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ABSOLUTE POVERTY, FERTILITY PREFERENCES, AND FAMILY PLANNING USE IN FP2020 FOCUS COUNTRIES

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Absolute Poverty, Fertility Preferences, and Family Planning Use in FP2020 Focus Countries

Sarah Staveteig[1,2]
Tesfayi Gebreselassie[3]
Kathryn T. Kampa[3]

ICF
Rockville, Maryland, USA

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[1] Avenir Health
[2] The DHS Program
[3] ICF

Corresponding author: Sarah Staveteig, The DHS Program, 530 Gaither Road, Suite 500, Rockville, MD 20850, USA; phone: +1-301-572-0577; fax: 301-572-0999; email: Sarah.Staveteig@icf.com

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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 provide policymakers and program managers in low- and middle-income countries with easily accessible data on levels and trends for a wide range of health and demographic indicators. DHS Comparative Reports provide such information, usually for a large number of countries in each report. These reports are largely descriptive, without multivariate methods, but when possible, they include confidence intervals and/or statistical tests.

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 Comparative Reports 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

Broad gains in contraceptive access and use have been made in low-income countries over the past decade while poverty has declined, but the trends have been uneven. In light of the Family Planning 2020 (FP2020) goals to improve modern contraceptive uptake, and the Sustainable Development Goals' emphasis on equitable progress, there is renewed interest in monitoring fertility preferences and family planning outcomes by poverty level. However, studies of this topic are typically constrained by the fact that standard poverty measurements are relative within surveys and cannot be compared across countries or over time. This study develops and uses a measure of absolute poverty in 31 of the 69 FP2020 focus countries, employing both an unsatisfied basic needs approach and an asset index to help differentiate among the levels of the extremely poor. The measure of absolute poverty enables us to compare and test outcomes among comparable poverty groups both within and across countries.

The study classifies married women into one of four absolute poverty groups based on their housing characteristics, household level of education, and assets. We compare results from the most recent Demographic and Health Survey in each of the 31 selected countries with results from an earlier survey in each country, conducted on average 10 years earlier. The study found a statistically significant—and in many cases substantial—decline in absolute poverty among married women in all 31 countries. There was wide variation in all key indicators across countries. On average, the ideal number of children declined most substantially among the poorest group of women, both in absolute terms and relatively across the decade. In the majority of countries there were statistically significant increases in modern contraceptive prevalence, demand satisfied for modern methods, and use of long-term versus short-term modern methods. Increases in all three indicators were greatest and most statistically significant among the poorest women. On average, inequalities between the non-poor and the poorest women declined, but substantial disparities by absolute poverty group remain both within and across countries. To address these disparities, we recommend further analysis incorporating background characteristics and programmatic case studies from countries that have largely achieved a high level of demand satisfied for modern methods while also increasing equity among poverty groups.

KEYWORDS: poverty, modern contraceptive use, demand satisfied for modern methods, ideal family size, FP2020

1 INTRODUCTION

1.1 Study Objectives

Recognized as a highly cost-effective development intervention, family planning empowers women and couples to shape their own lives, supports healthier families, and helps to reduce poverty by increasing opportunities for economic growth (Alkema et al. 2013; Bongaarts et al. 2012; Carr et al. 2012; FP2020 2017b; UNFPA 2017; United Nations, Department of Economic and Social Affairs, and Population Division 2017b). If all unmet need for modern contraception in developing countries were fulfilled, the number of unintended pregnancies, unplanned births, and induced abortions would decline by about 75%, and the resulting health benefits would be substantial, including far fewer maternal deaths (Guttmacher Institute 2017). In most developing countries, however, women in the bottom 20% of households by wealth, and particularly women in rural areas, are far less likely to have access to contraceptives than wealthier women and urban residents (UNFPA 2017). Too often, the poor are being left behind and losing out in access to quality health care and other essential services (United Nations 2018).

Despite tremendous progress worldwide in boosting overall prosperity and in reducing extreme poverty, gaps in wealth have grown, and stark economic disparities remain. According to the most recent comprehensive data on global poverty, in 2013, an estimated 767 million people are living below the international poverty line of US$1.90 per person per day. By this standard, nearly 11% of the global population is poor, over half of whom are in sub-Saharan Africa and another third in South Asia (World Bank 2016).

The Sustainable Development Goals (SDGs) have placed emphasis on reductions in inequality, and in disaggregating outcomes by several categories including income (United Nations 2017). These goals, along with those of FP2020, have spurned interest in measuring and monitoring inequality in family planning outcomes. However, to date, research on fertility preferences, family planning, and poverty has been broadly constrained by the fact that most nationally representative surveys that produce these indicators, including the Demographic and Health Surveys (DHS), measure poverty in relative terms. The DHS Wealth Index (Rutstein and Johnson 2004) is widely used to compare relative economic status, based on household assets, construction materials, and services. The index was based on a methodology developed by Filmer and Pritchett (2001) to measure relative economic standing within a country at a given point in time in the absence of data on income. Using principal components analysis, households are scored relative to each other and the household population is divided into quintiles from richest to poorest. These scores and quintile rankings enable researchers to measure relative inequality in health outcomes at different points in time, but respondents cannot be compared in their economic status across countries or over time. The wealthiest 20% of the household population in a poor country may not be anywhere near what would be considered wealthy in their actual standard of living; conversely, in an affluent country the poorest may not be extremely poor by global living standards.

Absolute measures of poverty and their relationship with family planning outcomes are the focus of this report. The study seeks to answer a few key questions. First, how do fertility intentions differ by levels of absolute poverty, and how has this changed over time? Second, are recent gains in modern contraceptive prevalence similar among the extremely poor, the poor, and the non-poor? Third, in what countries are

women in extreme poverty faring best and worst in terms of the percentage of demand for family planning satisfied by modern contraceptive methods? Having developed a measure of absolute poverty using DHS data for this report, we also examine levels and trends in poverty composition over time and across countries.

1.2 Background

Sexual and reproductive health is an internationally agreed human right, endorsed by 179 governments in the 1994 Program of Action of the International Conference on Population and Development (Barot 2014; UNCESCR 2000). Since then, access to services for sexual and reproductive health has increased worldwide, and, more recently, global support for these rights has expanded significantly through the Family Planning 2020 initiative (FP2020) (United Nations, Department of Economic and Social Affairs, and Population Division 2015). FP2020, an outcome of the 2012 London Summit on Family Planning, is a global movement with an overall goal of reaching 120 million additional users of modern contraceptive methods in the world's poorest countries by 2020 (FP2020 2017a). Substantial financial commitments to support this ambitious effort have been made by many FP2020 countries, donors, civil society organizations, and private-sector partners, and over 20 national governments have made commitments to address the policy, financing, delivery, and sociocultural barriers that prevent many women from accessing contraceptive information, services, and supplies. In 2017, it was estimated that in the 69 FP2020 focus countries more than 309 million women and girls were using a modern method of contraception; this is 38.8 million more than were using contraception in 2012, when FP2020 was launched—an increase that is approximately 30% above the historical trend (FP2020 2017b). Uptake of modern contraception has been improving in a majority of countries, across urban and rural areas, and at all levels of household wealth (UNFPA 2017). This growth in contraceptive use has led not only to improvements in health-related outcomes, such as reduced maternal mortality and infant mortality, but also to improvements in schooling and economic outcomes, especially for girls and women (United Nations, Department of Economic and Social Affairs, and Population Division 2017b).

1.2.1 Fertility preferences

Fertility preferences are an important precursor to the decision to use family planning; as desired family size declines, demand for contraception rises. Historically, over the course of the transition from high to low fertility, and as fertility entered the 'realm of conscious choice', desired family size has declined. During the demographic transition, economic and social changes such as industrialization, urbanization, and increased opportunities for education have led to lower levels of mortality and fertility (Bongaarts et al. 2012). The rising costs of raising children and their declining economic value—for labor and old-age security—are thought to have been central to the historic decline in desired family size, which in turn has led to growing demand for contraception (Becker 1960; Schultz 1973). Moreover, as countries develop, parents seek better health care, education, and opportunities for their children. Providing the means to do so increases the cost of raising many children, contributing to a desire for smaller but "higher-quality" families (Becker 1981).

As might be expected, in countries with high levels of desired fertility, actual fertility also tends to be high, with few births averted by contraception; in contrast, where desired family size is low, many births are averted by contraception and actual fertility is lower (Bongaarts et al. 2012). While composite family

planning measures such as unmet need for family planning and the percentage of demand satisfied for contraception rely on women's immediate or retrospective fertility intentions, an historic relationship exists between modern contraceptive prevalence (mCPR) and the mean ideal number of children, as reported by women in surveys (FP2020 2017b).

Many social and cultural norms may affect the stated ideal number of children. For example, cultural pronatalism, widespread messaging about child limitation, or religious beliefs can influence perceptions of ideal numbers. Additionally, ex-post rationalization may play a role in the response to this question: while DHS surveys ask men and women if they could go back to the beginning of their reproductive lives, there may be a tendency to state an ideal number of children that is equal to or greater than one's current number of children. Moreover, summarizing one's ideal number of children with a single number can be a complex process; in many cultures, particularly South and Southeast Asia, numeric preference often depends on the number of sons and daughters. And for some women and men, childbearing is not under the 'calculus of conscious choice', while for others it is simply difficult to provide a numeric response when contingencies and complexities exist. DHS surveys allow for non-numeric responses; previous studies have shown that women who give non-numeric responses are likely to want more children than those who provide numeric responses, and are less likely to adopt behaviors that result in smaller families (Olaleye 1993; Riley, Hermalin, and Rosero-Bixby 1993; Upadhyay and Karasek 2012). Non-numeric responses have become increasingly rare in recent DHS surveys in sub-Saharan Africa and elsewhere (Frye and Bachan 2017). We examine both ideal number of children among those who provided a numeric response to this question, and the percentage of non-numeric responses.

1.2.2 Family planning: levels and trends

In 2017, 58% of married or in-union women of reproductive age were using a modern method of family planning worldwide. In sub-Saharan Africa the level was much lower, at 32%, but higher in Asia, at 61% (United Nations, Department of Economic and Social Affairs, and Population Division 2017b). In 2017, the percentage of demand for family planning satisfied by modern contraceptive methods was 78% worldwide, but with wide regional variations (United Nations, Department of Economic and Social Affairs, and Population Division 2017b). Progress has been especially rapid in Africa, where the proportion of the demand for family planning satisfied with modern contraceptive methods increased from 41% in 2000 to 56% in 2017 (United Nations, Department of Economic and Social Affairs, and Population Division 2017a). Some countries with particularly rapid progress since 2000 in both stimulating and meeting demand for family planning, including Ethiopia, Malawi and Rwanda, serve as informative cases for the potential pace of change in other countries if investment and attention to family planning could be intensified. Most increases in contraceptive prevalence between 1990 and 2010 were attributable to rising use of modern methods, while the proportion of married or in-union women using traditional methods declined, from 6% in 2000 to 5% in 2017 (Alkema et al. 2013; United Nations, Department of Economic and Social Affairs, and Population Division 2017b).

Method-specific contraceptive prevalence varies widely across the world. Overall, in Africa and Europe short-term and reversible methods, such as the pill, injectable, and male condom, are more common than other methods, whereas long-acting or permanent methods, such as sterilization, implants, and the IUD, are more common in Asia and Northern America (United Nations, Department of Economic and Social Affairs, and Population Division 2015). In 2015, over half of all contraceptive users worldwide relied on either

female sterilization (30%) or the IUD (21%), in large part due to patterns of long-term contraceptive use in China and India (United Nations, Department of Economic and Social Affairs, and Population Division 2015). Since 1994, the worldwide method mix has shifted away from female and male sterilization and toward injectables and male condoms. These shifts in part reflect the changing geographic composition of users over the past two decades, as contraceptive use has taken off in sub-Saharan African countries where injectables are a common method (Bertrand et al. 2014). For the world as a whole, the share of total contraceptive use by the pill, implants, IUD, vaginal barrier methods, rhythm, and withdrawal has remained relatively stable over the past 20 years (United Nations, Department of Economic and Social Affairs, and Population Division 2015).

The FP2020 initiative focuses solely on modern contraceptive methods, which have higher efficacy than traditional methods (Polis et al. 2016; Staveteig, Mallick, and Winter 2015). While family planning advocates have applauded the initiatives to increase access to modern contraceptive methods, they have also expressed concern that in the rush to meet the FP2020 goals, issues of voluntary use, reproductive choice, quality of care, and client-centered service delivery could be compromised (Bertrand et al. 2014; Hardee et al. 2013).

In this paper we focus on levels of modern contraceptive use, method mix, and demand for family planning satisfied with modern methods. In addition to contraceptive prevalence, monitoring changes in method mix is important; providing access to a wide variety of modern methods makes it more likely that women can choose a contraceptive method that best suits their needs and preferences, thereby increasing consistency in use and minimizing discontinuation rates (Jain 2016; Jain et al. 2013). Contraceptive method mix highlights which methods are driving contraceptive use and can assist in identifying potentially underused methods (Bertrand et al. 2014). However, it is a complex indicator, as the choice of a contraceptive method reflects individual preferences, societal and cultural norms, and local and regional issues affecting contraceptive availability and accessibility (FP2020 2017b). The dominance of a single method in a country may signal deficiencies in access to a full range of contraceptive methods (Bertrand et al. 2014; FP2020 2017b; Ross, Keesbury, and Hardee 2015). Additionally, low rates of use among longer-term methods such as implants, injectable contraceptives, and intrauterine devices (IUDs) may be due to a shortage in human resources rather than the actual product itself. Of the 57 countries that have chronic shortages of human resources for health care, 36 are in sub-Saharan Africa (WHO 2012). Expanding access to contraception requires increasing the supplies of quality contraceptive methods available and providing information about their safe use, as well as eliminating geographic, social, and economic barriers to contraceptive use (UNFPA 2017). In an attempt to offset the lack of trained health-care workers, several low- and middle-income countries have begun task-shifting, which can be defined as "a more rational distribution of tasks and responsibilities among cadres of health workers," as community health workers (CHWs) have been recognized as an effective option for the delivery of more complex family planning services (Scott et al. 2015).

The measure of demand for family planning met with modern contraceptive methods represents the percentage of women currently using a modern method among all women who are using or who have an unmet need for modern family planning (Bradley et al. 2012). This measure reflects voluntarism and informed choice—it sets neither contraceptive prevalence nor fertility targets, but rather highlights the imperative to fulfill individuals' and couples' own choices with regard to number and timing of children (United Nations, Department of Economic and Social Affairs, and Population Division 2017b). It reflects

the existence of substantial levels of unmet need for family planning—women who say they want to avoid childbearing but are not using contraception—as well as women already using contraception to avoid pregnancy. Furthermore, the measure's focus on modern contraceptives reflects prioritization of these more effective methods. Modern contraceptive use, which results in fewer unintended pregnancies compared with traditional methods, can help individuals and couples achieve their reproductive intentions (Fabic et al. 2014). Across low-income countries, women in the top wealth quintile have 50% more demand for family planning met with modern contraceptive methods, on average, compared with all wealth quintiles combined (Fabic et al. 2014). Nevertheless, the historical experiences of formerly low-income countries, such as South Korea and Thailand, indicate that with focused attention and widespread support, the demand for family planning met with modern contraceptives can increase from low levels to as high as 75% in 20 years or fewer (Fabic et al. 2014; Robinson and Ross 2007). In the same group of countries, the percentage of demand for family planning satisfied with modern contraceptive methods increased from 59% in 2000 to 68% in 2017 (United Nations, Department of Economic and Social Affairs, and Population Division 2017a).

1.2.3 Global poverty: levels and trends

In 2013, an estimated 11% of the world's population, about 767 million people, were living under the international poverty line of US$1.90 a day, down from an estimated 12% in 2012 (World Bank 2016). When measured in all of its dimensions, progress in poverty reduction and shared prosperity over the past three decades has been significant (Cruz et al. 2015). Since 1990, nearly 1.1 billion people have moved out of extreme poverty (UNDP 2016). Much of this reduction has been driven by remarkable progress in the East Asia and Pacific region with 71 million fewer poor people, notably in China and Indonesia, and in South Asia with 37 million fewer poor, notably in India (World Bank 2018). A significant change in the geography of poverty has meant that in 2013 sub-Saharan Africa contained more than half the world's poor. This is despite the fact that the African subcontinent experienced progress in lowering both the percentage of the population that are poor (by 1.6 percentage points) and the number of poor (by 4 million in 2012–13) (World Bank 2016). These achievements are modest, however, compared with East Asia and Pacific and South Asia. Other regions with lower poverty rates and total numbers—notably Eastern Europe and Central Asia, as well as Latin America and the Caribbean—saw marginal declines in poverty in 2012–13 (World Bank 2016).

The Multidimensional Poverty Index (MPI) measures non-income dimensions of poverty, and aims to capture severe deprivations that are faced by individuals with respect to education, health, and living standards (UNDP 2016; United Nations 2016). While MPI has declined significantly, it remains unacceptably high in some areas. The continued persistence of geographically concentrated pockets of deep multidimensional poverty within many countries has led to conflicting views about the extent and pace of progress in poverty reduction (Cruz et al. 2015).

Poverty is a major cause of ill health and is a barrier to accessing health services for many people. Inequality in access to health services is widespread in some countries and is associated with higher income inequality. Particularly, maternal health and adolescent fertility are closely related to income inequality and the incidence of poverty (Gonzales et al. 2015). Globally, the poor are predominantly rural, young, poorly educated, mostly employed in the agricultural sector, and live in larger households with more children

compared with the non-poor (Castañeda et al. 2016). Developing countries tend to exhibit wider within-country inequality relative to developed countries (World Bank 2016).

1.2.4 Family planning outcomes and poverty

Many developing countries have improved their capacity to provide modern contraception and to reduce wealth-based inequality in satisfying the demand for family planning. In less-developed countries, however, there tends to be a wide gap in contraceptive use between households in the highest and lowest wealth quintiles (52% versus 35%) (UNFPA 2017). This gap has persisted despite general improvements in socioeconomic status and the expansion of family planning services worldwide (Creanga et al. 2011). In the majority of developing countries, contraceptive prevalence is lower among women who are poorer, rural, and less educated compared with richer, urban, and more educated women (UNFPA 2017, 2013). Low-income countries themselves vary substantially in modern contraceptive prevalence. In 2017 the range was from below 10% in Chad, Guinea, and South Sudan to 67% in Zimbabwe and 71% in Democratic People's Republic of Korea (United Nations, Department of Economic and Social Affairs, and Population Division 2017b).

Poverty, of course, is not the only factor in access to family planning. Local and national service and policy environments, levels of education, age structure, and programmatic initiatives can increase family planning use even among the very poor. Fertility has declined rapidly in a few countries with unfavorable development conditions (e.g., Bangladesh, Indonesia, Nepal, and Sri Lanka). These are traditional, poor, rural, and agricultural societies, yet fertility has declined to low levels. The main explanation for these unexpected trends is the priority their governments have given to social development (e.g., schooling and women's empowerment) and the implementation of effective family planning and health programs. No fertility decline has been observed in a poor and largely illiterate country in the absence of a strong family planning program (Bongaarts et al. 2012).

In 2017, in 76 out of 185 countries for which data are available, 75% or more of the total demand for family planning was met with modern contraceptive methods. These countries include 14 in Africa, 13 in Asia, 25 in Latin America and the Caribbean, and 24 in other regions. In contrast, in another 45 countries less than half of the total demand for family planning was met with modern methods. Among these countries, 32 were in Africa, 8 in Asia, 5 in Europe, and 3 in Oceania (United Nations, Department of Economic and Social Affairs, and Population Division 2017b). Among the FP2020 focus countries, the percentage of demand for family planning satisfied with modern methods is lowest in the four sub-regions of Africa, at 24% in Central Africa, 37% in Western Africa, 62% in Eastern and Southern Africa, and 66% in Middle East and Northern Africa, followed by Latin America and the Caribbean (66%), South Asia (72%), Southeast Asia and Oceania (75%), and Eastern and Central Asia (78%) (FP2020 2017b).

An analysis of data on the proportion of demand for family planning satisfied with modern contraception among women who are married or in a union shows that women in the least developed countries have less access than women in other developing countries. It also shows that regardless of a country's income grouping, the richest 20% of households on average have the most access, and the poorest 20% have the least access. There are exceptions, however, where use of family planning is generally more equitable. In Bangladesh, Bhutan, Cambodia, and Thailand, contraceptive prevalence is higher among the poorest 20% of households than the richest 20% (UNFPA 2017). In these and several other countries, concerted efforts to expand family planning coverage have led to almost universal access to modern contraception, and near-

equitable prevalence of contraceptive use across the wealth spectrum (UNFPA 2017). A recent study that standardized poverty measures in DHS surveys to assess the contributions of family planning programming versus changing living standards found that in a majority of study countries, expanding family planning services contributed more to an increase in contraceptive use than improvements in living conditions, across all deciles of wealth (Emmart, Winfrey, and Davis 2017).

While some countries have made exceptional progress in reducing inequality of access to contraception, others have made great progress in expanding coverage of contraceptive services. Lesotho, Rwanda, and Sierra Leone are examples of countries that have made exceptional progress in both areas over about a 10-year period. For example, analysis by relative household wealth quintiles in Rwanda shows that a previous wide gap in demand for family planning satisfied by modern methods has been effectively closed—at an access proportion of close to 70% among all five wealth quintiles in the later survey; Lesotho experienced similarly strong progress (UNFPA 2017).

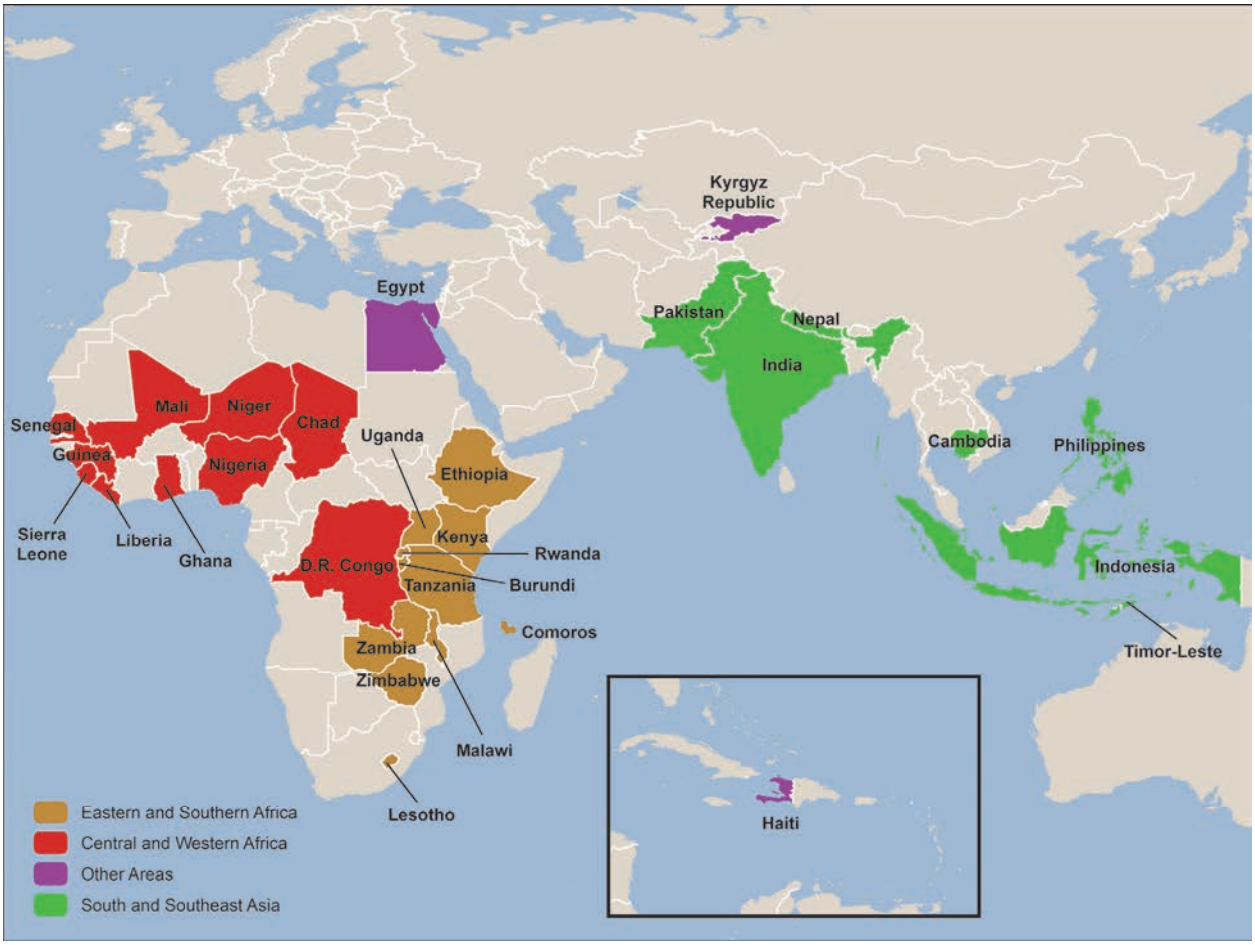
2 DATA AND METHODS

2.1 Country and Survey Selection

This study employed data from countries with nationally representative Demographic and Health Surveys (DHS) based on the following criteria: (1) The country was among the current list of FP2020 focus countries (FP2020 2018); (2) A standard DHS survey was conducted in 2012 or later that was available by May 1, 2018; (3) A DHS survey was available that was at least five years older than the more recent survey and was conducted after 1995; and (4) Both surveys included all variables necessary for the analysis of absolute poverty. If more than one older survey met the criteria for year and variables, we gave preference to the survey that was closest to a 10-year difference from the most recent survey. If two older surveys were equally close to 10 years, we gave preference to the earlier of the two.

This strategy resulted in selection of 62 surveys in 31 countries, shown in Figure 2.1. Twenty-eight study countries were classified into one of three major world regions: Central and Western Africa, Eastern and Southern Africa, or South and Southeast Asia. Three additional countries that qualified for inclusion—Egypt, Haiti, and Kyrgyz Republic—do not share a common region with any other study countries and are henceforth referred to as belonging to an "Other Areas" category.

Figure 2.1 Study countries



Our analysis focused solely on currently married women of reproductive age (15-49). Per standard DHS definitions, the term 'currently married' means that the woman is married or living with a man as if married. The 62 surveys we study are shown in Table 2.1 along with the corresponding weighted sample sizes of married women. Surveys included in the study were fielded as early as 1996 and as late as 2016; intra-country gaps ranged from 5 years (Sierra Leone) to 16 years (Comoros). On average there was a 10-year difference between survey rounds.

Table 2.1 Surveys included in the analysis

	Survey 1		Survey 2		Number of years between survey rounds[1]
	Year	Sample size	Year	Sample size	
Central and Western Africa					
Chad	2004	4,663	2014-15	13,263	10.5
DR Congo	2007	6,622	2013-14	12,096	6.5
Ghana	2003	3,549	2014	5,322	11.0
Guinea	2005	6,292	2012	6,726	7.0
Liberia	2007	4,540	2013	5,386	6.0
Mali	2001	10,723	2012-13	8,820	11.5
Niger	1998	6,382	2012	9,881	14.0
Nigeria	2003	5,336	2013	27,830	10.0
Senegal	2005	9,866	2016	5,883	11.0
Sierra Leone	2008	5,525	2013	10,903	5.0
Eastern and Southern Africa					
Burundi	2010	5,421	2016-17	9,782	6.5
Comoros	1996	1,634	2012	3,261	16.0
Ethiopia	2005	9,066	2016	10,223	11.0
Kenya	2003	4,919	2014	8,710	11.0
Lesotho	2004	3,709	2014	3,612	10.0
Malawi	2004	8,312	2015-16	16,130	11.5
Rwanda	2005	5,510	2014-15	6,982	9.5
Tanzania	2010	6,412	2015-16	8,210	5.5
Uganda	2006	5,337	2016	11,223	10.0
Zambia	2001-02	4,694	2013-14	9,859	12.0
Zimbabwe	2005-06	5,143	2015	6,151	9.5
South and Southeast Asia					
Cambodia	2005	10,087	2014	11,899	9.0
India	2005-06	93,089	2015-16	511,373	10.0
Indonesia	2002-03	27,857	2012	33,465	9.5
Nepal	2006	8,257	2016	9,875	10.0
Pakistan	2006-07	9,556	2012-13	12,937	6.0
Philippines	2003	8,671	2013	9,729	10.0
Timor-Leste	2009-10	7,906	2016	7,697	6.5
Other Areas					
Egypt	2005	18,187	2014	20,460	9.0
Haiti	2000	5,958	2012	7,808	12.0
Kyrgyz Republic	1997	2,675	2012	5,256	15.0

[1] If survey fieldwork spans two years, it is assumed to have been fielded at the midpoint between those years, e.g., 2014.5 for a 2014-15 survey.

2.2 Key Outcome Indicators

We assess five key outcome indicators in relationship to absolute poverty, as follows:

Mean ideal number of children and non-numeric fertility preferences

Toward the end of the DHS interview, women who have living children are asked, *"If you could go back to the time you did not have any children and could choose exactly the number of children to have in your whole life, how many would that be?"* Women who do not have living children are asked, *"If you could choose exactly the number of children to have in your whole life, how many would that be?"* Possible response options are none, a specific number, or an "other" response. If a non-numeric response is given, interviewers are instructed to probe for a numeric response. The mean ideal number of children refers to the mean of the number of children women specified in response to this question, among those who gave a numeric response.

As the term implies, a non-numeric response means that, in spite of the numeric probe, the woman gave a qualitative response to this question, such as "it depends," "up to god," "as many as possible," "uncertain," and so forth. Typically, these responses are interpreted as fatalistic, indicative that fertility is outside the realm of conscious choice, although they may also suggest substantial uncertainty in some circumstances (Hayford and Agadjanian 2011).

Contraceptive method mix

Method mix refers to the composition of family planning method types among sampled women who report currently using a means to delay or avoid pregnancy. If women report more than one method, the method that is most effective is considered their primary method. For our purposes, we classified reported method types into four major groups: long-term modern methods, short-term modern methods, traditional methods, and folkloric methods, as follows:

1. **Long-term modern methods:** IUDs, implants/Norplant; sterilization (male or female).

2. **Short-term modern methods:** Pill, injectables, condom (male or female), emergency contraception, basal body temperature, Billings ovulation, the sympto-thermal method, standard days methods, and other modern methods[1] such as diaphragms, cervical caps, foam, jelly, and suppositories.

3. **Traditional methods:** Periodic abstinence (the rhythm method), withdrawal (coitus interruptus), prolonged breastfeeding, douche.

4. **Folkloric:** Herbs, massage, other folkloric methods, and any other method not named above and not specifically classified as modern.

[1] "Other modern methods" is a category available for interviewers to select in most DHS surveys. Prior to the survey, interviewers are instructed on which methods may be included in the category; however, the full list may not be available to analysts.

Modern contraceptive prevalence

Modern contraceptive prevalence (mCPR) among married women is defined as the percentage of women who report that they or their sexual partners are currently using a modern method of family planning. Eligible methods include all long-term and short-term modern methods described above.

Demand for family planning satisfied by modern methods

Demand satisfied by modern methods (DSMM) is defined as the number of women who are currently using, or whose sexual partner is currently using, at least one modern contraceptive method as a proportion of the number of women of reproductive age who use any method of family planning or who have an unmet need for family planning (FP2020 2017b; United Nations, Department of Economic and Social Affairs, and Population Division 2017b).

2.3 Absolute Poverty Measurement

2.3.1 Rationale

In the absence of income and expenditure data, researchers at the DHS Program have developed an economic status measure, the DHS Wealth Index (Rutstein and Johnson 2004), based on an earlier index developed using DHS data (Filmer and Pritchett 2001). The DHS Wealth Index is computed based on assets, services, and household characteristics within each survey. Other variables such as the presence of a domestic servant are added if the survey allows. This composite wealth index has proven enormously useful to the study of inequalities in health behaviors and the effect of relative economic status on health outcomes. Although commonly misunderstood as a proxy for income, which tends to be volatile in many low-income settings, the DHS Wealth Index is designed to capture a more stable measure of economic status than income alone, akin to Milton Friedman's concept of 'permanent income' (1957).

Despite the enduring value of the DHS Wealth Index, its key limitation is that measurement is relative for any given country at a point in time, based on the specific assets, services, and construction materials asked about in that survey and their distribution within the population. The principal components analysis used in computations assigns scores to assets based in part on their prevalence; as asset ownership becomes more widespread and as construction materials and access to household services such as electricity and running water improve, the scores assigned to these assets and services by the principal components index shift. For example, having a cellphone in an early survey might be an important indicator of wealth, but in a later survey, if cellphones have become nearly ubiquitous, the wealth score gained by owning a cellphone might be near zero. Hence, a household with a stable bundle of assets, services, and construction materials might be scored as wealthy in one survey and poor in another. Thus, while the DHS Wealth Index is enormously useful within countries, it is constrained by its specificity to a given country and time period.

2.3.2 Previous approaches

Efforts to standardize the DHS Wealth Index across countries and over time are made challenging by the fact that earlier surveys asked relatively few questions that could be used to measure economic status. Before the late 1990s, DHS surveys typically only asked about assets directly related to a key health outcome, for example ownership of radios and televisions in relation to family planning messaging and use, or dirt floors and inadequate toilets in relationship to diarrhea among young children. As the DHS Wealth

Index progressed, the number of questions about household assets and services grew, and then in turn expanded further as countries became aware of the wealth index and wanted to capture information about salient assets. These developments have allowed the index to better differentiate households by economic status, particularly at the upper ends of the spectrum, but they make retrospective comparisons difficult.

