appendix Table 27). Figure 45 presents the poverty level for the four regions and Kigali City. Women in Kigali City are much better off than those in the other four regions. Almost two-thirds (65%) are in the not extremely poor group while less than a quarter (23%) are in the extremely poor and asset poor group. The other four regions share a poverty pattern opposite that of Kigali City's, with a low proportion of women (13%-16%) in not extremely poor group and a high proportion (55%-78%) in extremely poor and asset poor group.

Figure 45   Percent distribution of married women by absolute poverty at the regional level, Rwanda 2014-15 DHS
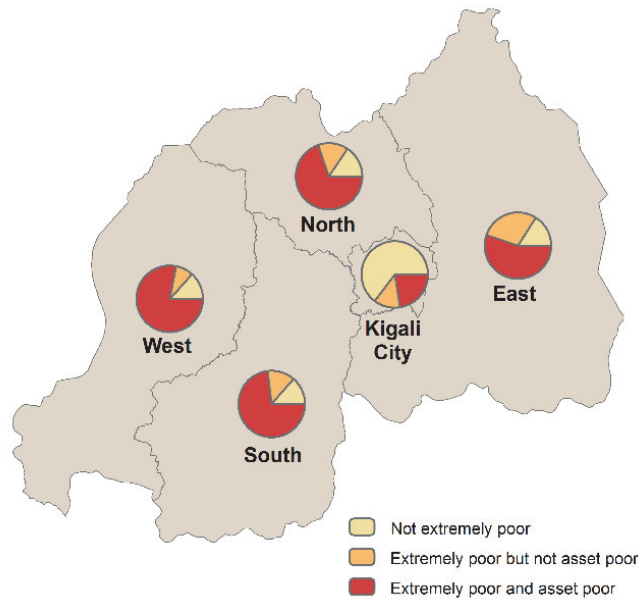
3.10.2 Ideal number of children

The overall mean ideal number of children reported by married women in Rwanda is similar across the three poverty groups, at 3.6-3.7 children. Regional variations by poverty level are minimal except in Kigali, where women in the two extremely poor groups have a lower ideal number of children compared with other regions (Figure 46). Women in the not extremely poor group in Kigali and the South region have a mean ideal number of approximately 3.5 children (Appendix Table 28; note that Figure 46 appears to show a higher ideal number of children for Kigali, but this is due to rounding).

Figure 46   Mean ideal number of children by poverty group and region among married women, Rwanda 2014-15 DHS
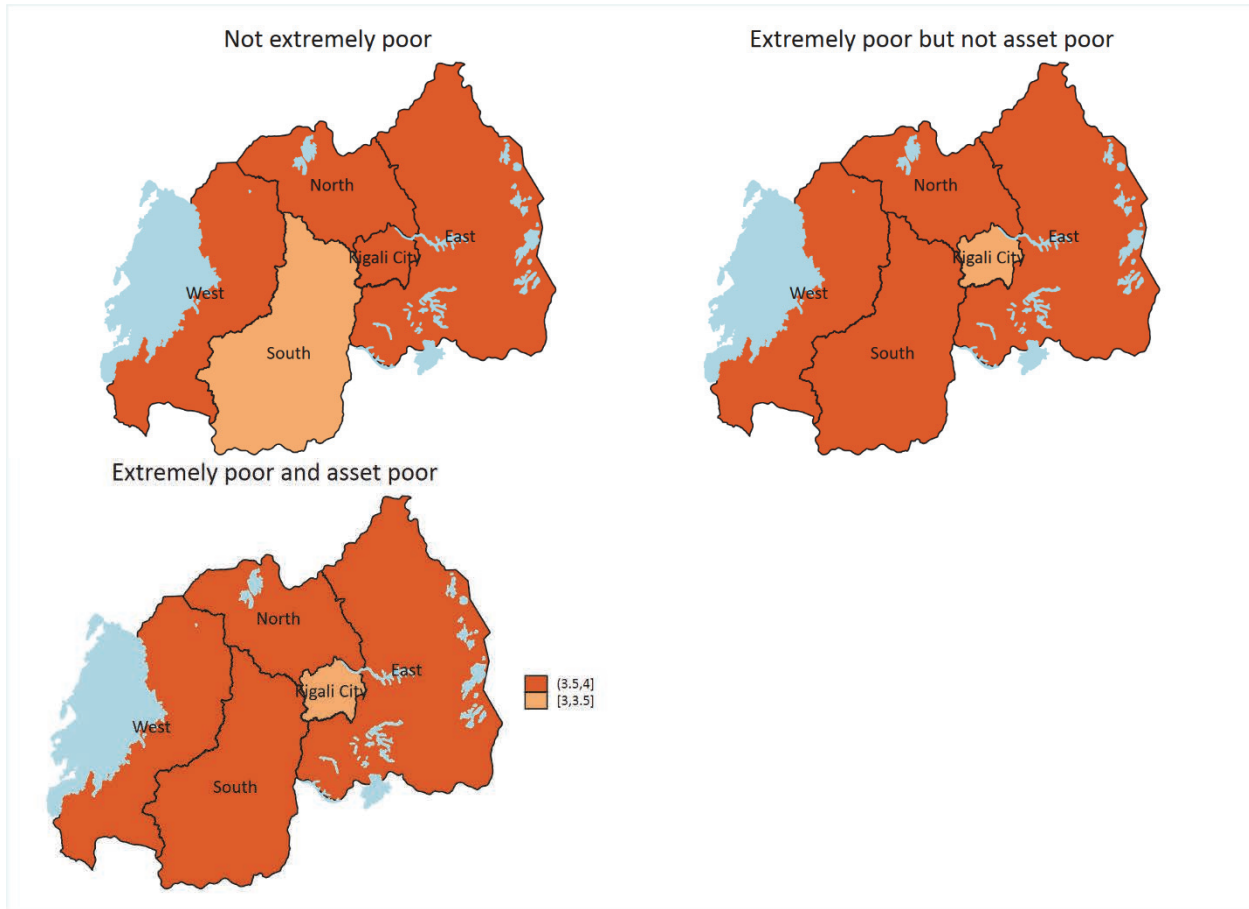
Poisson regressions assessing the significance of differences among the regions showed that, compared with Kigali, other regions have a significantly higher ideal number of children among women in the two extremely poor groups (Figure 47). The differences are not statistically significant among women in the not extremely poor group.

Figure 47   **Adjusted relative risk ratios with 95% confidence intervals of the ideal number of children, Rwanda 2014-15 DHS**
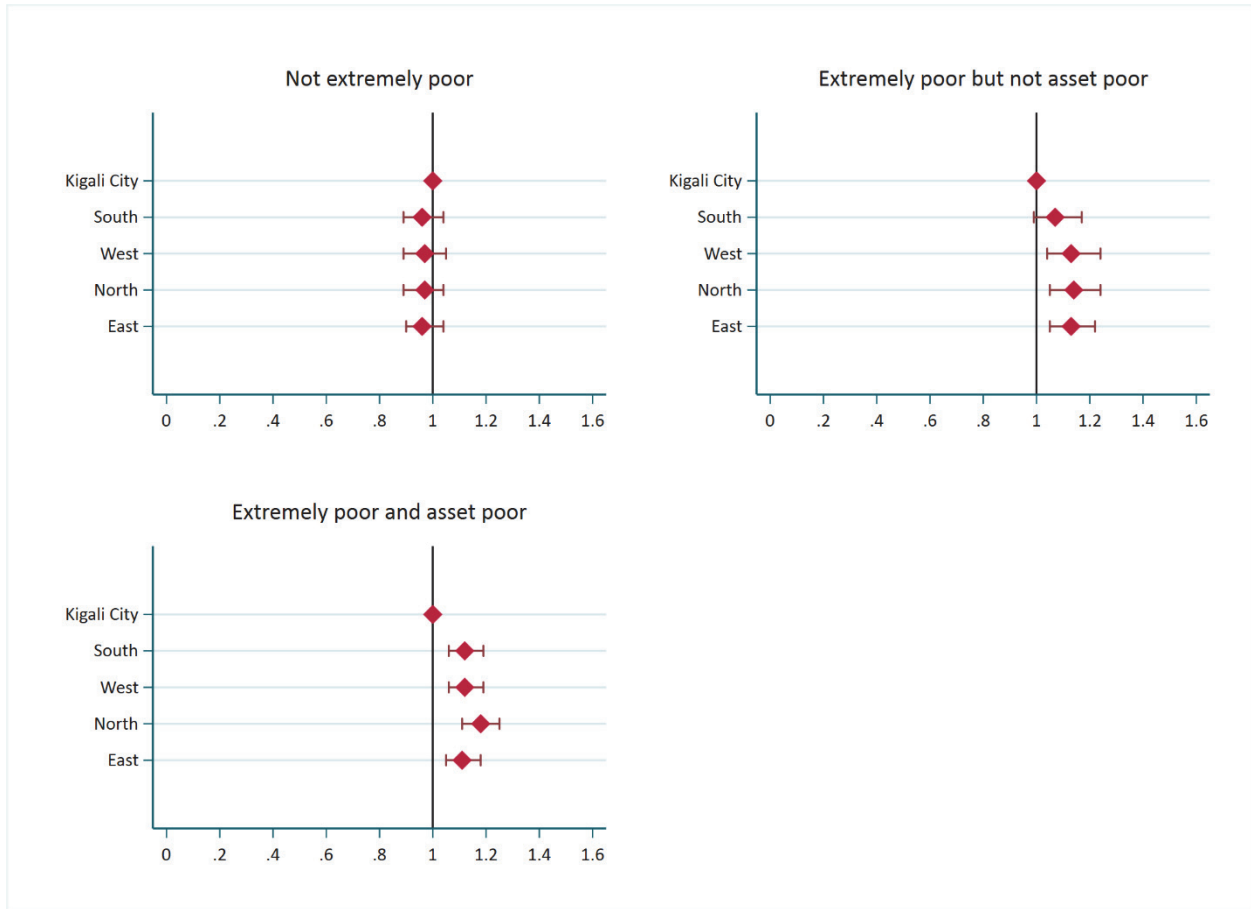
Note: Kigali City is the reference region.

3.10.3 Demand for family planning satisfied by modern methods

In Rwanda the level of DSMM ranges from 64% among women in the extremely poor and asset poor group to 70% in the not extremely poor group (Appendix Table 29). Figure 48 shows the regional levels of demand satisfied for each poverty group. For the not extremely poor group, in all regions 65% or more women have their demand for family planning satisfied by modern methods. For the two extremely poor groups, in three regions (South, North, and Kigali) the level of DSMM is 65% or higher. The lowest level of DSMM is found in the West region among the extremely poor and asset poor group, at 57%. The regional differences in DSMM, however, are not statistically significant for all three poverty groups (Figure 49).

Figure 48   **Percent demand satisfied by modern methods by poverty group and region among married women, Rwanda 2014-15 DHS**
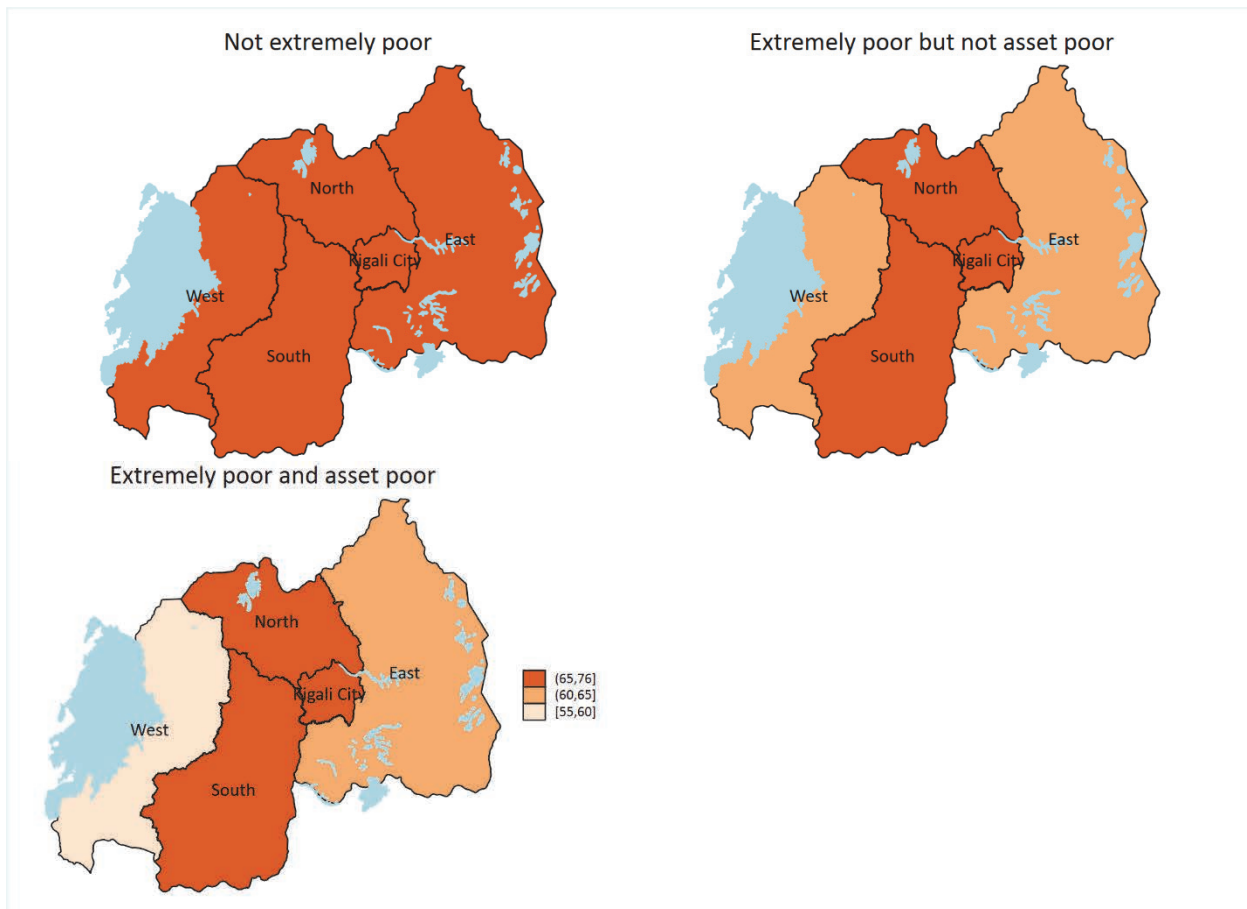
Figure 49   Adjusted odds ratios with 95% confidence intervals of demand satisfied by modern methods, Rwanda 2014-15 DHS
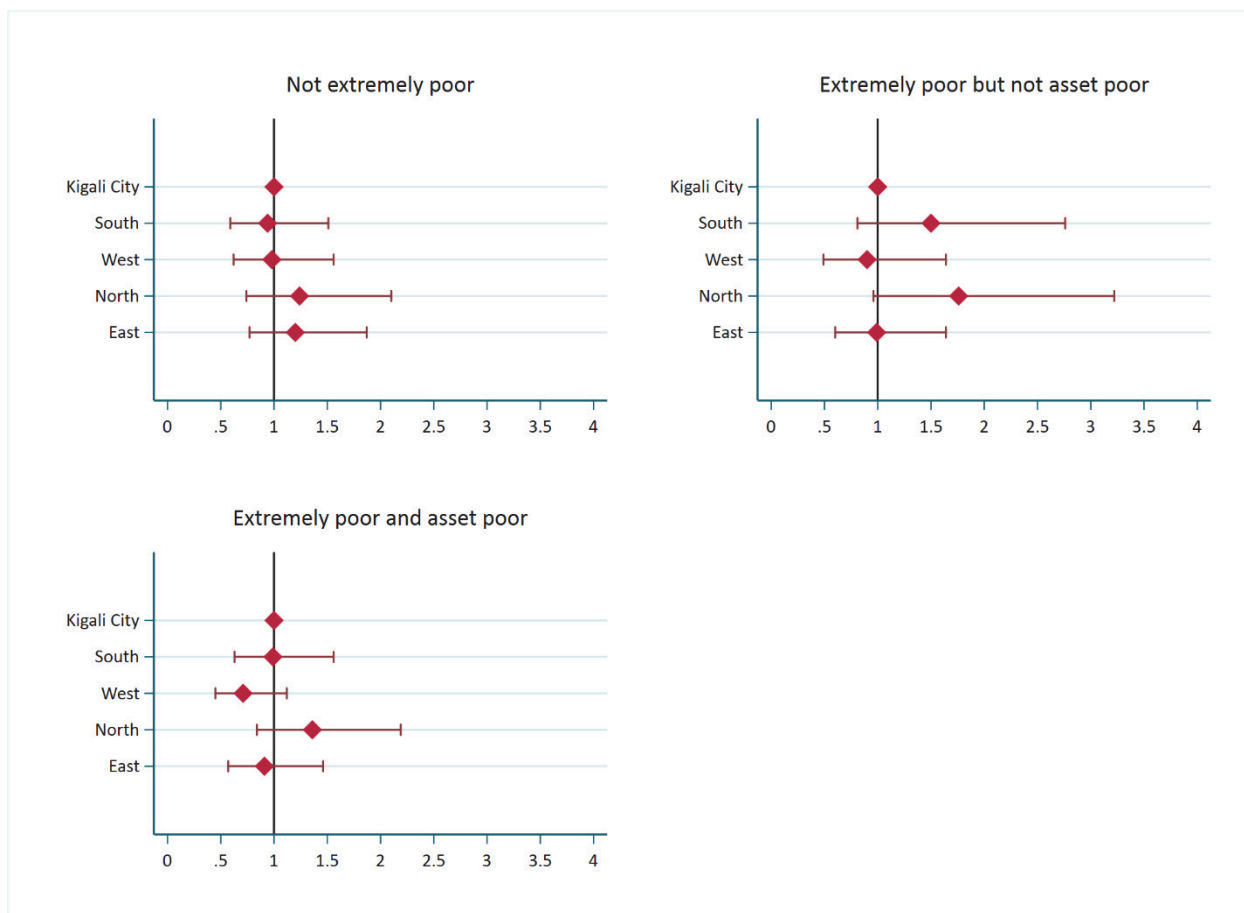
Note: Kigali City is the reference region.