Researchers at The DHS Program have worked to standardize the wealth index, both across countries and time periods (Rutstein and Staveteig 2014) via the Comparative Wealth Index, and within countries over time via the Harmonized Wealth Index (Staveteig and Mallick 2014). The Comparative Wealth Index, which uses an anchoring approach, enables greater cross-survey comparability but occasionally suffers from undesirable distortions induced by linear displacement (Staveteig and Mallick 2014). The Harmonized Wealth Index produces a truly comparable wealth score between surveys that is unaffected by displacements. By making use of assets that are salient and sometimes specific to a given country, such as a wardrobe in Bangladesh or a water heater in Egypt, the Harmonized Wealth Index is more accurate than a cross-country common-denominator approach; but its corollary drawback is that such specific assets and within-country distributions inhibit cross-country comparisons. Ultimately, any common-denominator approach to remaking a standard wealth index has difficulty differentiating between households at the upper ends of the wealth scale, due to the limited number of asset questions in early surveys. Instead of trying to create a comparable *wealth* index, this paper, with its focus on poverty, instead creates a standardized *poverty* measure aimed at differentiating from among the lowest levels of the wealth index; it groups the non-poor into a single reference group.

2.3.3 Our approach

Inspired by Amartya Sen's seminal work on measuring poverty in terms of absolute, not relative deprivations (1976, 1982), we developed for this paper a 'direct method' of poverty measurement: we measure a household's achievement of basic needs to assess what standard of living a household actually affords. This approach is in some ways preferable to using monetary income or wealth as an intermediary variable, as market prices for basic necessities can vary widely by country. Consider, for example, the amount of monetary income required for a household located in an area with accessible electrical lines and plentiful piped drinking water to access those services, versus a second household in a rural area of a developing country with virtually no public infrastructure beyond roads and schools. In the latter scenario clean water and electricity could be obtained, perhaps through generators and bottled water shipments, but only at a very high price. As such, simple income or monetary wealth comparisons between these two households would be insufficient to gauge deprivations of basic needs.

Our approach follows a line of earlier work on multidimensional poverty measurement using an index of unsatisfied basic needs (UBN). This framework, often referred to in the literature by its Spanish name *Indice de Necesidades Básicas Insatisfechas*, was formalized by the U.N. Economic Commission for Latin America (ECLAC) and the Census Institute in Argentina in the 1980s (Feres and Mancero 2001; Instituto Nacional de Estadística y Censos [INDEC] 1984). The UBN was designed to capture dimensions of poverty that could be determined from census data and that would be difficult to observe from income alone. It originally aimed to measure human deprivations, but over time other nonmonetary aspects of poverty—such as household crowding and children's non-enrollment in school, which were associated with poverty—were added to the measure. The index is now widely used across Latin America (Feres and Mancero 2001). Although there is no single definition of unsatisfied basic needs, the index typically

involves setting a threshold cutpoint for several measures of deprivation or poverty—for example, overcrowding, inadequate sanitation, inadequate water, lack of schooling—and summing them to produce a poverty index (Hicks 1998).

The multidimensional poverty index (Alkire and Foster 2011; Alkire and Santos 2011), which is a popular extension of the UBN methodology, includes measures of health, education, and living standards to assess poverty with DHS and other household surveys. As previously discussed in Rutstein and Staveteig (2014), this measure is useful in an aggregate sense, but is not intended to be used for direct household and individual comparisons of the type we pursue here. This is largely owing to measurement criteria that are either not uniformly applicable to every household (such as children's school enrollment) or that include health outcome measures that would introduce undesirable endogeneity into a study such as ours.

Therefore, drawing in part from our own previous work on comparable poverty measures in Rutstein et al. (2016), we developed a measure of absolute poverty using DHS data for the purposes of this analysis. It relies on a definition of UBN and, to distinguish among the poorest households, also relies on an index of asset poverty similar to that used by the multidimensional poverty index (Alkire and Kanagaratnam 2018). Note that asset variables sometimes have a small number of missing cases. As is standard with the DHS Wealth Index, definitions are affirmative—for example in order to *not* be counted as lacking a radio or electricity, the respondent to the household survey must affirm that the household has a radio or electricity.

We define the four unsatisfied basic needs as follows:

- **Inadequate water or sanitation:** The household's time to reach their source of drinking water is 30 minutes or more or, as per the WHO/UNICEF Joint Monitoring Programme for Water Supply, Sanitation, and Hygiene (JMP) guidelines (WHO and UNICEF 2017), either the household does not have improved sanitation,[2] or the household does not have access to improved drinking water.[3]

- **Inadequate floors:** The household has earth, dirt, mud, dung, or clay floors.

- **Insufficient schooling:** No working-age adult de jure member of the household (age 15-64) has at least five years of education, or there are no adult de jure members of the household.

- **No electricity:** The household does not have electricity.

Our measurement of absolute poverty is unique in that we consider deprivations differently from ownership of certain consumer durable goods (assets): while assets typically signal wealth, one can live a healthy and

[2] Per JMP, improved sanitation means one of the following: networked flush and pour flush toilets connected to sewers, on-site flush and pour flush toilets or latrines connected to septic tanks or pits, on-site ventilated improved pit latrines, on-site pit latrines with slabs, or on-site composting toilets, including twin pit latrines and container-based systems. All households that did not affirmatively have one of these types of toilets were considered to have unimproved sanitation.

[3] Per JMP, improved drinking water means one of the following: piped supplies (tap water in the dwelling, yard, or plot; public standposts), boreholes/tubewells, protected wells and springs, rainwater, packaged water (including bottled water and sachet water), or delivered water (including tanker trucks and small carts). All households that did not affirmatively have one of these types of drinking water were considered to have unimproved drinking water.

productive life even without specific consumer goods. However, in combination with deprivation, the absence of consumer goods may signal an even more extreme type of poverty. We therefore use asset poverty to differentiate among the extremely poor.

For the purposes of our study, household **asset poverty** is defined as: not having a car or truck; and not having more than one of the following small assets: bicycle, radio, telephone (landline or mobile),[4] television, refrigerator, or motorcycle/scooter. Note that asset poverty proved to be a useful means of differentiation among the extremely poor but not among the poor and non-poor: less than 6% of the poor and 1% of the non-poor were also asset poor.

Based on the above criteria, we classified households into one of four absolute poverty groups—non-poor, poor, extremely poor but not asset poor, and extremely poor and asset poor—using the definitions shown in Figure 2.2. Non-poor should not be interpreted synonymously with wealthy or well-off. As our paper is focused on gradations of poverty, we have grouped together households that do not have any of the four UBNs; hence, non-poor households likely span a wide range of actual incomes.

Figure 2.2 Definitions of absolute poverty groups used in the study

1. **Non-poor:** the household does not have any of the four unsatisfied basic needs (UBNs)
2. **Poor:** the household has one UBN
3. **Extremely poor but not asset poor:** the household has two or more UBNs but is not asset poor
4. **Extremely poor and asset poor:** the household has two or more UBNs and is also asset poor

2.4 Analysis

We used Stata 15 to compute absolute poverty and to tabulate the outcome indicators using standard DHS definitions and weights. Graphical displays were created in part by using equiplot commands in Stata.[5] Average relative decadal changes were calculated as:

$$I^r = \frac{10}{(Y_2 - Y_1)} \times \frac{(I_2 - I_1)}{I_1}$$

where I^r is the relative decadal change of indicator I, Y is the calendar year of the survey, I is the specific indicator, the subscript $_1$ denotes the earlier survey of the pair, and the subscript $_2$ the latter survey. Surveys that overlapped two calendar years were assumed to have been fielded at the midpoint between the years. Absolute decadal changes, which are shown in appendix tables, are computed in the same way but not divided by I_1.

Significance testing for decadal changes was conducted via regression analysis for pooled data from each country. For changes in absolute poverty composition, as the categories are ordinal, we ran ordered logit

[4] If the survey asked about both types of telephones, both were included.
[5] See http://www.equidade.org/equiplot.

regressions to test the significance of changes in the absolute poverty distribution over time. Changes in ideal fertility preferences among those respondents expressing a numeric preference—a count variable—were assessed using Poisson regression. Changes in the contraceptive method mix were assessed using multinomial logit regression. Finally, changes in binary indicators—non-numeric fertility preferences, mCPR, and DSMM—were assessed using logit regression. All regression results were computed using complex sampling weights. Given the large number of surveys and indicators, coefficients have been suppressed for ease of interpretation; regression results are shown by direction (positive or negative) and statistical significance.

3 RESULTS

3.1 Absolute Poverty among Married Women: Levels and Trends

Figures 3.1a, 3.1b, and 3.1c show the composition of absolute poverty among married women for each of the three regional groupings. Across all surveys combined, the percentage of married women who are both extremely poor and asset poor ranged widely, from less than 1% in Kyrgyz Republic 2012 and both Egypt surveys, to over 90% in Chad 2004, Ethiopia 2005, Niger 1998, and Rwanda 2005. In over half of all surveys, the majority of married women were in the poorest group: extremely poor and asset poor. At the opposite end of the spectrum, the percentage of married women who were non-poor ranged from less than 1% in Niger 1998 and Chad 2004, to over 75% in Kyrgyz Republic 2012 and Egypt 2014. In the median survey, less than one-tenth of women were non-poor, while around one-sixth were poor or extremely poor but not asset poor; half were both extremely poor and asset poor. Components of absolute poverty classifications are shown in Appendix Table A.1, while Appendix Table B.1 contains absolute poverty distributions underlying Figures 3.1a, 3.1b, and 3.1c.

Figure 3.1a shows the composition of absolute poverty among married women in Central and Western Africa. With the exception of Nigeria during the first round of surveys, the majority of married women were in the poorest category (extremely poor and asset poor), from 53% in Senegal 2005 to 94% in Chad 2004. Nigeria was close to this level, with 49% of married women in extreme and asset poverty during the first survey. Extreme poverty and asset poverty had diminished substantially by the time of the most recent survey in Ghana, Guinea, Mali, and Senegal. In the second Guinea and Mali surveys, the majority of married women were still extremely poor to some degree, but fewer were asset poor. In Ghana and Senegal, extreme poverty in any form was no longer the majority category by the second survey, and over one-fourth of married women were classified as non-poor.

Figure 3.1a Absolute poverty composition of women currently in union, Central and Western Africa

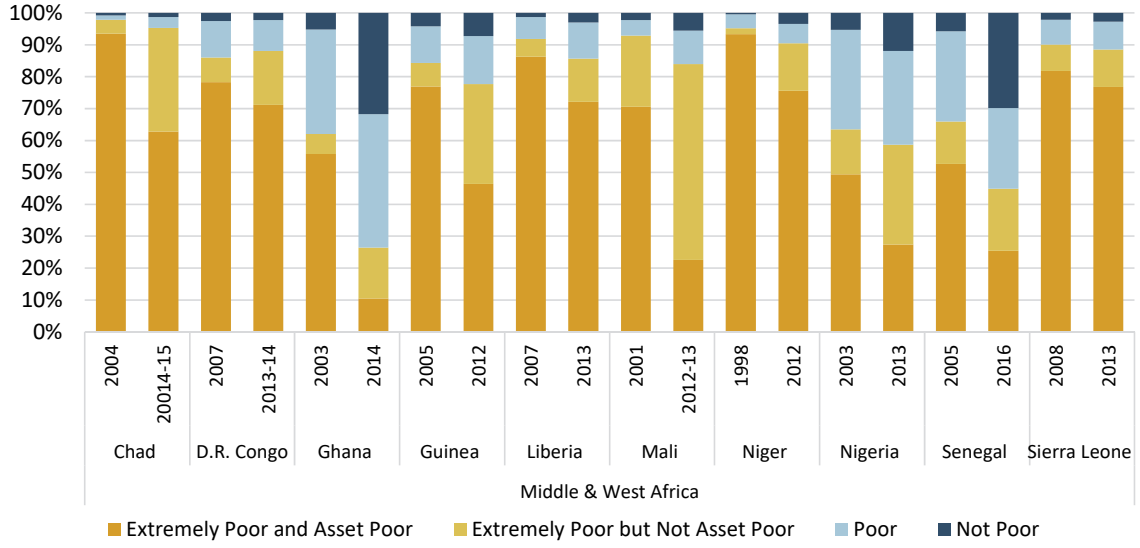


Figure 3.1b shows levels of absolute poverty among married women in Eastern and Southern Africa. Similar to Central and Western Africa, all 11 countries in this region also had very high levels of extreme poverty and asset poverty in the first survey, from 53% in Zimbabwe to 94% in Rwanda. By the second survey only 4 of the 11 countries still had a majority of women in extreme and asset poverty: Burundi Ethiopia, Malawi, and Rwanda. Even so, the majority of married women remained in some form of extreme poverty in every country except Comoros. In four countries—Comoros, Lesotho, Zambia, and Zimbabwe—more than 10% of married women in the latest survey were non-poor. These levels of non-poor were relatively high but still far short of the levels of non-poor achieved in Western Africa by Ghana and Senegal, at over 25% of women.

Figure 3.1b Absolute poverty composition of women currently in union, Eastern and Southern Africa

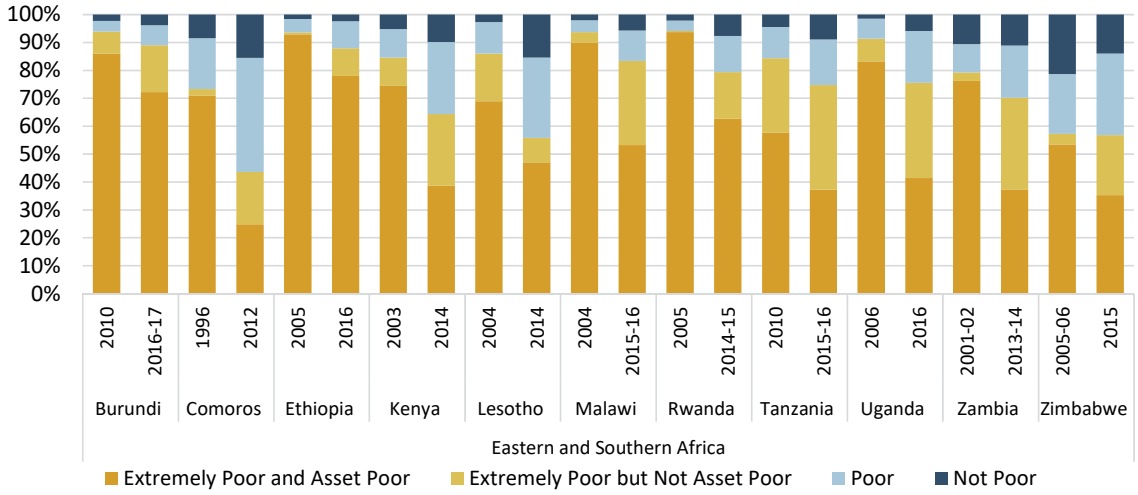


Figure 3.1c shows corresponding compositions of absolute poverty for married women in South Asia, Southeast Asia, and the Other Areas category of Egypt, Haiti, and Kyrgyz Republic. Here, the picture is substantially different: only Nepal 2006, Timor-Leste 2009-10, and Haiti 2000 had a majority of married women in extreme and asset poverty in the first survey; Cambodia also had a majority of married women in extreme poverty but not necessarily asset poverty. At the time of the first survey, the majority of married women in the Philippines and Egypt were non-poor; these percentages increased over the two survey rounds. While the levels of absolute poverty were diverse across countries, outside of these extremes there was no clear majority group in these regions in any survey round.

Figure 3.1c Absolute poverty composition of women currently in union, South Asia, Southeast Asia, and Other Areas

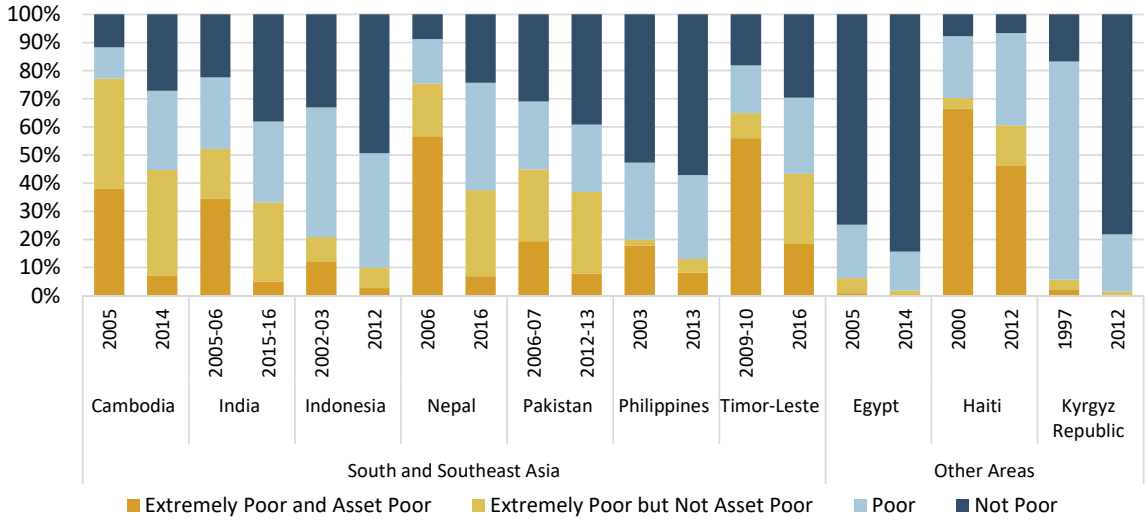


Table 3.1 shows the relative changes in absolute poverty composition standardized in decadal terms by country, and the corresponding absolute decadal changes are shown in Appendix Table B.2. The numbers in Table 3.1 represent a decadal-standardized percentage change in the proportion of women in a given absolute poverty level. In every country the percentage of women in the poorest category (extremely poor and asset poor) declined, with a range from 12% in Sierra Leone to slightly over 100% in Timor-Leste, meaning that if the linear trend had continued for the full decade, extreme poverty and asset poverty would have been eliminated entirely. Decadal declines in extreme poverty averaged around 38% in both Central and Western Africa and Eastern and Southern Africa, and more than double that in South and Southeast Asia. In Other Regions, Kyrgyz Republic and Egypt witnessed decadal-averaged substantial declines in extreme poverty and asset poverty, while Haiti had a relatively small decline of 25%.

In all other absolute poverty groups, changes over the decade were generally in a positive direction, but not always. Gains in the third poverty group, extremely poor but not asset poor, were substantial in much of Eastern and Southern Africa, where Ethiopia had a nearly 12-fold decadal gain and Rwanda a nearly 43-fold gain in the percentage of married women in extreme poverty but not asset poverty, largely owing to very small proportions of women in these groups in the first survey. Lesotho was an exception, with a small decline in the third poverty group, as married women shifted out of extreme poverty. Countries in Central and Western Africa uniformly experienced gains in the third category of poverty, reflecting the shift out of extreme poverty. With the exception of the Philippines and Timor-Leste, countries in South and Southeast Asia generally had moderate gains or even small declines in the third poverty group.

Table 3.1 also shows that the percentage of women classified as non-poor increased in nearly all countries over the decade. Average decadal gains were especially strong in areas where the level had been lowest—Central and Western Africa, notably Niger, Ghana, and Senegal, as well as in Eastern and Southern Africa, particularly Lesotho, Uganda, and Rwanda. All six of these countries experienced in decadal terms a more than two-and-a-half-fold increase in the non-poor over the decade. In South and Southeast Asia and in Other Areas, gains in the non-poor ranged from nearly zero in the Philippines to over 100% in Cambodia, Nepal, and Kyrgyz Republic. However, in three countries the percentage of women in the non-poor group declined

between surveys—by 13% in Haiti, 24% in the Democratic Republic of Congo (herein DR Congo), and 37% in Zimbabwe.

Table 3.1 Average relative decadal changes in poverty composition, by country

	Average relative decadal change (%)				
	Not Poor	Poor	Extremely Poor but not Asset Poor	Extremely Poor and Asset Poor	Statistical significance of change
Central and Western Africa					
Chad	60	154	608	-31	--
DR Congo	-24	-23	184	-14	-
Ghana	463	25	142	-74	--
Guinea	105	43	461	-57	--
Liberia	218	110	238	-27	--
Mali	134	98	152	-59	--
Niger	536	28	489	-14	--
Nigeria	125	-5	122	-45	--
Senegal	384	-10	42	-47	--
Sierra Leone	57	26	82	-12	--
Eastern and Southern Africa					
Burundi	100	138	173	-25	--
Comoros	51	78	448	-41	--
Ethiopia	45	93	1,195	-15	--
Kenya	80	140	140	-44	--
Lesotho	470	155	-48	-32	--
Malawi	149	139	604	-35	--
Rwanda	263	262	4,263	-35	--
Tanzania	186	83	74	-64	--
Uganda	293	162	315	-50	--
Zambia	4	71	801	-43	--
Zimbabwe	-37	39	475	-36	--
South and Southeast Asia					
Cambodia	147	170	-5	-90	--
India	70	14	59	-85	--
Indonesia	52	-12	-19	-82	--
Nepal	176	143	63	-88	--
Pakistan	44	-1	23	-99	--
Philippines	9	9	123	-54	--
Timor-Leste	98	91	278	-103	--
Other Areas					
Egypt	14	-30	-73	-99	--
Haiti	-13	41	228	-25	--
Kyrgyz Republic	244	-49	-41	-64	--

Notes:
-- Indicates there was a statistically significant decrease in absolute poverty at p<.01 from earlier to later survey.
- Indicates there was a statistically significant decrease in absolute poverty at p<.05 from earlier to later survey.

Ordinal logit regressions were run to test the significance of changes in absolute poverty between the two survey rounds. Table 3.1 indicates that all countries had a statistically significant decline in absolute poverty; in all countries except DR Congo the decline was statistically significant at $p<.01$. In DR Congo—which experienced substantial declines in the top two groups (not poor and poor) and only a modest decline of 14% in the poorest group—the statistical significance of changes in absolute poverty was weaker, though still significant at $p<.05$.

3.2 Fertility Preferences

3.2.1 Mean ideal family size

This section reports the mean ideal number of children by absolute poverty level and survey year in each of the three regions. As expected, poverty tends to be inversely related to ideal number of children: in 49 of 62 surveys, the poorest women had a higher ideal number of children than any other group. Countries in the Central and Western Africa region had the highest mean ideal number of children overall, ranging from 4.7 in Ghana to 9.5 in Niger in the most recent surveys. As Figure 3.2a shows, three of the ten countries saw an increase in the overall mean ideal number of children. Niger had the largest increase, 1.0, followed by Guinea, 0.3, and Sierra Leone, 0.1. The mean ideal number of children also increased among the extremely poor and asset poor in these three countries, as well as in Ghana and Nigeria. Conversely, Mali and Chad had the largest decreases in mean ideal number of children among the poorest respondents, at 0.5 and 0.4 respectively. Changes in disparities between the non-poor and poorest groups varied greatly in the region. Chad, Mali, Niger, and Senegal all experienced decreases in disparity between these absolute poverty levels, from a decline of 0.7 in Chad to 0.3 in Senegal. In contrast, the disparity grew by 0.2 in Liberia, Nigeria, and Sierra Leone. Three countries, DR Congo, Ghana, and Guinea, had no change in disparity between the non-poor and poorest groups.

Figure 3.2a Mean ideal number of children by absolute poverty level and survey year, Central and Western Africa

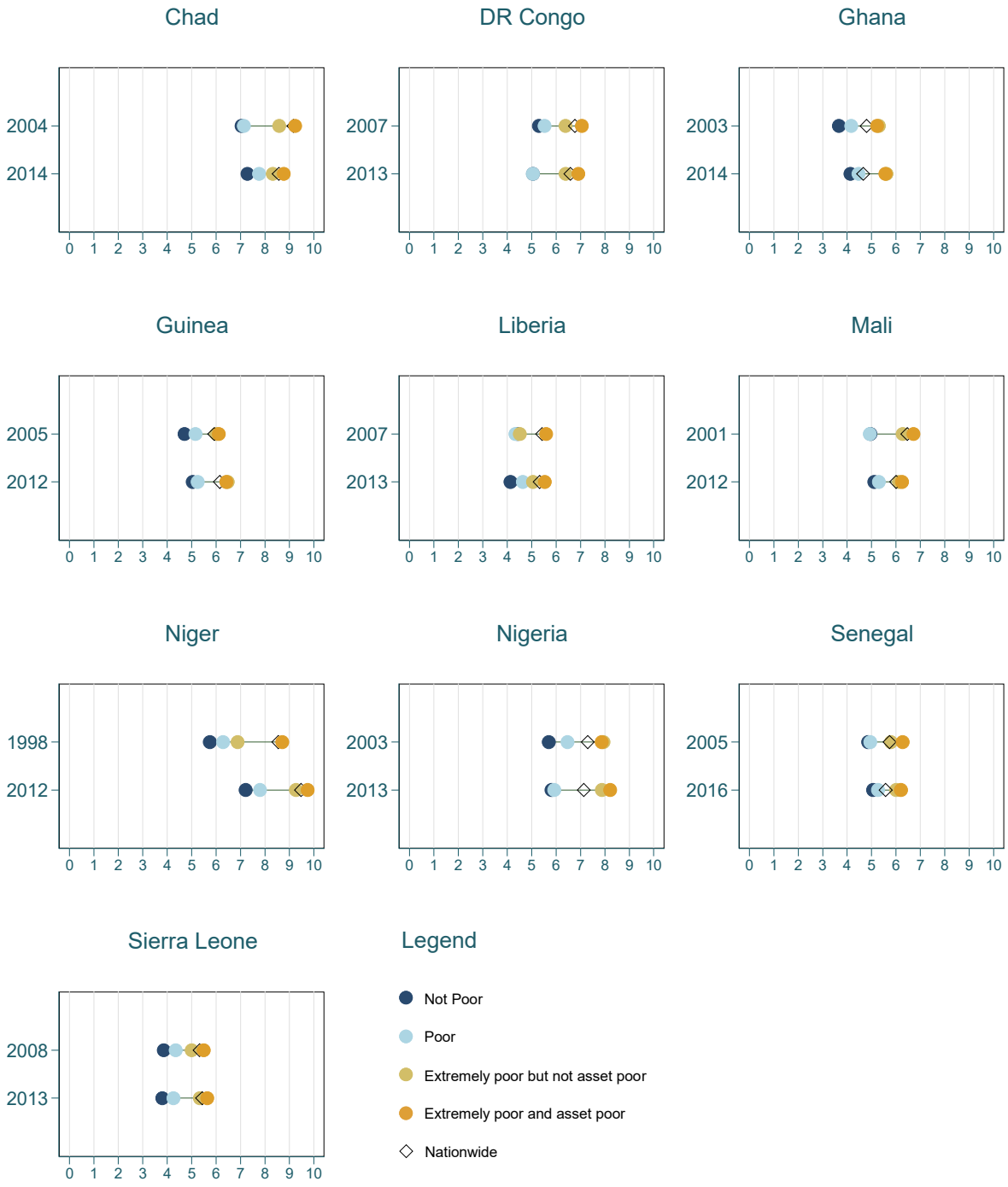
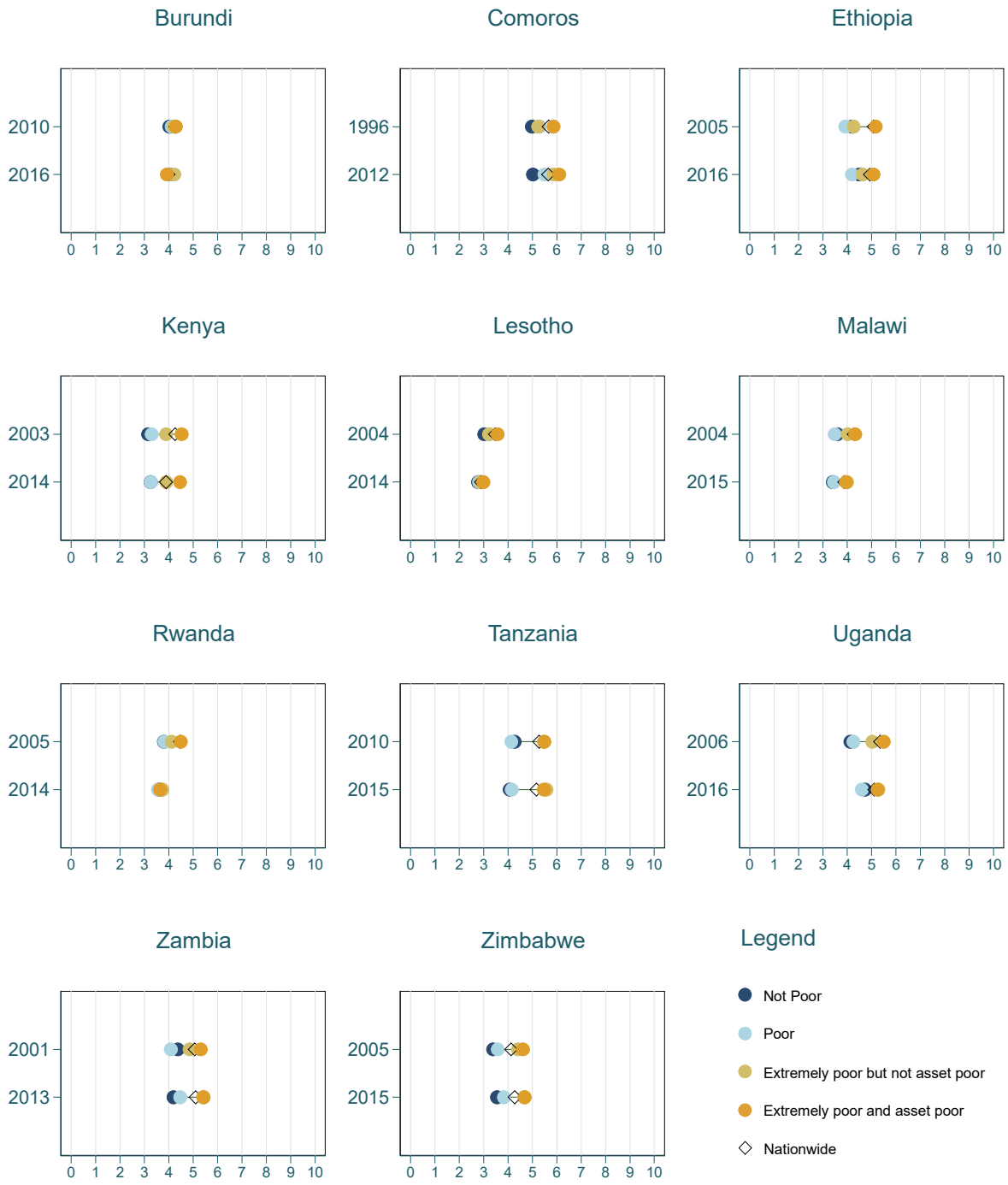


Figure 3.2b shows the mean ideal number of children by absolute poverty level and survey year for countries in the Eastern and Southern Africa region. Nine of the 11 countries experienced a decline between surveys in overall mean ideal number of children; in the two other countries, the number remained constant in Zambia and increased slightly in Zimbabwe, from 4.1 to 4.3. Rwanda and Lesotho had the greatest declines, at 0.9 and 0.6 respectively. In the most recent survey, the mean ideal number of children in this region ranged from 2.9 in Lesotho to 5.6 in Comoros. Changes in disparity between non-poor and poorest were

not as widespread; three countries experienced increases and two remained constant between survey years. Of the six countries with declines in disparity between non-poor and poorest respondents, Uganda and Rwanda had the largest decreases, at 0.9 and 0.7 respectively. In Rwanda, disparity between these absolute levels of poverty was effectively eliminated between survey years, with the mean ideal number of children falling from 3.8 among non-poor women and 4.5 among poorest women in 2005 to 3.6 among women in both poverty groups in 2014.

Figure 3.2b Mean ideal number of children by absolute poverty level, Eastern and Southern Africa



As Figure 3.2c shows for South Asia, Southeast Asia, and Other Areas, moderate decreases in mean ideal number of children occurred between survey years in the majority of countries. However, the number remained constant at 4.1 between surveys in Pakistan, and increased by 0.3 in Kyrgyz Republic and 0.1 in Egypt. Timor-Leste experienced more substantial changes. Although Timor-Leste had the highest mean ideal number of children of all countries in the region, it also experienced the greatest overall decrease between surveys, from 5.7 in 2009 to 4.4 in 2016. Changes in disparity between the non-poor and poorest groups varied, with half of the countries experiencing declines in disparity. Timor-Leste had the greatest change, with disparity levels between the non-poor and poorest groups decreasing by 0.8 between surveys. No changes to disparity among absolute poverty levels took place in India or Nepal, and in Indonesia, Pakistan, and the Philippines disparity increased. The distributions used to chart Figures 3.2a, 3.2b, and 3.2c are shown in Appendix Table B.3.