3.11 Uganda

3.11.1 Poverty levels

Nationally in Uganda, 25% of married women live in not extremely poor households, 34% live in extremely poor but not asset poor households, and 42% live in extremely poor and asset poor households (Appendix Table 30). Figure 50 shows the poverty distribution within each of the regions. Kampala has the highest proportion of women in the not extremely poor group (90%), while Karamoja has the lowest (1%). Conversely, Kampala has the lowest share and Karamoja has highest share of women in the extremely poor and asset poor group. In Karamoja, 83% of women are in the extremely poor and asset poor group. In a few regions bordering with Sudan and Congo, including Bugisu, Acholi, West Nile, Tooro, and Kigezi, more than half of married women are in the extremely poor and asset poor group.

Figure 50   Percent distribution of married women by absolute poverty at the regional level, Uganda 2016 DHS
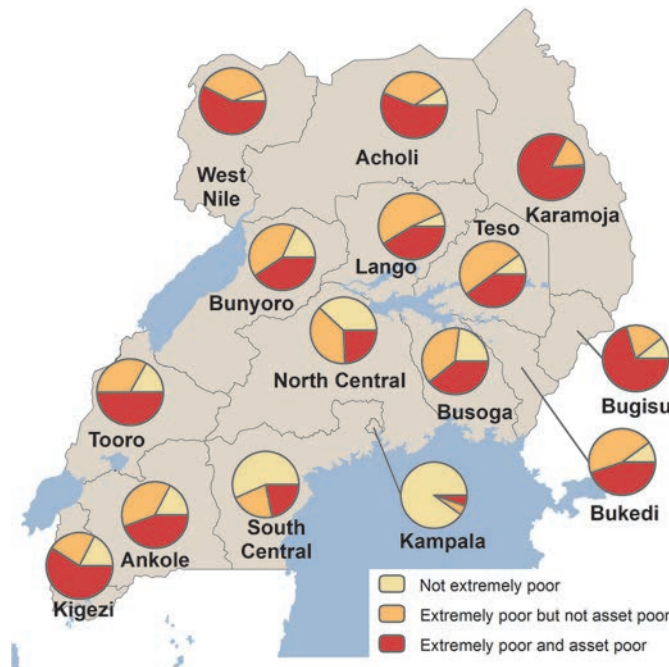
3.11.2 Ideal number of children

The overall mean ideal number of children in Uganda is 4.6 for women in not extremely poor households, 5.3 in extremely poor but not asset poor households, and 5.2 in extremely poor and asset poor households (Appendix Table 31).

Figure 51 shows the mean ideal number of children in each region by poverty group. The average ideal number of children is below 5 for the not extremely poor group in all regions, whereas it is above 5 for the two extremely poor groups in most regions. Karamoja has the highest mean number of ideal children, at 6.7 among women in the extremely poor but not asset poor group, and 7.7 among women in the extremely poor and asset poor group.

Figure 51   Mean ideal number of children by poverty group and region among married women, Uganda 2016 DHS
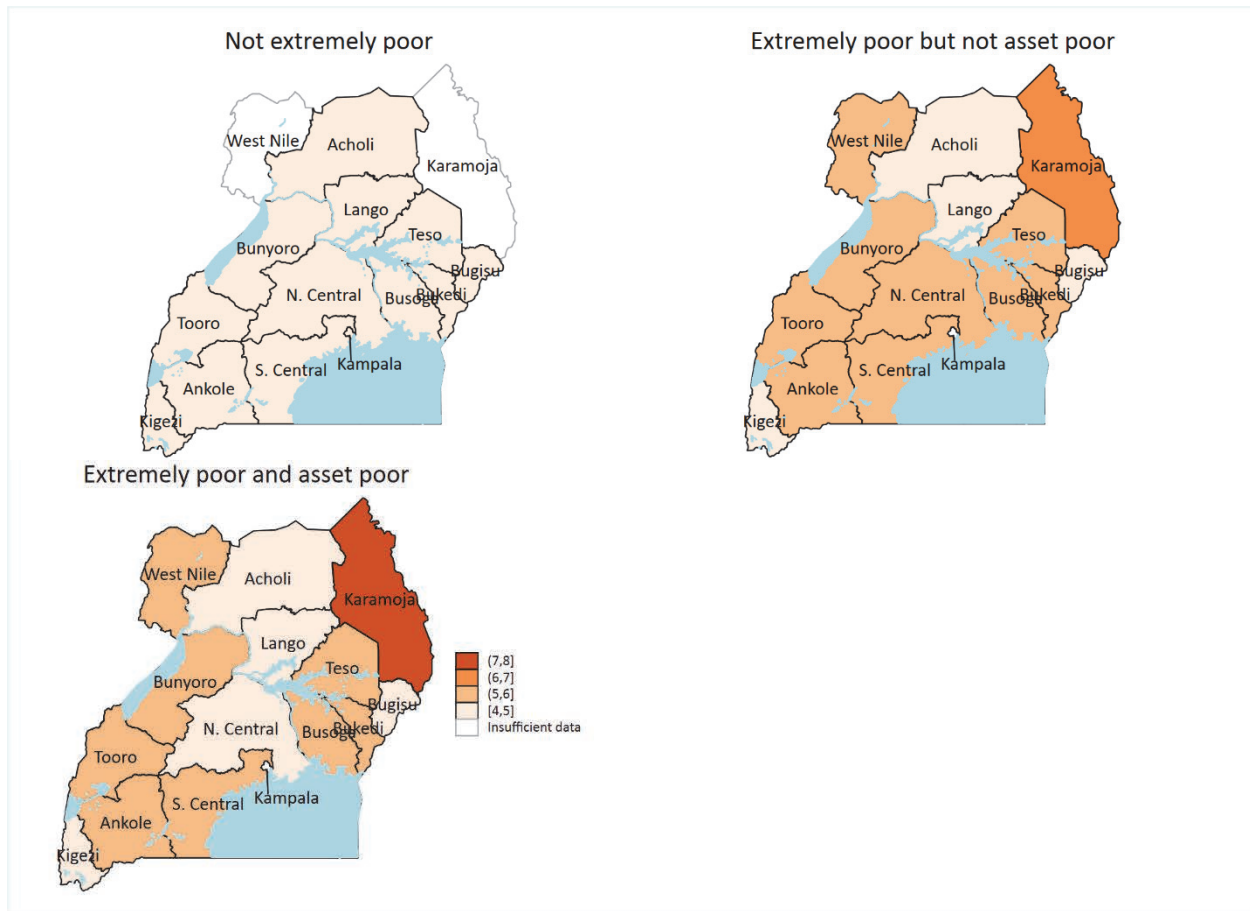
Note. S. Central is South Central, and N. Central is North Central.

In the Poisson regression, in the not extremely poor group a few regions, including Busoga, Bukedi, Bugisu, Lango, Ankole, and Kigezi, show a significantly lower ideal number of children compared with the South Central region, the reference (Figure 52). The differences between other regions and the South Central region are not statistically significant for this poverty group. For the extremely poor but not asset poor group, most regions do not significantly differ from the South Central region, but some regions (Bukedi, Bugisu, Lango, Acholi, and Kigezi) show a significant lower ideal number of children. The findings are similar for the extremely poor and asset poor group.

Figure 52   Adjusted relative risk ratios with 95% confidence intervals of the ideal number of children, Uganda 2016 DHS
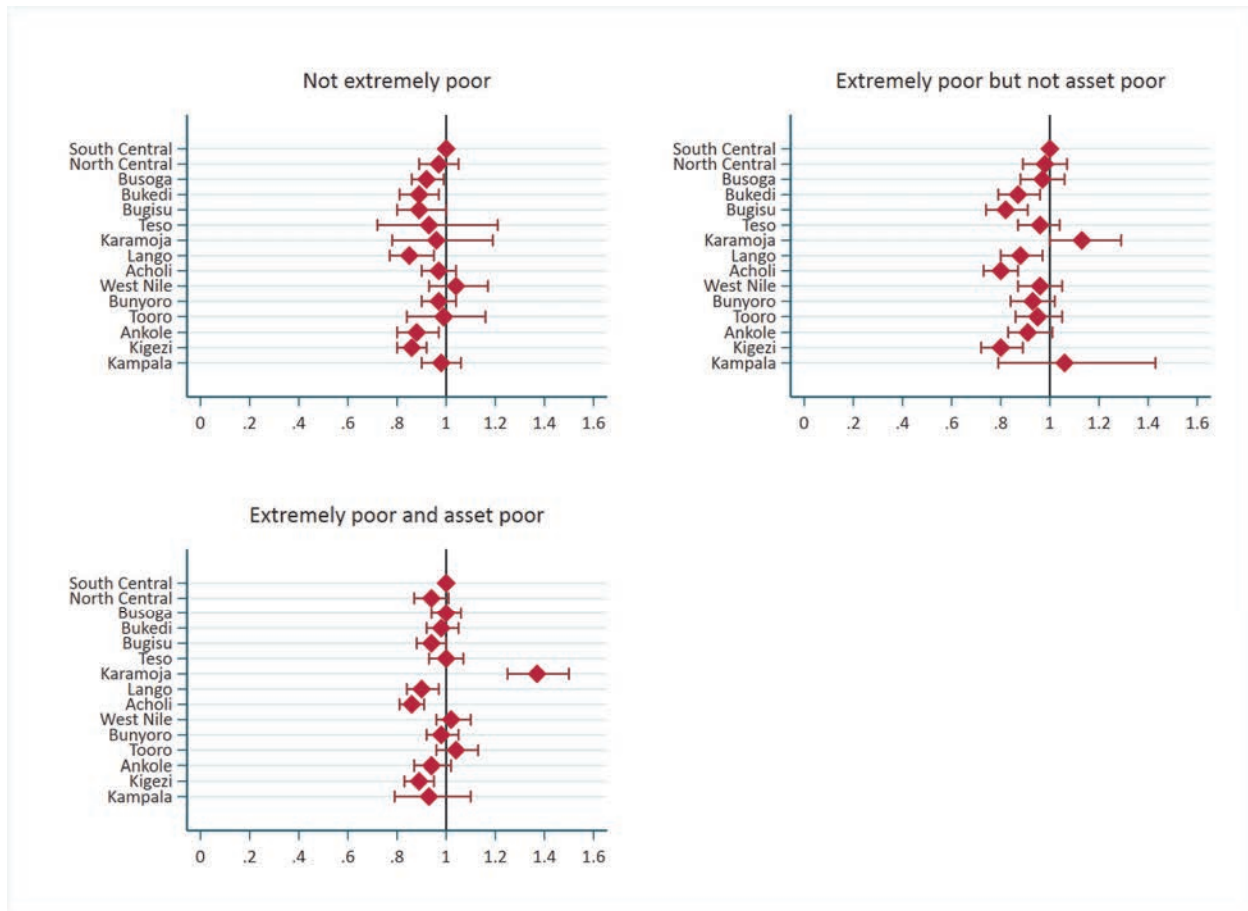
Note: South Central is the reference region.

3.11.3 Demand for family planning satisfied by modern methods

In Uganda the level of DSMM is 60% among women in the not extremely poor group, 52% in the extremely poor but not asset poor group, and 46% in the extremely poor and asset poor group (Appendix Table 32). Figure 53 shows the regional levels of DSMM for each poverty group. For the not extremely poor group, several regions in the southeast, including South Central, North Central, Bunyoro, Ankole, and Kigezi, have a level of 60% or higher. The lowest level of DSMM in this poverty group is in the Busoga region, at 47%. In the extremely poor but not asset poor group, however, only three regions, Logan, Bugisu, and Kigezi, have a level of DSMM 60% or higher, and in most regions the level is 50%-60%. In the extremely poor and asset poor group, the level of DSMM is 40% or lower in most regions. The lowest level is found in Karamoja and Nest Nile, where less than 25% of women have their demand for family planning satisfied by modern methods.

Figure 53   Percent demand satisfied by modern methods by poverty group and region among married women, Uganda 2016 DHS
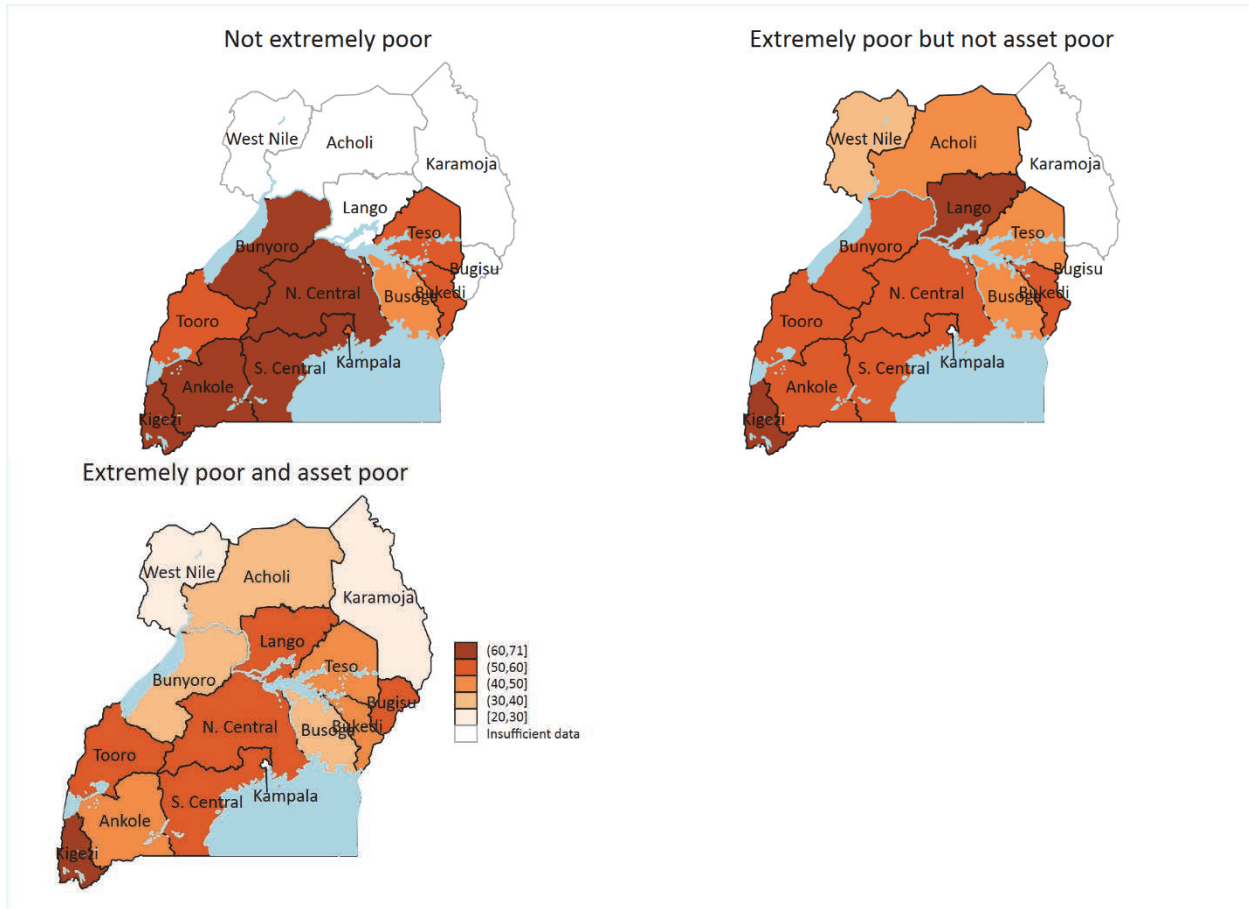
Note: S. Central is South Central, and N. Central is North Central.