Figure 3.2c Mean ideal number of children by absolute poverty level, South Asia, Southeast Asia, and Other Areas

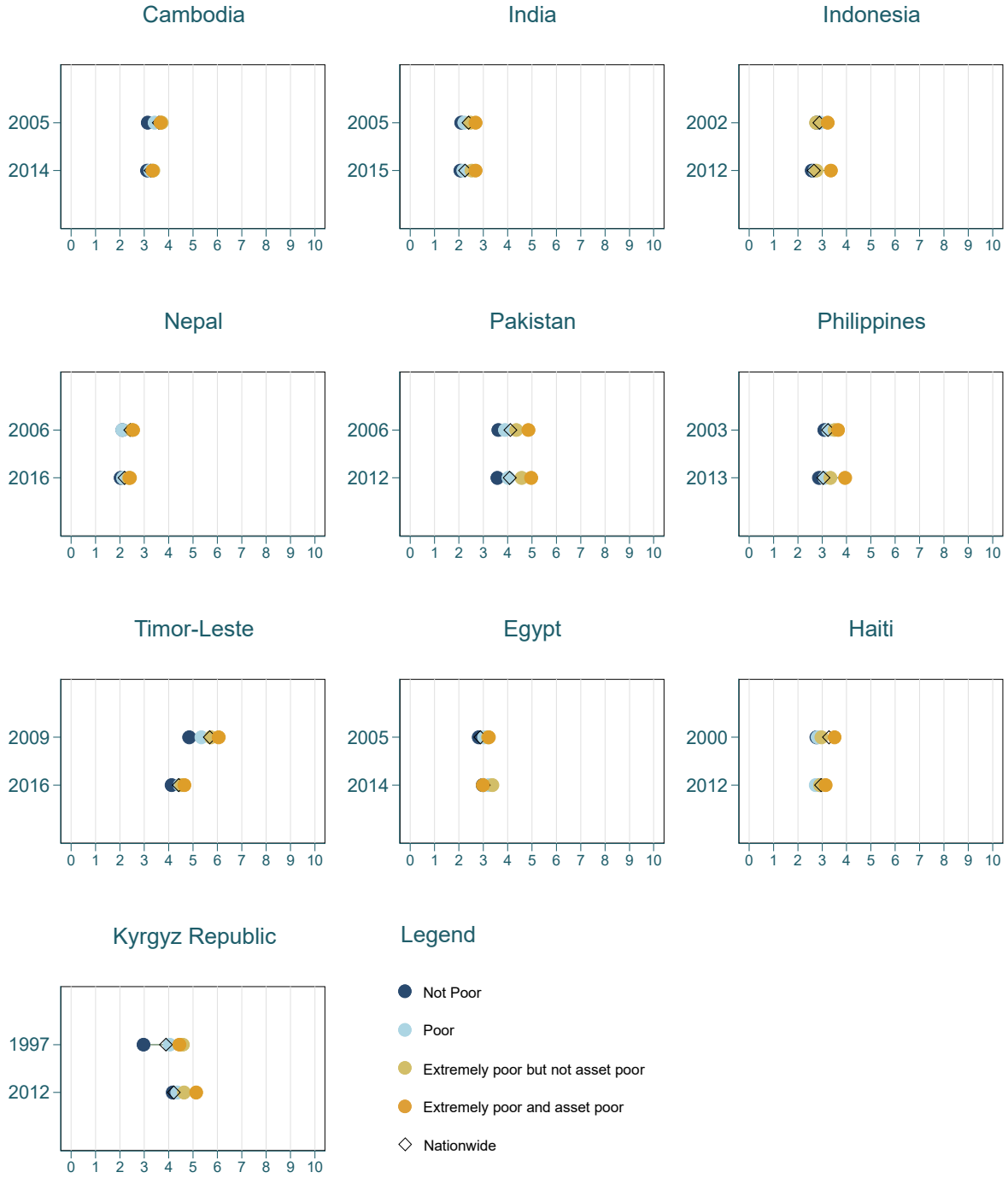


Table 3.2 shows the average decadal changes in ideal number of children by absolute poverty level and country; corresponding average absolute changes are shown in Appendix Table B.4. Overall, decreases occurred in 24 of the 31 countries. Regionally, South and Southeast Asia had the highest proportion of countries (six of the seven) with a statistically significant decline in mean ideal family size. Of the 16 countries with statistically significant decreases, Timor-Leste had the largest, with a decline of 35%. Moreover, decreases within poverty levels were also greatest in Timor-Leste, with extremely poor and asset

poor women having the greatest decline, 36%. Sixteen other countries—half of them in Eastern and Southern Africa—had declines among respondents at the poorest level. Conversely, seven countries had an overall increase in average relative decadal changes in the ideal number of children, four of them statistically significant—Niger (8%), Guinea (6%), Kyrgyz Republic (6%), and Egypt (5%). Among non-poor respondents, increases occurred in 16 of the 31 countries, but only six were statistically significant. Among these six countries, increases ranged from 5% in Zimbabwe to 27% in Kyrgyz Republic.

Table 3.2 Average relative decadal changes in ideal number of children, by absolute poverty level and country

	Average relative decadal change (%)						Statistical significance of change				
	Non-Poor	Poor	Extremely Poor but Not Asset Poor	Extremely Poor and Asset Poor	Total	Years of difference between surveys	Non-Poor	Poor	Extremely Poor but Not Asset Poor	Extremely Poor and Asset Poor	Total
Central and Western Africa											
Chad	3	8	-3	-5	-6	10.5				--	--
DR Congo	-7	-13	0	-3	-4	6.5		--			
Ghana	12	7	5	6	-3	11.0	++	++		+	
Guinea	10	3	11	7	5	7.0			++	++	++
Liberia	-11	12	20	-2	-3	6.0			++		
Mali	3	7	-2	-6	-6	11.5		+		--	--
Niger	(18)	17	25	9	8	14.0	(+)	++	++	++	++
Nigeria	2	-8	-1	4	-2	10.0		--		+	
Senegal	4	6	3	-1	-3	11.0		+			-
Sierra Leone	-3	-4	13	5	4	5.0					
Eastern and Southern Africa											
Burundi	0	-4	1	-13	-10	6.5				--	--
Comoros	1	2	(8)	2	0	16.0					
Ethiopia	7	6	8	-2	-3	11.0					
Kenya	3	-1	0	-1	-8	11.0					--
Lesotho	-8	-13	-10	-16	-16	10.0		--	--	--	--
Malawi	-5	-1	-1	-8	-8	11.5				--	--
Rwanda	-6	-7	*	-20	-19	9.5		--	*	--	--
Tanzania	-9	1	3	0	-4	5.5					
Uganda	15	8	5	-5	-5	10.0	+	++	+	--	--
Zambia	-3	8	10	2	1	12.0		++	++		
Zimbabwe	5	7	6	2	4	9.5	+	++			
South and Southeast Asia											
Cambodia	-1	-6	-10	-10	-10	9.0		--	--	--	--
India	-1	-2	2	0	-6	10.0	-	--	++		--
Indonesia	-7	-8	1	4	-8	9.5	--	--			--
Nepal	-3	1	-5	-5	-9	10.0				-	--
Pakistan	-2	6	8	4	-1	6.0		+	++		
Philippines	-7	-5	-5	8	-6	10.0	--	--		++	--
Timor-Leste	-23	-25	-32	-36	-34	6.5	--	--	--	--	--

Continued

Table 3.2—*Continued*

	Average relative decadal change (%)						Statistical significance of change				
	Non-Poor	Poor	Extremely Poor but Not Asset Poor	Extremely Poor and Asset Poor	Total	Years of difference between surveys	Non-Poor	Poor	Extremely Poor but Not Asset Poor	Extremely Poor and Asset Poor	Total
Other Areas											
Egypt	6	7	6	*	5	9.0	++	++		*	++
Haiti	4	-2	-2	-9	-8	12.0				--	--
Kyrgyz Republic	27	5	1	*	6	15.0	++	++		*	++

Notes:
++ indicates there was a statistically significant increase at p<.01 from earlier to later survey.
+ indicates there was a statistically significant increase at p<.05 from earlier to later survey.
-- indicates there was a statistically significant decrease at p<.01 from earlier to later survey.
- indicates there was a statistically significant decrease at p<.05 from earlier to later survey.
Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

3.2.2 Non-numeric ideal fertility preferences

Figures 3.3a through 3.3c show the percentage of respondents reporting a non-numeric ideal fertility preference by absolute poverty level for each of the three regions; corresponding numbers are in Appendix Table B.5. Overall, percentages in the most recent surveys ranged from less than 0.5% to 24%. The Central and Western Africa region had the highest overall percentages of non-numeric ideal fertility preferences reported, and the South Asia, Southeast Asia, and Other Areas region had the lowest. Generally, women's stated ideal number of children rises as the level of poverty becomes more extreme.

The poverty level with the highest percentage of non-numeric responses concerning ideal number of children varied greatly among countries and between survey years. However, in nearly half of all surveys (30 of 62), extremely poor and asset poor women accounted for the largest percentage of such respondents.

Figure 3.3a shows large variation among countries in overall percentage of respondents reporting a non-numeric fertility preference, from 2% in Ghana to 24% in Chad in the most recent survey year. Decreases between surveys are seen in 6 of the 10 countries in this region. The largest changes were in Mali, at 23%, and Niger, at 17%. Three of the four countries with an increase in the total percentage of respondents reporting a non-numeric fertility preference experienced moderate increases of less than 1%. However, the change was much more substantial in Chad, with an increase of 11%. Interestingly, the highest percentages of respondents reporting a non-numeric fertility preference are found throughout all the poverty levels, and often change from one poverty level to another between survey years. For example, the non-poor in Chad made up the largest share of respondents reporting a non-numeric fertility preference, at 20% in the first survey, but in the second survey the poorest respondents accounted for the largest percentage, at 25%. In Mali, the poorest respondents had the greatest percentage of non-numeric responses in the first survey, at 29%, and then the lowest percentage in the second survey, at 3%. It is important to note that changes between surveys may, in part, be due to alterations to the interviewer training process, probing inconsistencies, and potential protocol changes.

Figure 3.3a Percentage of respondents reporting a non-numeric ideal fertility preference by absolute poverty level, Central and Western Africa

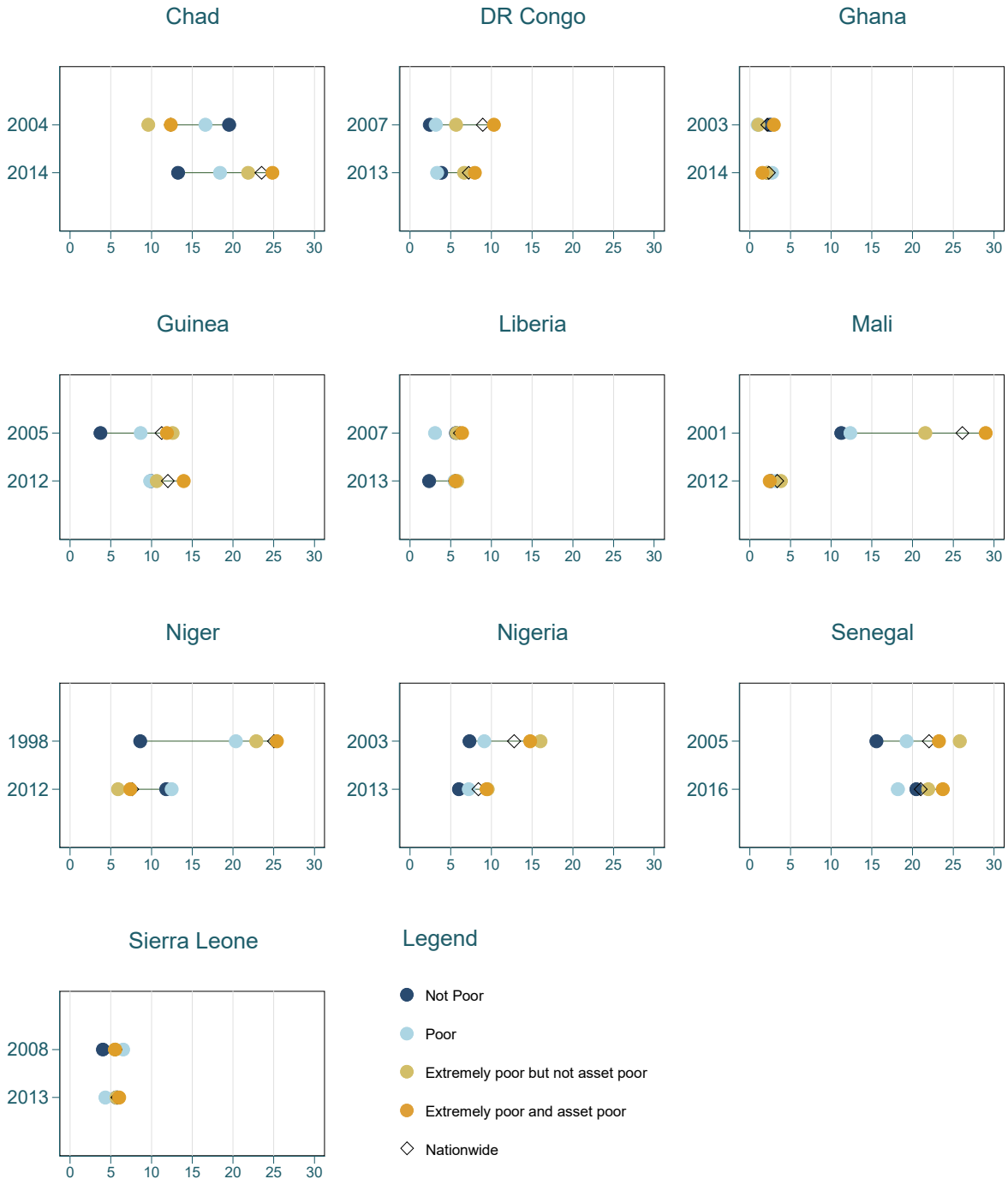


Figure 3.3b shows the percentage of respondents reporting a non-numeric fertility preference by absolute poverty level for countries in the Eastern and Southern Africa region. Overall, non-numeric responses ranged from 0.3% in Lesotho 2014 and Zimbabwe 2015 to 11% in Comoros 2012. In 11 of the 22 surveys, extremely poor and asset poor women had the highest percentage of respondents with non-numeric fertility preferences. In Malawi, however, non-poor women made up the largest percentage of such respondents in both survey years, at 4% and 2% respectively. Similarly, in Rwanda non-poor women made up the largest

percentage of respondents with non-numeric fertility preferences in the first survey year, at 4.4%, but then dropped to the lowest percentage, at just 0.8% in the second survey year. Kenya had the greatest overall decrease in percentage of respondents reporting a non-numeric fertility preference between surveys, with a decrease from 5.8% in 2003 to 2.3% in 2014. In three countries, Comoros, Lesotho, and Tanzania, the total percentage of respondents reporting a non-numeric fertility preference increased between survey years. The largest overall increase, 3%, occurred in Comoros, but with a significant decline in disparity between non-poor and poorest women due to an increase in the percentage of non-poor women reporting a non-numeric ideal fertility preference. Additionally, disparities were nearly nonexistent in the more recent surveys in Burundi, Lesotho, Rwanda, and Zimbabwe.

Figure 3.3b Percentage of respondents reporting a non-numeric ideal fertility preference by absolute poverty level, Eastern and Southern Africa

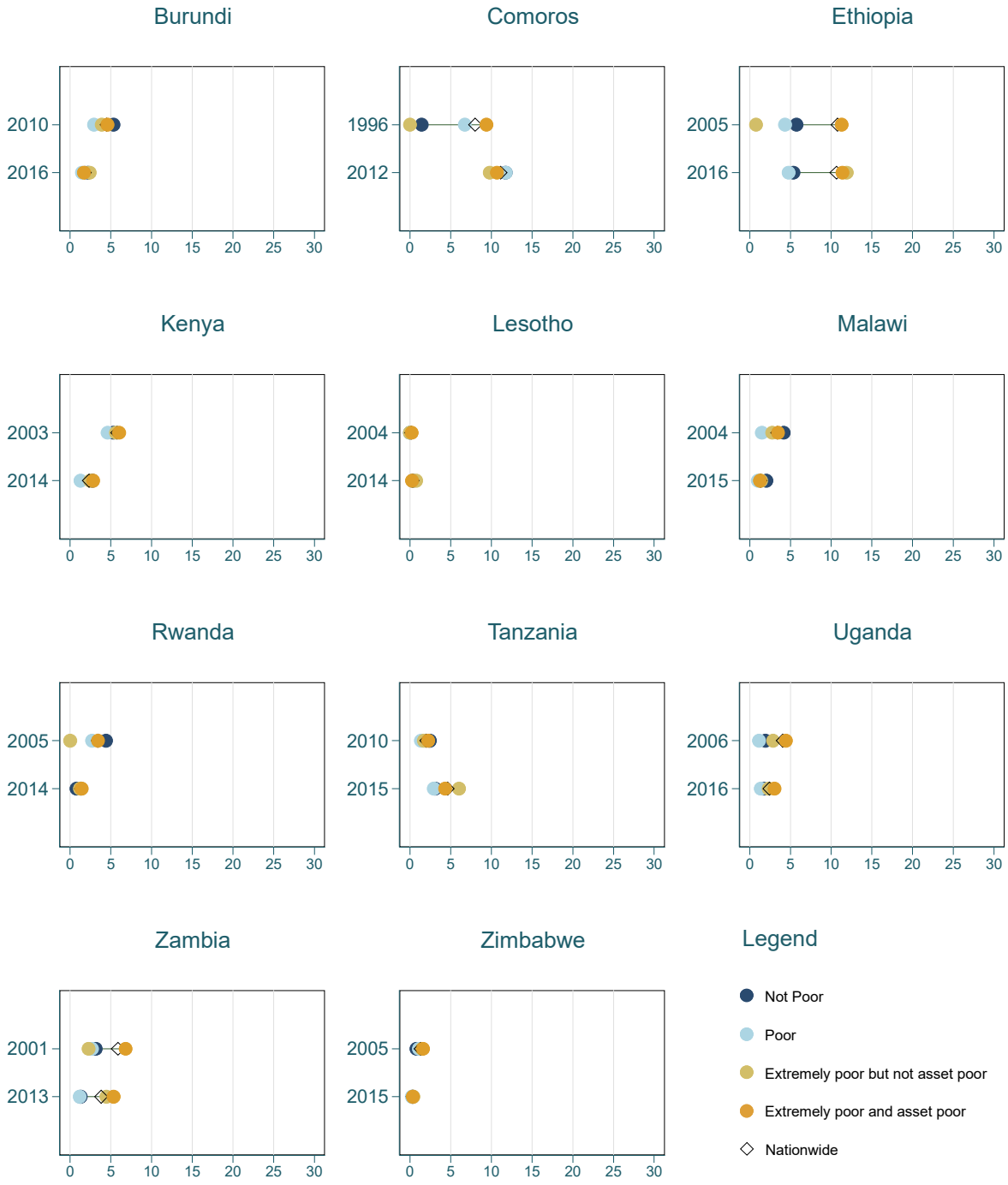


Figure 3.3c shows the percentage of respondents reporting a non-numeric ideal fertility preference by absolute poverty level for each country in South Asia, Southeast Asia, and Other Areas. Overall, the region has the lowest percentage of respondents reporting a non-numeric fertility preference. In the second survey, percentages ranged from 0.3% in the Philippines to 12% in Timor-Leste. Eight of the ten countries had a decrease in the overall percentage of respondents giving a non-numeric response, and in three-quarters of these countries the percentage within each poverty level also fell between survey years. Indonesia had the

greatest decline, from 14% in 2002 to 9% in 2012. Although Egypt and Kyrgyz Republic also had overall decreases, declines within poverty levels were not as widespread. While in Kyrgyz Republic the total percentage was relatively low and fluctuations among poverty levels were moderate, Egypt experienced a more notable change, with percentages dropping nearly in half among the non-poor, from 7% to 4%, and the poor, from 10% to 6%, while increasing among the two poorest absolute poverty levels. Two countries, Nepal and Timor-Leste, had overall increases in percentage of respondents reporting a non-numeric ideal fertility preference. Unlike the moderate increase of 0.2% in Nepal, Timor-Leste had a much more significant increase of 9%. Additionally, Timor-Leste was one of five countries with an increase in disparity between non-poor and poorest respondents. Egypt had the largest growth in disparity, with an increase of 5%, followed by Timor-Leste, 3%, Haiti, 0.8%, and Nepal and Pakistan, each 0.2%.

Figure 3.3c Percentage of respondents reporting a non-numeric ideal fertility preference by absolute poverty level, South Asia, Southeast Asia, and Other Areas

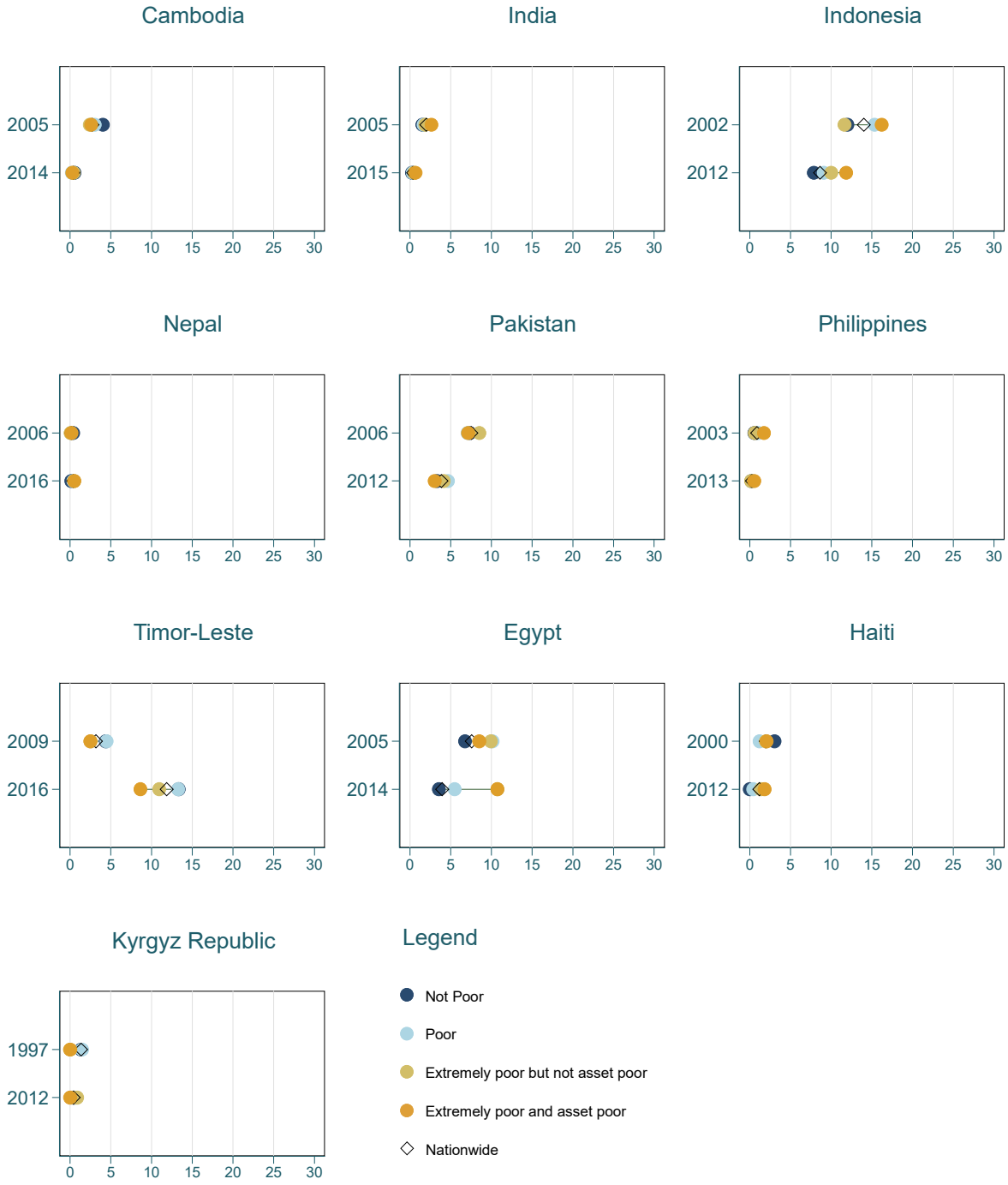


Table 3.3 presents the average relative decadal changes in non-numeric fertility preferences by absolute poverty level and country, with corresponding absolute average decadal changes shown in Appendix Table B.6. Overall, percentages decreased in 22 of the 31 countries, of which 15 decreases were statistically significant. Cambodia had the biggest decrease in non-numeric fertility preferences, at 96%, and also the greatest decreases within each individual poverty level. Of the nine countries experiencing an increase in the total percentage of non-numeric responses about fertility preferences, four were in the Central and

Western Africa region, three in the Eastern and Southern Africa region, and two in South and Southeast Asia. Two of the three total increases found to be of statistical significance were also the largest increases—Timor-Leste, 423%, Tanzania, 237%, and Chad, 86%. The non-poor had the most statistically significant decreases, with 17 occurrences, compared with just 7 occurrences within the extremely poor and asset poor levels.

Table 3.3 Average relative decadal changes in non-numeric fertility preferences, by absolute poverty level and country

	Average relative decadal change (%)						Statistical significance of change				
	Non-Poor	Poor	Extremely Poor but not Asset Poor	Extremely Poor and Asset Poor	Total	Years of difference between surveys	Non-Poor	Poor	Extremely Poor but not Asset Poor	Extremely Poor and Asset Poor	Total
Central and Western Africa											
Chad	-31	10	122	96	86	10.5	++			++	++
DR Congo	89	8	27	-35	-30	6.5					
Ghana	-11	166	88	-43	7	11.0			++		
Guinea	238	19	-22	25	10	7.0		+			
Liberia	-97	128	2	-21	-17	6.0					
Mali	-67	-64	-72	-80	-76	11.5	--	--	--	--	--
Niger	(26)	-28	-53	-51	-50	14	(--)		-	--	--
Nigeria	-18	-21	-40	-36	-34	10.0	--			-	--
Senegal	29	-5	-14	2	-4	11.0					
Sierra Leone	82	-67	7	18	9	5.0					
Eastern and Southern Africa											
Burundi	-91	-78	-59	-97	-92	6.5	--	-			--
Comoros	447	47	NA	9	24	16.0			NA		
Ethiopia	-6	9	1297	1	-1	11.0				++	
Kenya	-44	-66	-51	-48	-55	11.0	--		--	--	--
Lesotho	NA	NA	NA	18	127	10.0	NA	NA	NA		
Malawi	-44	-29	-43	-55	-53	11.5	--				--
Rwanda	-86	-51	*	-62	-64	9.5	--	--	*		--
Tanzania	47	213	456	169	237	5.5	++			++	++
Uganda	-14	18	-19	-32	-41	10.0	--				-
Zambia	-49	-47	81	-18	-29	12.0	--	-			-
Zimbabwe	-65	-83	-76	-82	-80	9.5	--		-		--
South and Southeast Asia											
Cambodia	-96	-104	-92	-100	-96	9.0	--	--	--	--	--
India	-84	-80	-72	-75	-82	10.0	--	--	--	--	--
Indonesia	-36	-43	-15	-28	-40	9.5	--	--	--		-
Nepal	-62	280	750	213	147	10.0	+			+	
Pakistan	-91	-57	-85	-96	-81	6.0	--	--	-	--	--
Philippines	-65	-66	-74	-68	-70	10.0	--	--	--		-
Timor-Leste	314	303	511	383	423	6.5	++	++	++	++	++

Continued

Table 3.3—*Continued*

	Average relative decadal change (%)						Statistical significance of change				
	Non-Poor	Poor	Extremely Poor but not Asset Poor	Extremely Poor and Asset Poor	Total	Years of difference between surveys	Non-Poor	Poor	Extremely Poor but not Asset Poor	Extremely Poor and Asset Poor	Total
Other Areas											
Egypt	-53	-51	9	*	-53	9.0	--	--	--	*	
Haiti	-83	-53	-26	-10	-33	12.0	NA				--
Kyrgyz Republic	-44	-54	NA	*	-45	15.0	--	-	NA	*	--

Notes:
++ indicates there was a statistically significant increase at p<.01 from earlier to later survey.
+ indicates there was a statistically significant increase at p<.05 from earlier to later survey.
-- indicates there was a statistically significant decrease at p<.01 from earlier to later survey.
- indicates there was a statistically significant decrease at p<.05 from earlier to later survey.
NA indicates there were an insufficient number of cases in the numerator to test the difference between survey years.
Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

3.3 Modern Contraceptive Prevalence

Figures 3.4a to 3.4c show mCPR among married women by absolute poverty level and country for each of the three regional groups; numbers underlying these charts are given in Appendix Table B.7. On average across surveys, 28% of married women were using a modern method at the time of the survey, while within-poverty averages ranged from 22% among the poorest group to 37% among the non-poor. As with other indicators studied, strong regional variations exist. Modern contraceptive prevalence, both nationwide and among both categories of the extremely poor, was typically more than three times as high in Eastern and Southern Africa, in South Asia, Southeast Asia, and in Other Areas as in Central and Western Africa.

Figure 3.4a shows mCPR by absolute poverty level in Central and Western Africa. Ghana, Liberia, and Senegal were the only countries to have started with at least 10% modern method use; by the later survey round the only other countries with at least 10% modern method use were Niger and Sierra Leone. Central and Western Africa has, on average, the greatest relative inequality in mCPR of any region studied, typically more than twice as high among the non-poor as among the poorest. There was a reduction in relative inequalities in modern contraceptive use between married women in the highest and lowest absolute poverty levels in every country except Chad, Niger, and Nigeria. Convergence on mCPR between absolute poverty groups was particularly strong in Ghana, Guinea, and Sierra Leone. In Ghana and Sierra Leone this convergence was largely driven by an apparent increase in use of modern methods among married women in extreme poverty and asset poverty, and partly driven by a decline in mCPR among women in the non-poor group. In Guinea, however, the convergence was driven entirely by declines in use of modern contraception among the non-poor. Overall, average mCPR was 9% in the first survey round and 13% in the second round, largely owing to increases among the poor as well as the extremely poor and asset poor.

Figure 3.4b shows modern contraceptive prevalence by absolute poverty levels in Eastern and Southern Africa. On average in this region, prevalence was 25% in the first survey, rising to 43% in the second survey—the highest of any region studied. Between the two survey rounds, disparities in modern contraceptive use between the poorest and the non-poor declined in all 11 countries in this region. In the

first survey, in the average country non-poor married women were more than twice as likely to use a modern method compared with non-poor women. By the second survey round in each country, that difference declined to around 20%. Rwanda, Uganda, and Malawi achieved the greatest declines in disparities in modern contraceptive use between the poorest and the non-poor.