The logistic regression for the not extremely poor group shows that compared with the South Central region there is no evidence of regional variations in DSMM except in Busoga region, where a significantly lower level of DSMM is found (Figure 54). For the extremely poor but not asset poor group, women in two regions, Karamoja and West Nile, have significantly lower odds of DSMM compared with South Central region, while women in Bugisu have significantly higher odds. For the extremely poor and asset poor group, women in several regions (Busoga, Karamoja, Acholi, West Nile, and Bunyoro) also have lower odds of DSMM compared with South Central region.

**Figure 54   Adjusted odds ratios with 95% confidence intervals of demand satisfied by modern methods, Uganda 2016 DHS**
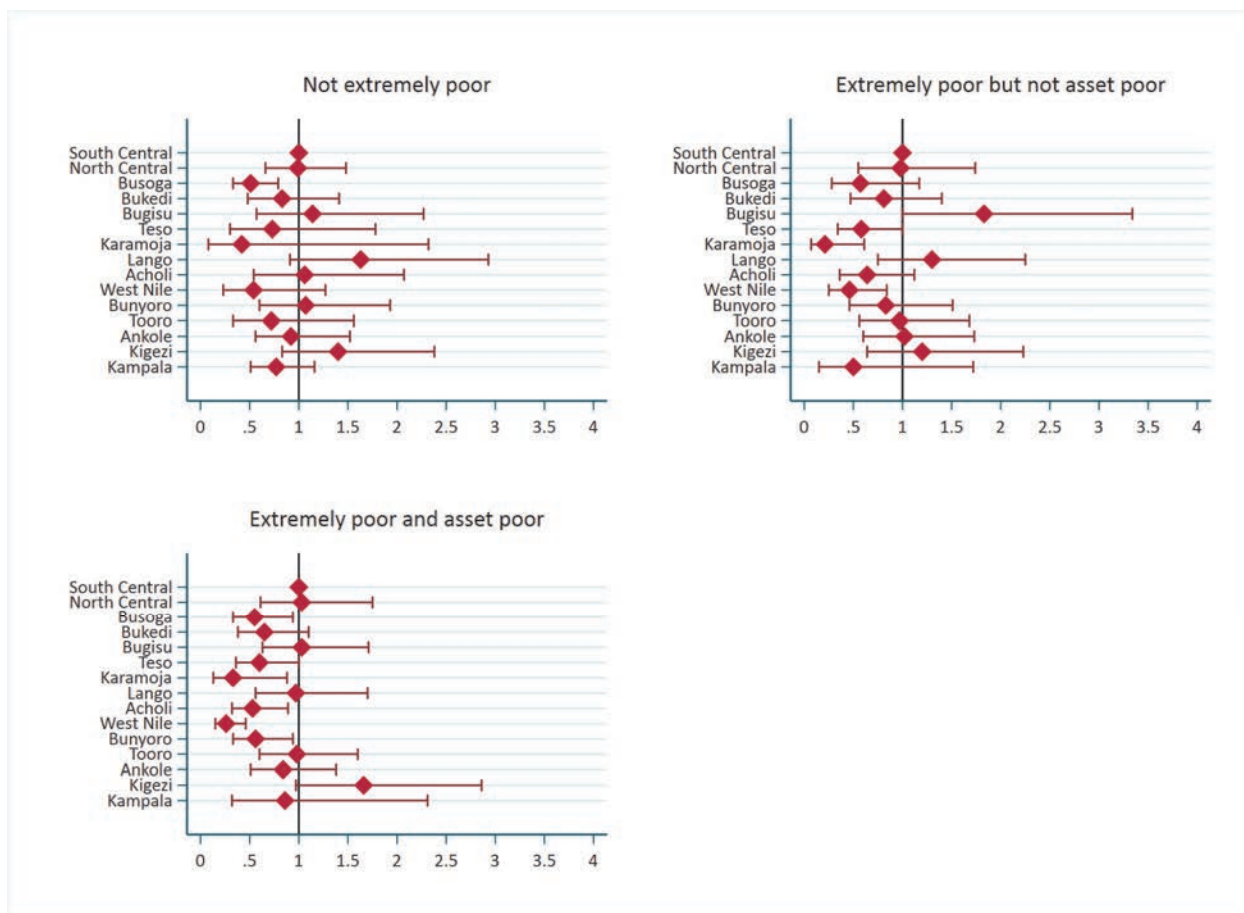
Note: South Central is the reference region.

3.12 Zambia

3.12.1 Poverty levels

At the national level in Zambia, married women are more or less evenly distributed across the three poverty groups. Women in the not extremely poor group account for 30% of the total, while the two extremely poor groups make up 33% and 37% respectively (Appendix Table 33). Figure 55 shows the distribution of women by poverty level in each of the 10 regions. In most regions more than one-third of women live in extremely poor and asset poor households, except in Lusaka and Copperbelt, where less than 20% of women are in this poverty group. Conversely, these two regions have the highest proportion of women in the not extremely poor group, at 73% and 58% respectively. The poorest region is the Western, with more than two-thirds of women in the extremely poor and asset poor group, and less than 10% of women in not extremely poor group.

**Figure 55   Percent distribution of married women by absolute poverty at the regional level, Zambia 2013-14 DHS**
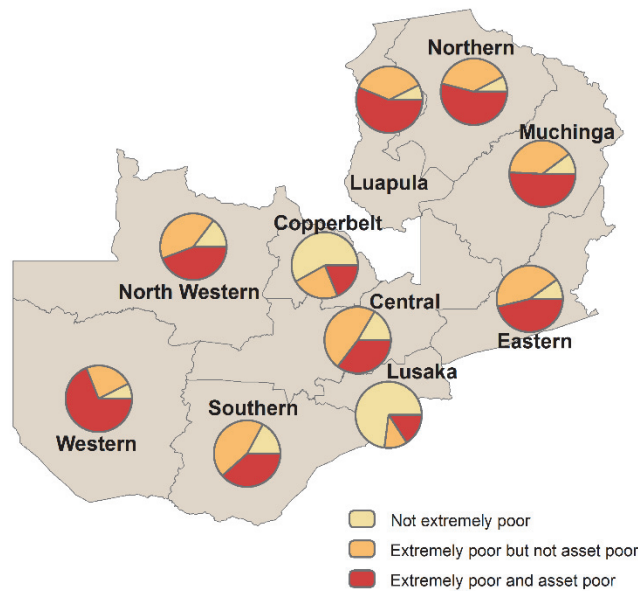
3.12.2 Ideal number of children

The mean ideal number of children in Zambia is 4.4 for the not extremely poor group and 5.4 for the two extremely poor groups (Appendix Table 34).

Figure 56 presents the mean ideal number of children for each region by poverty group. In most of the regions, women in the not extremely poor group reported an average of 4.5 or lower as the ideal number of children. In almost all regions, women in the two extremely poor groups reported an average of 5 or more children as ideal, and in several regions an average of 5.5 children or more. Women in the Northern and the North Western regions reported the highest ideal number of children, at 5.8-6.0 for the two extremely poor groups.

Figure 56   Mean ideal number of children by poverty group and region among married women, Zambia 2013-14 DHS
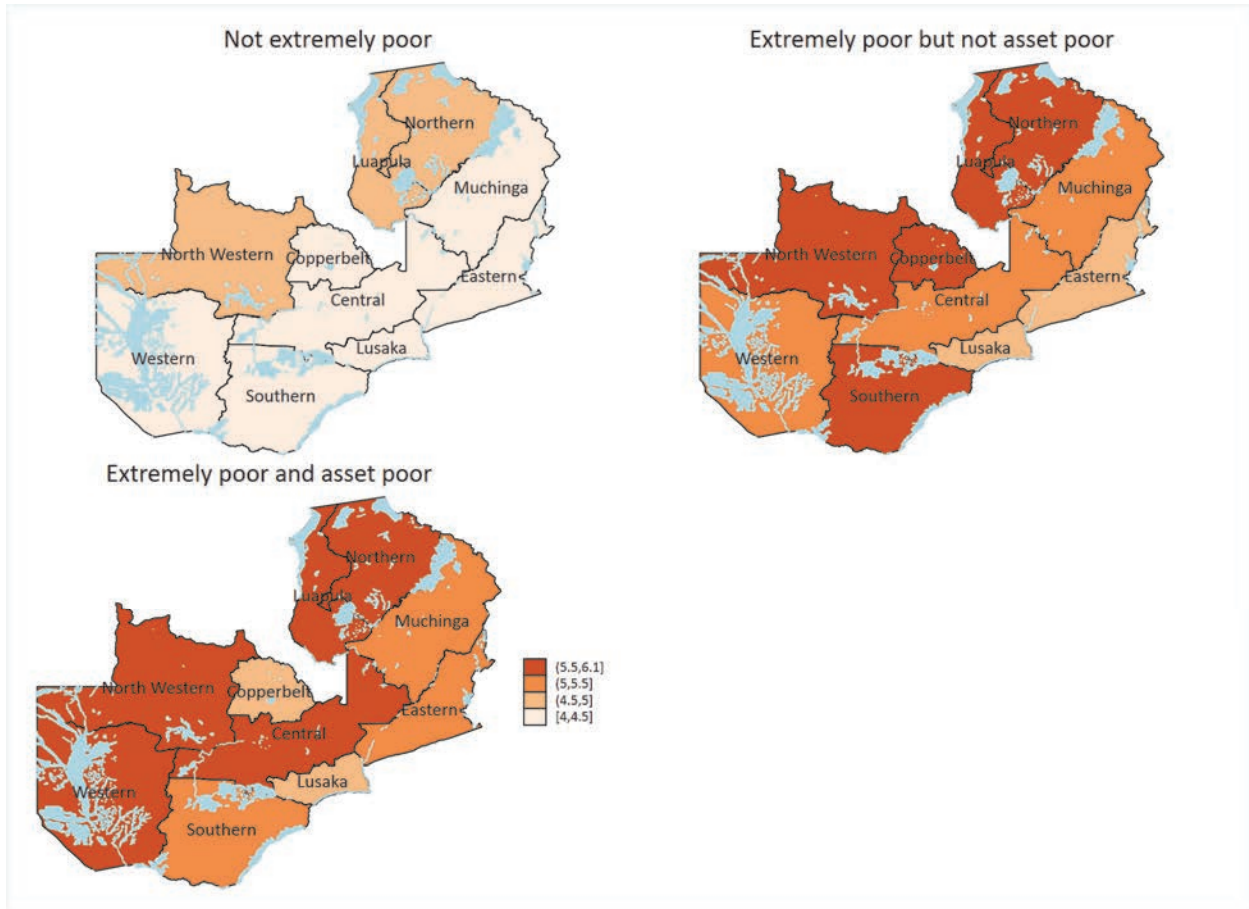
The Poisson model results shown in Figure 57 indicate limited regional variation in the ideal number of children for not extremely poor households compared with the reference, Lusaka. In the extremely poor but not asset poor group, four regions—Copperbelt, Northern, North Western, and Southern—show a higher ideal number of children compared with Lusaka. In the extremely poor and asset poor group, three regions—Northern, North Western, and Western—show a significantly higher ideal number of children compared with Lusaka.

Figure 57   Adjusted relative risk ratios with 95% confidence intervals of the ideal number of children, Zambia 2013-14 DHS
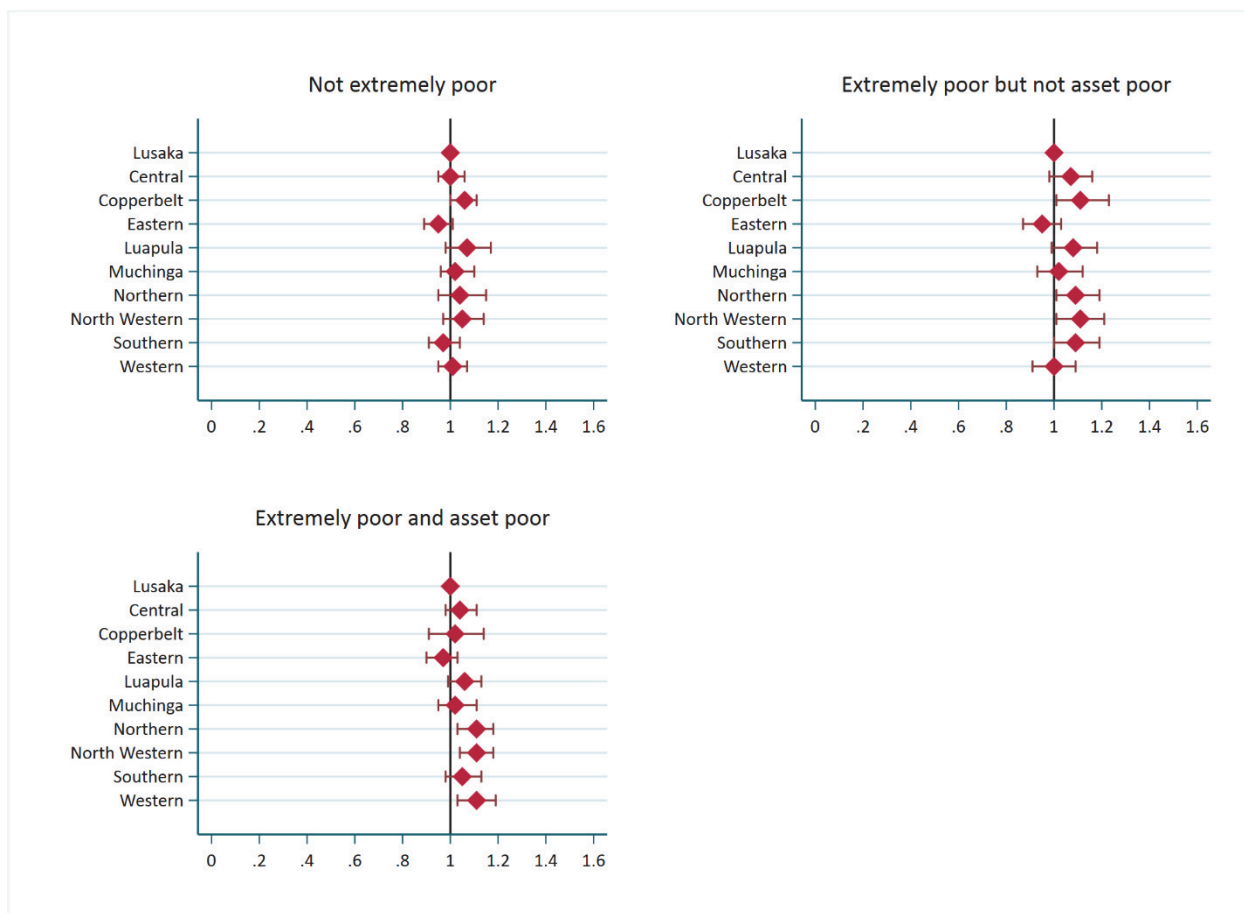

Note: Lusaka is the reference region.