Figure 3.4a Modern contraceptive prevalence by absolute poverty level, Central and Western Africa

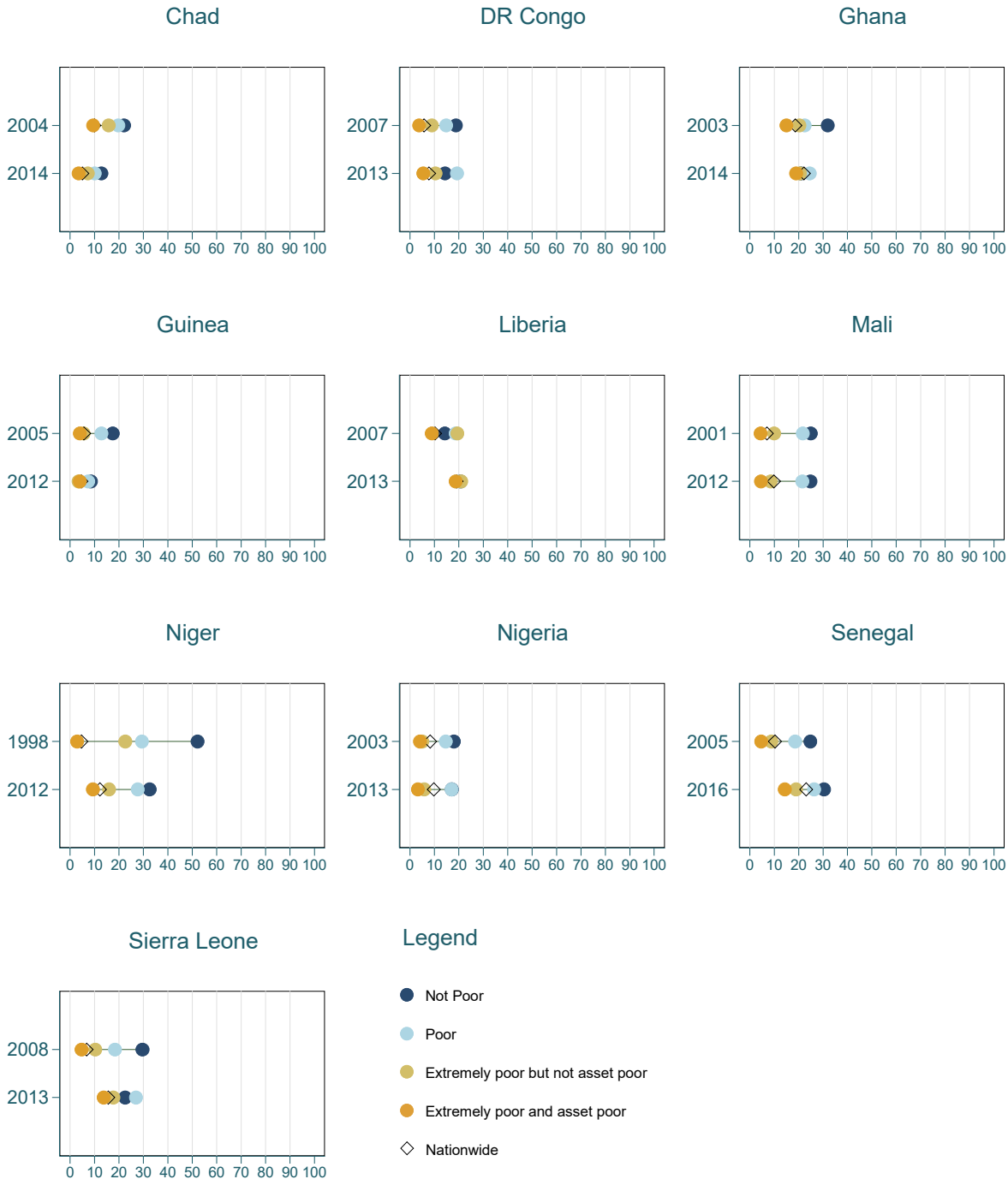


Figure 3.4b Modern contraceptive prevalence by absolute poverty level, Eastern and Southern Africa

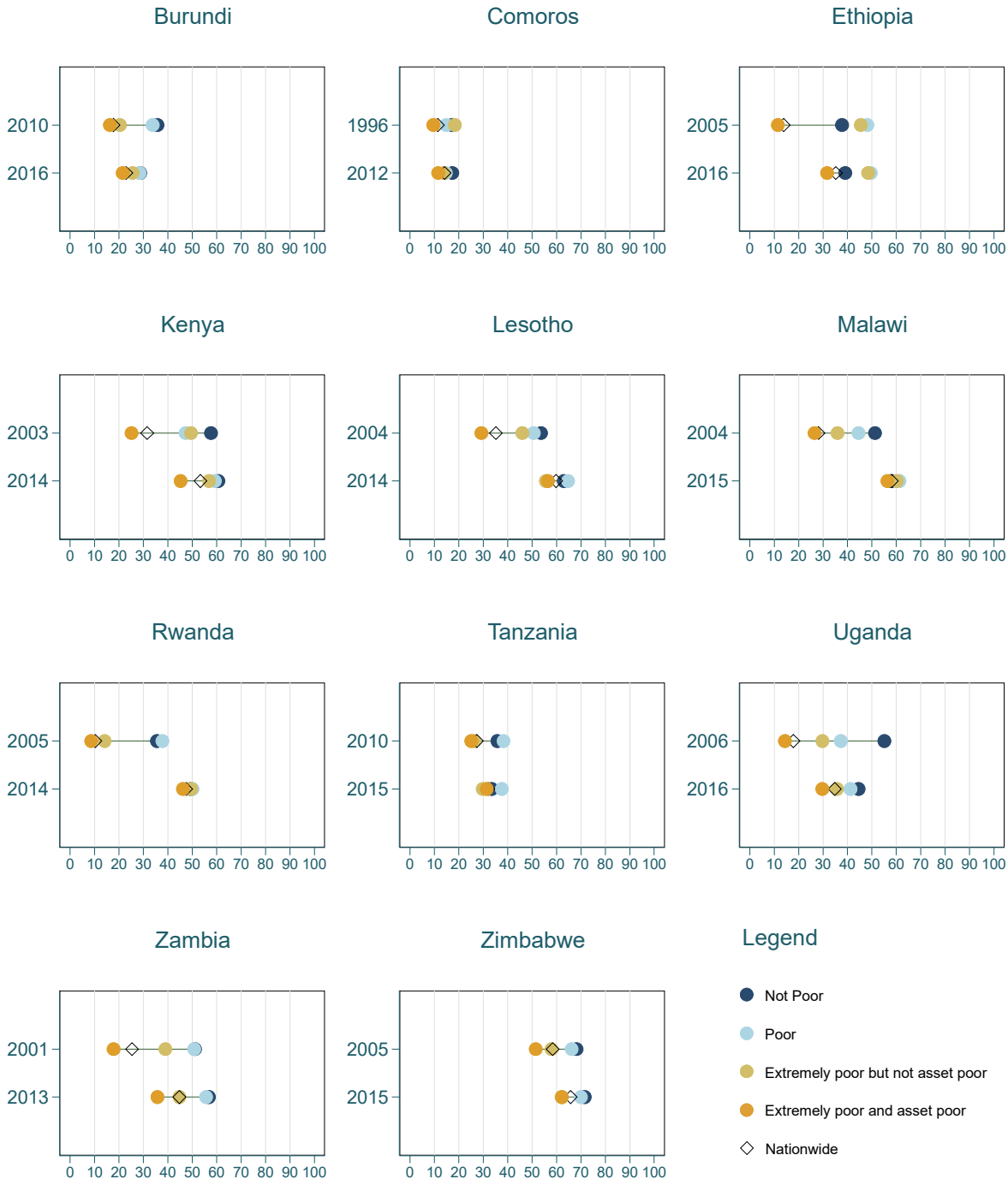


Figure 3.4c shows mCPR by absolute poverty level for South Asia, Southeast Asia, and Other Areas. Here the trends are quite divergent. Countries in this group had the highest mCPR of any region in the first round of surveys, at 38%, and slightly higher in the second round, at 40%. However, there was enormous variation by country, from 21% in Timor-Leste 2009-10 to 58% in Indonesia 2012. Three countries—India, Nepal, and Kyrgyz Republic—experienced a decline in mCPR between survey rounds. In the average country, mCPR increased among the poorest group (extremely poor and asset poor), but declined among the non-

poor and the third absolute poverty group (extremely poor but not asset poor). The greatest relative disparities in mCPR between the non-poor and the poorest were in Egypt 2005, both India surveys, both Pakistan surveys, and Timor-Leste 2009-10. At the time of the most recent survey, Cambodia and Haiti had inverse disparities: modern contraceptive prevalence was higher among the poorest than the non-poor.

Figure 3.4c Modern contraceptive prevalence by absolute poverty level, South Asia, Southeast Asia, and Other Areas

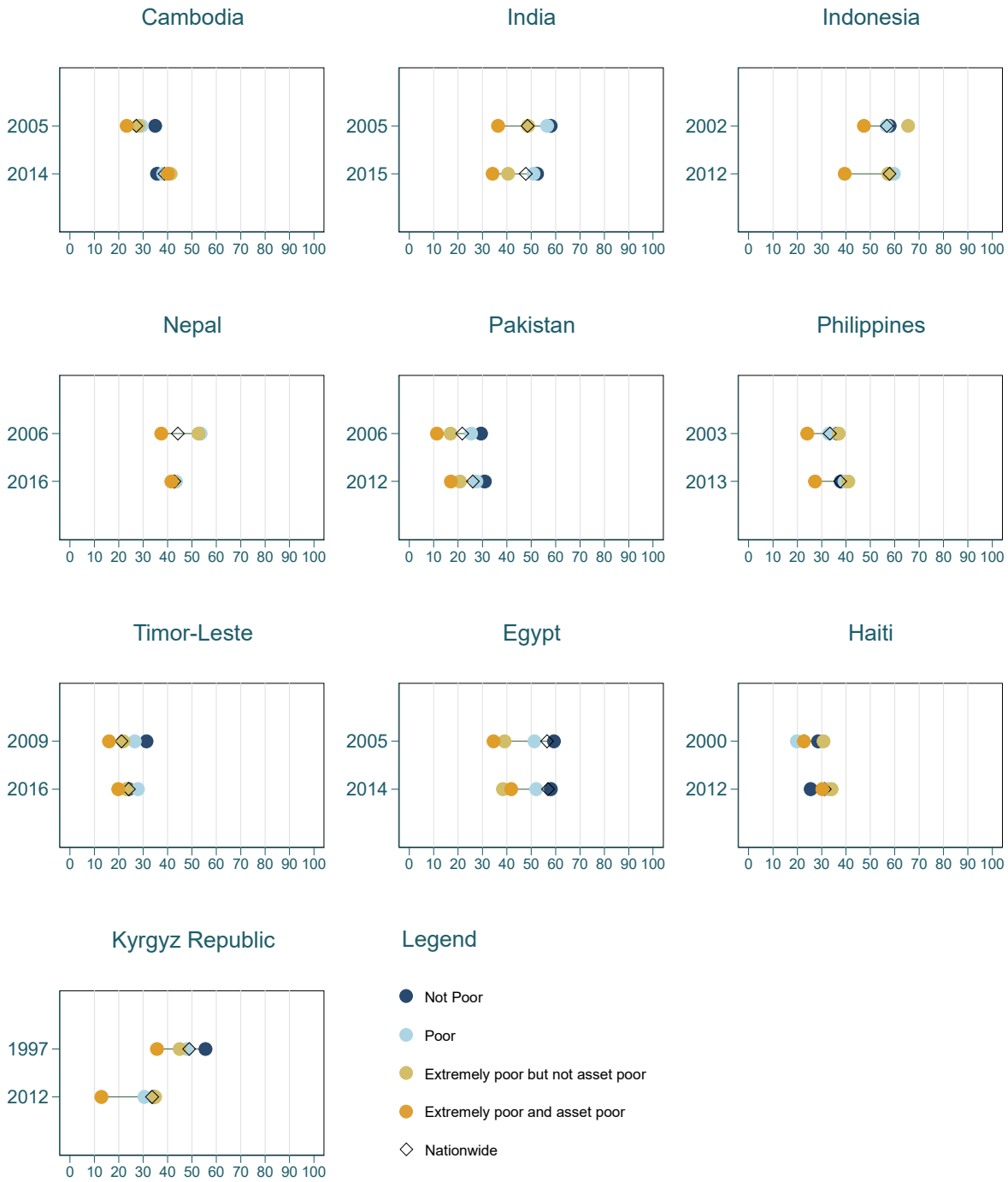


Table 3.4 presents the relative average decadal changes in modern contraceptive prevalence by absolute poverty levels and country; corresponding absolute decadal changes are given in Appendix Table B.8. While 24 of 31 study countries experienced a statistically significant decadal increase in mCPR, three countries—Chad, India, and Kyrgyz Republic—had statistically significant declines. The decline was numerically greatest in Chad, where where the lactational amenorrheic method (LAM) comprised a substantial amount of modern method use in the first survey but declined by the time of the second survey. In India the decline was small (2%), but statistically significant due to very large sample sizes. Guinea and Nepal also experienced decreases in modern method use overall, but these were not statistically significant.

Turning to changes within absolute poverty groups, we found that the poorest group (extremely poor and asset poor) experienced the largest increase in mCPR, an average of 82%. It was also the poverty group for which the largest number of increases were statistically significant: 19 of the 29 countries with sufficiently large sample sizes of extremely poor and asset poor married women experienced a statistically significant increase in modern contraceptive use between surveys. Notably seven countries in sub-Saharan Africa—Rwanda, Sierra Leone, Senegal, Liberia, Niger, Ethiopia, and Uganda—more than doubled the prevalence of modern method use among the poorest over the decade, and the increase was statistically significant.

In the third absolute poverty group, extremely poor but not asset poor, countries experienced an average increase of 15% over a decade. Seven countries—Cambodia, Kenya, Lesotho, Malawi, Pakistan, Senegal, and Sierra Leone—had a positive and statistically significant increase, while Chad, India, Indonesia, and Nepal had a statistically significant decline. Among the second absolute poverty group, the poor, 10 countries experienced a statistically significant increase in mCPR, while five countries experienced a statistically significant decline. Finally, among the non-poor group, only Rwanda experienced a statistically significant increase in mCPR, while seven countries experienced a statistically significant decline. India and Kyrgyz Republic were the only countries that experienced a statistically significant decline in mCPR among the non-poor group, of 10% and 25% respectively in relative decadal terms, and also experienced a statistically significant decline in mCPR nationwide.

Table 3.4 Average relative decadal changes in modern contraceptive prevalence, by absolute poverty level and country

	Average relative decadal change (%)						Statistical significance of change				
	Non-Poor	Poor	Extremely Poor but not Asset Poor	Extremely Poor and Asset Poor	Total	Years of difference between surveys	Non-Poor	Poor	Extremely Poor but not Asset Poor	Extremely Poor and Asset Poor	Total
Central and Western Africa											
Chad	-40	-47	-52	-60	-47	10.5		-	--	--	--
DR Congo	-37	46	26	70	54	6.5				+	+
Ghana	-31	8	1	24	17	11.0	--				++
Guinea	-73	-61	-54	-1	-26	7.0	--	--			
Liberia	76	3	13	182	144	6.0				++	++
Mali	-1	-1	-13	3	36	11.5					++
Niger	(-27)	-4	-21	161	118	14.0	(--)			++	++
Nigeria	-5	16	17	-20	18	10.0					+
Senegal	20	38	104	189	113	11.0		++	++	++	++
Sierra Leone	-48	94	144	387	263	5.0		++	++	++	++
Eastern and Southern Africa											
Burundi	-30	-24	39	49	45	6.5				++	++
Comoros	0	-1	(-16)	13	15	16.0					+
Ethiopia	3	3	6	160	139	11.0				++	++
Kenya	5	23	14	73	63	11.0		++	+	++	++
Lesotho	17	28	21	93	70	10.0		++	+	++	++
Malawi	11	33	59	98	93	11.5		++	++	++	++
Rwanda	41	34	*	461	381	9.5	++	++	*	++	++
Tanzania	-12	-3	24	46	31	5.5				++	++
Uganda	-19	11	20	106	95	10.0				++	++
Zambia	9	8	12	84	64	12.0				++	++
Zimbabwe	5	6	8	22	13	9.5				++	++
South and Southeast Asia											
Cambodia	3	34	52	81	48	9.0		++	++	++	++
India	-10	-10	-17	-6	-2	10.0	--	--	--	--	-
Indonesia	-1	6	-13	-18	2	9.5		+	--	--	
Nepal	-20	-19	-20	11	-3	10.0	--	--	-		
Pakistan	9	15	38	85	33	6.0			++	++	++
Philippines	4	19	10	13	13	10.0		++			++
Timor-Leste	-36	8	9	36	22	6.5	--			+	++
Other Areas											
Egypt	-2	2	-2	*	1	9.0				*	
Haiti	-9	54	9	28	31	12.0		++		++	++
Kyrgyz Republic	-25	-24	-15	*	-21	15.0	--	--		*	--

Notes:
++ indicates there was a statistically significant increase at p<.01 from earlier to later survey.
+ indicates there was a statistically significant increase at p<.05 from earlier to later survey.
-- indicates there was a statistically significant decrease at p<.01 from earlier to later survey.
- indicates there was a statistically significant decrease at p<.05 from earlier to later survey.
Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

3.4 Contraceptive Method Mix

Figures 3.5a, 3.5b, and 3.5c show the contraceptive method mix—the share of long-term modern, short-term modern, traditional, and folkloric methods—among users of family planning for each of the four absolute poverty groups by regions. Corresponding figures are shown in Appendix Table B.9. Bars were suppressed when the unweighted number of women in that group was less than 25.

3.4.1 Levels

Overall, short-term modern contraceptives, such as the pill, injectables, and male condoms, are more common than other methods in sub-Saharan Africa, whereas long-term modern methods are more common in South and Southeast Asia. A majority of current users in India, Nepal, Egypt, and Kyrgyz Republic were using long-term modern contraceptives, whereas more women in other FP2020 countries used short-term modern methods. The majority of current users in DR Congo, and more than a quarter of current users in Nigeria, Comoros, Cambodia, Pakistan, and the Philippines, used traditional methods. The use of folkloric methods is low in most countries in this study, except in Guinea at 27% in 2005, Niger at 42% in 1998 and 11% in 2012, and Sierra Leone at 15% in 2008.

Examining method mix by absolute poverty level shows that a slightly larger proportion of non-poor women used long-term modern methods compared with the other poverty groups. In addition, women who are extremely poor and asset poor were typically the least likely to use long-term modern methods. However, this disparity does not appear among users of short-term modern methods. On average, a greater proportion of women in the second and third poverty groups (poor and extremely poor but not asset poor) used short-term modern methods compared with the non-poor and the extremely poor and asset poor women.

The levels of long-term and short-term modern contraceptive use by absolute poverty level vary widely across countries. As Figures 3.5a to 3.5c and Appendix Table B.9 indicate, for the earlier DHS surveys in our study, among non-poor married women, long-term modern methods use ranged from 5% in Guinea 2005 to 68% in Egypt 2005, while among the poor it ranged from 4% in DR Congo 2007 to 76% in India 2005-06. Among the extremely poor but not asset poor, use of long-term modern methods ranged from 2% in DR Congo 2007 to 75% in India 2005-06, and among the extremely poor and asset poor it ranged from 1% in Chad 2004 to 71% in India 2005-06. Similarly, use of short-term modern methods among the non-poor ranged from 23% in India 2005-06 to 84% in Zimbabwe 2005-06, while among the poor it ranged from 12% in Kyrgyz Republic 1996 to 93% in Zimbabwe 2005-06. Among the extremely poor but not asset poor, short-term method use ranged from 12% in India 2005-06 to 95% in Ethiopia 2005, and among the extremely poor and asset poor it ranged from 11% in India 2005-06 to 95% in Ethiopia 2005. A similar pattern is observed for the most recent DHS surveys as well. For example, among non-poor women long-term modern method use ranged from 9% in DR Congo 2013-14 to 69% in India 2015-16. Similarly, short-term modern method use in the most recent surveys ranged from 21% in India 2015-16 to 87% in Lesotho 2014.

The use of traditional methods varies widely by absolute poverty levels in sub-Saharan Africa. In the earliest DHS surveys, among women in the non-poor and poor groups, the lowest level of use was in Lesotho, while the highest use was in DR Congo, at 59%. For women in the extremely poor categories, the highest use was also in DR Congo. On average, a higher percentage of women in Central and Western Africa were using traditional methods compared with women in Eastern and Southern Africa, for all absolute poverty levels.

Moreover, higher percentages of non-poor women used traditional methods compared with the other categories of absolute poverty. Similar patterns are observed for traditional method use in the most recent DHS surveys. These findings are consistent with our earlier study of traditional method use worldwide, where in some countries wealthier women were more likely to report traditional method use, while in other countries the poorest women were the most likely to report (Gebreselassie et al. 2017). The findings are further complicated by an apparent underreporting of traditional method use in DHS surveys (Staveteig 2017; Staveteig et al. 2018).

In, Cambodia, a higher proportion of women in three categories—non-poor, poor, and extremely poor but not asset poor—reported using traditional methods compared with the other countries in the South and Southeast Asia region. Among women in the extremely poor and asset poor category, use of traditional methods was higher in the Philippines. On average in this region, non-poor women were more likely to use traditional methods compared with the other poverty groups.

Use of folkloric methods was reported in some countries in this study. Women in Central and Western Africa were more likely to use folkloric methods compared with other regions. On average, use of folkloric methods increases as the level of poverty worsens, from non-poor to extremely poor categories.

3.4.2 Trends

Figures 3.5a, 3.5b, and 3.5c also show trends in method mix use by absolute poverty levels for the countries in this study, and are also presented in Appendix Table B.9. The changes in contraceptive method mix use between the earlier and more recent DHS surveys among the absolute poverty levels are mixed. Among non-poor women in sub-Saharan Africa, use of long-term modern methods increased in 11 of the 21 countries. Increases in the use of long-term modern methods occurred among the poor in 16 countries, the extremely poor but not asset poor in 17 countries, and the extremely poor and asset poor in 19 countries.

Fewer than half of the countries in sub-Saharan Africa had increases in the use of short-term modern methods between the two surveys among women who were non-poor (eight countries), poor (eight countries), and extremely poor but not asset poor (seven countries). Only in 11 sub-Saharan countries did women who were extremely poor and asset poor experience an increase in use of short-term modern methods. Increase in the use of traditional methods occurred in fewer than five sub-Saharan countries among three of the absolute poverty groups—with the exception of non-poor women, among whom traditional method use increased in nine countries.

Figure 3.5a Contraceptive method mix by absolute poverty level, Central and Western Africa

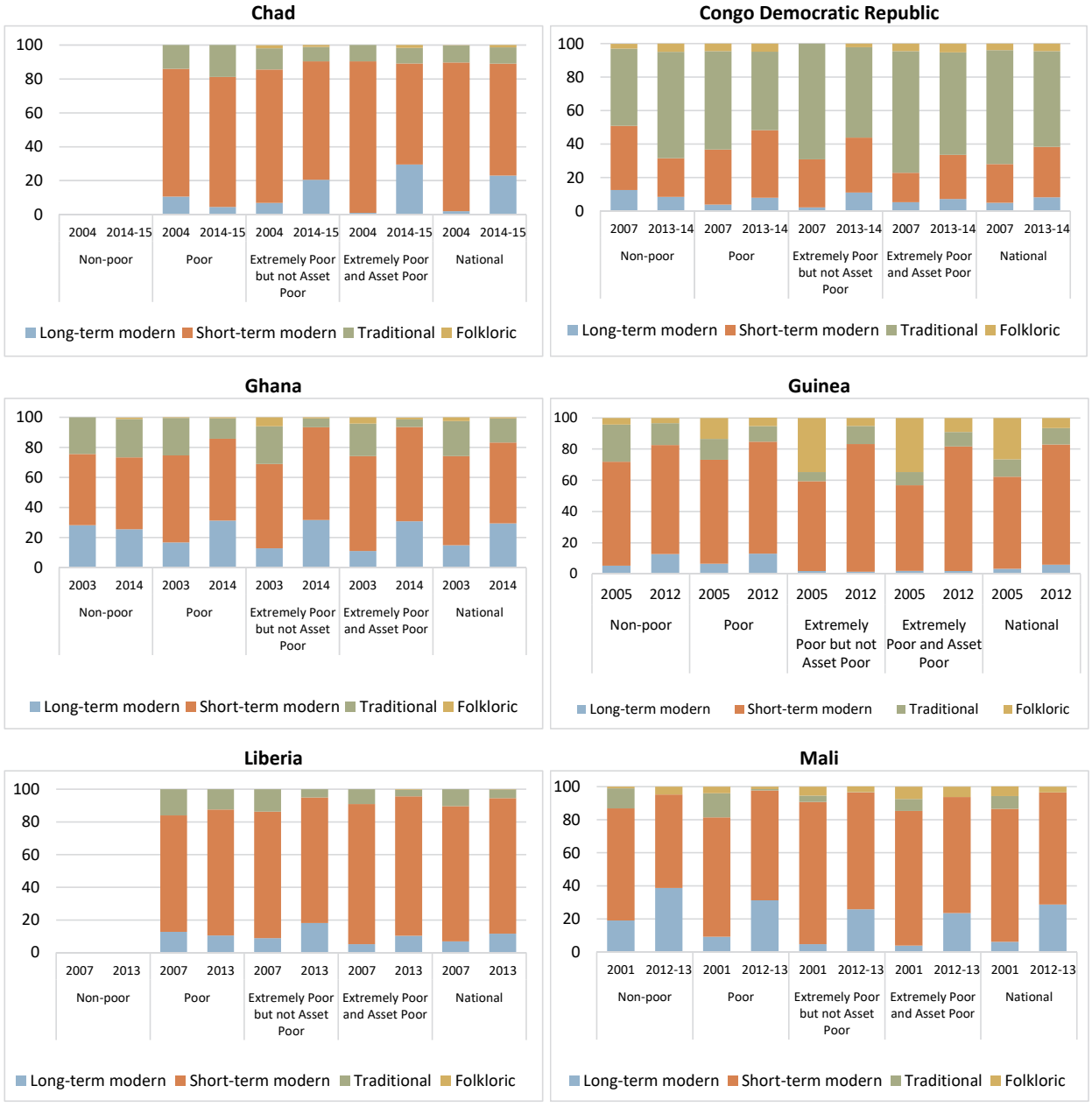


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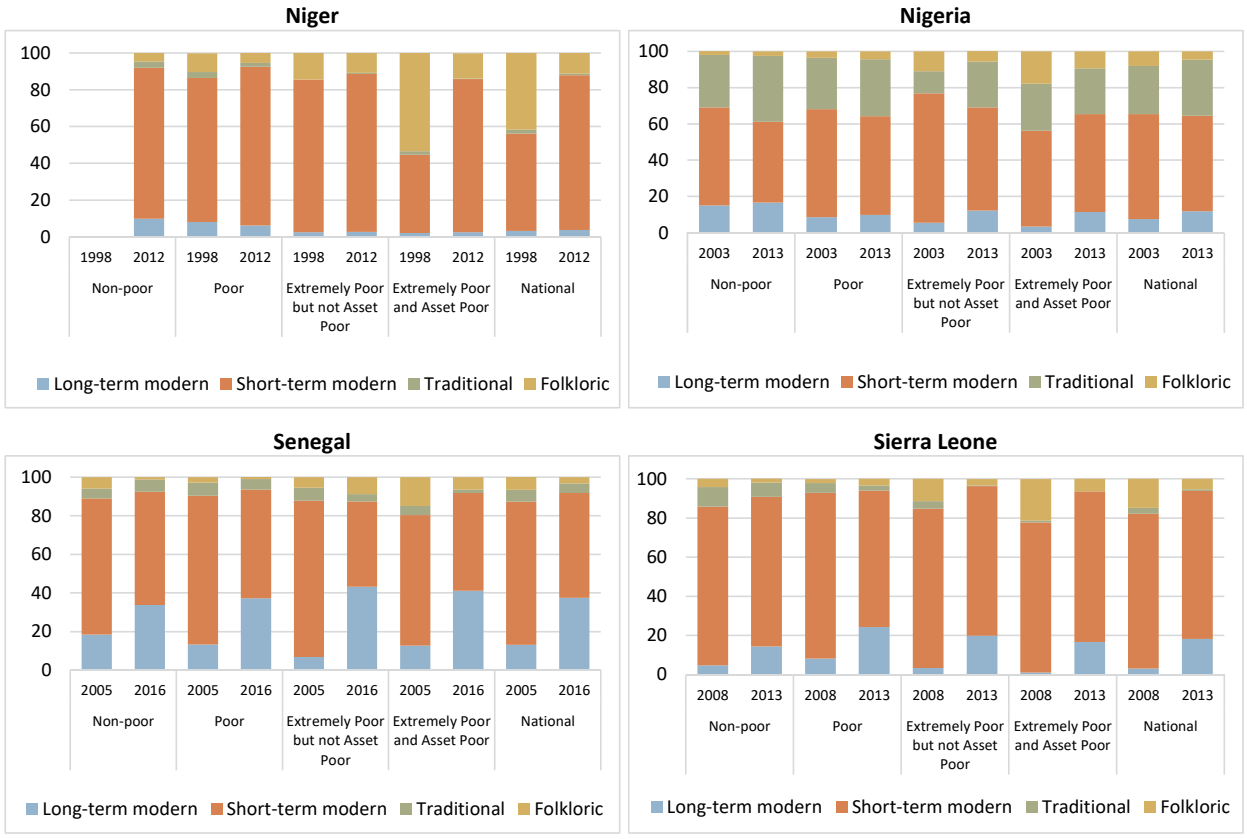
Figure 3.5a—*Continued*



Note: Bars were suppressed when the unweighted number of women in that group was less than 25.

Figure 3.5b Contraceptive method mix by absolute poverty level, Eastern and Southern Africa

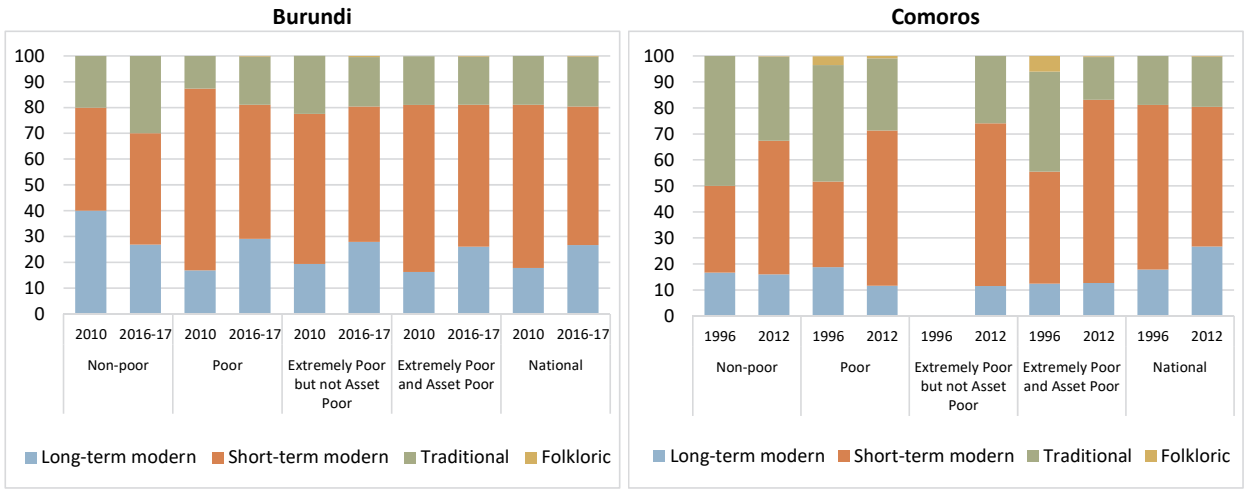


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Figure 3.5b—*Continued*

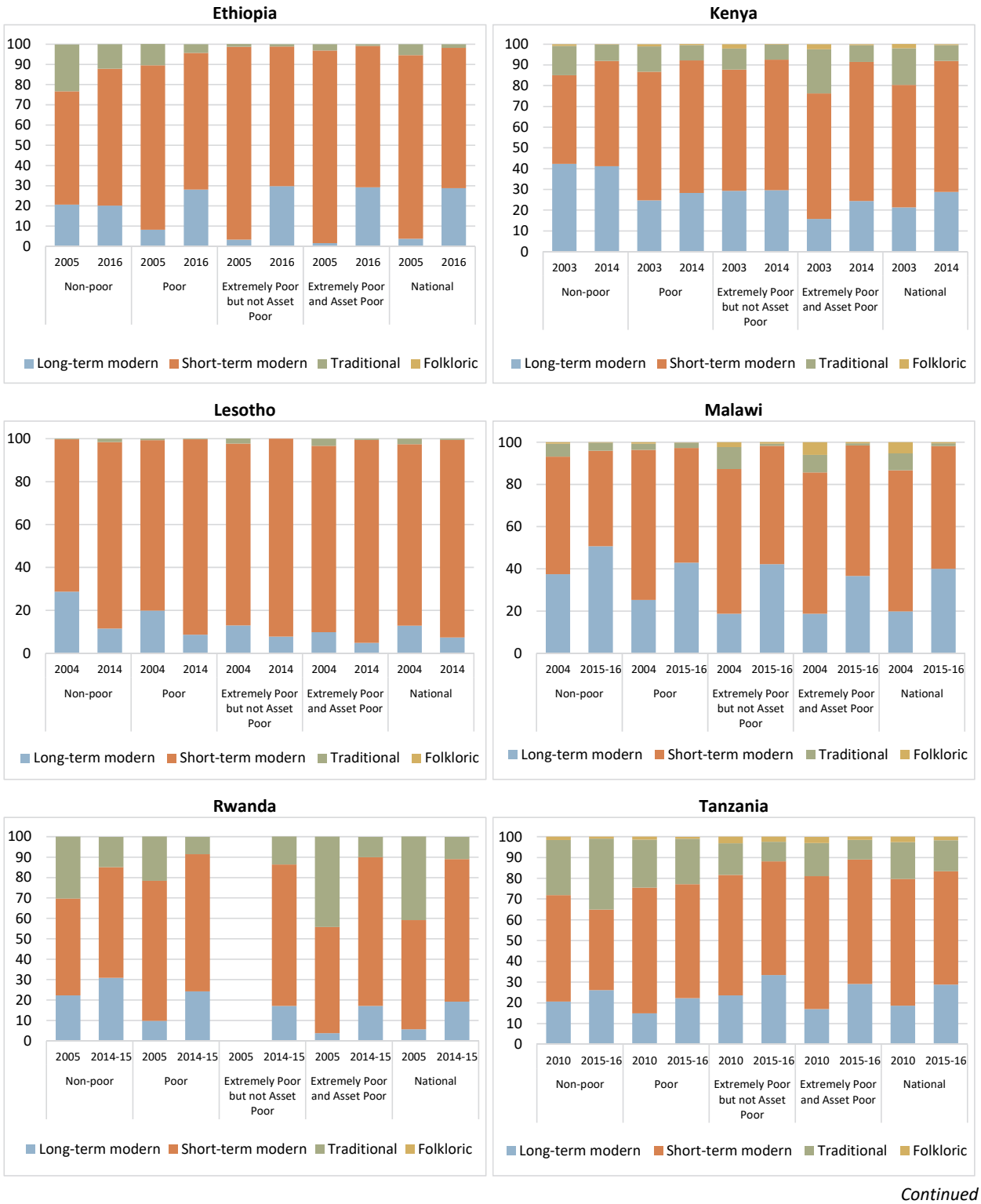

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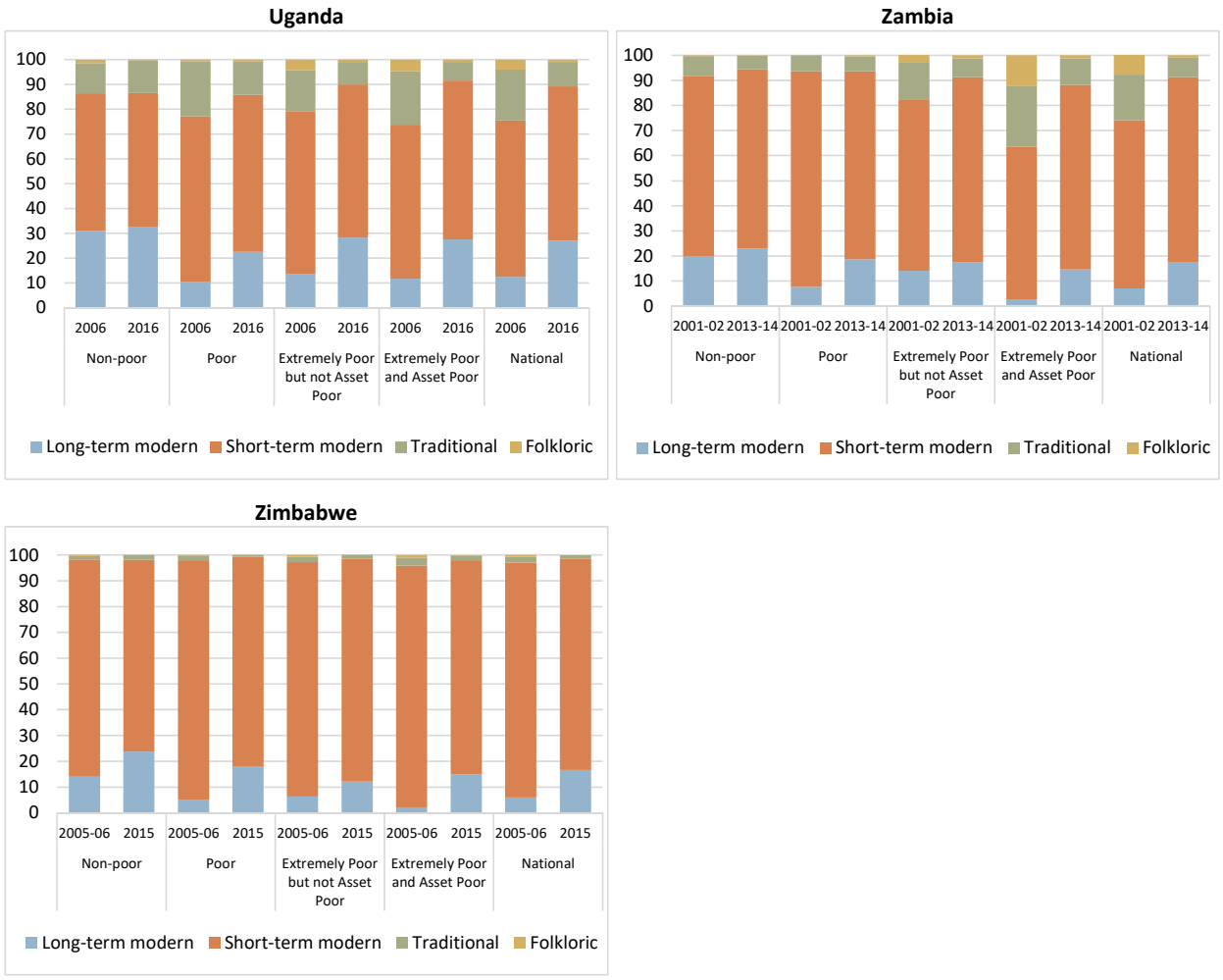
Figure 3.5b—*Continued*