3.12.3 Demand for family planning satisfied by modern methods

In Zambia the level of DSMM is 76% in the not extremely poor group, 62% in the extremely poor but not asset poor group, and 55% in the extremely poor and asset poor group (Appendix Table 35). In all 10 regions, more than 65% of women in the not extremely poor women group have their demand for family planning satisfied by modern methods (Figure 58). The Eastern and Southern regions have the highest levels of DSMM, at 83% and 81% respectively. Women in the extremely poor but not asset poor group appear to have a lower level of DSMM compared with the not extremely poor group, and in most regions the level is below 65%. The extremely poor and asset poor group shows the lowest level of DSMM, ranging from 69% in Lusaka to 38% in the Northern region.

Figure 58   Percent demand satisfied by modern methods by poverty group and region among married women, Zambia 2013-14 DHS
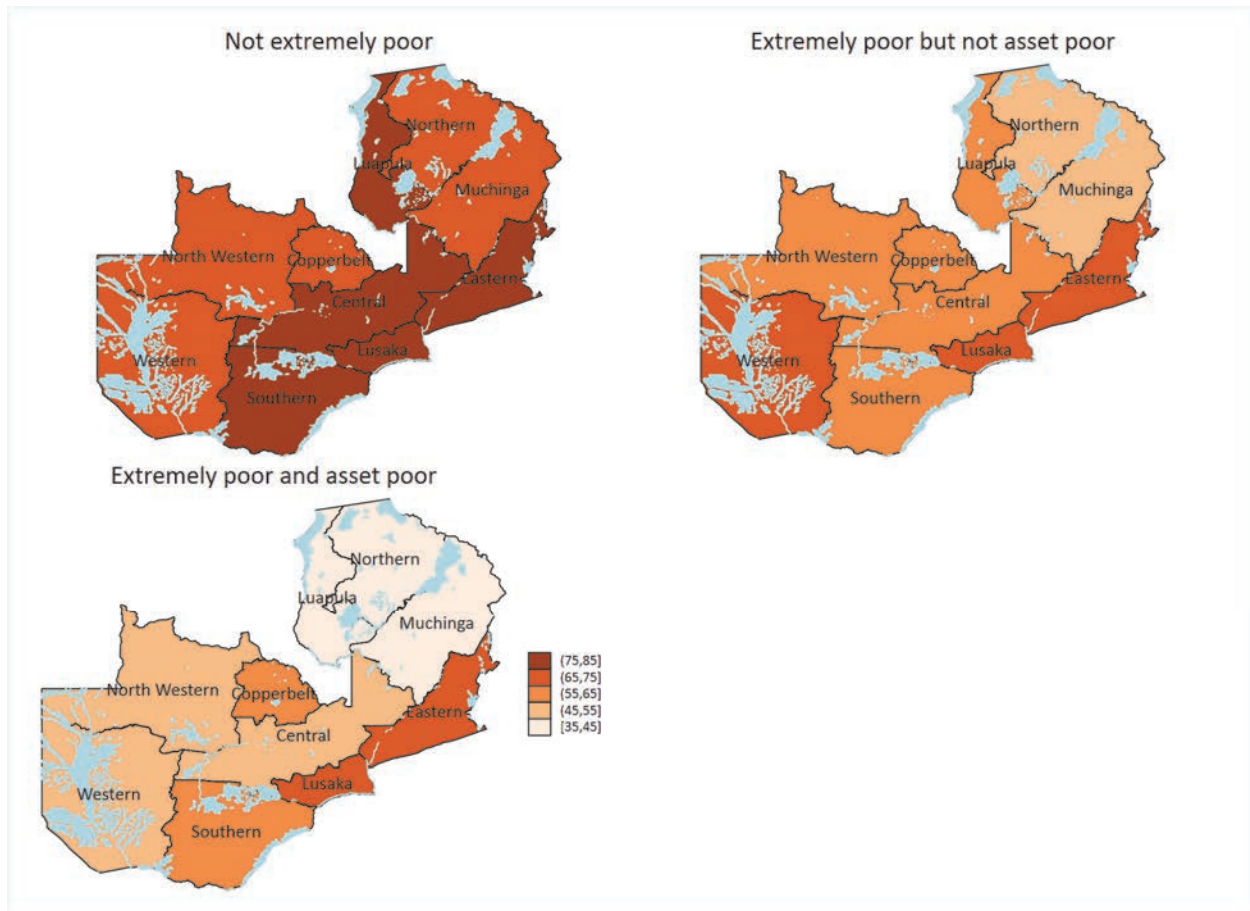
Regional variations in DSMM compared with the reference region after controlling for covariates are limited except for the extremely poor and asset poor group (Figure 59). For this group, in Luapula, Muchinga, Northern, and North Western regions the level of DSMM is much lower compared with the reference, Lusaka. For example, for the extremely poor and asset poor group, in the Northern region the odds of DSMM are 60% lower than in Lusaka.

Figure 59   Adjusted odds ratios with 95% confidence intervals of demand satisfied by modern methods, Zambia 2013-14 DHS
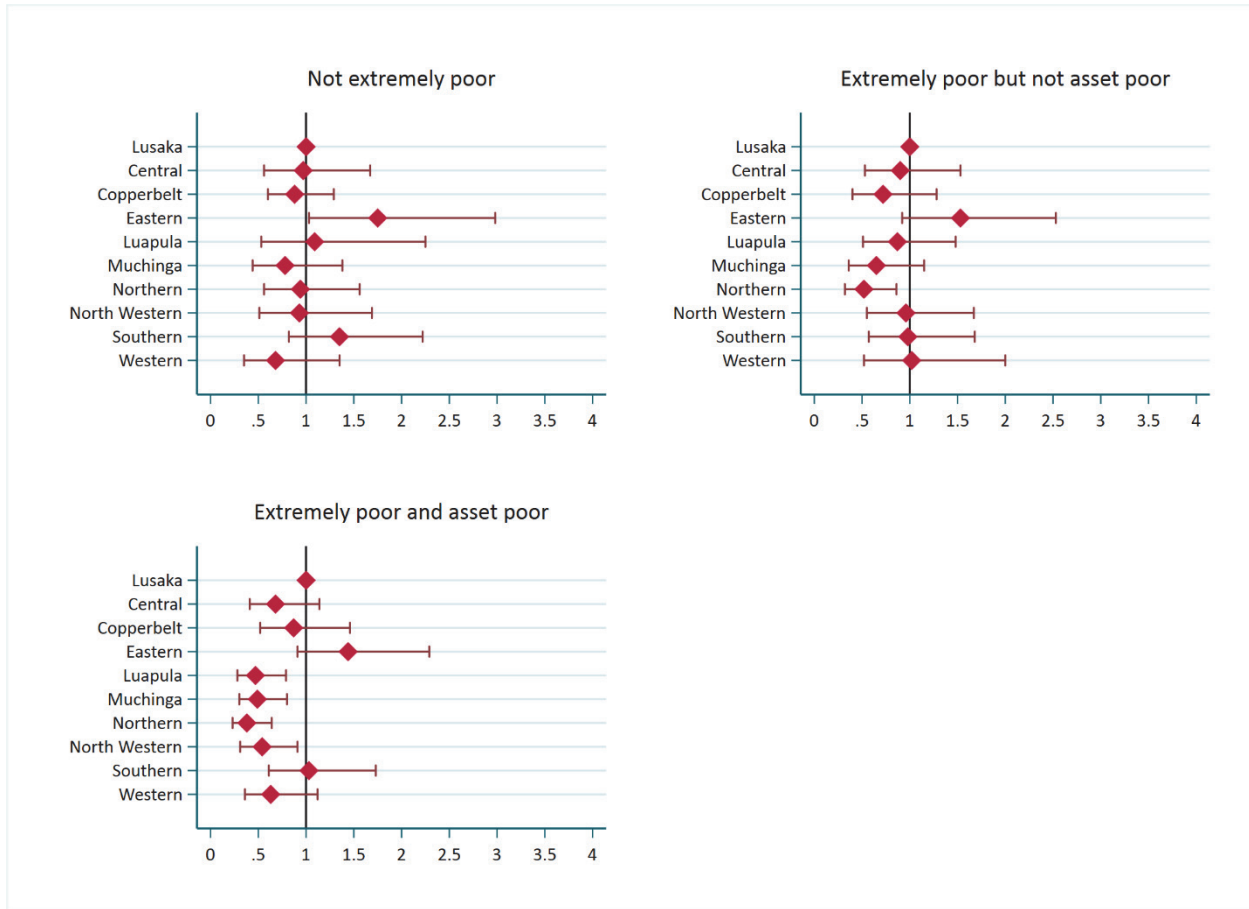
Note: Lusaka is the reference region.

4   SUMMARY AND CONCLUSIONS

A few countries in the analysis show a very different poverty distribution compared with the others. For instance, Ghana, Pakistan, and Nepal have a much higher percentage of women in the not extremely poor group, both nationally and for most regions. Ethiopia and DRC have the highest proportion of women in the extremely poor and asset poor group, at over 70%. Poverty distributions by region generally show that the region with the capital city, and in some cases the regions surrounding the capital city as well, have a drastically different poverty distribution, with a much higher percentage of women in the not extremely poor group compared with the other regions. In contrast, some countries have one region or a group of contiguous regions with a much higher proportion of women in the extremely poor and asset poor group compared with other regions, for example the northern regions in Mozambique and Nigeria. This analysis of poverty levels highlights the disparity across regions and certain areas of the countries in the study.

The analysis on ideal number of children and demand for family planning satisfied by modern methods (DSMM) further highlights the disparities in these outcomes both across the regions in a country and within the same poverty level. The results suggest that women could be doubly burdened by their level of poverty and by their region of residence. For most countries in the analysis, the mean ideal number of children increases as the poverty level increases, while the percent of DSMM decreases with increases in the level of poverty. Such relationships between poverty and women's fertility preferences and family planning outcomes are supported by the literature, as described in the introduction. Some countries in the analysis show little difference in these two outcomes between the two extremely poor groups. However, the countries exhibit different patterns in the disparities between the regions for fertility preferences and the percent of demand for family planning satisfied by modern methods.

For fertility preferences, some countries show little variation by region and by poverty level. This is most apparent in Haiti, Malawi, and Rwanda. For several countries the regional disparities are mainly due to a single region, which can be clearly seen in Ethiopia, where the mean ideal number of children in the Somali region is much higher than in the other regions, regardless of poverty group, at approximately 11 children as the ideal family size among all three poverty groups (Appendix Table 5). The Somali region shows a higher relative risk ratio compared with the reference region, Tigray, for the mean ideal number of children regardless of the poverty group. This is also the case in Ghana for the Northern region, but to a lesser degree (Figure 14), in Nepal for Province 2 (Figure 32), and in Nigeria for the North East and North West regions (Figure 37). Similarly, in DRC this clustering of higher fertility preferences appears in the southern regions of Kasai Occidental, Kasai Oriental, and Katanga. These three southern regions have the highest means for ideal number of children in the two extremely poor groups—at over 7 children for the extremely poor but not asset poor group and over 8 for the extremely poor and asset poor group (Appendix Table 2). For the not extremely poor group, the estimates were suppressed for Kasai Occidental and Kasai Oriental due to the low number of observations, but Katanga had the highest mean that could be displayed, at 5.7, higher than for any other region of the country in the not extremely poor group. The results suggest that in some regions of a country women have higher fertility preferences than elsewhere regardless of their poverty level.

In Uganda and to a lesser degree in Zambia, the disparities by region increase with increases in poverty, with the largest differences between the regions in the ideal number of children found for the extremely

poor and asset poor group. For Uganda, Karamoja region is the reason behind the greatest differences, but for Zambia it is mainly due to the Northern and Western regions (Appendix Tables 31 and 34). Pakistan appears to have the opposite trend—less regional variability with increasing poverty level (Figure 42). However, the regression results were not able to include two regions of Pakistan due to differing sampling methods for those regions. In addition, ICT Islamabad did not have enough observations to produce an estimate for the two extremely poor groups (Appendix Table 25), and therefore the variability could in fact be higher due to the lower mean ideal number of children expected in ICT Islamabad compared with other regions. For the not extremely poor group, ICT Islamabad had the lowest mean ideal number of children. The low number of observations in certain regions was one of the main limitations in describing these patterns. In Pakistan, several regions had too few observations to give a reliable estimate in the extremely poor and asset poor group, and for DRC this was the case for the not extremely poor group. It was also the case in Ghana, where the Greater Accra region, which has the lowest mean ideal number of children in the not extremely poor group, did not have enough observations to produce a reliable estimate in the extremely poor and asset poor group.

The indicator for DSMM excludes women with no unmet need for family planning, women who did not have sex in the last 30 days, and women who are infecund or menopausal. This reduces the sample further compared with the sample for the fertility preference indicator. Therefore, in our analysis of DSMM many more regions have an insufficient number of observations to produce a reliable estimate, which makes it more difficult to observe patterns in the percent of DSMM both within and across the countries. On the other hand, the regression results produce estimates for almost all regions, even those with small sample sizes, although confidence intervals are very wide for these regions. Rwanda is the only country that shows no significant results across all poverty groups (Figure 49). It also has relatively small differences between the regions in the percent of DSMM (Appendix Table 29). We also observe small differences between the regions in Malawi (Appendix Table 15). In the regression results that control for other variables, however, the Central region consistently shows significantly higher levels of DSMM compared with the Northern region across all poverty groups (Figure 26). For Nigeria, the North East, North West, and South East regions show the lowest percent of DSMM among the regions in the two extremely poor poverty groups (Appendix Table 23). The regression results show that the North East region has consistently lower levels of DSMM compared with the North Central region across all poverty groups. For the South East region, this was the case only for the not extremely poor group and the extremely poor and asset poor group (Figure 39).

In DRC, Ethiopia, and Zambia, the findings for percent of DSMM by region are more statistically significant in the extremely poor and asset poor group than the other two poverty groups (Appendix Tables 3, 6, and 35). This also appears to be the pattern in Haiti, Mozambique, and Uganda, but to a lesser extent (Appendix Tables 12, 17, and 32). In Ghana and Nepal, the results suggest the opposite pattern, with more significant findings in the not extremely poor group (Appendix Table 9 and 20). However, it is important to note that many regions had few observations, which gives less power to detect statistical significance. Overall, it appears that for several countries, the not extremely poor group has the greatest variability in the percent of DSMM by region. Therefore, interventions aimed at increasing the level of DSMM could consider targeting this group of women across all regions. In a few countries there are specific regions that require family planning inventions for all women regardless of their poverty level.

Limitations to the analysis due to small sample sizes in specific regions suggest that further analysis using spatial models and small-area estimation could be beneficial. In the regression analysis, the choice of the reference region can have an effect on the interpretation of the results. One option is to set the reference as the region where the capital city is located or the region that has the lowest proportion of women in extreme poverty. However, this was not possible in our analysis due to very small sample sizes in these regions within a specific poverty group. In addition, observing statistically different variations from the reference region does not necessarily mean that there are significant differences between the other regions. Further analysis using deviations from the mean for all regions would help in answering the question of whether there are significant differences between all regions. Future analyses may also consider pooling all the data from the countries, and comparing the countries with specific country-level variables such as whether the country had specific funding or interventions. This type of pooled analysis would further take advantage of the use of a comparable absolute poverty measure.

The analysis attempted to unveil the regional disparities in fertility preferences and DSMM; however, the analysis did not attempt to uncover why these regional disparities exist. Several factors associated with the region could be at play here, such as availability of family planning, access to education, and even cultural factors. Several individual factors that could affect these outcomes were not described or explored. These factors were beyond the scope of the analysis, which was mainly concerned with highlighting where disparities exist and if they differ by poverty level. Another important restriction in the analysis was the focus on women currently in union. Single women were excluded from the analysis. This exclusion was not only because of the low number of observations of single women for these outcomes, but also because family planning interventions aimed at single women would be different from those focused on currently married women. A separate analysis that focuses on single women would be more suitable. Another group excluded from the analysis are displaced and refugee women, because this group is not part of the DHS, which is a survey of households. This marginalized group of women would likely cluster in certain regions and tend to be poorer and have less access to services than the household population. Therefore, while the current analysis can highlight specific regions that require special attention and interventions, there could be other regions where displaced women are located that would also require these interventions.