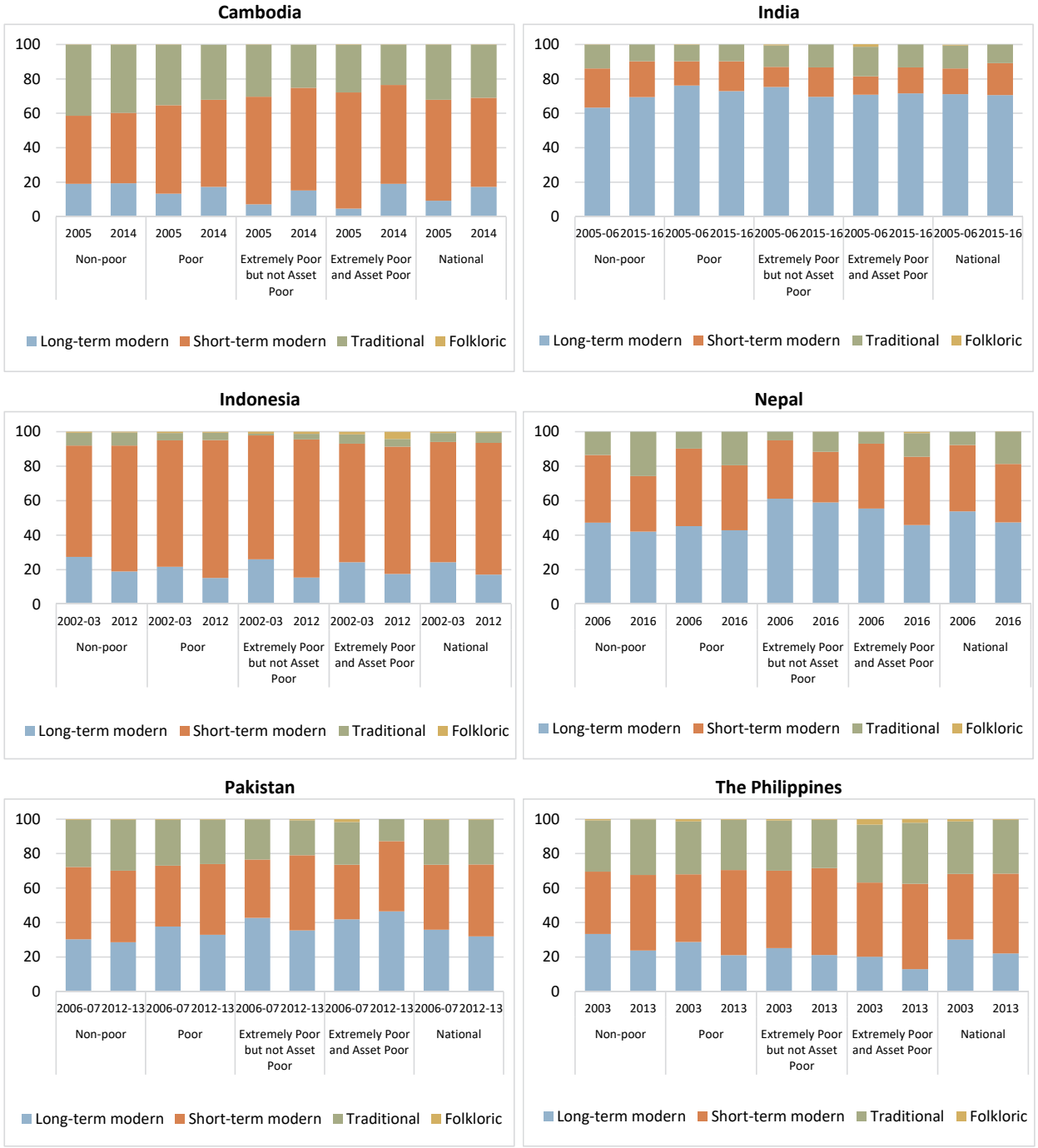


Note: Bars were suppressed when the unweighted number of women in that group was less than 25.

In more than half of the countries in South and Southeast Asia, increases between survey rounds occurred among the extremely poor and asset poor groups of women for use of long-term modern methods (in Cambodia, India, Pakistan, and Timor-Leste), and for use of short-term modern methods (in India, Indonesia, Nepal, Pakistan, and the Philippines). In addition, in four countries increases in short-term modern methods occurred among women in the second and third absolute poverty groups—the poor and extremely poor but not asset poor. Increases in traditional method use occurred among non-poor women in five countries of this region (Indonesia, Nepal, Pakistan, the Philippines, and Timor-Leste).

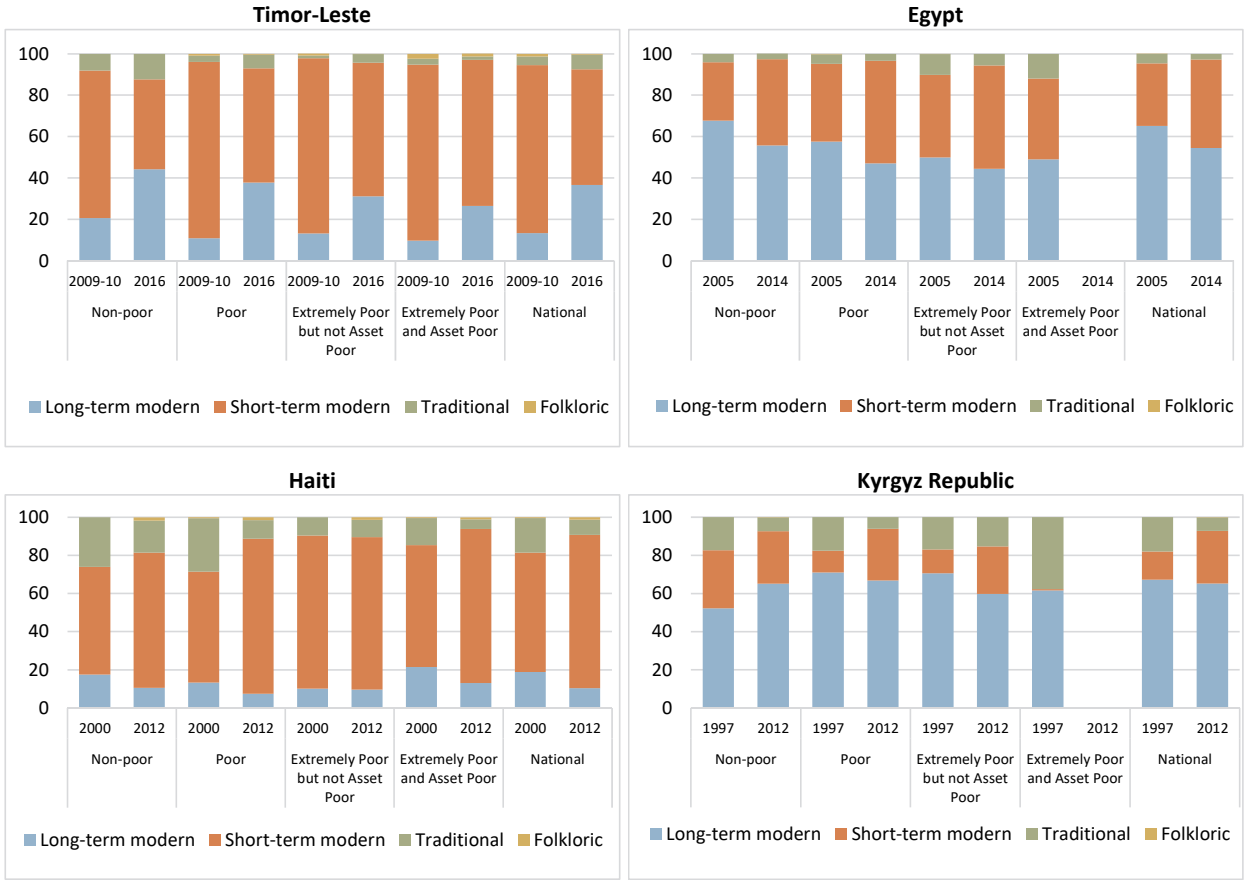
In the Other Areas group, increases in traditional method use occurred among women who were extremely poor but not asset poor. In Kyrgyz Republic use of long-term modern methods among non-poor women increased by 13% between the earlier and more recent DHS surveys, whereas in Haiti use of short-term modern methods increased among all of the absolute poverty groups of women except extremely poor but not asset poor. On average, the use of folkloric methods decreased between the earlier and more recent surveys in all regions.

Figure 3.5c Contraceptive method mix by absolute poverty level, South Asia, Southeast Asia, and Other Areas



Continued

Figure 3.5c—*Continued*



Note: Bars were suppressed when the unweighted number of women in that group was less than 25.

3.4.3 Decadal changes

Tables 3.5a to 3.5d show, for each of the four method groups, average relative decadal changes in method mix as a percentage of family planning use, by level of absolute poverty. The corresponding absolute decadal changes are shown in Appendix Table B.10. Multinomial logit regressions were run to test the significance of changes in method mix among absolute poverty levels between the two survey rounds. Short-term modern methods, the only category with sufficiently stable sample sizes in every survey, were chosen as the reference group.

Long-term modern methods

Table 3.5a shows that in seven countries in sub-Saharan Africa, non-poor married women experienced a decline in the use of long-term modern methods. This decline was statistically significant relative to short-term methods only in Lesotho. In the remaining sub-Saharan African countries with sufficient sample sizes of non-poor married women, 11 experienced increases in long-term modern method use among the non-poor, ranging from 5% in Uganda to 394% in Sierra Leone (note caution in interpretation due to small sample size); these increases were statistically significant relative to changes in short-term methods only in Mali, Senegal, and Zimbabwe.

At the opposite end of the poverty spectrum, in all countries studied in sub-Saharan Africa except Guinea and Lesotho, women in both the third and fourth absolute poverty groups (extremely poor but not asset poor, and extremely poor and asset poor) experienced gains in the use of long-term modern methods between surveys. On average, in Central and Western Africa the extremely poor and asset poor increased their use of long-term modern methods by more than sevenfold (the largest decadal gain was approximately 28-fold in Chad) compared to a threefold average gain in Eastern and Southern Africa. Overall, higher average decadal gains in use of long-term modern methods were found among the extremely poor group of women. Among the poorest women, these gains were statistically significant in every sub-Saharan African country except Comoros, DR Congo, Guinea, Niger, and Lesotho. Among the extremely poor in Lesotho, there was a statistically significant decline in long-term method use relative to short-term method use.

In South and Southeast Asia, only two countries—Cambodia and Timor-Leste—had decadal gains in the use of long-term modern methods among women at all levels of absolute poverty. In contrast, in Indonesia, Nepal, and the Philippines, married women at every absolute poverty level experienced decadal declines in long-term modern method use. In Pakistan, only women in the poorest category experienced decadal gains in use of long-term modern methods. Cambodia and Timor-Leste had statistically significant increases in long-term modern method use among the two poorest groups ($p <. 01$) relative to short-term use. Non-poor women in India and Timor-Leste had significant increases in long-term modern method use relative to short-term use.

In the Other Areas group, women in Haiti at all absolute poverty groups experienced declines in long-term modern method use, and in Egypt there were declines in long-term modern method use among women in three absolute poverty groups (the poorest category had an insufficient number of women for measurement). Among non-poor women in Kyrgyz Republic, there was a significant increase in long-term methods use relative to short-term methods use.

Table 3.5a Average relative decadal changes in long-term modern methods as a percentage of family planning use, by absolute poverty level and country

	Average relative decadal change (%)						Statistical significance of change relative to changes in short-term modern methods				
	Non-Poor	Poor	Extremely Poor but not Asset Poor	Extremely Poor and Asset Poor	Total	Years of difference between surveys	Non-Poor	Poor	Extremely Poor but not Asset Poor	Extremely Poor and Asset Poor	Total
Central and Western Africa											
Chad	*	(-55)	190	2,714	1,053	10.5				++	++
DR Congo	-50	(162)	652	55	98	6.5					
Ghana	-8	78	134	162	88	11.0		++		++	++
Guinea	196	139	(-30)	-7	105	7.0					
Liberia	*	-29	172	170	118	6.0				+	
Mali	90	209	382	426	309	11.5	+	++	++	++	++
Niger	*	-18	(6)	18	11	14.0					
Nigeria	11	14	122	235	57	10.0				++	++
Senegal	76	165	480	203	169	11.0	+	++	++	++	++
Sierra Leone	(396)	393	971	2,836	974	5.0		++	+	++	++
Eastern and Southern Africa											
Burundi	-50	111	67	92	77	6.5		++		++	++
Comoros	(-3)	-24	*	1	-8	16.0		--			-
Ethiopia	-3	221	727	1,568	598	11.0		++	++	++	++
Kenya	-2	13	1	49	31	11.0				++	++
Lesotho	(-60)	-56	-40	-51	-43	10.0	(-)	--		--	--
Malawi	31	60	108	83	88	11.5		++	++	++	++
Rwanda	41	156	*	368	249	9.5		++		++	++
Tanzania	48	88	76	129	100	5.5			+	++	++
Uganda	5	117	110	135	116	10.0		++	++	++	++
Zambia	13	118	20	367	126	12.0		++		++	++
Zimbabwe	72	255	94	608	186	9.5	++	++		++	++
South and Southeast Asia											
Cambodia	2	33	127	340	98	9.0			++	++	++
India	10	-4	-8	1	-1	10.0	++	--	--	--	--
Indonesia	-32	-31	-43	-29	-31	9.5	--	--	--		--
Nepal	-11	-5	-4	-17	-12	10.0					
Pakistan	-10	-21	-28	19	-19	6.0		-	--		--
Philippines	-29	-27	-16	-36	-27	10.0	--	--		--	--
Timor-Leste	176	385	210	266	270	6.5	++	++	++	++	++
Other Areas											
Egypt	-20	-20	-12	*	-18	9.0	--	--			--
Haiti	-33	-37	-3	-33	-37	12.0		--		--	--
Kyrgyz Republic	16	-4	(-10)	*	-2	15.0	+	--		*	--

Notes:
++ indicates there was a statistically significant increase at p<.01 from earlier to later survey.
+ indicates there was a statistically significant increase at p<.05 from earlier to later survey.
-- indicates there was a statistically significant decrease at p<.01 from earlier to later survey.
- indicates there was a statistically significant decrease at p<.05 from earlier to later survey.
Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

Short-term modern methods

Table 3.5b shows relative average decadal changes for short-term contraceptive method use by absolute poverty levels; absolute average decadal changes are shown in Appendix Table B.11. Because short-term modern methods were the reference group for multinomial regressions, statistical significance cannot be shown. In 10 of the 21 countries in sub-Saharan Africa studied, non-poor married women experienced decadal increases in use of short-term modern methods, from 1% in Ghana to 34% in Comoros. In contrast, declines in short-term modern method use among non-poor women in the other sub-Saharan countries ranged from 1% in Zambia to 61% in DR Congo.

Among poor women, increases in use of short-term modern methods over the decade occurred in Chad, DR Congo, Guinea, Liberia, Niger, Comoros, Kenya, and Lesotho. In South and Southeast, non-poor women in Cambodia, Indonesia, and the Philippines experienced decadal increases in short-term method use, from 4% in Cambodia to 21% in the Philippines. In Other Areas, increases in short-term modern method use occurred among non-poor women in Egypt and Haiti.

In eight countries in sub-Saharan Africa, married women who are poor and extremely poor but not asset poor experienced increases in short-term modern method use. Average relative decadal gains were small, although levels of short-term method use were high. In contrast, in Cambodia, Nepal, and Timor-Leste, declines in short-term method use occurred among poor and extremely poor women, while in India, Indonesia, Pakistan, and the Philippines, poor and extremely poor women experienced increases in use of short-term methods.

Table 3.5b Average relative decadal changes in short-term modern methods as a percentage of family planning use, by absolute poverty level and country

	Average relative decadal change (%)					Years of difference between surveys
	Non-Poor	Poor	Extremely Poor but not Asset Poor	Extremely Poor and Asset Poor	Total	
Central and Western Africa						
Chad	*	(2)	-11	-32	-23	10.5
DR Congo	-61	35	21	78	47	6.5
Ghana	1	-5	9	-1	-8	11.0
Guinea	7	11	(60)	65	44	7.0
Liberia	*	14	-1	-1	0	6.0
Mali	-14	-7	-15	-12	-14	11.5
Niger	*	7	(2)	68	42	14.0
Nigeria	-18	-9	-20	2	-9	10.0
Senegal	-15	-25	-41	-23	-24	11.0
Sierra Leone	(-11)	-36	-12	1	-9	5.0
Eastern and Southern Africa						
Burundi	12	-40	-15	-23	-23	6.5
Comoros	(34)	51	*	40	33	16.0
Ethiopia	19	-15	-25	-24	-21	11.0
Kenya	17	3	7	10	6	11.0
Lesotho	(23)	15	9	9	9	10.0
Malawi	-16	-20	-16	-7	-11	11.5
Rwanda	15	-2	*	42	32	9.5
Tanzania	-44	-17	-10	-11	-19	5.5
Uganda	-3	-5	-6	3	-1	10.0
Zambia	-1	-11	7	18	8	12.0
Zimbabwe	-12	-13	-5	-12	-11	9.5
South and Southeast Asia						
Cambodia	4	-2	-5	-16	-13	9.0
India	-9	24	47	42	24	10.0
Indonesia	14	9	12	8	10	9.5
Nepal	-18	-16	-13	6	-11	10.0
Pakistan	-2	27	48	47	19	6.0
Philippines	21	26	13	15	21	10.0
Timor-Leste	-60	-54	-37	-26	-48	6.5
Other Areas						
Egypt	53	35	28	*	46	9.0
Haiti	21	33	0	22	24	12.0
Kyrgyz Republic	-6	91	(67)	*	56	15.0

Notes: Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

Traditional Methods

Table 3.5c shows relative average decadal changes in the use of traditional methods by absolute poverty level for each of the countries in this study; corresponding absolute decadal changes are shown in Appendix Table B.12. Table 3.5c also shows statistical significance tests for changes in traditional method use relative to changes in short-term methods. In most countries in sub-Saharan Africa, the use of traditional methods declined over the decade among women in the three poorest groups—particularly the poorest group. The declines for this group ranged from 180% in Sierra Leone to 2% in Burundi. In contrast, declines in use of traditional methods among non-poor women occurred in only eight sub-Saharan countries studied. Overall, average decadal declines in the use of traditional methods were greater in Central and Western Africa than in Eastern and Southern Africa. Declines were for the most part statistically significant among extremely poor and asset poor women in 15 of the 21 sub-Saharan countries.

In South and Southeast Asia, decadal changes in the use of traditional methods over the decade varied among the absolute poverty groups. In five of the seven countries studied, the use of traditional methods declined among women in the poorest category, while it increased in Nepal and the Philippines. In Cambodia and India, the use of traditional methods declined only among non-poor women. In Indonesia, Nepal, and Timor-Leste, women in the poor and extremely poor but not asset poor categories experienced gains in the use of traditional methods over the decade. Overall, average decadal changes in South and Southeast Asia show increases in the use of traditional methods in all absolute poverty groups except the poorest categories.

Results of statistical significance tests indicate that significant declines in traditional method use at all poverty levels occurred only in India, while in Nepal women at all poverty level groups had significant increases. Overall, in Nepal and Timor-Leste both non-poor and poor women experienced significant increases in the use of traditional methods over the decade.

Among countries in the Other Areas group, women at all levels of absolute poverty had decadal declines in the use of traditional methods (Egypt and Kyrgyz Republic have insufficient numbers of women for analysis in the two extremely poor categories).

Table 3.5c Average relative decadal changes in traditional methods as a percentage of family planning use, by absolute poverty level and country

	Average relative decadal change (%)						Statistical significance of change relative to changes in short-term modern methods				
	Non-Poor	Poor	Extremely Poor but not Asset Poor	Extremely Poor and Asset Poor	Total	Years of difference between surveys	Non-Poor	Poor	Extremely Poor but not Asset Poor	Extremely Poor and Asset Poor	Total
Central and Western Africa											
Chad	*	(32)	-30	-4	-6	10.5					
DR Congo	58	(-31)	-33	-24	-24	6.5				--	--
Ghana	3	-41	-70	-69	-29	11.0		-	--	--	
Guinea	-59	-35	(143)	10	-8	7.0					
Liberia	*	-38	-105	-91	-80	6.0				-	
Mali	-87	-82	-85	-87	-85	11.5	--	--	--	--	--
Niger	*	-26	NA	-64	-45	14.0			++	--	--
Nigeria	26	11	108	-3	17	10.0			+		+
Senegal	20	-18	-40	-56	-18	11.0					
Sierra Leone	(-54)	-90	-184	-180	-145	5.0			-	--	-
Eastern and Southern Africa											
Burundi	77	74	-23	-2	4	6.5					
Comoros	(-22)	-24	*	-36	-23	16.0	(--)	--		--	--
Ethiopia	-43	-54	-13	-65	-61	11.0	-	-		-	--
Kenya	-40	-35	-24	-56	-51	11.0	--			--	--
Lesotho	(400)	-57	-100	-82	-76	10.0			--	--	--
Malawi	-33	-12	-79	-76	-73	11.5			--	--	--
Rwanda	-54	-64	NA	-82	-77	9.5	--	--	++	--	--
Tanzania	52	-10	-69	-75	-29	5.5				--	
Uganda	8	-39	-45	-64	-52	10.0				--	--
Zambia	-24	-7	-41	-47	-48	12.0				--	--
Zimbabwe	40	-64	-25	-44	-41	9.5					
South and Southeast Asia											
Cambodia	-5	-10	-20	-17	-3	-5					
India	-28	3	6	-23	-18	-28	--	--	--	--	--
Indonesia	3	0	201	-19	14	3			+		
Nepal	90	99	132	100	138	90	++	++	++	++	++
Pakistan	15	-4	-21	-81	0	15			-	-	
Philippines	8	-5	-4	5	3	8		--			--
Timor-Leste	82	196	372	-74	106	82	++	++			++
Other Areas											
Egypt	-38	-31	-49	*	42	9.0	--	--		--	--
Haiti	-29	-54	-5	-53	-47	12.0		--		--	--
Kyrgyz Republic	-39	-44	(-6)	*	40	15.0	--	--			--

Notes:
++ indicates there was a statistically significant increase at p<.01 from earlier to later survey.
+ indicates there was a statistically significant increase at p<.05 from earlier to later survey.
-- indicates there was a statistically significant decrease at p<.01 from earlier to later survey.
- indicates there was a statistically significant decrease at p<.05 from earlier to later survey.
Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

Folkloric methods

Table 3.5d shows average relative decadal changes in folkloric method use among the absolute poverty groups, alongside their statistical significance relative to short-term modern method use. The corresponding absolute average decadal changes in folkloric method use are shown in Appendix Table B.13. Note that across the poverty groups and even nationwide in some cases there were insufficient sample sizes or zero cases in the numerator during the first survey on which to base relative trends; these are indicated by an asterisk if the denominator was too small or by NA if the numerator was zero. In some cases, while a relative change cannot be shown (division by 0), the significance of the change can still be measured.

Among poverty groups with sufficient sample size to measure trends in folkloric method use, they are inconsistent. In sub-Saharan Africa, for example, three countries—Burundi, Chad, and Liberia—experienced statistically significant gains nationwide in use of folkloric methods relative to short-term modern methods, while 11 countries experienced statistically significant relative declines in folkloric method use. A number of other countries experienced nationwide declines in folkloric method use, but these were only statistically significant relative to short-term method use in Egypt, India, Indonesia, the Philippines, and Kyrgyz Republic.

Significant increases in the use of folkloric methods are observed among the non-poor in Ghana and Comoros within sub-Saharan Africa; in Nepal within South and Southeast Asia; and Haiti and Kyrgyz Republic within Other Areas. Meanwhile, among the extremely poor categories of women, use of folkloric methods significantly declined in Ghana, Guinea, Niger, and Sierra Leone, within Middle and West Africa, and in Comoros, Kenya, Malawi, Uganda, Zambia, and Zimbabwe, within Eastern and Southern Africa.

Table 3.5d Average relative decadal changes in folkloric methods as a percentage of all family planning use, by absolute poverty level and country

	Average relative decadal change (%)						Statistical significance of change relative to changes in short-term modern methods				
	Non-Poor	Poor	Extremely Poor but not Asset Poor	Extremely Poor and Asset Poor	Total	Years of difference between surveys	Non-Poor	Poor	Extremely Poor but not Asset Poor	Extremely Poor and Asset Poor	Total
Central and Western Africa											
Chad	NA	NA	-42	NA	1,238	10.5	*	NA		++	+
DR Congo	115	7	NA	21	20	6.5			++		
Ghana	NA	45	-80	-65	-58	11.0	++		-		-
Guinea	-31	-86	(-122)	-105	-108	7.0			(--)	--	--
Liberia	NA	NA	NA	NA	NA	6.0	NA	NA	NA	++	++
Mali	357	-54	-32	-14	-34	11.5					
Niger	*	-34	(-18)	-53	-52	14.0				--	--
Nigeria	25	19	-48	-48	-43	10.0					-
Senegal	-71	-55	56	-52	-46	11.0					
Sierra Leone	(-105)	124	-142	-140	-128	5.0				--	--

Continued

Table 3.5d—*Continued*

	Average relative decadal change (%)						Statistical significance of change relative to changes in short-term modern methods				
	Non-Poor	Poor	Extremely Poor but not Asset Poor	Extremely Poor and Asset Poor	Total	Years of difference between surveys	Non-Poor	Poor	Extremely Poor but not Asset Poor	Extremely Poor and Asset Poor	Total
Eastern and Southern Africa											
Burundi	NA	NA	NA	NA	NA	6.5	NA	++	++	++	++
Comoros	NA	-45	NA	-59	-55	16.0	(++)		NA	--	--
Ethiopia	NA	NA	NA	NA	NA	11.0	NA	NA	NA	NA	NA
Kenya	-68	-50	-82	-73	-74	11.0			--	--	--
Lesotho	NA	NA	NA	NA	NA	10.0	NA	NA	NA	NA	NA
Malawi	-62	-75	-57	-78	-79	11.5				--	--
Rwanda	NA	NA	NA	NA	NA	9.5	NA	NA	NA	NA	NA
Tanzania	-80	-65	-41	-82	-63	5.5					
Uganda	-71	14	-79	-81	-80	10.0			--	--	--
Zambia	-56	NA	-50	-75	-74	12.0		++		--	--
Zimbabwe	-105	-105	-105	-95	-105	9.5	--	--	--		--
South and Southeast Asia											
Cambodia	-56	-111	0	-74	-56	9.0					
India	-100	-100	-100	-100	-100	10.0	--	--	--	--	--
Indonesia	-18	-39	19	203	-26	9.5				++	-
Nepal	NA	NA	NA	700	NA	10.0	++	NA			
Pakistan	-42	-100	417	-167	-67	6.0				--	
Philippines	-57	-71	-50	-31	-67	10.0	-	--			--
Timor-Leste	NA	-68	-123	-58	-107	6.5	NA				
Other Areas											
Egypt	NA	-111	-111	NA	-111	9.0	--	--	--	NA	--
Haiti	NA	125	NA	125	188	12.0	++		++		
Kyrgyz Republic	NA	NA	NA	NA	NA	15.0	++	NA	NA	NA	--

Notes:
++ indicates there was a statistically significant increase at p<.01 from earlier to later survey.
+ indicates there was a statistically significant increase at p<.05 from earlier to later survey.
-- indicates there was a statistically significant decrease at p<.01 from earlier to later survey.
- indicates there was a statistically significant decrease at p<.05 from earlier to later survey.
NA indicates there were an insufficient number of cases in the numerator to test the difference between survey years. Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

3.5 Demand Satisfied for Modern Methods (DSMM)

Figures 3.6a, 3.6b, and 3.6c show the percentage of demand satisfied for modern contraceptive methods by absolute poverty level in the three regions; corresponding distributions are given in Appendix Table B.14. Across all surveys, DSMM ranged from 12% in DR Congo 2007 to 85% in Zimbabwe 2015. As is also true of modern contraceptive prevalence, South Asia, Southeast Asia, and Other Areas had the highest level of DSMM in the first round of surveys, while Eastern and Southern Africa had the highest level in the most recent surveys.

While the percentage of demand satisfied is closely linked to contraceptive prevalence—the two indicators share the same numerator, married women using modern methods—the denominator for DSMM is restricted to married women with a demand for family planning, including married women with an unmet need (unsatisfied demand), as well as women using a modern method (satisfied demand) or a traditional/folkloric method (unsatisfied demand). In contrast, the denominator for contraceptive prevalence is all married women of reproductive age, including women who want to have more children and therefore are not using family planning (no demand). Thus, because the denominator for DSMM is smaller than for mCPR by definition, the level of demand satisfied for modern methods is always higher than modern contraceptive prevalence in a country, often almost twice as high.

Figure 3.6a shows that in Central and Western Africa the trends and disparities in DSMM by absolute poverty level broadly resemble those in mCPR in the same region. Generally, levels of DSMM increased over the decade and disparities by poverty level declined; Chad and Guinea, however, experienced declines in DSMM, and relative disparities widened in Liberia and Niger.