These findings have shown that regional disparities exist in married women's fertility preferences and the level of demand for family planning satisfied by modern methods for several of the countries in the analysis. The patterns are country-specific and are due either to a specific region or regions that stand out from the rest, or to more regional variability in one of the poverty groups, which was especially the case in several countries for the DSMM indicator in the extremely poor and asset poor group. This variability would affect how interventions are targeted, either to specific regions or to a specific poverty group.

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APPENDIX

Appendix Table 1   Percent distribution of married women by absolute poverty at the national and regional level, Congo Democratic Republic 2013-14 DHS

Region	Not extremely poor % [C.I.]	Extremely poor but not asset poor % [C.I.]	Extremely poor and asset poor % [C.I.]
Total	11.9 [10.1,14.0]	16.9 [15.2,18.9]	71.2 [68.5,73.7]
Katanga	20.7 [12.2,32.9]	20.4 [15.9,25.6]	59.0 [48.9,68.3]
Kinshasa	85.1 [73.3,92.3]	9.3 [4.2,19.5]	5.6 [2.8,10.9]
Bandundu	1.4 [0.4,4.6]	12.3 [8.5,17.3]	86.4 [80.3,90.8]
Bas-Congo	16.2 [6.3,35.7]	21.2 [14.4,30.1]	62.6 [47.8,75.4]
Equateur	0.5 [0.1,1.5]	14.0 [10.3,18.7]	85.6 [80.8,89.3]
Kasai-Occidental	0.6 [0.1,3.9]	24.0 [17.3,32.3]	75.5 [66.4,82.7]
Kasai-Oriental	2.6 [0.9,7.5]	20.7 [16.9,25.2]	76.7 [70.9,81.6]
Maniema	0.8 [0.4,1.7]	26.1 [18.3,35.7]	73.1 [63.6,80.9]
Nord-Kivu	9.7 [4.4,20.0]	12.8 [8.4,19.0]	77.6 [64.1,87.0]
Orientale	5.9 [2.9,11.7]	20.6 [14.7,28.2]	73.4 [66.0,79.8]
Sud-Kivu	4.0 [1.4,10.7]	17.5 [8.3,33.2]	78.4 [64.3,88.0]

Appendix Table 2   Mean ideal number of children and adjusted relative risk ratios by poverty group and region among married women, Congo Democratic Republic 2013-14 DHS

Region	Not extremely poor			Extremely poor but not asset poor			Extremely poor and asset poor		
	mean [C.I.]	unwtN	ARR	mean [C.I.]	unwtN	ARR	mean [C.I.]	unwtN	ARR
Total	5.1 [4.9,5.2]	1110		6.4 [6.2,6.6]	1950		6.9 [6.7,7.1]	8456	
Katanga	5.7 [5.4,6.0]	177	1.0	7.4 [6.9,7.9]	250	1.0	8.0 [7.5,8.5]	928	1.0
Kinshasa	4.8 [4.6,4.9]	632	0.9***	4.9 [3.8,6.0]	62	0.7**	ND	45	0.8**
Bandundu	ND	19	1.0	5.5 [5.3,5.8]	223	0.8***	6.1 [5.8,6.3]	1334	0.8***
Bas-Congo	4.4 [3.6,5.1]	79	0.8**	5.5 [5.2,5.7]	110	0.7***	5.5 [5.3,5.7]	330	0.7***
Equateur	ND	7	0.8**	5.8 [5.1,6.6]	227	0.8***	6.3 [5.9,6.7]	1589	0.8***
Kasai-Occidental	ND	2	1.2***	7.4 [6.9,7.9]	229	1.0	8.4 [8.0,8.7]	776	1.1
Kasai-Oriental	ND	28	1.4***	7.5 [7.0,8.1]	287	1.0	8.7 [8.0,9.3]	1056	1.2**
Maniema	ND	7	0.9	6.7 [6.2,7.2]	153	0.9	6.4 [5.9,6.9]	476	0.8***
Nord-Kivu	5.1 [4.6,5.6]	54	0.9	6.2 [5.5,6.9]	74	0.9**	6.9 [6.3,7.5]	475	0.9**
Orientale	4.6 [3.9,5.2]	65	0.8***	6.0 [5.6,6.4]	278	0.8**	6.0 [5.6,6.4]	970	0.8***
Sud-Kivu	ND	40	1.0	5.9 [4.7,7.2]	57	0.8*	7.4 [6.5,8.3]	477	0.9

Notes: unwtN is the unweighted number of observations for each region. ARR are the adjusted relative risk ratios with the first region as the reference.
ND indicates that the estimate is not displayed because it is based on fewer than 50 unweighted observations.
*p<0.05 **p<0.01 ***p<0.001

Appendix Table 3 Percent demand satisfied by modern methods and adjusted odds ratios by poverty group and region among married women, Congo Democratic Republic 2013-14 DHS

Region	Not extremely poor % [C.I.]	unwtN	AOR	Extremely poor but not asset poor % [C.I.]	unwtN	AOR	Extremely poor and asset poor % [C.I.]	unwtN	AOR
Total	27.9 [24.4,31.6]	757		19.7 [16.0,24.1]	1054		12.4 [10.2,14.9]	3799	
Katanga	15.2 [8.8,15.2]	120	1.0	12.2 [7.0,12.2]	123	1.0	4.2 [2.1,4.2]	287	1.0
Kinshasa	28.1 [24.6,28.1]	443	2.3**	ND	45	3.0	ND	38	2.5
Bandundu	ND	11	2.8	16.3 [9.2,16.3]	119	1.5	14.4 [10.3,14.4]	751	3.7**
Bas-Congo	48.7 [39.5,48.7]	58	5.5***	19.0 [10.3,19.0]	73	3.1*	21.0 [14.4,21.0]	228	6.7***
Equateur	ND	5	3.4	13.6 [6.1,13.6]	135	1.2	7.0 [4.5,7.0]	788	1.8
Kasai-Occidental	ND	2	1.0	18.2 [11.1,18.2]	124	1.6	14.4 [8.6,14.4]	290	4.2**
Kasai-Oriental	ND	17	1.7	17.2 [9.1,17.2]	122	1.7	9.6 [6.3,9.6]	393	1.9
Maniema	ND	3	5.4	24.0 [13.7,24.0]	83	2.5	13.9 [5.6,13.9]	204	3.6*
Nord-Kivu	ND	32	3.0*	45.8 [19.1,45.8]	58	7.0**	14.8 [9.3,14.8]	235	3.9**
Orientale	ND	41	2.7	23.3 [17.9,23.3]	150	3.1**	6.4 [3.6,6.4]	402	1.8
Sud-Kivu	ND	25	4.5**	ND	22	0.7	24.2 [9.8,24.2]	183	8.4**

Notes: unwtN is the unweighted number of observations for each region. AOR are the adjusted odds ratios with the first region as the reference.
ND indicates that the estimate is not displayed because it is based on less than 50 unweighted observations.
*p<0.05 **p<0.01 ***p<0.001

Appendix Table 4 Percent distribution of married women by absolute poverty at the national and regional level, Ethiopia 2016 DHS

Region	Not extremely poor % [C.I.]	Extremely poor but not asset poor % [C.I.]	Extremely poor and asset poor % [C.I.]
Total	12.1 [10.8,13.6]	9.9 [8.3,11.7]	78.0 [75.4,80.3]
Tigray	14.3 [9.9,20.2]	17.9 [12.5,25.0]	67.8 [59.6,75.0]
Affar	11.9 [9.1,15.4]	12.0 [8.3,16.9]	76.2 [70.1,81.3]
Amhara	9.5 [6.8,13.0]	9.4 [6.6,13.1]	81.2 [76.9,84.8]
Oromiya	8.2 [6.0,11.2]	10.7 [7.6,14.7]	81.1 [75.3,85.8]
Somali	7.4 [4.3,12.3]	6.4 [4.7,8.7]	86.2 [80.1,90.6]
Benishangul-Gumuz	6.9 [2.6,17.1]	14.0 [9.2,20.7]	79.1 [71.1,85.3]
SNNPR	8.3 [6.1,11.3]	6.8 [4.5,10.1]	84.9 [80.3,88.6]
Gambela	21.4 [15.0,29.6]	22.2 [15.4,30.8]	56.4 [46.6,65.7]
Harari	50.6 [41.0,60.1]	17.2 [12.4,23.3]	32.2 [21.8,44.7]
Addis Ababa	89.4 [82.9,93.6]	9.7 [5.9,15.5]	0.9 [0.3,2.5]
Dire Dawa	56.4 [46.7,65.6]	7.5 [5.1,11.0]	36.1 [27.7,45.4]

Note: SNNPR - Southern Nations, Nationalities, and People's region

Appendix Table 5   Mean ideal number of children and adjusted relative risk ratios by poverty group and region among married women, Ethiopia 2016 DHS

Region	Not extremely poor			Extremely poor but not asset poor			Extremely poor and asset poor		
	mean [C.I.]	unwtN	ARR	mean [C.I.]	unwtN	ARR	mean [C.I.]	unwtN	ARR
Total	4.3 [4.1,4.4]	1847		4.6 [4.3,5.0]	898		5.1 [4.9,5.2]	5783	
Tigray	4.5 [3.8,5.2]	122	1.0	5.0 [4.6,5.4]	133	1.0	5.5 [5.3,5.8]	518	1.0
Affar	5.0 [4.2,5.9]	65	1.2	4.3 [3.4,5.2]	63	0.9	6.3 [5.6,7.0]	550	1.1
Amhara	3.9 [3.5,4.4]	76	0.9	4.4 [4.0,4.7]	72	0.9*	4.7 [4.4,4.9]	812	0.8***
Oromiya	3.9 [3.4,4.5]	91	0.9*	4.2 [3.4,5.1]	113	0.8**	4.6 [4.3,4.9]	939	0.8***
Somali	10.8 [8.5,13.2]	59	2.1***	10.7 [8.9,12.4]	55	2.0***	11.0 [10.5,11.6]	660	1.8***
Benishangul-Gumuz	ND	39	0.9	5.1 [4.5,5.7]	97	1.0	5.8 [5.5,6.2]	571	1.0
SNNPR	4.7 [4.1,5.3]	95	1.0	5.5 [4.9,6.0]	79	1.0	5.4 [5.1,5.6]	946	0.9*
Gambela	4.3 [3.7,4.9]	107	1.0	4.5 [3.9,5.1]	101	0.9	5.2 [4.6,5.7]	455	1.0
Harari	4.2 [3.8,4.6]	278	0.9	4.8 [4.3,5.4]	90	0.9	4.7 [3.9,5.4]	142	0.8**
Addis Ababa	4.0 [3.8,4.1]	602	1.0	3.5 [2.8,4.1]	59	0.7**	ND	5	0.5
Dire Dawa	5.3 [4.7,6.0]	313	1.2**	ND	36	1.0	6.8 [6.2,7.3]	185	1.2***

Notes: unwtN is the unweighted number of observations for each region. ARR are the adjusted relative risk ratios with the first region as the reference.
ND indicates that the estimate is not displayed because it is based on less than 50 unweighted observations.
SNNPR - Southern Nations, Nationalities, and People's region
*p<0.05 **p<0.01 ***p<0.001

Appendix Table 6   Percent demand satisfied by modern methods and adjusted odds ratios by poverty group and region among married women, Ethiopia 2016 DHS

Region	Not extremely poor			Extremely poor but not asset poor			Extremely poor and asset poor		
	% [C.I.]	unwtN	AOR	% [C.I.]	unwtN	AOR	% [C.I.]	unwtN	AOR
Total	76.7 [71.6,81.1]	1175		75.3 [69.2,80.6]	580		55.7 [52.1,59.3]	3139	
Tigray	78.6 [67.2,78.6]	82	1.0	76.5 [65.9,76.5]	98	1.0	57.5 [50.2,57.5]	336	1.0
Affar	ND	44	1.1	ND	32	0.2*	15.0 [9.7,15.0]	133	0.1***
Amhara	84.6 [64.9,84.6]	52	1.5	88.0 [76.5,88.0]	58	2.0	69.3 [64.0,69.3]	623	1.6*
Oromiya	74.0 [57.6,74.0]	62	0.8	69.0 [55.1,69.0]	84	0.8	43.1 [36.4,43.1]	614	0.6**
Somali	ND	22	0.1**	ND	9	0.1*	3.9 [1.5,3.9]	103	0.0***
Benishangul-Gumuz	ND	28	1.0	68.6 [44.8,68.6]	57	0.8	49.6 [42.8,49.6]	316	0.7*
SNNPR	74.5 [61.3,74.5]	67	0.9	75.4 [58.7,75.4]	57	1.7	63.5 [56.9,63.5]	621	1.3
Gambela	75.0 [54.7,75.0]	68	0.8	71.0 [57.7,71.0]	77	0.5	48.2 [32.4,48.2]	231	0.5
Harari	73.5 [64.6,73.5]	177	0.7	ND	45	0.4*	20.6 [11.6,20.6]	69	0.2***
Addis Ababa	75.4 [70.5,75.4]	394	0.8	ND	44	0.5	ND	4	0.1
Dire Dawa	75.3 [65.5,75.3]	179	0.8	ND	19	0.4	27.5 [10.0,27.5]	89	0.2*

Notes: unwtN is the unweighted number of observations for each region. AOR are the adjusted odds ratios with the first region as the reference.
ND indicates that the estimate is not displayed because it is based on less than 50 unweighted observations.
SNNPR - Southern Nations, Nationalities, and People's region
*p<0.05 **p<0.01 ***p<0.001

Appendix Table 7   Percent distribution of married women by absolute poverty at the national and regional level, Ghana 2014 DHS

Region	Not extremely poor % [C.I.]	Extremely poor but not asset poor % [C.I.]	Extremely poor and asset poor % [C.I.]
Total	73.6 [70.6,76.4]	15.9 [13.8,18.3]	10.5 [9.0,12.2]
Upper West	40.3 [33.0,48.1]	40.2 [34.4,46.3]	19.5 [13.9,26.6]
Western	80.8 [72.0,87.4]	10.2 [7.4,14.0]	8.9 [4.6,16.7]
Central	82.6 [78.3,86.2]	6.5 [3.9,10.7]	10.9 [7.2,16.2]
Greater Accra	95.2 [92.0,97.2]	3.2 [1.5,6.6]	1.6 [0.8,3.3]
Volta	68.5 [55.9,78.8]	12.6 [8.0,19.3]	18.9 [12.1,28.4]
Eastern	73.7 [65.2,80.7]	12.0 [8.4,17.0]	14.3 [9.7,20.5]
Ashanti	83.7 [73.8,90.3]	10.4 [5.9,17.7]	5.9 [3.4,10.1]
Brong Ahafo	68.4 [58.4,77.0]	20.3 [13.0,30.4]	11.2 [8.0,15.5]
Northern	35.1 [25.4,46.3]	45.6 [36.3,55.1]	19.3 [11.7,30.2]
Upper East	30.2 [23.2,38.1]	49.9 [44.7,55.0]	20.0 [15.4,25.6]

Appendix Table 8   Mean ideal number of children and adjusted relative risk ratios by poverty group and region among married women, Ghana 2014 DHS

Region	Not extremely poor			Extremely poor but not asset poor			Extremely poor and asset poor		
	mean [C.I.]	unwtN	ARR	mean [C.I.]	unwtN	ARR	mean [C.I.]	unwtN	ARR
Total	4.3 [4.2,4.4]	3446		5.6 [5.4,5.8]	1144		5.6 [5.3,5.8]	749	
Upper West	5.1 [4.7,5.5]	198	1.0	5.5 [5.0,6.0]	166	1.0	5.4 [5.0,5.8]	88	1.0
Western	4.2 [4.1,4.4]	412	0.9**	5.4 [4.8,5.9]	59	1.0	4.9 [4.5,5.3]	56	1.0
Central	4.1 [3.9,4.2]	427	0.9***	ND	41	0.9*	5.1 [4.7,5.5]	53	0.9
Greater Accra	3.8 [3.6,4.0]	476	0.9***	ND	17	1.0	ND	11	1.2
Volta	4.1 [3.8,4.3]	290	0.9***	4.3 [3.9,4.7]	59	0.8***	5.0 [4.7,5.3]	84	1.0
Eastern	4.2 [3.9,4.4]	356	0.9***	4.5 [4.1,4.8]	64	0.9**	5.0 [4.5,5.4]	84	1.0
Ashanti	4.5 [4.3,4.7]	430	0.9	5.0 [4.6,5.5]	59	1.0	ND	40	1.0
Brong Ahafo	4.5 [4.3,4.7]	384	1.0	5.3 [4.7,5.9]	123	1.0	5.5 [5.0,6.0]	70	1.1
Northern	6.7 [6.2,7.1]	268	1.2***	6.8 [6.3,7.3]	310	1.2***	7.1 [6.4,7.7]	159	1.3***
Upper East	5.2 [4.6,5.9]	205	1.1	5.5 [5.1,5.9]	246	1.0	5.8 [5.3,6.2]	104	1.1*