Figure 3.6a Demand satisfied for modern methods by absolute poverty level, Central and Western Africa

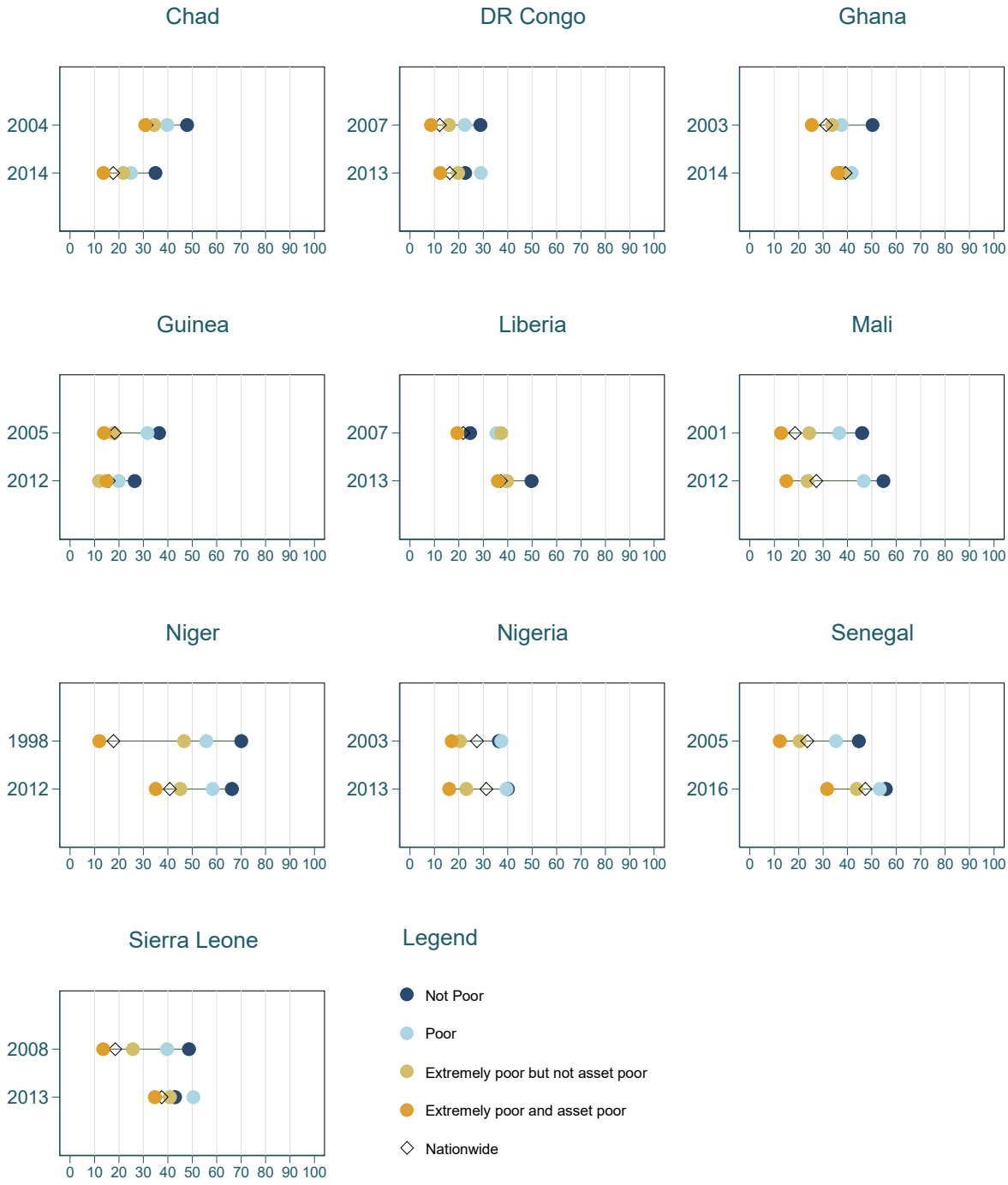


Figure 3.6b shows demand satisfied for modern contraception among married women in Eastern and Southern Africa. With the exception of Burundi and Comoros, in every country of the region the demand for modern methods was satisfied among a majority of married women nationwide by the time of the most recent survey. Disparities between non-poor and extremely poor and asset poor groups narrowed in every country except Comoros, and even inverted in the second survey in Tanzania, whereby non-poor married women had a lower percentage of demand satisfied than all other groups.

Figure 3.6b Demand satisfied for modern methods by absolute poverty level, Eastern and Southern Africa

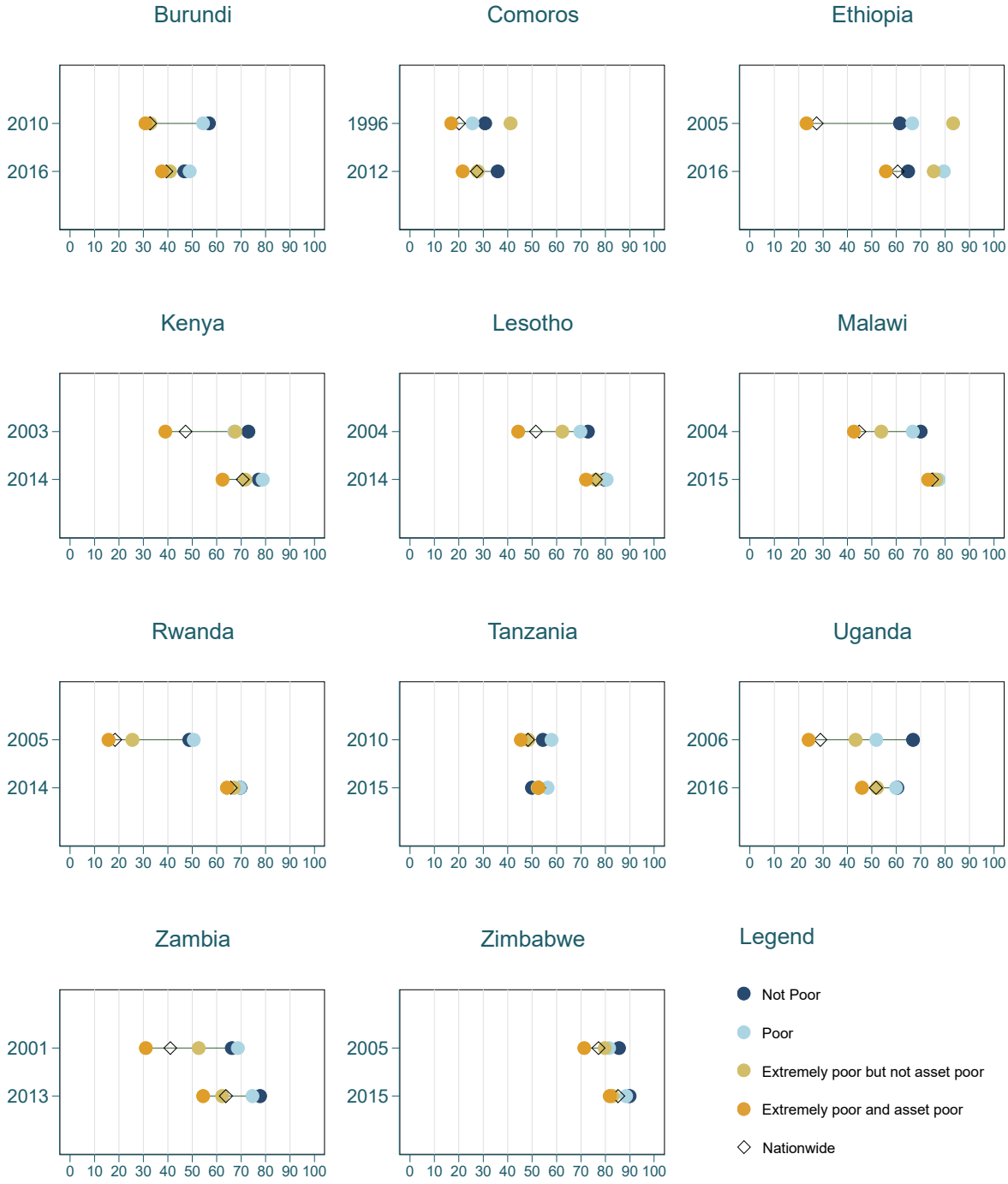


Figure 3.6c shows the percentage of demand for modern methods satisfied in South Asia, Southeast Asia, and Other Areas by absolute poverty levels. With the exception of Haiti, Pakistan, and Timor-Leste, demand for modern contraception was satisfied for a majority of women in all countries of the region by the time of the second survey. Disparities between the poorest and the non-poor typically declined between survey rounds, and even inverted in Cambodia and Haiti; Indonesia, where DSMM fell among the poorest group, was an exception to this pattern.

Figure 3.6c Demand satisfied for modern methods by absolute poverty level, South Asia, Southeast Asia, and Other Areas

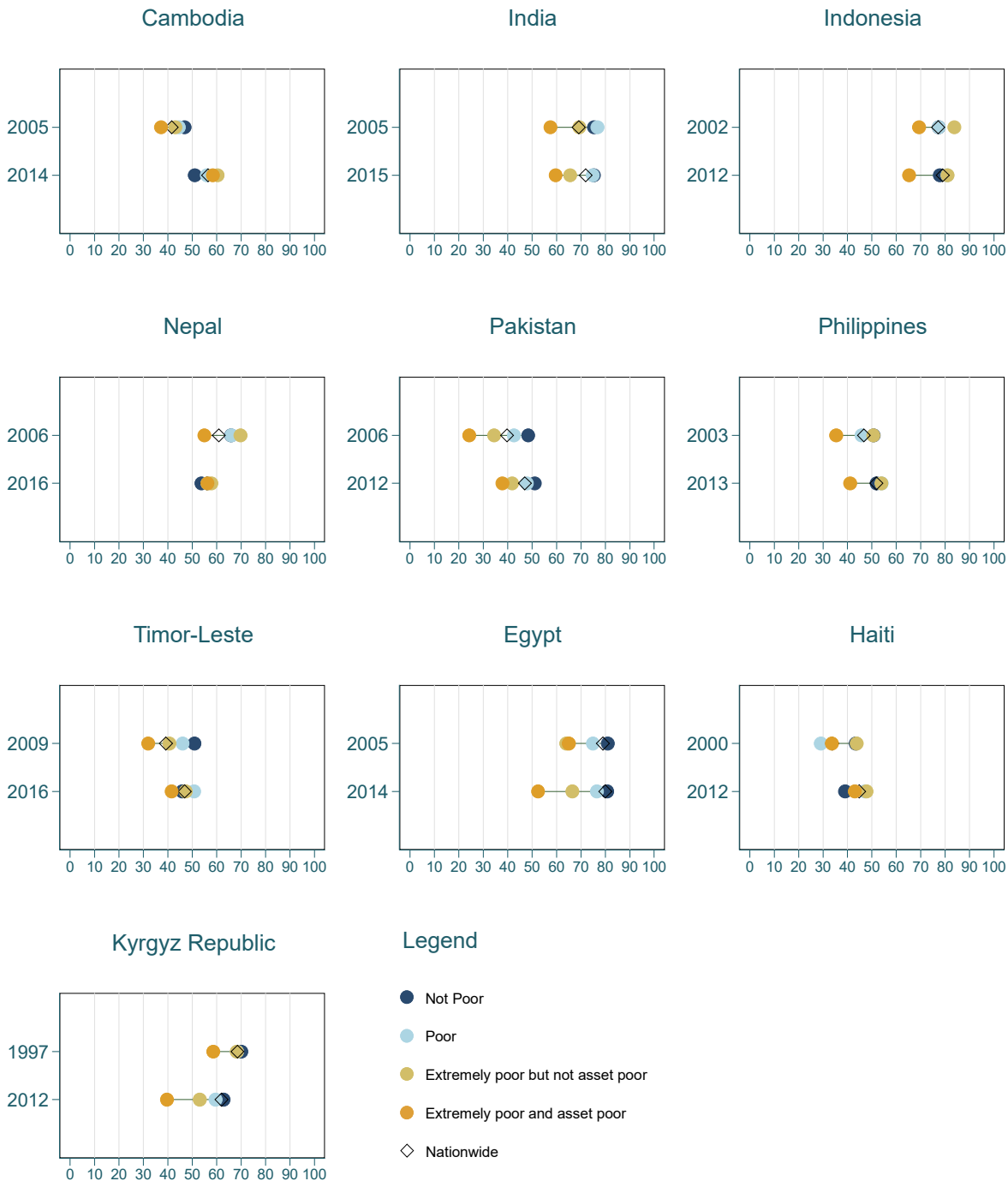


Table 3.6 shows relative changes in DSMM over the decade by absolute poverty levels and country; corresponding absolute decadal changes are given in Appendix Table B.15. Of the 31 countries studied, 27 experienced a statistically significant increase in DSMM over the decade, while Chad, Kyrgyz Republic, and Nepal experienced statistically significant declines. Egypt had no significant change in DSMM. India, which had a statistically significant decline in mCPR over the decade, experienced a small but statistically significant relative decadal increase in DSMM of 4%. Ethiopia and Liberia had decadal-standardized

increases in DSMM that would have meant a doubling, and Rwanda and Sierra Leone had increases that would have meant a tripling nationwide over the course of a decade.

Improvements in DSMM were relatively and statistically significant most often among the poorest group. Of 29 countries with sufficient sample sizes of married women in extreme and asset poverty, 22 experienced an increase in the percentage of demand for modern methods satisfied with modern contraceptive use between the two surveys. Only in Chad did the percentage of demand satisfied decline among the poorest group. By comparison, non-poor married women had a statistically significant increase in the percentage of demand satisfied in only four countries, all in sub-Saharan Africa—Rwanda, Senegal, Zambia, and Zimbabwe. Across all regions, average improvements in demand satisfied for modern methods were over four times as high in the poorest group as in any other absolute poverty group.

Table 3.6 Average relative decadal changes in demand satisfied for modern methods, by absolute poverty level and country

	Average relative decadal change (%)						Statistical significance of change				
	Non-Poor	Poor	Extremely Poor but not Asset Poor	Extremely Poor and Asset Poor	Total	Years of difference between surveys	Non-Poor	Poor	Extremely Poor but not Asset Poor	Extremely Poor and Asset Poor	Total
Central and Western Africa											
Chad	-26	-36	-35	-53	-42	10.5			--	--	--
DR Congo	-33	45	36	67	52	6.5				+	++
Ghana	-24	10	12	38	23	11.0	--			++	++
Guinea	-39	-53	-48	11	-19	7.0		--			
Liberia	170	18	11	143	118	6.0				++	++
Mali	17	24	-3	15	41	11.5		+			++
Niger	(-4)	3	-2	138	93	14.0				++	++
Nigeria	10	6	12	-6	14	10.0					+
Senegal	22	46	104	143	92	11.0	+	++	++	++	++
Sierra Leone	-23	54	118	313	207	5.0		+	++	++	++
Eastern and Southern Africa											
Burundi	-27	-15	38	34	32	6.5			+	++	++
Comoros	10	6	(-20)	17	23	16.0					++
Ethiopia	5	18	-9	127	110	11.0		++		++	++
Kenya	5	16	6	55	45	11.0		++		++	++
Lesotho	9	15	22	63	48	10.0		++	++	++	++
Malawi	6	14	36	62	58	11.5		++	++	++	++
Rwanda	45	39	*	325	271	9.5	++	++	*	++	++
Tanzania	-15	-5	14	29	17	5.5				++	++
Uganda	-10	15	20	91	78	10.0			+	++	++
Zambia	15	7	15	63	46	12.0	++			++	++
Zimbabwe	5	9	4	15	11	9.5	+	++		++	++

Continued

Table 3.6—*Continued*

	Average relative decadal change (%)						Statistical significance of change				
	Non-Poor	Poor	Extremely Poor but not Asset Poor	Extremely Poor and Asset Poor	Total	Years of difference between surveys	Non-Poor	Poor	Extremely Poor but not Asset Poor	Extremely Poor and Asset Poor	Total
South and Southeast Asia											
Cambodia	10	28	45	63	40	9.0		++	++	++	++
India	0	-3	-5	4	4	10.0		--	--	++	++
Indonesia	1	5	-4	-6	3	9.5		++			+
Nepal	-18	-15	-17	2	-8	10.0	--	--	--		-
Pakistan	9	21	36	93	31	6.0		+	++	++	++
Philippines	2	18	7	16	11	10.0		++		+	++
Timor-Leste	-15	16	25	46	30	6.5				++	++
Other Areas											
Egypt	0	2	4	*	1	9.0				*	
Haiti	-8	52	8	23	27	12.0		++		++	++
Kyrgyz Republic	-7	-9	-15	*	-6	15.0	-	--		*	--

Notes:
++ indicates there was a statistically significant increase at p<.01 from earlier to later survey.
+ indicates there was a statistically significant increase at p<.05 from earlier to later survey.
-- indicates there was a statistically significant decrease at p<.01 from earlier to later survey.
- indicates there was a statistically significant decrease at p<.05 from earlier to later survey.
Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

4 DISCUSSION AND CONCLUSIONS

Modern contraception can help empower women and couples to shape their own lives, reduce poverty, and improve maternal and child health. FP2020, a global initiative designed to reach 120 million new users of modern methods in 69 of the world's poorest countries, has mobilized enormous funding and policy commitments to increase uptake of modern contraception. Even so, substantial disparities in access and use remain both within and across countries. Family planning research has typically been constrained by the fact that most usable poverty indices are computed within each country at a single point in time. Because the landscape of poverty differs across countries, these measures of poverty are not comparable, and only relative differentials can be compared. This paper, however, takes a step forward by creating and using a comparable measure of absolute poverty across low-income countries. The poverty measure employs the unsatisfied basic needs approach and also includes an asset index to help differentiate among the levels of the extremely poor.

In this paper we studied the relationship between fertility preferences, family planning outcomes, and absolute poverty in 31 FP2020 countries from 1996 to 2016, using nationally representative data on married women from the DHS surveys. Our data allowed us to observe levels and differentials and to test the significance of trends.

4.1 Absolute Poverty

The extent of extreme absolute poverty was substantial in most countries studied, particularly in sub-Saharan Africa. In the first survey in all 21 African countries except Nigeria, the majority of married women were in the poorest category—extremely poor and asset poor. In Nigeria, when the extremely poor categories were combined—asset poor and not asset poor—the majority of married women in the first survey were still extremely poor (two or more unsatisfied basic needs). By the second survey, the poorest category was no longer the majority in Guinea, Kenya, Lesotho, Mali, Tanzania, Zambia, and Zimbabwe. However, as in Nigeria, the majority of married women remained in extreme poverty of either type. In Comoros, Ghana, and Senegal, extremely poor (whether combined or not) was no longer the majority category by the time of the second survey.

In South and Southeast Asia and in the Other Areas category, patterns in absolute poverty were more diverse. Of the seven Asian countries, only two—Nepal and Timor-Leste—had a majority of married women in extreme poverty and asset poverty in the first survey round. When extreme poverty categories are combined, Cambodia and India also had a majority of married women in extreme poverty of some form in the first survey. In Other Areas, the majority of married women in Haiti were also in extreme and asset poverty in the first survey. By the time of the most recent survey, no country studied in Asia and only one in Other Areas (Haiti) had a majority of married women in any form of extreme poverty. In Egypt and the Philippines, a majority of married women were non-poor in both surveys, and in Kyrgyz Republic the majority were non-poor in the second survey.

All 31 countries in our study experienced a decline in extreme and asset poverty, sometimes substantially so: in standardized decadal terms, 14 study countries experienced a more than 50% relative decline in extreme poverty and asset poverty. Most other categories saw a relative increase, particularly the non-poor,

but in DR Congo, Haiti, and Zimbabwe the percentage of married women who were non-poor declined between survey rounds. Nonetheless, ordinal logit regression tests of the absolute poverty classifications showed significant declines in absolute poverty between the survey rounds in all 31 countries.

4.2 Fertility Preferences

Concerning women's fertility preferences, we found that women's stated ideal number of children generally increases as the level of poverty becomes more extreme. Overall, the mean ideal number of children among the 31 countries included in the study ranged from 2.2 in Nepal to 9.5 in Niger in the most recent survey. A slight decrease in mean ideal number of children occurred between survey years, from a cross-country average of 4.9 children in the first survey to 4.7 children in the second survey. The poorest group of women (extremely poor and asset poor) did not experience similar declines; the average among women at this poverty level remained constant at 5.1 children in both survey years. In over half of the countries (16 of 31) studied, there was an overall statistically significant decrease in the ideal number of children between survey years; in four countries there was a statistically significant increase in ideal number of children. Among poverty levels, women in the poorest group were more likely to experience a statistically significant decline in mean ideal number of children compared with non-poor women (extremely poor and asset poor women in 11 countries, non-poor women in 4 countries).

Regionally, the mean ideal number of children was substantially higher in Central and Western Africa, at 6.5, and remained unchanged between survey years. Among poverty levels in the region, averages increased between survey years. Extremely poor and asset poor women had the smallest increase, at 0.1—from 6.8 to 6.9 children—while all other absolute poverty levels had a similar increase of 0.3 in mean ideal number of children—from 5.0 to 5.3 among non-poor, 5.3 to 5.6 among poor, and 6.3 to 6.6 among extremely poor but not asset poor. In the Eastern and Southern Africa region, results were mixed among the poverty levels. While the overall average declined by 0.3 between survey years—from 4.7 to 4.4 children—a more moderate decrease of 0.2 was found among the poorest level respondents—from 4.8 to 4.6 children—and all other absolute poverty levels increased slightly or remained constant.

More substantial declines in mean ideal number of children were found in the South and Southeast Asia region, where all absolute poverty levels experienced a decline. Conversely, in the three countries in Other Areas, the mean ideal number of children increased slightly, from an average of 3.3 children in the first survey to 3.4 children in the second survey. Changes within absolute poverty levels varied, with an increase among extremely poor and asset poor women from 3.7 to 3.8 children, and among poor women from 3.3 to 3.4 children. The increase was greatest among the non-poor, from 2.8 to 3.3 children, and no change in desired fertility occurred among the extremely poor but not asset poor group of women, remaining constant at a mean ideal 3.6 children.

Twenty-two of the 31 countries experienced an overall decline in non-numeric fertility preferences; in all but five of these countries (17 of 22), the decline was statistically significant. Only three countries experienced a statistically significant increase in non-numeric fertility preferences. Among poverty levels, extremely poor and asset poor women in 7 of the 31 countries studied had a statistically significant decline in non-numeric responses concerning the ideal number of children, while non-poor women in more than twice as many countries (17) experienced statistically significant declines in non-numeric responses between survey years.

4.3 Contraceptive Method Mix

In almost all of the 21 countries studied in sub-Saharan Africa, in both survey rounds, a majority of married women using family planning reported using short-term modern methods. The main exception was DR Congo, where a majority of women in both survey rounds were using traditional methods. In the first survey in Comoros there was no majority method, while traditional methods were the modal method. By the time of the most recent survey, the majority of contraceptive users in Comoros were using short-term modern methods. In three of seven study countries in South and Southeast Asia—Cambodia, Indonesia, and Timor-Leste—a majority of women were using short-term modern methods, which was also the case in Haiti within Other Areas. This was true for all four of these countries in both survey rounds. Of the 31 study countries overall, only in Egypt, India, and Kyrgyz Republic were a majority of married women using long-term modern methods in both survey rounds, as well as in Nepal in the first survey round.

In most countries in this study, a slightly larger proportion of non-poor women used long-term modern methods compared with any absolute poverty group. Moreover, in 27 of 55 surveys with adequate sample sizes of all absolute poverty groups in both rounds, a smaller proportion of extremely poor and asset poor women were using long-term modern methods compared with any other absolute poverty group.

A greater proportion of women in the poor or extremely poor but not asset poor groups were using short-term modern methods compared with non-poor women and extremely poor and asset poor women. Traditional method use, on average, was more common among non-poor women compared with all absolute poverty groups in both sub-Saharan Africa and South and Southeast Asia.

Among the 21 countries studied in sub-Saharan Africa, statistically significant increases in the use of long-term modern methods relative to short-term methods occurred in 3 countries among non-poor women, in 11 countries among poor women, in 7 countries among the extremely poor but not asset poor, and in 16 countries among the extremely poor and asset poor women. On the other hand, significant declines in traditional methods relative to short-term methods were found in 12 of the 21 sub-Saharan Africa countries in this study.

Increases in use of long-term and short-term modern methods were found among women who are extremely poor and asset poor in more than half of the countries in South and Southeast Asia. In addition, non-poor women in two countries of the region had significant increases in traditional method use relative to short-term modern methods between survey rounds.

4.4 Modern Contraceptive Prevalence and Demand Satisfied by Modern Methods

As mentioned, the percentage of demand satisfied by modern methods is always higher than modern contraceptive prevalence because demand satisfied by modern methods has a smaller denominator, while the numerator for both measures is same—married women currently using modern contraception. In our study, demand satisfied by modern methods is typically one-and-a-half times higher than modern contraceptive prevalence, but the proportional relationship varies widely among countries, reflecting both differences in traditional method use and in the extent of unmet need for family planning among women who are not using modern methods. On average across surveys, 28% of all married women of reproductive age were using modern contraception at the time of the survey, while 45% of the demand for family

planning was satisfied by the use of modern contraceptive methods; however, variation was substantial across countries and within poverty groups.

Relative disparities by absolute poverty and trends in both modern contraceptive prevalence and demand satisfied by modern methods were generally similar across the 31 study countries. As expected, the level of poverty generally had an inverse relationship with both modern contraceptive prevalence and demand satisfied by modern methods. Differentials in demand satisfied by modern methods between the poorest group of women and the non-poor ranged from 43 percentage points in Uganda 2006 to a reverse differential of 7 percentage points in Cambodia 2014, where a higher percentage of women in the extremely poor and asset poor group compared with the non-poor group had their demand for family planning satisfied with modern contraceptive use.

While South and Southeast Asia and the Other Areas group of countries had both the highest level of demand satisfied by modern methods and the highest modern contraceptive prevalence in the first survey, by the time of the most recent survey the average country in Eastern and Southern Africa was slightly higher in both measures—despite substantial differences in absolute poverty between the regions. By the time of the second survey, Burundi and Comoros were the only countries in Eastern and Southern Africa in which the majority of married women did not have their demand for modern methods satisfied. In contrast, in Haiti, Pakistan, Timor-Leste, and none of the 10 study countries in Central and Western Africa was demand for modern methods over 50%.

In 24 of the 31 countries studied, there were statistically significant increases in modern contraceptive prevalence, and in 27 of the 31 countries there were statistically significant increases in demand satisfied by modern methods. Increases in both indicators were most significant among the extremely poor and asset poor, both numerically and statistically. Even so, overall levels of demand satisfied continue to be unacceptably low in many countries and significant disparities by absolute poverty group remain. In Chad, Mali, Niger, Nigeria, Senegal, and Zambia in the most recent survey, a disparity of more than a 20 percentage points in the level of demand satisfied still exists between the non-poor group and the extremely poor and asset poor group. An additional 10 countries have a disparity of between 10 and 20 percentage points in demand satisfied by modern methods between the poorest and wealthiest groups.

4.5 Overall Conclusions

Overall, the encouraging news from our study is that in all 31 countries there were statistically significant declines in poverty among married women over the decade. Also, while the surveys are cross-sectional, shifts in absolute poverty levels and resulting movement to a higher-prevalence modern contraceptive use group lead us to speculate that declines in poverty helped improve modern contraceptive use. Moreover, married women in the poorest category (extremely poor and asset poor) typically experienced the greatest and often the most statistically significant improvements in modern method use and in demand satisfied for modern methods.

Differentials in modern contraceptive prevalence and the percent of demand satisfied by modern methods across countries were substantial within every absolute poverty group—for example, demand satisfied by modern methods ranged from 9% in DR Congo 2007 to 82% in Zimbabwe 2015 among the poorest group. It is important to keep in mind that an absolute poverty level is a singular designation—women in a given poverty group are likely to have differences in education, residence, access to health care, levels of

empowerment, and so forth. Although disparities tended to decline while levels of demand satisfied increased, more work remains to be done. The extreme diversity in outcomes even among women at the same absolute poverty level suggest the presence of substantial disparities in local policy environments and in access to family planning among the countries.

Our assessments and significance testing of key fertility preferences and contraceptive outcomes by absolute poverty levels in 31 FP2020 countries provide valuable findings, but more work remains to be done. Assessments of the changing relationship between absolute poverty and use of modern contraception within and across countries would benefit from further disaggregation by women's characteristics, such as education, residence, and parity. Country case studies on the local policy environment in countries with substantial improvements in contraceptive outcomes, both overall and in equity, could demonstrate best practices and would help show the kinds of policies and programs most likely to succeed.

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APPENDIX A ABSOLUTE POVERTY COMPONENTS AMONG THE STUDY POPULATION

Table A.1 Levels of four deprivations and of asset poverty, married women

	Inade-quate sanitation	Inade-quate flooring	No electricity	Insuf-ficient household education	Number of deprivations					Total	Small asset poverty	Sample size
					0	1	2	3	4			
Central and Western Africa												
Chad 2004	98.2	95.4	96.5	72.9	0.6	1.3	3.1	24.3	70.6	100	94.9	4,663
Chad 2014-15	94.6	89.1	92.3	59.9	1.5	3.3	6.2	36.0	53.0	100	69.0	13,263
D.R. Congo 2007	91.9	77.8	84.8	22.3	2.7	11.7	11.6	54.1	19.9	100	80.8	6,622
D.R. Congo 2013-14	92.5	81.9	86.5	20.0	2.5	9.7	10.7	58.7	18.4	100	73.5	12,096
Ghana 2003	94.2	12.4	51.7	28.4	5.2	35.1	33.2	20.9	5.6	100	67.3	3,549
Ghana 2014	59.1	6.0	21.7	19.3	30.5	43.3	17.3	7.2	1.6	100	18.5	5,322
Guinea 2005	90.8	56.0	79.8	64.7	4.2	11.7	16.1	24.8	43.3	100	82.3	6,292
Guinea 2012	85.0	45.7	73.8	52.9	7.4	16.9	19.0	24.2	32.5	100	50.0	6,726
Liberia 2007	91.1	55.0	97.0	38.3	1.5	7.3	28.3	34.1	28.8	100	90.0	4,540
Liberia 2013	87.9	46.6	90.2	30.7	3.5	12.3	30.8	32.0	21.4	100	76.2	5,386
Mali 2001	95.6	81.7	89.2	78.4	2.0	4.7	7.4	18.2	67.7	100	75.5	10,723
Mali 2012-13	82.2	71.6	74.4	66.0	5.4	10.2	14.6	24.4	45.4	100	27.0	8,820
Niger 1998	99.2	85.1	93.3	76.6	0.5	4.7	5.6	18.7	70.5	100	94.1	6,382
Niger 2012	92.5	80.9	85.6	73.0	3.3	6.4	7.2	21.1	62.0	100	78.4	9,881
Nigeria 2003	93.1	33.9	47.8	31.6	6.2	34.7	22.5	19.8	16.9	100	55.3	5,336
Nigeria 2013	79.2	34.5	44.4	29.6	12.7	33.7	21.0	18.5	14.2	100	29.0	27,830
Senegal 2005	90.0	34.3	52.9	48.4	6.8	27.6	21.3	21.8	22.5	100	58.6	9,866
Senegal 2016	61.3	20.8	35.5	37.2	27.1	27.9	19.2	14.7	11.1	100	27.1	5,883
Sierra Leone 2008	92.7	60.7	87.9	54.7	2.8	9.5	18.3	27.8	41.7	100	82.9	5,525
Sierra Leone 2013	92.8	59.3	86.5	42.4	3.4	10.5	19.9	34.2	32.1	100	76.9	10,903
Eastern & Southern Africa												
Burundi 2010	82.4	88.9	94.7	47.2	2.1	4.0	12.3	42.0	39.6	100	88.7	5,421
Burundi 2016-17	72.9	83.5	91.3	40.5	3.4	7.2	18.4	39.7	31.3	100	77.9	9,782
Comoros 1996	80.1	49.8	71.1	46.6	8.7	17.3	19.8	26.2	28.0	100	84.9	1,634
Comoros 2012	75.4	29.6	30.7	26.8	15.0	38.0	24.2	15.0	7.8	100	30.9	3,261
Ethiopia 2005	95.8	90.5	86.0	67.1	2.0	5.8	5.9	23.5	62.9	100	93.7	9,066
Ethiopia 2016	95.4	81.2	74.4	50.5	2.7	11.2	11.4	31.5	43.3	100	75.8	10,223
Kenya 2003	92.2	62.1	84.0	18.8	5.2	11.3	20.4	47.2	15.9	100	78.9	4,919
Kenya 2014	83.4	47.3	64.0	12.6	9.9	26.7	18.9	35.3	9.2	100	44.4	8,710
Lesotho 2004	88.4	40.5	93.2	23.8	2.9	9.9	41.5	29.8	15.9	100	78.6	3,709
Lesotho 2014	64.1	33.2	72.2	20.7	12.7	25.5	30.2	22.1	9.5	100	62.3	3,612
Malawi 2004	96.8	79.3	93.1	37.3	2.5	3.9	12.6	46.6	34.4	100	91.7	8,312
Malawi 2015-16	66.8	74.3	89.2	25.0	5.5	9.9	25.0	43.1	16.5	100	62.6	16,130
Rwanda 2005	92.6	87.0	95.2	44.4	2.1	3.6	8.5	44.4	41.3	100	96.7	5,510
Rwanda 2014-15	72.1	75.5	77.2	32.4	6.7	13.0	19.7	37.7	22.9	100	69.3	6,982
Tanzania 2010	92.0	67.4	85.2	20.3	4.4	11.4	16.8	49.6	17.7	100	65.9	6,412
Tanzania 2015-16	85.3	56.9	77.5	16.6	8.5	17.2	17.5	43.4	13.5	100	46.8	8,210

Continued

Table A.1—*Continued*

	Inade-quate sanitation	Inade-quate flooring	No electricity	Insuf-ficient household education	Number of deprivations					Total	Small asset poverty	Sample size
					0	1	2	3	4			
Uganda 2006	95.9	76.6	91.0	29.4	1.8	7.6	12.9	51.2	26.5	100	85.2	5,337
Uganda 2016	88.0	61.2	71.4	20.2	6.2	18.4	19.2	40.5	15.6	100	48.8	11,223
Zambia 2001-02	88.8	63.0	82.6	21.5	9.4	9.3	17.1	44.5	19.7	100	82.0	4,694
Zambia 2013-14	81.1	54.8	72.1	15.6	12.1	17.5	17.5	40.4	12.5	100	44.8	9,859
Zimbabwe 2005-06	67.4	31.3	62.8	10.3	21.0	23.4	23.6	26.7	5.3	100	65.6	5,143
Zimbabwe 2015	71.9	25.2	66.3	8.6	14.2	29.3	30.1	22.9	3.5	100	43.8	6,151
South and Southeast Asia												
Cambodia 2005	84.8	8.5	79.5	32.7	10.5	10.5	44.4	32.1	2.5	100	43.0	10,087
Cambodia 2014	64.5	8.3	43.9	26.3	24.5	27.1	30.5	16.6	1.3	100	10.7	11,899
India 2005-06	73.3	46.8	32.1	28.6	21.1	25.0	19.9	19.8	14.1	100	42.7	93,089
India 2015-16	54.3	34.8	11.8	17.4	36.2	28.3	20.4	11.1	4.0	100	8.6	511,373
Indonesia 2002-03	65.4	14.0	9.3	13.6	31.3	43.0	18.5	6.4	0.7	100	26.5	27,857
Indonesia 2012	49.5	8.2	4.0	10.8	45.8	39.3	11.6	3.0	0.3	100	7.6	33,465
Nepal 2006	79.7	73.5	48.8	41.0	8.6	17.0	21.6	28.2	24.5	100	64.9	8,257
Nepal 2016	41.6	59.9	9.5	27.4	21.9	37.4	24.3	13.2	3.3	100	10.7	9,875
Pakistan 2006-07	57.9	49.2	10.8	27.9	29.7	23.9	23.1	17.4	5.9	100	24.8	9,556
Pakistan 2012-13	45.1	43.4	6.4	24.7	38.9	23.2	20.8	13.8	3.3	100	10.1	12,937
Philippines 2003	33.9	12.7	23.4	8.2	51.5	26.7	14.9	6.1	0.8	100	32.4	8,671
Philippines 2013	33.5	9.1	12.5	7.1	56.3	29.5	10.4	3.3	0.5	100	13.9	9,729
Timor-Leste 2009-10	68.9	60.9	62.0	26.8	15.9	15.0	20.5	31.9	16.8	100	66.3	7,906
Timor-Leste 2016	58.1	51.9	26.7	25.8	24.0	24.6	24.9	17.8	8.6	100	28.2	7,697
Other Areas												
Egypt 2005	8.7	10.8	0.6	14.5	73.2	20.3	5.1	1.2	0.1	100	3.7	18,187
Egypt 2014	5.1	4.7	0.2	15.0	78.0	19.3	2.6	0.2	0.0	100	0.5	20,460
Haiti 2000	86.4	46.4	66.3	48.7	8.1	20.4	17.3	24.0	30.2	100	74.9	5,958
Haiti 2012	88.6	38.3	62.1	31.0	6.0	28.2	24.0	23.6	18.3	100	54.4	7,808
Kyrgyz Republic 1997	77.5	4.8	0.2	5.4	20.9	70.5	8.4	0.3	0.0	100	9.5	2,675
Kyrgyz Republic 2012	17.0	3.6	0.2	4.8	76.2	22.1	1.6	0.1	0.0	100	0.2	5,256

Note: See text for detailed descriptions of these metrics.