Notes: unwtN is the unweighted number of observations for each region. AOR are the adjusted odds ratios with the first region as the reference.
ND indicates that the estimate is not displayed because it is based on fewer than 50 unweighted observations.
*p<0.05 **p<0.01 ***p<0.001

Appendix Table 9   Percent demand satisfied by modern methods and adjusted odds ratios by poverty group and region among married women, Ghana 2014 DHS

Region	Not extremely poor			Extremely poor but not asset poor			Extremely poor and asset poor		
	% [C.I.]	unwtN	AOR	% [C.I.]	unwtN	AOR	% [C.I.]	unwtN	AOR
Total	39.8 [36.8,43.0]	1990		38.3 [33.5,43.2]	601		36.0 [30.1,42.3]	398	
Upper West	54.1 [44.1,54.1]	116	1.0	42.0 [27.5,42.0]	90	1.0	41.2 [27.2,41.2]	57	1.0
Western	43.7 [35.6,43.7]	232	0.7	ND	28	0.7	ND	36	0.8
Central	47.9 [41.9,47.9]	246	0.8	ND	29	0.9	ND	33	0.6
Greater Accra	33.9 [27.5,33.9]	276	0.5**	ND	8	1.4	ND	2	1.0
Volta	44.2 [35.7,44.2]	204	0.7	ND	45	1.1	37.4 [20.5,37.4]	50	0.7
Eastern	41.5 [34.2,41.5]	229	0.6	ND	47	0.7	36.4 [21.6,36.4]	50	0.5
Ashanti	34.5 [26.2,34.5]	250	0.5*	ND	44	1.0	ND	19	0.9
Brong Ahafo	48.0 [39.0,48.0]	222	0.8	37.4 [24.5,37.4]	70	0.9	ND	42	1.5
Northern	28.0 [18.8,28.0]	103	0.3**	29.5 [22.3,29.5]	120	0.6	22.9 [12.3,22.9]	56	0.5
Upper East	54.1 [43.4,54.1]	112	1.0	50.5 [42.7,50.5]	120	1.4	24.5 [14.4,24.5]	53	0.4

Notes: unwtN is the unweighted number of observations for each region. AOR are the adjusted odds ratios with the first region as the reference.
ND indicates that the estimate is not displayed because it is based on fewer than 50 unweighted observations.
*p<0.05 **p<0.01 ***p<0.001

Appendix Table 10   Percent distribution of married women by absolute poverty at the national and regional level, Haiti 2016-17 DHS

Region	Not extremely poor	Extremely poor but not asset poor	Extremely poor and asset poor
	% [C.I.]	% [C.I.]	% [C.I.]
Total	43.7 [40.9,46.6]	11.0 [9.9,12.1]	45.3 [42.4,48.2]
Nord	41.7 [32.2,51.9]	14.0 [10.3,18.6]	44.3 [35.3,53.7]
Aire Métropolitaine	85.1 [78.7,89.8]	6.2 [4.5,8.5]	8.7 [5.4,13.7]
Reste-Ouest	39.0 [30.0,48.8]	9.9 [7.3,13.4]	51.1 [40.4,61.7]
Sud-Est	25.0 [17.7,34.1]	8.7 [6.1,12.4]	66.3 [54.8,76.1]
Nord-Est	38.1 [28.7,48.6]	16.4 [11.7,22.6]	45.4 [34.4,56.9]
Artibonite	30.5 [24.2,37.7]	12.8 [9.6,16.8]	56.6 [48.5,64.5]
Centre	26.9 [19.4,36.0]	12.8 [9.4,17.2]	60.3 [50.4,69.5]
Sud	32.4 [24.7,41.1]	14.0 [10.5,18.4]	53.6 [43.7,63.2]
Grande Anse	11.7 [5.7,22.7]	10.3 [6.4,16.3]	77.9 [65.6,86.7]
Nord-Ouest	22.2 [16.9,28.6]	12.6 [10.3,15.4]	65.2 [58.9,71.0]
Nippes	28.3 [20.3,38.0]	15.7 [12.0,20.3]	56.0 [45.5,66.0]

Appendix Table 11   Mean ideal number of children and adjusted relative risk ratios by poverty group and region among married women, Haiti 2016-17 DHS

Region	Not extremely poor			Extremely poor but not asset poor			Extremely poor and asset poor		
	mean [C.I.]	unwtN	ARR	mean [C.I.]	unwtN	ARR	mean [C.I.]	unwtN	ARR
Total	2.9 [2.8,3.0]	2716		3.0 [2.9,3.1]	860		3.2 [3.1,3.3]	3973	
Nord	3.1 [2.9,3.3]	298	1.0	3.1 [2.7,3.5]	108	1.0	3.2 [2.9,3.5]	355	1.0
Aire Métropolitaine	2.8 [2.7,2.9]	803	0.9*	2.7 [2.4,2.9]	62	0.9	2.7 [2.5,2.9]	82	0.9*
Reste-Ouest	2.9 [2.7,3.1]	291	0.9	2.9 [2.5,3.3]	72	1.0	3.2 [3.0,3.4]	397	1.0
Sud-Est	2.8 [2.5,3.0]	124	0.9	ND	44	0.9	3.2 [2.9,3.5]	335	1.0
Nord-Est	3.1 [2.8,3.4]	195	1.0	2.9 [2.5,3.4]	83	1.0	3.5 [3.3,3.8]	295	1.1
Artibonite	2.9 [2.6,3.2]	285	0.9	3.1 [2.8,3.3]	103	1.0	3.3 [3.1,3.5]	551	1.0
Centre	3.3 [2.9,3.8]	166	1.0	3.1 [2.7,3.6]	77	1.0	3.4 [3.2,3.7]	410	1.0
Sud	2.9 [2.7,3.1]	184	0.9	2.8 [2.5,3.0]	79	0.9	3.0 [2.8,3.1]	313	0.9
Grande Anse	ND	46	0.9*	3.0 [2.5,3.4]	54	1.0	3.0 [2.8,3.2]	432	0.9
Nord-Ouest	3.1 [2.9,3.3]	191	1.0	3.3 [3.0,3.6]	98	1.1	3.3 [3.1,3.4]	508	1.0
Nippes	2.7 [2.5,3.0]	133	0.9*	2.8 [2.6,3.1]	80	1.0	2.8 [2.7,2.9]	295	0.9**

Notes: unwtN is the unweighted number of observations for each region. ARR are the adjusted relative risk ratios with the first region as the reference.
ND indicates that the estimate is not displayed because it is based on fewer than 50 unweighted observations.
*p<0.05 **p<0.01 ***p<0.001

Appendix Table 12   Percent demand satisfied by modern methods and adjusted odds ratios by poverty group and region among married women, Haiti 2016-2017 DHS

Region	Not extremely poor			Extremely poor but not asset poor			Extremely poor and asset poor		
	% [C.I.]	unwtN	AOR	% [C.I.]	unwtN	AOR	% [C.I.]	unwtN	AOR
Total	45.0 [41.9,48.1]	1871		46.9 [42.2,51.7]	655		42.5 [39.8,45.1]	2985	
Nord	41.2 [32.6,41.2]	204	1.0	45.7 [37.5,45.7]	81	1.0	47.7 [37.6,47.7]	283	1.0
Aire Métropolitaine	49.5 [44.6,49.5]	552	1.4	ND	48	0.6	45.0 [31.7,45.0]	74	0.8
Reste-Ouest	35.0 [25.1,35.0]	179	0.8	ND	47	0.8	34.3 [27.9,34.3]	278	0.6*
Sud-Est	45.1 [31.0,45.1]	87	1.1	ND	30	1.1	31.6 [25.5,31.6]	251	0.5**
Nord-Est	49.0 [39.4,49.0]	147	1.4	56.5 [46.3,56.5]	66	1.5	48.5 [39.4,48.5]	239	1.0
Artibonite	42.4 [33.1,42.4]	176	1.1	53.3 [39.0,53.3]	74	1.4	48.7 [41.4,48.7]	393	1.1
Centre	52.6 [43.1,52.6]	124	1.7*	57.1 [46.8,57.1]	60	1.6	48.3 [42.0,48.3]	314	1.1
Sud	42.6 [35.4,42.6]	127	1.1	44.3 [32.4,44.3]	65	1.0	34.6 [29.3,34.6]	233	0.6*
Grande Anse	ND	32	0.6	ND	45	0.8	45.9 [38.2,45.9]	326	0.9
Nord-Ouest	43.0 [31.9,43.0]	144	1.1	48.3 [35.1,48.3]	83	1.2	38.0 [31.9,38.0]	367	0.7
Nippes	45.9 [35.5,45.9]	99	1.2	51.4 [34.7,51.4]	56	1.3	48.8 [41.9,48.8]	227	1.0

Notes: unwtN is the unweighted number of observations for each region. AOR are the adjusted odds ratios with the first region as the reference.
ND indicates that the estimate is not displayed because it is based on fewer than 50 unweighted observations.
*p<0.05 **p<0.01 ***p<0.001

Appendix Table 13   Percent distribution of married women by absolute poverty at the national and regional level, Malawi 2015-16 DHS

	Not extremely poor	Extremely poor but not asset poor	Extremely poor and asset poor
Region	% [C.I.]	% [C.I.]	% [C.I.]
Total	16.6 [15.4,17.9]	30.2 [29.1,31.3]	53.2 [51.9,54.5]
Northern	21.2 [18.8,23.9]	27.5 [24.6,30.7]	51.2 [47.7,54.8]
Central	14.0 [12.1,16.3]	32.1 [30.2,34.1]	53.8 [51.9,55.8]
Southern	17.8 [16.1,19.6]	29.1 [27.6,30.5]	53.1 [51.3,55.0]

Appendix Table 14   Mean ideal number of children and adjusted relative risk ratios by poverty group and region among married women, Malawi 2015-16 DHS

	Not extremely poor			Extremely poor but not asset poor			Extremely poor and asset poor		
Region	mean [C.I.]	unwtN	ARR	mean [C.I.]	unwtN	ARR	mean [C.I.]	unwtN	ARR
Total	3.4 [3.4,3.5]	3067		4.0 [3.9,4.0]	4493		3.9 [3.9,4.0]	8178	
Northern	3.7 [3.5,3.8]	933	1.0	4.0 [3.8,4.2]	752	1.0	4.0 [3.8,4.1]	1461	1.0
Central	3.3 [3.1,3.5]	873	1.0	3.9 [3.9,4.0]	1654	1.0	3.9 [3.8,4.0]	2914	1.0
Southern	3.5 [3.4,3.5]	1261	1.0	4.0 [3.9,4.1]	2087	1.0	4.0 [3.9,4.0]	3803	1.0

Notes: unwtN is the unweighted number of observations for each region. ARR are the adjusted relative risk ratios with the first region as the reference.
*p<0.05 **p<0.01 ***p<0.001

Appendix Table 15   Percent demand satisfied by modern methods and adjusted odds ratios by poverty group and region among married women, Malawi 2015-16 DHS

	Not extremely poor			Extremely poor but not asset poor			Extremely poor and asset poor		
Region	% [C.I.]	unwtN	AOR	% [C.I.]	unwtN	AOR	% [C.I.]	unwtN	AOR
Total	76.6 [74.2,78.7]	2434		76.3 [74.3,78.1]	3561		73.0 [71.5,74.4]	6441	
Northern	72.8 [68.0,72.8]	755	1.0	70.0 [64.9,70.0]	598	1.0	66.0 [61.2,66.0]	1156	1.0
Central	80.5 [77.0,80.5]	709	1.7**	80.0 [76.7,80.0]	1363	1.7***	77.9 [75.6,77.9]	2318	1.8***
Southern	74.6 [70.7,74.6]	970	1.1	73.7 [71.0,73.7]	1600	1.2	70.0 [68.0,70.0]	2967	1.2

Notes: unwtN is the unweighted number of observations for each region. AOR are the adjusted odds ratios with the first region as the reference.
*p<0.05 **p<0.01 ***p<0.001

Appendix Table 16   Percent distribution of married women by absolute poverty at the national and regional level, Mozambique 2015 AIS

	Not extremely poor	Extremely poor but not asset poor	Extremely poor and asset poor
Region	% [C.I.]	% [C.I.]	% [C.I.]
Total	24.3 [21.8,27.1]	28.4 [26.1,30.9]	47.3 [44.5,50.0]
Niassa	20.3 [12.5,31.3]	33.0 [26.5,40.2]	46.7 [38.5,55.0]
Cabo Delgado	13.1 [6.7,24.1]	28.4 [23.0,34.4]	58.5 [49.0,67.4]
Nampula	14.6 [9.8,21.3]	24.1 [19.4,29.5]	61.3 [53.6,68.5]
ZambéZia	9.9 [4.9,19.2]	33.5 [26.0,41.9]	56.6 [47.4,65.3]
Tete	7.7 [4.8,12.0]	38.2 [30.5,46.6]	54.1 [46.8,61.3]
Manica	17.8 [12.7,24.3]	32.9 [26.9,39.6]	49.3 [42.9,55.8]
Sofala	22.0 [15.3,30.6]	42.6 [34.3,51.3]	35.4 [29.4,41.9]
Inhambane	19.0 [10.0,33.3]	37.5 [25.7,51.0]	43.4 [32.0,55.7]
Gaza	47.9 [37.5,58.5]	20.5 [14.8,27.7]	31.7 [25.4,38.7]
Maputo Provincia	74.4 [62.1,83.8]	6.7 [3.5,12.5]	18.9 [11.2,30.0]
Maputo Cidade	93.9 [89.5,96.5]	1.9 [0.9,4.2]	4.1 [2.3,7.4]

Appendix Table 17   Percent demand satisfied by modern methods and adjusted odds ratios by poverty group and region among married women, Mozambique 2015 AIS

	Not extremely poor			Extremely poor but not asset poor			Extremely poor and asset poor		
Region	% [C.I.]	unwtN	AOR	% [C.I.]	unwtN	AOR	% [C.I.]	unwtN	AOR
Total	64.4 [60.7,67.9]	950		48.8 [42.9,54.7]	546		41.5 [37.0,46.1]	815	
Niassa	63.4 [47.4,63.4]	72	1.0	38.5 [23.8,38.5]	61	1.0	33.2 [21.2,33.2]	64	1.0
Cabo Delgado	ND	30	0.8	44.6 [28.1,44.6]	52	1.2	43.9 [36.0,43.9]	77	1.6
Nampula	58.8 [44.2,58.8]	52	0.8	55.0 [38.5,55.0]	59	1.8	41.2 [29.3,41.2]	142	1.5
ZambéZia	ND	28	0.7	43.8 [28.9,43.8]	67	1.2	29.2 [19.3,29.2]	105	0.9
Tete	63.5 [50.5,63.5]	58	0.9	58.8 [34.3,58.8]	69	2.6	48.9 [35.3,48.9]	79	2.3*
Manica	63.5 [46.0,63.5]	54	0.9	37.2 [27.3,37.2]	54	1.0	30.0 [20.6,30.0]	75	0.9
Sofala	58.0 [43.5,58.0]	74	0.7	41.2 [28.6,41.2]	51	1.2	ND	42	0.5
Inhambane	68.7 [55.5,68.7]	57	1.3	54.6 [38.2,54.6]	54	2.0	56.2 [44.2,56.2]	83	2.6*
Gaza	68.4 [62.0,68.4]	151	1.4	51.4 [37.5,51.4]	52	2.0	63.3 [51.1,63.3]	92	3.2**
Maputo Provincia	62.9 [51.5,62.9]	170	1.0	ND	24	3.1	50.4 [32.4,50.4]	52	1.9
Maputo Cidade	69.6 [60.7,69.6]	204	1.2	ND	3	1.1	ND	4	0.7

Notes: unwtN is the unweighted number of observations for each region. AOR are the adjusted odds ratios with the first region as the reference.
ND indicates that the estimate is not displayed because it is based on fewer than 50 unweighted observations.
*p<0.05 **p<0.01 ***p<0.001

Appendix Table 18   Percent distribution of married women by absolute poverty at the national and regional level, Nepal 2016 DHS

Region	Not extremely poor % [C.I.]	Extremely poor but not asset poor % [C.I.]	Extremely poor and asset poor % [C.I.]
Total	62.5 [59.7,65.2]	30.6 [28.3,33.1]	6.9 [5.6,8.4]
Province 1	68.2 [62.4,73.4]	25.9 [21.5,30.8]	6.0 [4.3,8.2]
Province 2	43.2 [36.3,50.5]	53.4 [46.5,60.2]	3.4 [2.5,4.6]
Province 3	77.1 [71.1,82.1]	19.9 [16.1,24.3]	3.0 [1.5,6.2]
Province 4	75.7 [70.4,80.3]	20.3 [16.8,24.3]	4.0 [1.6,9.8]
Province 5	65.9 [58.8,72.3]	26.4 [21.3,32.1]	7.7 [3.7,15.3]
Province 6	41.9 [33.6,50.5]	25.5 [20.3,31.5]	32.7 [22.8,44.4]
Province 7	59.9 [53.6,65.8]	29.9 [25.2,35.0]	10.3 [6.4,16.0]

Appendix Table 19   Mean ideal number of children and adjusted relative risk ratios by poverty group and region among married women, Nepal 2016 DHS

Region	Not extremely poor			Extremely poor but not asset poor			Extremely poor and asset poor		
	mean [C.I.]	unwtN	ARR	mean [C.I.]	unwtN	ARR	mean [C.I.]	unwtN	ARR
Total	2.1 [2.1,2.1]	6036		2.4 [2.3,2.4]	2941		2.4 [2.3,2.5]	894	
Province 1	2.0 [1.9,2.1]	968	1.0	2.2 [2.1,2.3]	348	1.0	2.1 [1.9,2.4]	73	1.0
Province 2	2.5 [2.4,2.6]	806	1.2***	2.6 [2.5,2.7]	872	1.1***	2.7 [2.5,2.9]	59	1.2**
Province 3	1.9 [1.8,1.9]	839	0.9*	1.9 [1.7,2.1]	287	0.9**	ND	40	1.2
Province 4	1.9 [1.9,2.0]	908	1.0	2.1 [2.0,2.2]	255	1.0	2.4 [2.0,2.7]	52	1.1
Province 5	2.1 [2.0,2.3]	1061	1.1	2.4 [2.2,2.6]	410	1.0	2.4 [2.1,2.7]	115	1.1
Province 6	2.2 [2.1,2.3]	638	1.1*	2.4 [2.2,2.5]	355	1.0	2.4 [2.3,2.5]	425	1.1
Province 7	2.2 [2.1,2.2]	816	1.0	2.1 [2.1,2.2]	414	0.9**	2.5 [2.3,2.7]	130	1.1

Notes: unwtN is the unweighted number of observations for each region. ARR are the adjusted relative risk ratios with the first region as the reference.
ND indicates that the estimate is not displayed because it is based on fewer than 50 unweighted observations.
*p<0.05 **p<0.01 ***p<0.001

Appendix Table 20   Percent demand satisfied by modern methods and adjusted odds ratios by poverty group and region among married women, Nepal 2016 DHS

Region	Not extremely poor			Extremely poor but not asset poor			Extremely poor and asset poor		
	% [C.I.]	unwtN	AOR	% [C.I.]	unwtN	AOR	% [C.I.]	unwtN	AOR
Total	55.2 [53.2,57.2]	4737		57.8 [54.9,60.7]	2199		56.2 [51.0,61.3]	669	
Province 1	47.3 [42.3,47.3]	789	1.0	56.0 [48.2,56.0]	275	1.0	57.4 [39.7,57.4]	57	1.0
Province 2	62.5 [57.7,62.5]	584	1.4*	60.7 [55.8,60.7]	583	0.9	ND	36	1.3
Province 3	61.4 [57.7,61.4]	675	1.8***	59.5 [49.1,59.5]	237	1.1	ND	30	1.4
Province 4	47.1 [42.0,47.1]	714	1.0	47.6 [39.6,47.6]	197	0.8	ND	42	0.9
Province 5	50.8 [45.8,50.8]	822	1.1	53.4 [45.6,53.4]	303	0.8	48.9 [40.4,48.9]	89	0.7
Province 6	61.6 [56.3,61.6]	511	1.5**	52.5 [44.4,52.5]	281	0.8	57.2 [49.4,57.2]	314	1.0
Province 7	61.0 [54.9,61.0]	642	1.4	65.4 [56.5,65.4]	323	1.3	48.7 [30.5,48.7]	101	0.6

Notes: unwtN is the unweighted number of observations for each region. AOR are the adjusted odds ratios with the first region as the reference.
ND indicates that the estimate is not displayed because it is based on fewer than 50 unweighted observations.
*p<0.05 **p<0.01 ***p<0.001

Appendix Table 21   Percent distribution of married women by absolute poverty at the national and regional level, Nigeria 2013 DHS

Region	Not extremely poor	Extremely poor but not asset poor	Extremely poor and asset poor
	% [C.I.]	% [C.I.]	% [C.I.]
Total	41.3 [39.0,43.6]	31.3 [29.6,33.1]	27.4 [25.4,29.4]
North Central	38.7 [32.9,44.8]	38.4 [34.6,42.4]	22.9 [18.1,28.5]
North East	22.8 [18.8,27.3]	34.4 [30.2,38.8]	42.9 [37.7,48.1]
North West	25.0 [21.6,28.8]	38.5 [35.3,41.8]	36.5 [32.9,40.3]
South East	61.3 [53.2,68.9]	24.5 [19.4,30.4]	14.2 [10.9,18.3]
South South	63.6 [57.5,69.3]	24.4 [20.4,28.8]	12.0 [9.2,15.5]
South West	78.0 [72.0,83.0]	12.4 [9.6,15.9]	9.6 [6.7,13.5]

Appendix Table 22   Mean ideal number of children and adjusted relative risk ratios by poverty group and region among married women, Nigeria 2013 DHS

Region	Not extremely poor			Extremely poor but not asset poor			Extremely poor and asset poor		
	mean [C.I.]	unwtN	ARR	mean [C.I.]	unwtN	ARR	mean [C.I.]	unwtN	ARR
Total	5.9 [5.8,6.0]	10543		7.9 [7.7,8.0]	7706		8.2 [8.1,8.4]	6800	
North Central	5.4 [5.2,5.6]	1631	1.0	6.2 [6.0,6.5]	1381	1.0	6.3 [5.7,6.8]	802	1.0
North East	7.9 [7.5,8.3]	993	1.4***	8.7 [8.5,9.0]	1478	1.3***	8.7 [8.5,9.0]	1809	1.3***
North West	8.2 [7.9,8.5]	1982	1.4***	9.0 [8.8,9.2]	3034	1.3***	9.0 [8.8,9.1]	3027	1.3***
South East	5.3 [5.1,5.5]	1396	1.0	6.4 [6.1,6.6]	585	1.0	6.9 [6.5,7.3]	363	1.1*
South South	5.0 [4.8,5.2]	1737	0.9*	5.7 [5.4,5.9]	819	1.0	6.1 [5.8,6.4]	488	1.0
South West	4.5 [4.4,4.6]	2804	0.9***	5.7 [4.9,6.5]	409	0.9	6.3 [5.6,7.1]	311	1.0

Notes: unwtN is the unweighted number of observations for each region. ARR are the adjusted relative risk ratios with the first region as the reference.
*p<0.05 **p<0.01 ***p<0.001

Appendix Table 23   Percent demand satisfied by modern methods and adjusted odds ratios by poverty group and region among married women, Nigeria 2013 DHS

Region	Not extremely poor			Extremely poor but not asset poor			Extremely poor and asset poor		
	% [C.I.]	unwtN	AOR	% [C.I.]	unwtN	AOR	% [C.I.]	unwtN	AOR
Total	39.7 [37.7,41.7]	4866		23.1 [20.2,26.2]	2292		16.1 [13.5,19.1]	1603	
North Central	41.0 [35.0,41.0]	836	1.0	27.5 [21.7,27.5]	561	1.0	18.9 [13.8,18.9]	284	1.0
North East	25.0 [20.3,25.0]	366	0.5***	7.7 [5.2,7.7]	409	0.3***	6.6 [4.0,6.6]	408	0.4**
North West	41.2 [32.6,41.2]	434	1.2	14.9 [9.7,14.9]	448	0.7	9.8 [5.2,9.8]	423	0.7
South East	27.4 [23.5,27.4]	629	0.4***	28.3 [19.0,28.3]	237	0.6	16.3 [7.8,16.3]	124	0.3*
South South	34.0 [30.3,34.0]	929	0.6***	30.1 [23.9,30.1]	427	0.8	29.7 [23.4,29.7]	240	1.2
South West	48.1 [45.0,48.1]	1672	1.0	38.8 [29.5,38.8]	210	1.2	39.4 [30.4,39.4]	124	2.1**

Notes: unwtN is the unweighted number of observations for each region. AOR are the adjusted odds ratios with the first region as the reference.
*p<0.05 **p<0.01 ***p<0.001

Appendix Table 24   Percent distribution of married women by absolute poverty at the national and regional level, Pakistan 2017-18 DHS

Region	Not extremely poor % [C.I.]	Extremely poor but not asset poor % [C.I.]	Extremely poor and asset poor % [C.I.]
Total	71.7 [68.4,74.7]	23.2 [20.7,26.0]	5.1 [3.9,6.6]
Federally Administered Tribal Areas	27.0 [19.6,35.9]	55.3 [45.4,64.9]	17.7 [9.6,30.3]
Punjab	80.0 [75.0,84.3]	17.4 [14.0,21.5]	2.6 [1.4,4.6]
Sindh	62.7 [56.9,68.2]	26.8 [22.5,31.6]	10.5 [7.2,15.1]
Khyber Pakhtunkhwa	65.4 [56.9,73.0]	30.2 [23.1,38.4]	4.3 [2.3,8.0]
Balochistan	58.3 [48.1,67.9]	36.6 [28.5,45.5]	5.1 [2.7,9.4]
ICT Islamabad	95.4 [90.1,97.9]	3.9 [1.7,8.6]	0.7 [0.3,1.6]
Gilgit Baltistan	89.7 [76.3,96.0]	9.9 [3.7,23.8]	0.4 [0.1,1.8]
Azad Jammu and Kashmir	78.0 [69.7,84.5]	19.2 [13.5,26.6]	2.8 [1.5,5.3]

Appendix Table 25   Mean ideal number of children and adjusted relative risk ratios by poverty group and region among married women, Pakistan 2017-18 DHS

Region	Not extremely poor mean [C.I.]	unwtN	ARR	Extremely poor but not asset poor mean [C.I.]	unwtN	ARR	Extremely poor and asset poor mean [C.I.]	unwtN	ARR
Total	3.6 [3.5,3.7]	7766		4.7 [4.5,4.9]	2490		5.1 [4.8,5.4]	569	
Federally Administered Tribal Areas	5.1 [4.7,5.6]	275	1.0	5.9 [5.3,6.5]	375	1.0	5.6 [4.9,6.2]	90	1.0
Punjab	3.4 [3.2,3.5]	2378	0.7***	4.2 [4.0,4.4]	489	0.7***	5.0 [4.1,6.0]	61	0.9
Sindh	3.8 [3.6,4.0]	1632	0.8***	5.2 [4.8,5.6]	664	0.9	4.9 [4.5,5.3]	233	0.9
Khyber Pakhtunkhwa	4.0 [3.7,4.2]	1545	0.8***	4.2 [3.8,4.6]	419	0.7***	5.5 [4.8,6.3]	82	1.0
Balochistan	5.5 [5.2,5.9]	980	1.1*	5.7 [5.4,6.0]	499	1.0	6.0 [5.2,6.8]	86	1.1
ICT Islamabad	3.1 [3.0,3.3]	956	0.7***	ND	44	0.6***	ND	17	0.8
Gilgit Baltistan	4.6 [3.9,5.3]	879		ND	43		ND	3	
Azad Jammu and Kashmir	3.4 [3.3,3.5]	1337		3.8 [3.5,4.0]	233		ND	43	

Notes: unwtN is the unweighted number of observations for each region. ARR are the adjusted relative risk ratios with the first region as the reference.
ND indicates that the estimate is not displayed because it is based on fewer than 50 unweighted observations.
The totals and the regression results do not include the regions of Gilgit Baltistan and Azad Jammu and Kashmir.
*p<0.05 **p<0.01 ***p<0.001

Appendix Table 26   Percent demand satisfied by modern methods and adjusted odds ratios by poverty group and region among married women, Pakistan 2017-18 DHS

Region	Not extremely poor			Extremely poor but not asset poor			Extremely poor and asset poor		
	% [C.I.]	unwtN	AOR	% [C.I.]	unwtN	AOR	% [C.I.]	unwtN	AOR
Total	50.8 [48.8,52.8]	4502		42.5 [38.7,46.3]	1223		38.8 [29.8,48.7]	271	
Federally Administered Tribal Areas	41.6 [22.6,41.6]	144	1.0	33.6 [23.5,33.6]	188	1.0	30.7 [19.9,30.7]	55	1.0
Punjab	51.7 [49.1,51.7]	1421	1.5	44.5 [38.0,44.5]	287	1.4	ND	38	1.5
Sindh	53.3 [48.9,53.3]	926	1.7	42.8 [35.9,42.8]	282	1.4	44.7 [31.9,44.7]	97	1.9
Khyber Pakhtunkhwa	47.1 [41.8,47.1]	951	1.2	42.5 [35.9,42.5]	242	1.4	ND	40	0.9
Balochistan	35.8 [29.1,35.8]	452	0.7	31.4 [21.1,31.4]	195	0.8	ND	30	0.5
ICT Islamabad	55.1 [50.1,55.1]	608	1.8	ND	29	3.2**	ND	11	0.1
Gilgit Baltistan	48.6 [42.3,48.6]	602		ND	27		ND	2	
Azad Jammu and Kashmir	41.6 [35.7,41.6]	696		26.9 [15.9,26.9]	124		ND	14	

Notes: unwtN is the unweighted number of observations for each region. AOR are the adjusted odds ratios with the first region as the reference.
ND indicates that the estimate is not displayed because it is based on fewer than 50 unweighted observations.
The totals and the regression results do not include the regions of Gilgit Baltistan and Azad Jammu and Kashmir.
*p<0.05 **p<0.01 ***p<0.001

Appendix Table 27   Percent distribution of married women by absolute poverty at the national and regional level, Rwanda 2014-15 DHS

Region	Not extremely poor	Extremely poor but not asset poor	Extremely poor and asset poor
	% [C.I.]	% [C.I.]	% [C.I.]
Total	20.6 [19.1,22.3]	16.6 [15.4,17.9]	62.8 [60.9,64.6]
Kigali City	64.6 [59.5,69.4]	12.9 [9.4,17.5]	22.5 [19.1,26.2]
South	13.5 [11.0,16.5]	13.4 [11.6,15.4]	73.1 [70.0,76.0]
West	13.3 [10.5,16.7]	8.6 [7.0,10.4]	78.1 [74.0,81.8]
North	15.6 [11.8,20.2]	14.7 [12.0,17.9]	69.7 [64.5,74.5]
East	16.0 [13.0,19.4]	28.8 [25.8,32.0]	55.2 [51.6,58.8]

Appendix Table 28   Mean ideal number of children and adjusted relative risk ratios by poverty group and region among married women, Rwanda 2014-15 DHS

Region	Not extremely poor			Extremely poor but not asset poor			Extremely poor and asset poor		
	mean [C.I.]	unwtN	ARR	mean [C.I.]	unwtN	ARR	mean [C.I.]	unwtN	ARR
Total	3.6 [3.5,3.7]	1536		3.7 [3.6,3.8]	1069		3.6 [3.6,3.7]	4195	
Kigali City	3.5 [3.4,3.7]	553	1.0	3.3 [3.1,3.6]	96	1.0	3.2 [3.0,3.4]	174	1.0
South	3.5 [3.3,3.7]	271	1.0	3.6 [3.4,3.7]	221	1.1	3.6 [3.5,3.7]	1193	1.1***
West	3.7 [3.4,4.0]	226	1.0	3.8 [3.6,4.0]	135	1.1**	3.7 [3.6,3.8]	1198	1.1***
North	3.6 [3.3,3.8]	185	1.0	3.9 [3.7,4.1]	158	1.1**	3.8 [3.7,3.9]	759	1.2***
East	3.6 [3.4,3.8]	301	1.0	3.8 [3.7,4.0]	459	1.1**	3.6 [3.5,3.7]	871	1.1***