APPENDIX B DISTRIBUTIONS AND ABSOLUTE DECADAL CHANGES IN OUTCOME MEASURES

Table B.1 Absolute poverty levels among married women, by survey

	Not Poor	Poor	Extremely Poor	Extremely Poor and Asset Poor	Total	Sample Size
Central and Western Africa						
Chad 2004	0.8	1.3	4.4	93.5	100	4,663
Chad 2014-15	1.3	3.4	32.5	62.8	100	13,263
D.R. Congo 2007	2.6	11.4	7.7	78.3	100	6,622
D.R. Congo 2013-14	2.2	9.7	16.9	71.2	100	12,096
Ghana 2003	5.2	32.8	6.2	55.8	100	3,549
Ghana 2014	31.7	41.9	15.9	10.5	100	5,322
Guinea 2005	4.2	11.5	7.4	76.9	100	6,292
Guinea 2012	7.3	15.0	31.3	46.4	100	6,726
Liberia 2007	1.3	6.8	5.6	86.3	100	4,540
Liberia 2013	3.0	11.3	13.6	72.1	100	5,386
Mali 2001	2.2	4.9	22.3	70.6	100	10,723
Mali 2012-13	5.6	10.4	61.4	22.6	100	8,820
Niger 1998	0.4	4.4	1.9	93.3	100	6,382
Niger 2012	3.4	6.1	14.9	75.6	100	9,881
Nigeria 2003	5.3	31.2	14.1	49.4	100	5,336
Nigeria 2013	11.9	29.5	31.3	27.4	100	27,830
Senegal 2005	5.7	28.3	13.3	52.7	100	9,866
Senegal 2016	29.8	25.3	19.4	25.4	100	5,883
Sierra Leone 2008	2.1	7.8	8.3	81.8	100	5,525
Sierra Leone 2013	2.7	8.8	11.7	76.8	100	10,903
Eastern and Southern Africa						
Burundi 2010	2.3	3.8	7.9	86.0	100	5,421
Burundi 2016-17	3.8	7.2	16.8	72.2	100	9,782
Comoros 1996	8.5	18.2	2.3	71.0	100	1,634
Comoros 2012	15.5	40.9	18.8	24.9	100	3,261
Ethiopia 2005	1.6	4.8	0.7	92.9	100	9,066
Ethiopia 2016	2.4	9.7	9.9	78.0	100	10,223
Kenya 2003	5.2	10.2	10.1	74.5	100	4,919
Kenya 2014	9.8	25.9	25.6	38.7	100	8,710
Lesotho 2004	2.7	11.3	17.0	69.0	100	3,709
Lesotho 2014	15.4	28.8	8.8	47.1	100	3,612
Malawi 2004	2.1	4.2	3.8	89.9	100	8,312
Malawi 2015-16	5.7	10.9	30.2	53.2	100	16,130
Rwanda 2005	2.2	3.7	0.4	93.7	100	5,510
Rwanda 2014-15	7.7	12.9	16.6	62.8	100	6,982
Tanzania 2010	4.4	11.2	26.7	57.6	100	6,412
Tanzania 2015-16	8.9	16.3	37.6	37.2	100	8,210

Continued

Table B.1—*Continued*

	Not Poor	Poor	Extremely Poor	Extremely Poor and Asset Poor	Total	Sample Size
Uganda 2006	1.5	7.1	8.2	83.2	100	5,337
Uganda 2016	5.9	18.6	34.0	41.5	100	11,223
Zambia 2001-02	10.6	10.1	3.1	76.2	100	4,694
Zambia 2013-14	11.1	18.7	32.9	37.3	100	9,859
Zimbabwe 2005-06	21.3	21.4	3.9	53.4	100	5,143
Zimbabwe 2015	13.9	29.3	21.5	35.2	100	6,151
South and Southeast Asia						
Cambodia 2005	11.7	11.1	39.2	38.0	100	10,087
Cambodia 2014	27.2	28.1	37.5	7.2	100	11,899
India 2005-06	22.4	25.4	17.6	34.6	100	93,089
India 2015-16	38.1	28.9	28.0	5.1	100	511,373
Indonesia 2002-03	33.1	46.1	8.8	12.0	100	27,857
Indonesia 2012	49.4	40.7	7.2	2.7	100	33,465
Nepal 2006	8.8	15.7	18.8	56.7	100	8,257
Nepal 2016	24.3	38.2	30.6	6.9	100	9,875
Pakistan 2006-07	31.0	24.1	25.5	19.4	100	9,556
Pakistan 2012-13	39.1	24.0	29.0	7.9	100	12,937
Philippines 2003	52.7	27.3	2.2	17.8	100	8,671
Philippines 2013	57.2	29.8	4.9	8.2	100	9,729
Timor-Leste 2009-10	18.1	17.0	8.9	56.0	100	7,906
Timor-Leste 2016	29.6	27.1	25.0	18.4	100	7,697
Other Areas						
Egypt 2005	74.7	19.0	5.3	0.9	100	18,187
Egypt 2014	84.4	13.8	1.8	0.1	100	20,460
Haiti 2000	7.8	21.9	3.8	66.6	100	5,958
Haiti 2012	6.6	32.8	14.2	46.4	100	7,808
Kyrgyz Republic 1997	16.8	77.5	3.6	2.2	100	2,675
Kyrgyz Republic 2012	78.2	20.3	1.4	0.1	100	5,256

Table B.2 Average absolute decadal changes in poverty composition, by country

	Average absolute decadal change (percentage points)			
	Not Poor	Poor	Extremely Poor	Extremely Poor and Asset Poor
Central and Western Africa				
Chad	0.5	2.0	26.8	-29.2
DR Congo	-0.6	-2.6	14.2	-10.9
Ghana	24.1	8.3	8.8	-41.2
Guinea	4.4	5.0	34.1	-43.6
Liberia	2.8	7.5	13.3	-23.7
Mali	3.0	4.8	34.0	-41.7
Niger	2.1	1.2	9.3	-12.6
Nigeria	6.6	-1.7	17.2	-22.0
Senegal	21.9	-2.7	5.5	-24.8
Sierra Leone	1.2	2.0	6.8	-10.0
Eastern and Southern Africa				
Burundi	2.3	5.2	13.7	-21.2
Comoros	4.4	14.2	10.3	-28.8
Ethiopia	0.7	4.5	8.4	-13.5
Kenya	4.2	14.3	14.1	-32.5
Lesotho	12.7	17.5	-8.2	-21.9
Malawi	3.1	5.8	23.0	-31.9
Rwanda	5.8	9.7	17.1	-32.5
Tanzania	8.2	9.3	19.8	-37.1
Uganda	4.4	11.5	25.8	-41.7
Zambia	0.4	7.2	24.8	-32.4
Zimbabwe	-7.8	8.3	18.5	-19.2
South and Southeast Asia				
Cambodia	17.2	18.9	-1.9	-34.2
India	15.7	3.5	10.4	-29.5
Indonesia	17.2	-5.7	-1.7	-9.8
Nepal	15.5	22.5	11.8	-49.8
Pakistan	13.5	-0.2	5.8	-19.2
Philippines	4.5	2.5	2.7	-9.6
Timor-Leste	17.7	15.5	24.8	-57.8
Other Areas				
Egypt	10.8	-5.8	-3.9	-0.9
Haiti	-1.0	9.1	8.7	-16.8
Kyrgyz Republic	40.9	-38.1	-1.5	-1.4

Note: Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

Table B.3 Mean ideal number of children by absolute poverty level and survey

	Not Poor	Poor	Extremely Poor	Extremely Poor and Asset Poor	Total
Central and Western Africa					
Chad 2004	7.0	7.1	8.6	9.2	9.2
Chad 2014-15	7.3	7.8	8.3	8.8	8.6
DR Congo 2007	5.3	5.5	6.4	7.1	6.8
DR Congo 2013-14	5.1	5.1	6.4	6.9	6.6
Ghana 2003	3.7	4.2	5.3	5.2	4.8
Ghana 2014	4.1	4.5	5.6	5.6	4.7
Guinea 2005	4.7	5.2	6.0	6.1	5.9
Guinea 2012	5.0	5.2	6.5	6.4	6.2
Liberia 2007	4.4	4.3	4.5	5.6	5.4
Liberia 2013	4.1	4.6	5.1	5.5	5.3
Mali 2001	5.0	4.9	6.3	6.7	6.5
Mali 2012-13	5.1	5.3	6.1	6.2	6.0
Niger 1998	(5.7)	6.3	6.9	8.7	8.5
Niger 2012	7.2	7.8	9.3	9.7	9.5
Nigeria 2003	5.7	6.5	7.9	7.9	7.3
Nigeria 2013	5.8	5.9	7.9	8.2	7.1
Senegal 2005	4.9	4.9	5.8	6.3	5.7
Senegal 2016	5.1	5.3	6.0	6.2	5.6
Sierra Leone 2008	3.9	4.3	5.0	5.5	5.3
Sierra Leone 2013	3.8	4.3	5.3	5.6	5.4
Eastern and Southern Africa					
Burundi 2010	4.0	4.1	4.2	4.3	4.3
Burundi 2016-17	4.0	4.0	4.2	3.9	4.0
Comoros 1996	5.0	5.3	(5.2)	5.9	5.7
Comoros 2012	5.0	5.5	5.9	6.1	5.6
Ethiopia 2005	4.2	3.9	4.3	5.2	5.1
Ethiopia 2016	4.5	4.2	4.6	5.1	4.9
Kenya 2003	3.2	3.3	3.9	4.5	4.3
Kenya 2014	3.3	3.3	3.9	4.5	3.9
Lesotho 2004	3.0	3.2	3.2	3.6	3.5
Lesotho 2014	2.8	2.8	2.9	3.0	2.9
Malawi 2004	3.6	3.5	4.0	4.3	4.3
Malawi 2015-16	3.4	3.4	4.0	3.9	3.9
Rwanda 2005	3.8	3.8	*	4.5	4.5
Rwanda 2014-15	3.6	3.6	3.7	3.6	3.6
Tanzania 2010	4.3	4.1	5.5	5.5	5.3
Tanzania 2015-16	4.1	4.2	5.6	5.5	5.2
Uganda 2006	4.1	4.3	5.0	5.5	5.3
Uganda 2016	4.7	4.6	5.3	5.2	5.1
Zambia 2001-02	4.4	4.1	4.9	5.3	5.1
Zambia 2013-14	4.2	4.5	5.4	5.4	5.1
Zimbabwe 2005-06	3.4	3.6	4.4	4.6	4.1
Zimbabwe 2015	3.5	3.8	4.7	4.7	4.3

Continued

Table B.3—*Continued*

	Not Poor	Poor	Extremely Poor	Extremely Poor and Asset Poor	Total
South and Southeast Asia					
Cambodia 2005	3.1	3.4	3.7	3.7	3.6
Cambodia 2014	3.1	3.2	3.4	3.3	3.3
India 2005-06	2.1	2.2	2.5	2.7	2.4
India 2015-16	2.1	2.2	2.5	2.7	2.3
Indonesia 2002-03	2.8	2.9	2.7	3.2	2.9
Indonesia 2012	2.6	2.7	2.8	3.4	2.7
Nepal 2006	2.1	2.1	2.5	2.5	2.4
Nepal 2016	2.0	2.1	2.4	2.4	2.2
Pakistan 2006-07	3.6	3.9	4.4	4.9	4.1
Pakistan 2012-13	3.6	4.0	4.6	5.0	4.1
Philippines 2003	3.1	3.2	3.5	3.7	3.2
Philippines 2013	2.9	3.1	3.3	3.9	3.0
Timor-Leste 2009-10	4.8	5.3	5.7	6.1	5.7
Timor-Leste 2016	4.1	4.5	4.5	4.6	4.4
Other Areas					
Egypt 2005	2.8	3.0	3.2	3.2	2.9
Egypt 2014	3.0	3.2	3.4	*	3.0
Haiti 2000	2.8	2.8	3.0	3.5	3.3
Haiti 2012	2.9	2.7	2.9	3.1	3.0
Kyrgyz Republic 1997	3.0	4.0	4.6	(4.4)	3.9
Kyrgyz Republic 2012	4.2	4.4	4.6	*	4.2

Note: Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

Table B.4 Average absolute decadal changes in ideal number of children, by absolute poverty level and country

	Average absolute decadal change (percentage points)				
	Non-Poor	Poor	Extremely Poor but not Asset Poor	Extremely Poor and Asset Poor	Total
Central and Western Africa					
Chad	0.2	0.6	-0.2	-0.4	-0.6
DR Congo	-0.4	-0.7	0.0	-0.2	-0.3
Ghana	0.4	0.3	0.3	0.3	-0.1
Guinea	0.5	0.1	0.7	0.4	0.3
Liberia	-0.5	0.5	0.9	-0.1	-0.2
Mali	0.1	0.3	-0.1	-0.4	-0.4
Niger	(1.0)	1.1	1.7	0.7	0.7
Nigeria	0.1	-0.5	-0.1	0.4	-0.2
Senegal	0.2	0.3	0.2	-0.1	-0.1
Sierra Leone	-0.1	-0.2	0.7	0.3	0.2
Eastern and Southern Africa					
Burundi	0.0	-0.2	0.0	-0.6	-0.4
Comoros	0.0	0.1	(0.4)	0.1	0.0
Ethiopia	0.3	0.3	0.3	-0.1	-0.1
Kenya	0.1	0.0	0.0	-0.1	-0.3
Lesotho	-0.2	-0.4	-0.3	-0.6	-0.6
Malawi	-0.2	0.0	0.0	-0.3	-0.3
Rwanda	-0.2	-0.3	*	-0.9	-0.9
Tanzania	-0.4	0.0	0.2	0.0	-0.2
Uganda	0.6	0.3	0.3	-0.2	-0.2
Zambia	-0.2	0.3	0.5	0.1	0.0
Zimbabwe	0.2	0.3	0.3	0.1	0.2
South and Southeast Asia					
Cambodia	0.0	-0.2	-0.4	-0.4	-0.4
India	0.0	0.0	0.1	0.0	-0.1
Indonesia	-0.2	-0.2	0.0	0.1	-0.2
Nepal	-0.1	0.0	-0.1	-0.1	-0.2
Pakistan	-0.1	0.2	0.4	0.2	0.0
Philippines	-0.2	-0.2	-0.2	0.3	-0.2
Timor-Leste	-1.1	-1.4	-1.9	-2.2	-2.0
Other Areas					
Egypt	0.2	0.2	0.2	*	0.1
Haiti	0.1	-0.1	0.0	-0.3	-0.3
Kyrgyz Republic	0.8	0.2	0.0	*	0.2

Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

Table B.5 Percentage of respondents reporting a non-numeric ideal number of children, by absolute poverty level and survey

	Not Poor	Poor	Extremely Poor	Extremely Poor and Asset Poor	Total
Central and Western Africa					
Chad 2004	19.5	16.6	9.6	12.4	12.4
Chad 2014-15	13.3	18.4	21.9	24.8	23.5
DR Congo 2007	2.4	3.2	5.7	10.3	8.9
DR Congo 2013-14	3.9	3.3	6.7	8.0	7.2
Ghana 2003	2.5	1.0	1.1	3.0	2.2
Ghana 2014	2.2	2.7	2.1	1.6	2.3
Guinea 2005	3.7	8.7	12.6	11.9	11.2
Guinea 2012	9.9	9.8	10.6	14.0	12.0
Liberia 2007	5.7	3.1	5.8	6.4	6.1
Liberia 2013	2.4	5.5	5.8	5.6	5.5
Mali 2001	11.2	12.4	21.6	29.0	26.1
Mali 2012-13	2.6	3.2	3.8	2.5	3.4
Niger 1998	(8.6)	20.4	22.9	25.4	25.1
Niger 2012	11.8	12.5	5.9	7.4	7.6
Nigeria 2003	7.3	9.1	16.0	14.8	12.8
Nigeria 2013	6.0	7.2	9.6	9.4	8.4
Senegal 2005	15.6	19.3	25.8	23.2	22.0
Senegal 2016	20.5	18.2	21.9	23.7	21.0
Sierra Leone 2008	4.0	6.5	5.5	5.5	5.6
Sierra Leone 2013	5.7	4.3	5.7	6.0	5.8
Eastern and Southern Africa					
Burundi 2010	5.3	2.9	3.9	4.6	4.5
Burundi 2016-17	2.2	1.4	2.4	1.7	1.8
Comoros 1996	1.4	6.7	(0.0)	9.4	8.0
Comoros 2012	11.8	11.8	9.8	10.7	11.1
Ethiopia 2005	5.7	4.3	0.8	11.3	10.8
Ethiopia 2016	5.4	4.8	11.9	11.4	10.6
Kenya 2003	5.3	4.6	5.6	6.0	5.8
Kenya 2014	2.7	1.3	2.5	2.8	2.3
Lesotho 2004	0.0	0.0	0.0	0.2	0.2
Lesotho 2014	0.4	0.3	0.8	0.3	0.3
Malawi 2004	4.2	1.5	2.8	3.5	3.4
Malawi 2015-16	2.0	1.0	1.4	1.3	1.3
Rwanda 2005	4.4	2.7	*	3.4	3.4
Rwanda 2014-15	0.8	1.4	1.2	1.4	1.3
Tanzania 2010	2.5	1.4	1.7	2.2	2.0
Tanzania 2015-16	3.1	2.9	6.0	4.3	4.6
Uganda 2006	1.9	1.1	2.9	4.4	4.0
Uganda 2016	1.7	1.4	2.3	3.0	2.4
Zambia 2001-02	3.1	2.7	2.3	6.8	5.9
Zambia 2013-14	1.3	1.2	4.5	5.3	3.8
Zimbabwe 2005-06	0.8	1.1	1.5	1.6	1.3
Zimbabwe 2015	0.3	0.2	0.4	0.4	0.3

Continued

Table B.5—*Continued*

	Not Poor	Poor	Extremely Poor	Extremely Poor and Asset Poor	Total
South and Southeast Asia					
Cambodia 2005	4.0	3.0	2.4	2.6	2.7
Cambodia 2014	0.5	0.2	0.4	0.3	0.4
India 2005-06	1.5	1.7	1.9	2.6	2.0
India 2015-16	0.3	0.3	0.5	0.7	0.4
Indonesia 2002-03	12.0	15.3	11.6	16.2	14.0
Indonesia 2012	7.9	9.1	10.0	11.8	8.6
Nepal 2006	0.4	0.1	0.1	0.2	0.2
Nepal 2016	0.1	0.4	0.5	0.5	0.4
Pakistan 2006-07	7.3	7.1	8.5	7.2	7.5
Pakistan 2012-13	3.3	4.7	4.2	3.0	3.9
Philippines 2003	0.6	1.1	0.6	1.7	0.9
Philippines 2013	0.2	0.4	0.2	0.6	0.3
Timor-Leste 2009-10	4.4	4.5	2.5	2.5	3.2
Timor-Leste 2016	13.3	13.3	10.9	8.6	11.9
Other Areas					
Egypt 2005	6.8	10.1	9.9	8.5	7.6
Egypt 2014	3.6	5.5	10.8	*	4.0
Haiti 2000	3.1	1.2	2.0	2.1	2.0
Haiti 2012	0.0	0.4	1.4	1.8	1.2
Kyrgyz Republic 1997	1.3	1.5	0.0	(0.0)	1.4
Kyrgyz Republic 2012	0.5	0.3	0.9	*	0.4

Note: Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

Table B.6 Average absolute decadal changes in non-numeric fertility preferences, by absolute poverty level and country

	Average absolute decadal change (percentage points)				
	Non-Poor	Poor	Extremely Poor but not Asset Poor	Extremely Poor and Asset Poor	Total
Central and Western Africa					
Chad	-6.0	1.7	11.7	11.9	10.6
DR Congo	2.2	0.2	1.5	-3.6	-2.7
Ghana	-0.3	1.6	0.9	-1.3	0.2
Guinea	8.9	1.7	-2.8	3.0	1.1
Liberia	-5.5	4.0	0.1	-1.3	-1.0
Mali	-7.5	-8.0	-15.4	-23.1	-19.8
Niger	(2.3)	-5.6	-12.1	-12.9	-12.5
Nigeria	-1.3	-1.9	-6.5	-5.3	-4.4
Senegal	4.4	-1.0	-3.5	0.4	-0.9
Sierra Leone	3.3	-4.4	0.4	1.0	0.5
Eastern and Southern Africa					
Burundi	-4.8	-2.3	-2.3	-4.4	-4.1
Comoros	6.4	3.2	(6.1)	0.8	1.9
Ethiopia	-0.3	0.4	10.1	0.1	-0.1
Kenya	-2.3	-3.0	-2.9	-2.9	-3.2
Lesotho	0.4	0.3	0.8	0.0	0.2
Malawi	-1.9	-0.4	-1.2	-1.9	-1.8
Rwanda	-3.8	-1.4	*	-2.1	-2.2
Tanzania	1.1	2.9	7.8	3.8	4.8
Uganda	-0.3	0.2	-0.5	-1.4	-1.6
Zambia	-1.5	-1.3	1.8	-1.2	-1.7
Zimbabwe	-0.5	-0.9	-1.1	-1.3	-1.1
South and Southeast Asia					
Cambodia	-3.9	-3.1	-2.2	-2.6	-2.6
India	-1.3	-1.3	-1.4	-2.0	-1.6
Indonesia	-4.3	-6.6	-1.7	-4.6	-5.7
Nepal	-0.2	0.3	0.5	0.3	0.2
Pakistan	-6.7	-4.0	-7.3	-6.9	-6.1
Philippines	-0.4	-0.7	-0.5	-1.2	-0.6
Timor-Leste	13.8	13.5	12.9	9.5	13.4
Other Areas					
Egypt	-3.6	-5.2	0.9	*	-4.0
Haiti	-2.5	-0.6	-0.5	-0.2	-0.6
Kyrgyz Republic	-0.6	-0.8	0.6	*	-0.6

Note: Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

Table B.7 Modern contraceptive prevalence by absolute poverty level and survey

	Not poor	Poor	Extremely Poor	Extremely Poor and Asset Poor	Total
Central and Western Africa					
Chad 2004	22.0	19.7	15.8	9.4	9.9
Chad 2014-15	12.8	10.0	7.2	3.5	5.0
DR Congo 2007	18.8	14.8	9.0	3.7	5.8
DR Congo 2013-14	14.3	19.3	10.4	5.4	7.8
Ghana 2003	31.9	22.5	20.3	15.0	18.7
Ghana 2014	21.0	24.5	20.6	19.0	22.2
Guinea 2005	17.4	12.8	5.5	4.0	5.7
Guinea 2012	8.5	7.4	3.4	4.0	4.6
Liberia 2007	14.3	18.7	19.4	9.0	10.3
Liberia 2013	20.7	19.0	21.0	18.7	19.1
Mali 2001	25.0	21.7	10.0	4.4	7.0
Mali 2012-13	24.8	21.5	8.5	4.6	9.9
Niger 1998	(52.2)	29.4	22.6	2.9	4.6
Niger 2012	32.6	27.7	15.9	9.3	12.2
Nigeria 2003	18.0	14.6	5.0	4.1	8.3
Nigeria 2013	17.1	17.0	5.9	3.3	9.8
Senegal 2005	24.8	18.6	8.8	4.7	10.3
Senegal 2016	30.4	26.4	19.0	14.4	23.1
Sierra Leone 2008	29.6	18.4	10.3	4.7	6.7
Sierra Leone 2013	22.5	27.0	17.7	13.7	15.6
Eastern and Southern Africa					
Burundi 2010	35.7	33.7	20.4	16.3	17.7
Burundi 2016-17	28.7	28.5	25.6	21.5	22.9
Comoros 1996	17.3	14.8	18.4	9.6	11.4
Comoros 2012	17.3	14.7	(13.8)	11.6	14.2
Ethiopia 2005	37.8	48.1	45.5	11.5	13.9
Ethiopia 2016	39.1	49.6	48.5	31.7	35.3
Kenya 2003	57.7	47.3	49.5	25.1	31.5
Kenya 2014	60.6	59.3	56.9	45.2	53.4
Lesotho 2004	53.7	50.7	46.0	29.3	35.2
Lesotho 2014	63.0	64.7	55.7	56.5	59.8
Malawi 2004	51.3	44.5	35.9	26.5	28.2
Malawi 2015-16	58.0	61.3	60.2	56.3	58.1
Rwanda 2005	35.5	37.8	*	8.6	10.3
Rwanda 2014-15	49.4	50.1	49.6	46.2	47.5
Tanzania 2010	35.8	38.3	26.3	25.1	27.4
Tanzania 2015-16	33.5	37.6	29.8	31.4	32.0
Uganda 2006	55.1	37.3	29.7	14.4	17.9
Uganda 2016	44.6	41.3	35.7	29.7	34.8
Zambia 2001-02	51.1	50.8	39.0	17.8	25.3
Zambia 2013-14	56.8	55.7	44.7	35.7	44.8
Zimbabwe 2005-06	68.2	66.2	57.9	51.5	58.4
Zimbabwe 2015	71.6	70.0	62.1	62.2	65.8

Continued

Table B.7—*Continued*

	Not poor	Poor	Extremely Poor	Extremely Poor and Asset Poor	Total
South and Southeast Asia					
Cambodia 2005	34.9	29.4	28.0	23.2	27.2
Cambodia 2014	35.7	38.2	41.3	40.2	38.8
India 2005-06	58.0	56.6	48.7	36.4	48.5
India 2015-16	52.4	51.0	40.5	34.2	47.8
Indonesia 2002-03	57.9	56.6	65.5	47.4	56.7
Indonesia 2012	57.5	59.6	57.4	39.4	57.9
Nepal 2006	53.3	53.5	52.7	37.4	44.2
Nepal 2016	42.6	43.5	42.4	41.6	42.8
Pakistan 2006-07	29.4	25.4	16.9	11.3	21.8
Pakistan 2012-13	31.0	27.6	20.8	17.1	26.1
Philippines 2003	36.5	33.1	37.1	24.1	33.4
Philippines 2013	37.9	39.4	40.9	27.3	37.6
Timor-Leste 2009-10	31.4	26.6	21.9	16.0	21.1
Timor-Leste 2016	24.0	27.9	23.2	19.8	24.1
Other Areas					
Egypt 2005	59.3	51.3	39.1	34.6	56.5
Egypt 2014	58.1	52.1	38.4	*	56.9
Haiti 2000	28.6	19.9	30.8	22.7	22.8
Haiti 2012	25.5	32.6	34.1	30.3	31.3
Kyrgyz Republic 1997	55.5	48.0	45.0	(35.67)	48.9
Kyrgyz Republic 2012	34.5	30.5	34.9	*	33.7

Note: Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

Table B.8 Average absolute decadal changes in modern contraceptive prevalence, by absolute poverty level and country

	Average absolute decadal change (percentage points)				
	Non-Poor	Poor	Extremely Poor but not Asset Poor	Extremely Poor and Asset Poor	Total
Central and Western Africa					
Chad	-8.8	-9.2	-8.2	-5.6	-4.7
DR Congo	-6.9	6.9	2.3	2.6	3.1
Ghana	-9.9	1.9	0.2	3.6	3.2
Guinea	-12.8	-7.8	-3.0	0.0	-1.5
Liberia	10.8	0.6	2.6	16.3	14.8
Mali	-0.1	-0.2	-1.3	0.1	2.5
Niger	(-14)	-1.2	-4.8	4.6	5.4
Nigeria	-0.9	2.4	0.8	-0.8	1.5
Senegal	5.1	7.1	9.2	8.8	11.6
Sierra Leone	-14.2	17.2	14.8	18.1	17.7
Eastern and Southern Africa					
Burundi	-10.9	-8.1	8.0	8.0	8.0
Comoros	0.0	-0.1	(-2.9)	1.3	1.7
Ethiopia	1.2	1.3	2.8	18.3	19.4
Kenya	2.7	10.9	6.7	18.3	19.8
Lesotho	9.4	14.1	9.6	27.2	24.6
Malawi	5.8	14.6	21.1	25.9	26.1
Rwanda	14.6	13.0	*	39.6	39.2
Tanzania	-4.1	-1.3	6.4	11.5	8.4
Uganda	-10.6	4.0	6.0	15.3	16.9
Zambia	4.8	4.0	4.8	14.9	16.2
Zimbabwe	3.6	4.0	4.4	11.3	7.7
South and Southeast Asia					
Cambodia	0.9	9.9	14.7	18.8	12.9
India	-5.6	-5.6	-8.2	-2.3	-0.8
Indonesia	-0.4	3.2	-8.5	-8.3	1.2
Nepal	-10.7	-10.0	-10.3	4.2	-1.4
Pakistan	2.6	3.7	6.5	9.6	7.3
Philippines	1.4	6.4	3.9	3.2	4.3
Timor-Leste	-11.4	2.0	2.0	5.8	4.5
Other Areas					
Egypt	-1.4	0.8	-0.8	*	0.4
Haiti	-2.6	10.7	2.8	6.3	7.0
Kyrgyz Republic	-14.0	-11.7	-6.7	*	-10.1