Notes: unwtN is the unweighted number of observations for each region. ARR are the adjusted relative risk ratios with the first region as the reference.
*p<0.05 **p<0.01 ***p<0.001

Appendix Table 29   Percent demand satisfied by modern methods and adjusted odds ratios by poverty group and region among married women, Rwanda 2014-15 DHS

Region	Not extremely poor			Extremely poor but not asset poor			Extremely poor and asset poor		
	% [C.I.]	unwtN	AOR	% [C.I.]	unwtN	AOR	% [C.I.]	unwtN	AOR
Total	69.6 [66.4,72.6]	1112		67.1 [63.6,70.4]	805		64.2 [62.1,66.2]	3063	
Kigali City	70.3 [64.0,70.3]	387	1.0	66.8 [57.0,66.8]	81	1.0	66.4 [56.3,66.4]	127	1.0
South	68.4 [59.8,68.4]	194	0.9	73.1 [64.5,73.1]	160	1.5	65.7 [62.0,65.7]	867	1.0
West	65.8 [57.8,65.8]	171	1.0	62.1 [50.3,62.1]	101	0.9	57.3 [53.3,57.3]	845	0.7
North	72.0 [62.5,72.0]	133	1.2	75.8 [67.3,75.8]	129	1.8	72.0 [67.4,72.0]	581	1.4
East	70.5 [64.7,70.5]	227	1.2	62.9 [57.5,62.9]	334	1.0	63.5 [58.5,63.5]	643	0.9

Notes: unwtN is the unweighted number of observations for each region. AOR are the adjusted odds ratios with the first region as the reference.
*p<0.05 **p<0.01 ***p<0.001

Appendix Table 30   Percent distribution of married women by absolute poverty at the national and regional level, Uganda 2016 DHS

	Not extremely poor	Extremely poor but not asset poor	Extremely poor and asset poor
Region	% [C.I.]	% [C.I.]	% [C.I.]
Total	24.5 [22.4,26.7]	34.0 [32.5,35.5]	41.5 [39.9,43.2]
South Central	56.6 [47.2,65.6]	21.4 [15.8,28.5]	21.9 [17.8,26.8]
North Central	38.0 [28.6,48.3]	37.6 [30.4,45.3]	24.5 [19.4,30.3]
Busoga	23.0 [16.8,30.6]	37.9 [32.6,43.4]	39.2 [34.2,44.4]
Bukedi	10.0 [6.5,15.1]	45.2 [40.9,49.5]	44.8 [39.5,50.3]
Bugisu	10.7 [6.4,17.2]	18.8 [14.3,24.5]	70.5 [63.5,76.6]
Teso	10.0 [5.8,16.8]	50.3 [45.1,55.4]	39.7 [35.1,44.6]
Karamoja	1.2 [0.5,2.8]	16.0 [11.4,21.9]	82.8 [76.1,87.9]
Lango	6.7 [4.3,10.5]	51.9 [47.3,56.5]	41.3 [37.0,45.8]
Acholi	8.7 [5.6,13.3]	35.1 [30.7,39.8]	56.2 [49.9,62.2]
West Nile	5.3 [3.3,8.4]	37.1 [32.6,41.7]	57.7 [51.4,63.6]
Bunyoro	18.3 [13.8,23.9]	41.1 [35.9,46.4]	40.6 [33.2,48.5]
Tooro	17.0 [10.8,25.6]	33.1 [28.7,37.9]	49.9 [42.7,57.1]
Ankole	17.5 [12.5,23.9]	38.1 [33.7,42.6]	44.5 [39.6,49.5]
Kigezi	17.6 [13.8,22.1]	23.3 [19.3,27.9]	59.1 [53.5,64.5]
Kampala	90.1 [86.0,93.1]	4.7 [3.1,7.0]	5.2 [3.4,8.1]

Appendix Table 31   Mean ideal number of children and adjusted relative risk ratios by poverty group and region among married women, Uganda 2016 DHS

	Not extremely poor			Extremely poor but not asset poor			Extremely poor and asset poor		
Region	mean [C.I.]	unwtN	ARR	mean [C.I.]	unwtN	ARR	mean [C.I.]	unwtN	ARR
Total	4.6 [4.5,4.8]	2291		5.3 [5.2,5.4]	3857		5.2 [5.2,5.3]	4923	
South Central	4.7 [4.3,5.0]	460	1.0	5.8 [5.2,6.3]	194	1.0	5.3 [5.0,5.6]	237	1.0
North Central	4.8 [4.4,5.3]	241	1.0	5.6 [5.3,5.9]	339	1.0	4.9 [4.6,5.2]	257	0.9
Busoga	4.8 [4.4,5.1]	200	0.9*	5.7 [5.4,6.0]	380	1.0	5.5 [5.3,5.6]	391	1.0
Bukedi	4.6 [4.1,5.0]	77	0.9*	5.1 [4.8,5.3]	362	0.9**	5.2 [4.9,5.4]	365	1.0
Bugisu	4.4 [4.0,4.8]	59	0.9*	4.5 [4.3,4.8]	116	0.8***	4.9 [4.8,5.1]	427	0.9*
Teso	4.4 [2.9,5.9]	68	0.9	5.4 [5.2,5.5]	405	1.0	5.3 [5.0,5.5]	304	1.0
Karamoja	ND	8	1.0	6.7 [5.9,7.4]	74	1.1	7.7 [7.1,8.3]	414	1.4***
Lango	4.3 [3.8,4.7]	59	0.9**	5.0 [4.7,5.2]	408	0.9*	4.8 [4.6,5.0]	307	0.9**
Acholi	4.5 [4.3,4.8]	52	1.0	4.5 [4.3,4.6]	234	0.8***	4.6 [4.5,4.8]	361	0.9***
West Nile	ND	37	1.0	5.4 [5.1,5.7]	270	1.0	5.4 [5.1,5.7]	442	1.0
Bunyoro	4.9 [4.5,5.2]	151	1.0	5.2 [4.9,5.5]	312	0.9	5.1 [5.0,5.3]	273	1.0
Tooro	4.9 [4.1,5.6]	120	1.0	5.3 [5.0,5.5]	279	0.9	5.6 [5.2,6.0]	409	1.0
Ankole	4.3 [3.9,4.7]	134	0.9*	5.1 [4.8,5.4]	319	0.9	5.0 [4.7,5.3]	368	0.9
Kigezi	4.1 [3.9,4.4]	106	0.9***	4.4 [4.1,4.7]	139	0.8***	4.7 [4.4,5.0]	336	0.9**
Kampala	4.4 [4.2,4.7]	519	1.0	ND	26	1.1	ND	32	0.9

Notes: unwtN is the unweighted number of observations for each region. ARR are the adjusted relative risk ratios with the first region as the reference.
ND indicates that the estimate is not displayed because it is based on fewer than 50 unweighted observations.
*p<0.05 **p<0.01 ***p<0.001

Appendix Table 32   Percent demand satisfied by modern methods and adjusted odds ratios by poverty group and region among married women, Uganda 2016 DHS

Region	Not extremely poor % [C.I.]	unwtN	AOR	Extremely poor but not asset poor % [C.I.]	unwtN	AOR	Extremely poor and asset poor % [C.I.]	unwtN	AOR
Total	60.0 [56.9,62.9]	1627		52.1 [49.3,54.8]	2703		45.9 [43.8,48.0]	3226	
South Central	63.0 [55.5,63.0]	318	1.0	57.1 [45.0,57.1]	132	1.0	54.9 [43.6,54.9]	161	1.0
North Central	62.2 [55.1,62.2]	180	1.0	57.0 [48.2,57.0]	245	1.0	55.6 [47.8,55.6]	174	1.0
Busoga	46.6 [39.3,46.6]	138	0.5**	41.9 [29.0,41.9]	262	0.6	39.3 [32.1,39.3]	274	0.6*
Bukedi	58.9 [47.2,58.9]	59	0.8	51.0 [43.5,51.0]	256	0.8	43.8 [36.4,43.8]	256	0.6
Bugisu	ND	44	1.1	71.9 [62.9,71.9]	92	1.8*	55.4 [48.8,55.4]	307	1.0
Teso	55.2 [32.5,55.2]	52	0.7	42.5 [35.4,42.5]	288	0.6	41.2 [34.6,41.2]	234	0.6
Karamoja	ND	7	0.4	ND	30	0.2**	24.4 [11.6,24.4]	116	0.3*
Lango	ND	46	1.6	62.4 [55.0,62.4]	302	1.3	51.6 [42.7,51.6]	224	1.0
Acholi	ND	37	1.1	45.7 [37.2,45.7]	179	0.6	37.6 [30.7,37.6]	256	0.5*
West Nile	ND	23	0.5	37.5 [28.1,37.5]	179	0.5*	22.3 [16.3,22.3]	298	0.3***
Bunyoro	64.2 [51.5,64.2]	99	1.1	51.2 [41.0,51.2]	212	0.8	38.4 [31.1,38.4]	147	0.6*
Tooro	53.9 [35.4,53.9]	87	0.7	56.5 [48.7,56.5]	196	1.0	52.3 [46.0,52.3]	287	1.0
Ankole	61.2 [51.4,61.2]	100	0.9	57.8 [51.0,57.8]	219	1.0	49.2 [42.8,49.2]	245	0.8
Kigezi	70.4 [60.0,70.4]	80	1.4	60.5 [49.6,60.5]	94	1.2	65.1 [56.8,65.1]	225	1.7
Kampala	57.6 [51.3,57.6]	357	0.8	ND	17	0.5	ND	22	0.9

Notes: unwtN is the unweighted number of observations for each region. AOR are the adjusted odds ratios with the first region as the reference.
ND indicates that the estimate is not displayed because it is based on fewer than 50 unweighted observations.
*p<0.05 **p<0.01 ***p<0.001

Appendix Table 33   Percent distribution of married women by absolute poverty at the national and regional level, Zambia 2013-14 DHS

Region	Not extremely poor % [C.I.]	Extremely poor but not asset poor % [C.I.]	Extremely poor and asset poor % [C.I.]
Total	29.8 [27.8,31.9]	32.9 [31.3,34.5]	37.3 [35.6,39.0]
Lusaka	73.0 [67.7,77.7]	11.2 [9.0,13.7]	15.8 [12.5,19.8]
Central	16.4 [12.0,22.1]	48.2 [42.9,53.5]	35.4 [30.1,41.1]
Copperbelt	58.1 [49.8,66.0]	23.1 [18.3,28.6]	18.8 [14.4,24.2]
Eastern	9.8 [7.7,12.5]	44.0 [40.0,48.1]	46.2 [42.0,50.4]
Luapula	7.4 [5.6,9.7]	36.4 [33.0,40.0]	56.2 [52.1,60.2]
Muchinga	10.1 [7.1,14.2]	39.1 [34.3,44.2]	50.7 [45.5,56.0]
Northern	7.7 [5.2,11.2]	38.3 [34.1,42.7]	54.0 [49.0,58.9]
North Western	14.6 [10.5,20.0]	41.1 [36.3,46.1]	44.3 [38.6,50.1]
Southern	17.1 [13.2,21.9]	44.4 [39.3,49.7]	38.4 [33.2,43.9]
Western	7.6 [5.1,11.1]	23.5 [18.5,29.3]	68.9 [62.9,74.4]

Appendix Table 34 Mean ideal number of children and adjusted relative risk ratios by poverty group and region among married women, Zambia 2013-14 DHS

Region	Not extremely poor			Extremely poor but not asset poor			Extremely poor and asset poor		
	mean [C.I.]	unwtN	ARR	mean [C.I.]	unwtN	ARR	mean [C.I.]	unwtN	ARR
Total	4.4 [4.3,4.5]	2483		5.4 [5.3,5.5]	3241		5.4 [5.3,5.5]	3550	
Lusaka	4.3 [4.1,4.5]	678	1.0	5.0 [4.5,5.4]	178	1.0	4.5 [4.3,4.8]	195	1.0
Central	4.3 [4.0,4.6]	172	1.0	5.5 [5.2,5.7]	339	1.1	5.5 [5.3,5.8]	259	1.0
Copperbelt	4.5 [4.3,4.7]	454	1.1*	5.6 [5.3,6.0]	263	1.1*	5.0 [4.4,5.5]	204	1.0
Eastern	4.3 [4.0,4.6]	216	0.9	4.9 [4.7,5.1]	498	0.9	5.1 [4.9,5.3]	507	1.0
Luapula	4.8 [4.3,5.3]	118	1.1	5.6 [5.3,5.9]	324	1.1	5.5 [5.3,5.7]	432	1.1
Muchinga	4.5 [4.2,4.8]	163	1.0	5.4 [5.1,5.7]	319	1.0	5.4 [5.1,5.7]	373	1.0
Northern	4.7 [4.2,5.3]	131	1.0	5.8 [5.6,6.0]	390	1.1*	6.0 [5.7,6.3]	508	1.1**
North Western	4.5 [4.2,4.8]	182	1.1	5.8 [5.5,6.2]	337	1.1*	5.8 [5.6,6.0]	327	1.1**
Southern	4.1 [3.9,4.3]	267	1.0	5.7 [5.4,6.0]	435	1.1*	5.5 [5.2,5.8]	385	1.1
Western	4.1 [3.8,4.4]	102	1.0	5.1 [4.9,5.3]	158	1.0	5.8 [5.5,6.0]	360	1.1**

Notes: unwtN is the unweighted number of observations for each region. ARR are the adjusted relative risk ratios with the first region as the reference.
*p<0.05 **p<0.01 ***p<0.001

Appendix Table 35 Percent demand satisfied by modern methods and adjusted odds ratios by poverty group and region among married women, Zambia 2013-14 DHS

Region	Not extremely poor			Extremely poor but not asset poor			Extremely poor and asset poor		
	% [C.I.]	unwtN	AOR	% [C.I.]	unwtN	AOR	% [C.I.]	unwtN	AOR
Total	75.8 [73.0,78.3]	1825		62.2 [59.7,64.8]	2414		54.5 [51.7,57.2]	2456	
Lusaka	75.9 [71.3,75.9]	516	1.0	67.4 [56.8,67.4]	131	1.0	69.2 [60.7,69.2]	133	1.0
Central	75.1 [65.0,75.1]	115	1.0	61.5 [54.0,61.5]	261	0.9	51.8 [43.0,51.8]	188	0.7
Copperbelt	74.0 [68.0,74.0]	340	0.9	59.6 [50.5,59.6]	205	0.7	64.4 [55.7,64.4]	149	0.9
Eastern	82.8 [75.0,82.8]	159	1.7*	71.6 [66.0,71.6]	372	1.5	67.0 [61.6,67.0]	373	1.4
Luapula	76.4 [62.1,76.4]	86	1.1	61.2 [53.8,61.2]	251	0.9	42.5 [34.6,42.5]	294	0.5**
Muchinga	70.3 [58.0,70.3]	113	0.8	54.0 [44.0,54.0]	244	0.6	42.6 [35.3,42.6]	278	0.5**
Northern	73.1 [62.6,73.1]	104	0.9	48.2 [42.1,48.2]	296	0.5*	37.5 [29.1,37.5]	353	0.4***
North Western	74.6 [62.6,74.6]	121	0.9	63.3 [54.7,63.3]	227	1.0	46.1 [37.2,46.1]	207	0.5*
Southern	81.0 [73.1,81.0]	207	1.4	63.8 [55.8,63.8]	322	1.0	62.7 [53.7,62.7]	268	1.0
Western	69.2 [53.4,69.2]	64	0.7	65.4 [53.0,65.4]	105	1.0	49.3 [38.5,49.3]	213	0.6

Notes: unwtN is the unweighted number of observations for each region. AOR are the adjusted odds ratios with the first region as the reference.
*p<0.05 **p<0.01 ***p<0.001