Note: Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

Table B.9 Method mix by absolute poverty level and survey

	Non-Poor						*Poor*						*Extremely poor but not asset poor*						*Extremely poor and asset poor*						*Total*					
	Long-term modern	Short-term modern	Tradi-tional	Folk-loric	Total	N	Long-term modern	Short-term modern	Tradi-tional	Folk-loric	Total	N	Long-term modern	Short-term modern	Trad-itional	Folk-loric	Total	N	Long-term modern	Short-term modern	Tradi-tional	Folk-loric	Total	N	Long-term modern	Short-term modern	Tradi-tional	Folk-loric	Total	N
Central and Western Africa																														
Chad 2004	*	*	*	*	*	10	(10.6)	(75.4)	(14.0)	(0.0)	100	14	6.8	78.8	12.5	1.8	100	38	1.0	89.4	9.6	0.0	100	454	1.9	87.8	10.1	0.1	100	516
Chad 2014-15	*	*	*	*	*	25	(4.5)	(76.8)	(18.7)	(0.0)	100	55	20.4	70.1	8.5	1.0	100	344	29.5	59.7	9.2	1.6	100	325	22.9	66.2	9.5	1.4	100	749
DR Congo 2007	12.6	38.3	46.2	2.8	100	63	3.9	32.9	58.7	4.5	100	303	2.1	28.8	69.2	0.0	100	149	5.3	17.5	72.8	4.5	100	853	5.0	23.1	68.0	3.9	100	1,367
DR Congo 2013-14	8.5	23.1	63.5	4.9	100	123	8.0	40.4	46.9	4.7	100	466	11.0	32.8	54.2	2.0	100	488	7.2	26.4	61.3	5.1	100	1,395	8.2	30.1	57.3	4.4	100	2,472
Ghana 2003	28.2	47.4	24.5	0.0	100	78	16.8	57.9	24.9	0.4	100	350	12.8	56.2	25.0	6.1	100	65	11.1	63.1	21.6	4.2	100	401	14.9	59.2	23.4	2.5	100	893
Ghana 2014	25.6	47.8	25.4	1.1	100	481	31.3	54.4	13.7	0.6	100	639	31.6	61.9	5.8	0.7	100	186	30.9	62.7	5.1	1.2	100	113	29.4	53.8	16.0	0.9	100	1,419
Guinea 2005	5.4	66.6	23.8	4.2	100	64	6.6	66.6	13.3	13.5	100	126	(1.9)	(57.6)	(5.8)	(34.7)	100	43	2.0	54.8	8.5	34.7	100	339	3.4	58.9	11.1	26.6	100	572
Guinea 2012	12.8	69.9	13.9	3.3	100	50	13.0	71.7	10.0	5.4	100	88	1.5	81.8	11.6	5.1	100	87	1.9	79.9	9.1	9.1	100	151	5.9	77.1	10.5	6.5	100	376
Liberia 2007	*	*	*	*	*	9	12.7	71.3	16.1	0.0	100	68	8.9	77.5	13.6	0.0	100	57	5.1	85.9	9.0	0.0	100	385	6.8	82.8	10.4	0.0	100	520
Liberia 2013	*	*	*	*	*	37	10.5	77.1	12.4	0.0	100	133	18.1	76.9	5.0	0.0	100	162	10.3	85.4	4.1	0.2	100	759	11.6	82.9	5.4	0.1	100	1,090
Mali 2001	19.0	67.8	12.2	0.9	100	69	9.2	72.2	14.6	4.0	100	139	4.8	85.9	3.8	5.5	100	264	4.0	81.3	7.2	7.5	100	394	6.3	80.2	7.8	5.8	100	866
Mali 2012-13	38.7	56.6	0.0	4.6	100	130	31.3	66.4	0.8	1.5	100	203	25.9	70.6	0.1	3.5	100	479	23.6	70.1	0.0	6.3	100	100	28.7	67.6	0.2	3.5	100	912
Niger 1998	*	*	*	*	*	15	8.1	78.3	3.3	10.2	100	96	(2.5)	(83.0)	(0.0)	(14.5)	100	32	2.0	42.7	1.9	53.4	100	380	3.2	52.9	2.2	41.7	100	524
Niger 2012	9.9	82.1	3.4	4.6	100	120	6.1	86.4	2.1	5.4	100	181	2.7	85.9	0.6	10.8	100	264	2.5	83.4	0.2	13.8	100	809	3.7	84.2	0.8	11.4	100	1,374
Nigeria 2003	15.0	54.1	29.0	2.0	100	74	8.6	59.5	28.3	3.6	100	358	5.5	71.4	12.1	11.0	100	49	3.4	52.9	25.9	17.8	100	191	7.6	57.9	26.5	8.0	100	672
Nigeria 2013	16.6	44.5	36.4	2.5	100	924	9.8	54.4	31.5	4.3	100	2,175	12.2	57.0	25.2	5.7	100	738	11.4	54.1	25.2	9.3	100	379	11.9	52.6	30.9	4.6	100	4,216
Senegal 2005	18.4	70.6	5.1	5.9	100	158	13.2	77.1	6.9	2.8	100	575	6.9	80.9	6.8	5.4	100	132	12.7	67.6	4.7	15.0	100	302	13.1	74.2	6.1	6.7	100	1,166
Senegal 2016	33.7	58.8	6.2	1.3	100	577	37.2	56.3	5.5	1.1	100	419	43.3	44.1	3.8	8.7	100	248	41.1	50.6	1.8	6.5	100	234	37.5	54.3	4.9	3.3	100	1,479
Sierra Leone 2008	(4.8)	(81.0)	(10.0)	(4.2)	100	41	8.2	84.7	4.9	2.1	100	85	3.4	81.4	3.8	11.4	100	56	1.1	76.6	1.0	21.2	100	272	3.1	79.1	2.9	14.9	100	453
Sierra Leone 2013	14.3	76.5	7.3	2.0	100	73	24.3	69.6	2.7	3.4	100	274	19.9	76.4	0.3	3.3	100	234	16.7	76.8	0.1	6.4	100	1,232	18.2	75.6	0.8	5.4	100	1,813
Eastern and Southern Africa																														
Burundi 2010	40.0	40.0	20.0	0.0	100	55	16.9	70.5	12.6	0.0	100	80	19.4	58.2	22.5	0.0	100	112	16.3	64.7	18.9	0.0	100	938	17.8	63.3	18.9	0.0	100	1,185
Burundi 2016-17	26.9	43.1	30.0	0.0	100	154	29.1	52.0	18.7	0.2	100	246	27.9	52.5	19.2	0.4	100	523	26.0	55.1	18.7	0.2	100	1,869	26.7	53.7	19.4	0.2	100	2,792
Comoros 1996	(16.7)	(33.3)	(50.0)	(0.0)	100	48	18.8	32.9	44.7	3.5	100	85	*	*	*	*	*	10	12.5	43.0	38.5	6.0	100	200	14.6	39.7	41.4	4.4	100	343
Comoros 2012	16.0	51.4	32.3	0.2	100	129	11.6	59.7	27.7	1.0	100	275	11.5	62.6	25.9	0.0	100	115	12.7	70.4	16.5	0.3	100	113	12.7	60.4	26.3	0.5	100	631
Ethiopia 2005	20.7	56.0	23.2	0.0	100	70	8.2	81.3	10.6	0.0	100	234	3.3	95.4	1.4	0.0	100	30	1.6	95.2	3.2	0.0	100	1,000	3.8	90.7	5.5	0.0	100	1,334
Ethiopia 2016	20.1	67.8	12.1	0.0	100	108	28.1	67.6	4.3	0.0	100	515	29.7	69.1	1.2	0.0	100	497	29.2	69.9	0.9	0.0	100	2,548	28.8	69.4	1.8	0.0	100	3,669
Kenya 2003	42.3	42.7	14.2	0.8	100	173	24.7	62.0	12.2	1.1	100	275	29.3	58.5	10.1	2.1	100	280	15.8	60.5	21.2	2.5	100	1,207	21.4	58.9	17.7	2.1	100	1,934
Kenya 2014	41.2	50.7	7.9	0.2	100	565	28.3	63.8	7.5	0.5	100	1,455	29.6	62.9	7.4	0.2	100	1,369	24.4	67.0	8.1	0.5	100	1,665	28.8	63.1	7.7	0.4	100	5,054
Lesotho 2004	(28.7)	(71.0)	(0.3)	(0.0)	100	55	19.9	79.4	0.7	0.0	100	217	13.0	84.8	2.3	0.0	100	308	9.8	86.9	3.3	0.0	100	804	12.9	84.6	2.5	0.0	100	1,383
Lesotho 2014	11.5	87.0	1.5	0.0	100	355	8.7	91.0	0.3	0.0	100	676	7.8	92.2	0.0	0.0	100	176	4.8	94.6	0.6	0.0	100	966	7.4	92.0	0.6	0.0	100	2,173
Malawi 2004	37.4	55.8	6.1	0.7	100	94	25.3	71.1	2.9	0.7	100	161	18.8	68.5	10.4	2.3	100	130	18.8	66.9	8.3	6.0	100	2,314	19.9	66.8	8.0	5.3	100	2,699
Malawi 2015-16	50.7	45.3	3.8	0.2	100	559	42.9	54.4	2.5	0.1	100	1,104	42.2	56.1	1.0	0.8	100	2,983	36.7	61.8	1.0	0.6	100	4,907	40.0	58.2	1.3	0.5	100	9,552
Rwanda 2005	22.3	47.4	30.3	0.0	100	61	9.8	68.6	21.7	0.0	100	98	*	*	*	*	*	3	3.8	52.0	44.2	0.0	100	796	5.7	53.5	40.9	0.0	100	958
Rwanda 2014-15	30.9	54.2	14.8	0.0	100	313	24.3	67.1	8.5	0.0	100	493	17.1	69.3	13.7	0.0	100	665	17.1	72.9	9.9	0.0	100	2,247	19.2	69.9	10.8	0.0	100	3,718
Tanzania 2010	20.7	51.2	26.5	1.6	100	141	15.0	60.5	23.1	1.4	100	366	23.6	58.0	15.3	3.1	100	551	17.0	64.0	16.0	2.9	100	1,144	18.6	61.1	17.7	2.6	100	2,202
Tanzania 2015-16	26.2	38.8	34.1	0.9	100	375	22.3	54.9	21.8	0.9	100	652	33.4	54.7	9.5	2.4	100	1,044	29.1	60.0	9.4	1.6	100	1,079	28.8	54.6	14.9	1.7	100	3,149
Uganda 2006	31.0	55.4	12.1	1.4	100	50	10.4	66.8	22.1	0.7	100	183	13.5	65.5	16.8	4.2	100	165	11.7	62.1	21.4	4.8	100	866	12.5	63.0	20.5	4.0	100	1,263
Uganda 2016	32.7	53.8	13.1	0.4	100	341	22.6	63.2	13.4	0.8	100	1,004	28.3	61.6	9.2	0.9	100	1,515	27.5	64.0	7.6	0.9	100	1,513	27.0	62.2	9.9	0.8	100	4,373
Zambia 2001-02	19.9	71.9	7.6	0.6	100	278	7.7	85.9	6.4	0.0	100	257	14.1	68.3	14.7	3.0	100	69	2.7	60.8	24.4	12.1	100	1,002	7.0	67.1	18.2	7.8	100	1,605
Zambia 2013-14	23.0	71.4	5.4	0.2	100	657	18.6	75.0	5.9	0.5	100	1,097	17.5	73.8	7.5	1.2	100	1,587	14.6	73.6	10.6	1.2	100	1,491	17.6	73.7	7.8	0.9	100	4,832
Zimbabwe 2005-06	14.1	84.2	1.3	0.5	100	759	5.2	92.8	1.8	0.2	100	745	6.4	90.8	2.1	0.7	100	118	2.2	93.7	3.1	1.0	100	1,476	6.0	91.0	2.3	0.7	100	3,098
Zimbabwe 2015	23.8	74.4	1.8	0.0	100	625	17.8	81.5	0.7	0.0	100	1,272	12.1	86.4	1.6	0.0	100	834	14.9	83.1	1.8	0.1	100	1,376	16.6	81.9	1.4	0.0	100	4,107

Continued

Table B.9—*Continued*

	Non-Poor						*Poor*						*Extremely poor but not asset poor*						*Extremely poor and asset poor*						*Total*					
	Long-term modern	Short-term modern	Tradi-tional	Folk-loric	Total	N	Long-term modern	Short-term modern	Tradi-tional	Folk-loric	Total	N	Long-term modern	Short-term modern	Trad-itional	Folk-loric	Total	N	Long-term modern	Short-term modern	Tradi-tional	Folk-loric	Total	N	Long-term modern	Short-term modern	Tradi-tional	Folk-loric	Total	N
South and Southeast Asia																														
Cambodia 2005	19.1	39.5	41.2	0.2	100	703	13.3	51.5	35.1	0.1	100	505	7.1	62.6	30.1	0.2	100	1,590	4.7	67.4	27.6	0.3	100	1,237	9.2	58.7	31.9	0.2	100	4,035
Cambodia 2014	19.4	40.9	39.5	0.1	100	1,913	17.3	50.6	32.0	0.0	100	1,881	15.2	59.7	24.8	0.2	100	2,456	19.1	57.4	23.4	0.1	100	451	17.3	51.7	30.9	0.1	100	6,701
India 2005-06	63.3	22.8	13.7	0.2	100	14,033	76.2	14.0	9.5	0.3	100	14,842	75.3	11.7	12.5	0.5	100	9,151	70.9	10.6	17.2	1.4	100	14,412	71.1	15.0	13.2	0.6	100	52,438
India 2015-16	69.4	20.8	9.8	0.0	100	113,240	72.9	17.3	9.8	0.0	100	83,530	69.5	17.2	13.3	0.0	100	66,824	71.6	15.1	13.3	0.0	100	10,196	70.6	18.6	10.8	0.0	100	273,790
Indonesia 2002-03	27.3	64.7	7.4	0.6	100	5,800	21.6	73.4	4.3	0.8	100	7,663	25.9	71.9	1.1	1.1	100	1,648	24.3	68.8	5.4	1.4	100	1,695	24.3	69.8	5.2	0.8	100	16,806
Indonesia 2012	18.9	73.1	7.6	0.5	100	10,336	15.2	79.9	4.3	0.5	100	8,524	15.4	80.1	3.2	1.3	100	1,447	17.5	73.9	4.4	4.1	100	396	17.1	76.4	5.9	0.6	100	20,704
Nepal 2006	47.2	39.3	13.5	0.0	100	450	45.2	45.0	9.8	0.0	100	768	61.2	33.8	5.0	0.0	100	861	55.5	37.5	6.8	0.1	100	1,881	53.8	38.4	7.8	0.0	100	3,960
Nepal 2016	42.1	32.2	25.7	0.0	100	1,375	42.9	37.6	19.5	0.0	100	2,038	59.0	29.3	11.6	0.1	100	1,451	45.8	39.7	13.6	0.8	100	331	47.4	34.0	18.6	0.1	100	5,195
Pakistan 2006-07	30.3	42.0	27.3	0.4	100	1,205	37.6	35.4	26.5	0.5	100	801	42.7	33.8	23.3	0.2	100	539	41.8	31.8	24.7	1.6	100	284	35.9	37.6	26.0	0.5	100	2,829
Pakistan 2012-13	28.5	41.5	29.7	0.3	100	2,235	32.8	41.1	25.8	0.2	100	1,159	35.4	43.6	20.3	0.7	100	988	46.5	40.7	12.7	0.0	100	199	31.9	41.8	26.0	0.3	100	4,581
Philippines 2003	33.4	36.1	29.8	0.7	100	2,399	28.7	39.3	30.6	1.4	100	1,150	25.2	44.8	29.2	0.8	100	101	20.1	43.1	33.6	3.2	100	588	30.1	38.1	30.5	1.2	100	4,238
Philippines 2013	23.8	43.8	32.2	0.3	100	3,120	21.0	49.4	29.2	0.4	100	1,622	21.2	50.4	28.0	0.4	100	270	12.9	49.6	35.4	2.2	100	349	22.1	46.2	31.3	0.4	100	5,362
Timor-Leste 2009-10	20.6	71.3	8.1	0.0	100	489	10.8	85.3	2.9	0.9	100	370	13.2	84.7	1.2	1.0	100	157	9.7	85.0	2.9	2.4	100	749	13.3	81.2	4.2	1.3	100	1,765
Timor-Leste 2016	44.2	43.4	12.4	0.0	100	623	37.8	55.1	6.6	0.5	100	625	31.2	64.5	4.1	0.2	100	466	26.5	70.6	1.5	1.5	100	288	36.6	55.9	7.1	0.4	100	2,001
Other Areas																														
Egypt 2005	67.7	28.2	4.1	0.0	100	8,411	57.5	37.6	4.6	0.3	100	1,870	49.9	39.9	10.0	0.2	100	423	49.0	39.0	12.0	0.0	100	65	65.1	30.3	4.5	0.1	100	10,770
Egypt 2014	55.7	41.7	2.7	0.0	100	10,301	47.0	49.6	3.3	0.0	100	1,521	44.4	50.0	5.6	0.0	100	147	*	*	*	*	*	6	54.4	42.8	2.8	0.0	100	11,974
Haiti 2000	17.5	56.5	26.0	0.0	100	179	13.4	58.0	28.0	0.6	100	362	10.1	80.3	9.6	0.0	100	76	21.5	63.9	14.2	0.4	100	1,055	18.8	62.6	18.2	0.4	100	1,672
Haiti 2012	10.5	70.9	16.8	1.7	100	161	7.4	81.3	9.8	1.5	100	944	9.7	79.9	9.0	1.4	100	421	13.0	80.8	5.1	1.0	100	1,168	10.4	80.3	8.0	1.3	100	2,694
Kyrgyz Republic 1997	52.2	30.5	17.3	0.0	100	301	71.0	11.5	17.6	0.0	100	1,206	(70.7)	(12.4)	(16.9)	(0.0)	100	52	(61.6)	(0.8)	(37.6)	(0.0)	100	33	67.2	14.9	17.9	0.0	100	1,593
Kyrgyz Republic 2012	65.1	27.6	7.2	0.2	100	1,530	66.8	27.2	6.0	0.0	100	347	(59.8)	(24.9)	(15.3)	(0.0)	100	30	*	*	*	*	*	1	65.3	27.5	7.1	0.1	100	1,907

Note: Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

Table B.10 Average absolute decadal changes in long-term modern methods as a percentage of family planning use, by absolute poverty level and country

	Average absolute decadal change (percentage points)				
	Non-Poor	Poor	Extremely Poor but not Asset Poor	Extremely Poor and Asset Poor	Total
Central and Western Africa					
Chad	*	(-5.8)	13.0	27.1	20.0
DR Congo	-6.3	(6.3)	13.7	2.9	4.9
Ghana	-2.4	13.2	17.1	18.0	13.2
Guinea	10.6	9.1	(-0.6)	-0.1	3.6
Liberia	-19.0	-3.7	15.3	8.7	8.0
Mali	17.1	19.2	18.3	17.0	19.5
Niger	4.1	-1.4	(0.1)	0.4	0.4
Nigeria	1.6	1.2	6.7	8.0	4.3
Senegal	13.9	21.8	33.1	25.8	22.2
Sierra Leone	(19.0)	32.2	33.0	31.2	30.2
Eastern and Southern Africa					
Burundi	-20.2	18.8	13.1	14.9	13.7
Comoros	(-0.4)	-4.5	*	0.1	-1.2
Ethiopia	-0.5	18.1	24.0	25.1	22.7
Kenya	-1.0	3.3	0.3	7.8	6.7
Lesotho	-17.2	-11.2	-5.2	-5.0	-5.5
Malawi	11.6	15.3	20.3	15.6	17.5
Rwanda	9.1	15.3	*	14.0	14.2
Tanzania	10.0	13.3	17.8	22.0	18.5
Uganda	1.7	12.2	14.8	15.8	14.5
Zambia	2.6	9.1	2.8	9.9	8.8
Zimbabwe	10.2	13.3	6.0	13.4	11.2
South and Southeast Asia					
Cambodia	0.3	4.4	9.0	16.0	9.0
India	6.1	-3.3	-5.8	0.7	-0.5
Indonesia	-8.8	-6.7	-11.1	-7.2	-7.6
Nepal	-5.1	-2.3	-2.2	-9.7	-6.4
Pakistan	-3.0	-8.0	-12.2	7.8	-6.7
Philippines	-9.6	-7.7	-4.0	-7.2	-8.0
Timor-Leste	36.3	41.5	27.7	25.8	35.8
Other Areas					
Egypt	-13.3	-11.7	-6.1	*	-11.9
Haiti	-5.8	-5.0	-0.3	-7.1	-7.0
Kyrgyz Republic	8.6	-2.8	(-7.3)	*	-1.3

Notes: Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

Table B.11 Average absolute decadal changes in short-term modern methods as a percentage of family planning use, by absolute poverty level and country

	Average absolute decadal change (percentage points)				
	Non-Poor	Poor	Extremely Poor but not Asset Poor	Extremely Poor and Asset Poor	Total
Central and Western Africa					
Chad	*	(1.3)	-8.3	-28.3	-20.6
DR Congo	-23.4	(11.5)	6.2	13.7	10.8
Ghana	0.4	-3.2	5.2	-0.4	-4.9
Guinea	4.7	7.3	(34.6)	35.9	26.0
Liberia	13.5	9.7	-1.0	-0.8	0.2
Mali	-9.7	-5.0	-13.3	-9.7	-11.0
Niger	-1.1	5.8	(2.1)	29.1	22.4
Nigeria	-9.6	-5.1	-14.4	1.2	-5.3
Senegal	-10.7	-18.9	-33.5	-15.5	-18.1
Sierra Leone	(-9.0)	-30.2	-10.0	0.4	-7.0
Eastern and Southern Africa					
Burundi	4.8	-28.5	-8.8	-14.8	-14.8
Comoros	(11.3)	16.8	*	17.1	12.9
Ethiopia	10.7	-12.5	-23.9	-23.0	-19.4
Kenya	7.3	1.6	4.0	5.9	3.8
Lesotho	16.0	11.6	7.4	7.7	7.4
Malawi	-9.1	-14.5	-10.8	-4.4	-7.5
Rwanda	7.2	-1.6	*	22.0	17.3
Tanzania	-22.5	-10.2	-6.0	-7.3	-11.8
Uganda	-1.6	-3.6	-3.9	1.9	-0.8
Zambia	-0.4	-9.1	4.6	10.7	5.5
Zimbabwe	-10.3	-11.9	-4.6	-11.2	-9.6
South and Southeast Asia					
Cambodia	1.6	-1.0	-3.2	-11.1	-7.8
India	-2.0	3.3	5.5	4.5	3.6
Indonesia	8.8	6.8	8.6	5.4	6.9
Nepal	-7.1	-7.4	-4.5	2.2	-4.4
Pakistan	-0.8	9.5	16.3	14.8	7.0
Philippines	7.7	10.1	5.6	6.5	8.1
Timor-Leste	-42.9	-46.5	-31.1	-22.2	-38.9
Other Areas					
Egypt	15.0	13.3	11.2	*	13.9
Haiti	12.0	19.4	-0.3	14.1	14.8
Kyrgyz Republic	-1.9	10.5	(8.3)	*	8.4

Notes: Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

Table B.12 Average absolute decadal changes in traditional methods as a percentage of family planning use, by absolute poverty level and country

	Average absolute decadal change (percentage points)				
	Non-Poor	Poor	Extremely Poor but not Asset Poor	Extremely Poor and Asset Poor	Total
Central and Western Africa					
Chad	*	(4.5)	-3.8	-0.4	-0.6
DR Congo	26.6	(-18.2)	-23.1	-17.7	-16.5
Ghana	0.8	-10.2	-17.5	-15.0	-6.7
Guinea	-14.1	-4.7	(8.3)	0.9	-0.9
Liberia	*	-6.2	-14.3	-8.2	-8.3
Mali	-10.6	-12.0	-3.2	-6.3	-6.6
Niger	*	-0.9	(0.4)	-1.2	-1.0
Nigeria	7.4	3.2	13.1	-0.7	4.4
Senegal	1.0	-1.3	-2.7	-2.6	-1.1
Sierra Leone	(-5.4)	-4.4	-7.0	-1.8	-4.2
Eastern and Southern Africa					
Burundi	15.4	9.4	-5.1	-0.3	0.8
Comoros	(-11.1)	-10.6	*	-13.8	-9.4
Ethiopia	-10.1	-5.7	-0.2	-2.1	-3.4
Kenya	-5.7	-4.3	-2.5	-11.9	-9.1
Lesotho	(1.2)	-0.4	-2.3	-2.7	-1.9
Malawi	-2.0	-0.3	-8.2	-6.3	-5.8
Rwanda	-16.3	-13.9	14.4	-36.1	-31.7
Tanzania	13.8	-2.4	-10.5	-12.0	-5.1
Uganda	1.0	-8.7	-7.6	-13.8	-10.6
Zambia	-1.8	-0.4	-6.0	-11.5	-8.7
Zimbabwe	0.5	-1.2	-0.5	-1.4	-0.9
South and Southeast Asia					
Cambodia	-1.9	-3.4	-5.9	-4.7	-1.1
India	-3.9	0.3	0.8	-3.9	-2.4
Indonesia	0.2	0.0	2.2	-1.1	0.7
Nepal	12.2	9.7	6.6	6.8	10.8
Pakistan	4.0	-1.2	-5.0	-20.0	0.0
Philippines	2.4	-1.4	-1.2	1.8	0.8
Timor-Leste	6.6	5.7	4.5	-2.2	4.5
Other Areas					
Egypt	-1.6	-1.4	-4.9	-13.3	-1.9
Haiti	-7.7	-15.2	-0.5	-7.6	-8.5
Kyrgyz Republic	-6.7	-7.7	-1.1	-25.1	-7.2

Notes: Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

Table B.13 Average absolute decadal changes in folkloric methods as a percentage of family planning use, by absolute poverty level and country

	Average absolute decadal change (percentage points)				
	Non-Poor	Poor	Extremely Poor but not Asset Poor	Extremely Poor and Asset Poor	Total
Central and Western Africa					
Chad	*	(0.0)	-0.8	1.5	1.2
DR Congo	3.2	(0.3)	3.1	0.9	0.8
Ghana	1.0	0.2	-4.9	-2.7	-1.5
Guinea	-1.3	-11.6	(-42.3)	-36.6	-28.7
Liberia	*	0.0	0.0	0.3	0.2
Mali	3.2	-2.2	-1.7	-1.0	-2.0
Niger	*	-3.4	(-2.6)	-28.3	-21.6
Nigeria	0.5	0.7	-5.3	-8.5	-3.4
Senegal	-4.2	-1.5	3.0	-7.7	-3.1
Sierra Leone	(-4.4)	2.6	-16.2	-29.6	-19.0
Eastern and Southern Africa					
Burundi	0.0	0.3	0.6	0.3	0.3
Comoros	(0.1)	-1.6	*	-3.6	-2.4
Ethiopia	0.0	0.0	0.0	0.0	0.0
Kenya	-0.5	-0.5	-1.7	-1.8	-1.5
Lesotho	0.0	0.0	0.0	0.0	0.0
Malawi	-0.4	-0.5	-1.3	-4.7	-4.2
Rwanda	0.0	0.0	*	0.0	0.0
Tanzania	-1.3	-0.9	-1.3	-2.4	-1.6
Uganda	-1.0	0.1	-3.3	-3.9	-3.2
Zambia	-0.3	0.4	-1.5	-9.1	-5.8
Zimbabwe	-0.5	-0.2	-0.7	-0.9	-0.7
South and Southeast Asia					
Cambodia	-0.1	-0.1	0.0	-0.2	-0.1
India	-0.2	-0.3	-0.5	-1.4	-0.6
Indonesia	-0.1	-0.3	0.2	2.8	-0.2
Nepal	0.0	0.0	0.1	0.7	0.1
Pakistan	-0.2	-0.5	0.8	-2.7	-0.3
Philippines	-0.4	-1.0	-0.4	-1.0	-0.8
Timor-Leste	0.0	-0.6	-1.2	-1.4	-1.4
Other Areas					
Egypt	0.0	-0.3	-0.2	*	-0.1
Haiti	1.4	0.8	1.2	0.5	0.8
Kyrgyz Republic	0.1	0.0	(0.0)	*	0.1

Notes: Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

Table B.14 Demand satisfied for modern methods by absolute poverty level and survey

	Not poor	Poor	Extremely Poor	Extremely Poor and Asset Poor	Total
Central and Western Africa					
Chad 2004	47.9	39.7	34.5	30.8	31.4
Chad 2014-15	34.9	24.9	21.8	13.7	17.6
DR Congo 2007	28.9	22.5	16.0	8.6	12.2
DR Congo 2013-14	22.6	29.0	19.7	12.4	16.3
Ghana 2003	50.3	37.6	33.7	25.4	31.3
Ghana 2014	37.3	41.7	38.3	36.0	39.2
Guinea 2005	36.4	31.7	17.9	13.9	18.3
Guinea 2012	26.4	19.9	11.8	14.9	15.8
Liberia 2007	24.6	35.4	37.3	19.4	21.8
Liberia 2013	49.8	39.3	39.8	36.0	37.2
Mali 2001	46.0	36.6	24.4	12.8	18.5
Mali 2012-13	54.7	46.7	23.6	15.0	27.2
Niger 1998	(70.1)	55.8	46.6	11.9	17.8
Niger 2012	66.2	58.3	45.1	35.0	40.8
Nigeria 2003	36.4	37.4	20.5	17.1	27.4
Nigeria 2013	40.1	39.5	23.1	16.1	31.3
Senegal 2005	44.7	35.3	20.4	12.3	23.5
Senegal 2016	55.7	53.2	43.8	31.6	47.3
Sierra Leone 2008	48.6	39.7	25.7	13.5	18.4
Sierra Leone 2013	42.9	50.4	40.8	34.7	37.5
Eastern and Southern Africa					
Burundi 2010	56.8	54.4	32.8	30.8	32.7
Burundi 2016-17	46.8	49.0	40.9	37.6	39.4
Comoros 1996	30.8	25.6	(41.2)	16.9	20.1
Comoros 2012	35.9	27.9	27.7	21.6	27.4
Ethiopia 2005	61.5	66.6	83.3	23.2	27.4
Ethiopia 2016	64.8	79.5	75.3	55.7	60.6
Kenya 2003	73.0	67.2	67.6	39.0	47.3
Kenya 2014	77.2	78.8	71.7	62.4	70.7
Lesotho 2004	72.9	69.8	62.4	44.3	51.5
Lesotho 2014	79.7	80.6	76.1	72.1	76.1
Malawi 2004	70.0	66.7	53.9	42.7	44.8
Malawi 2015-16	75.0	77.4	76.3	73.0	74.6
Rwanda 2005	48.8	50.6	*	15.7	18.4
Rwanda 2014-15	69.7	69.5	67.1	64.2	65.8
Tanzania 2010	54.4	58.0	48.5	45.4	48.3
Tanzania 2015-16	49.9	56.4	52.3	52.6	52.9
Uganda 2006	66.9	51.8	43.3	24.1	29.0
Uganda 2016	60.4	59.8	52.1	45.9	51.6
Zambia 2001-02	66.2	68.7	52.6	31.0	41.0
Zambia 2013-14	77.8	74.6	62.2	54.5	63.8
Zimbabwe 2005-06	85.6	81.5	79.8	71.3	77.2
Zimbabwe 2015	89.9	88.5	83.0	81.8	85.2

Continued

Table B.14—*Continued*

	Not poor	Poor	Extremely Poor	Extremely Poor and Asset Poor	Total
South and Southeast Asia					
Cambodia 2005	46.8	44.6	43.1	37.2	41.6
Cambodia 2014	51.0	56.0	60.4	58.4	56.4
India 2005-06	75.3	76.8	69.3	57.5	69.1
India 2015-16	75.3	74.8	65.6	59.6	71.9
Indonesia 2002-03	77.4	77.4	83.8	69.3	77.1
Indonesia 2012	77.8	80.9	81.0	65.2	79.0
Nepal 2006	65.9	66.0	69.8	55.0	60.9
Nepal 2016	53.7	56.2	57.8	56.2	56.1
Pakistan 2006-07	48.4	42.6	34.5	24.3	39.7
Pakistan 2012-13	51.1	47.9	41.8	37.9	47.0
Philippines 2003	50.7	45.7	50.6	35.4	46.7
Philippines 2013	51.9	54.0	53.9	41.1	51.8
Timor-Leste 2009-10	50.9	46.0	40.6	31.9	39.2
Timor-Leste 2016	45.9	50.8	47.3	41.5	46.9
Other Areas					
Egypt 2005	81.0	74.9	64.0	65.1	79.0
Egypt 2014	80.8	76.5	66.5	*	80.0
Haiti 2000	43.4	29.1	43.8	33.6	33.8
Haiti 2012	39.0	47.1	47.8	43.0	44.8
Kyrgyz Republic 1997	70.1	68.3	68.2	(58.6)	68.5
Kyrgyz Republic 2012	62.8	59.5	53.1	*	62.0

Notes: Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

Table B.15 Average absolute decadal changes in demand satisfied for modern methods, by absolute poverty level and country

	Average absolute decadal change (percentage points)				
	Non-Poor	Poor	Extremely Poor but not Asset Poor	Extremely Poor and Asset Poor	Total
Central and Western Africa					
Chad	-12.4	-14.1	-12.0	-16.3	-13.1
DR Congo	-9.6	10.1	5.8	5.8	6.3
Ghana	-11.8	3.8	4.2	9.6	7.2
Guinea	-14.2	-16.8	-8.6	1.5	-3.5
Liberia	41.9	6.5	4.2	27.8	25.8
Mali	7.6	8.8	-0.6	1.9	7.6
Niger	-2.8	1.8	-1.1	16.5	16.5
Nigeria	(3.7)	2.1	2.6	-1.0	3.9
Senegal	10.0	16.3	21.3	17.6	21.6
Sierra Leone	-11.4	21.5	30.3	42.3	38.1
Eastern and Southern Africa					
Burundi	-15.4	-8.4	12.4	10.5	10.3
Comoros	3.2	1.4	(-8.4)	2.9	4.5
Ethiopia	3.1	11.7	-7.2	29.6	30.2
Kenya	3.9	10.6	3.8	21.3	21.3
Lesotho	6.8	10.8	13.7	27.8	24.6
Malawi	4.4	9.2	19.5	26.4	25.9
Rwanda	22.0	19.9	*	51.0	49.9
Tanzania	-8.2	-2.9	6.9	13.1	8.4
Uganda	-6.4	8.0	8.8	21.8	22.7
Zambia	9.6	5.0	8.0	19.6	19.0
Zimbabwe	4.6	7.3	3.4	11.1	8.5
South and Southeast Asia					
Cambodia	4.7	12.7	19.3	23.5	16.5
India	-0.1	-1.9	-3.8	2.1	2.9
Indonesia	0.5	3.6	-2.9	-4.3	2.0
Nepal	-12.2	-9.8	-11.9	1.3	-4.8
Pakistan	4.5	8.8	12.3	22.7	12.2
Philippines	1.2	8.3	3.3	5.7	5.1
Timor-Leste	-7.7	7.3	10.3	14.8	11.8
Other Areas					
Egypt	-0.3	1.8	2.8	*	1.1
Haiti	-3.6	15.0	3.4	7.8	9.2
Kyrgyz Republic	-4.9	-5.9	-10.1	*	-4.3

Notes: Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.