Marital Dissolution, Repartnering, and the Realization of Fertility Desires in sub-Saharan Africa

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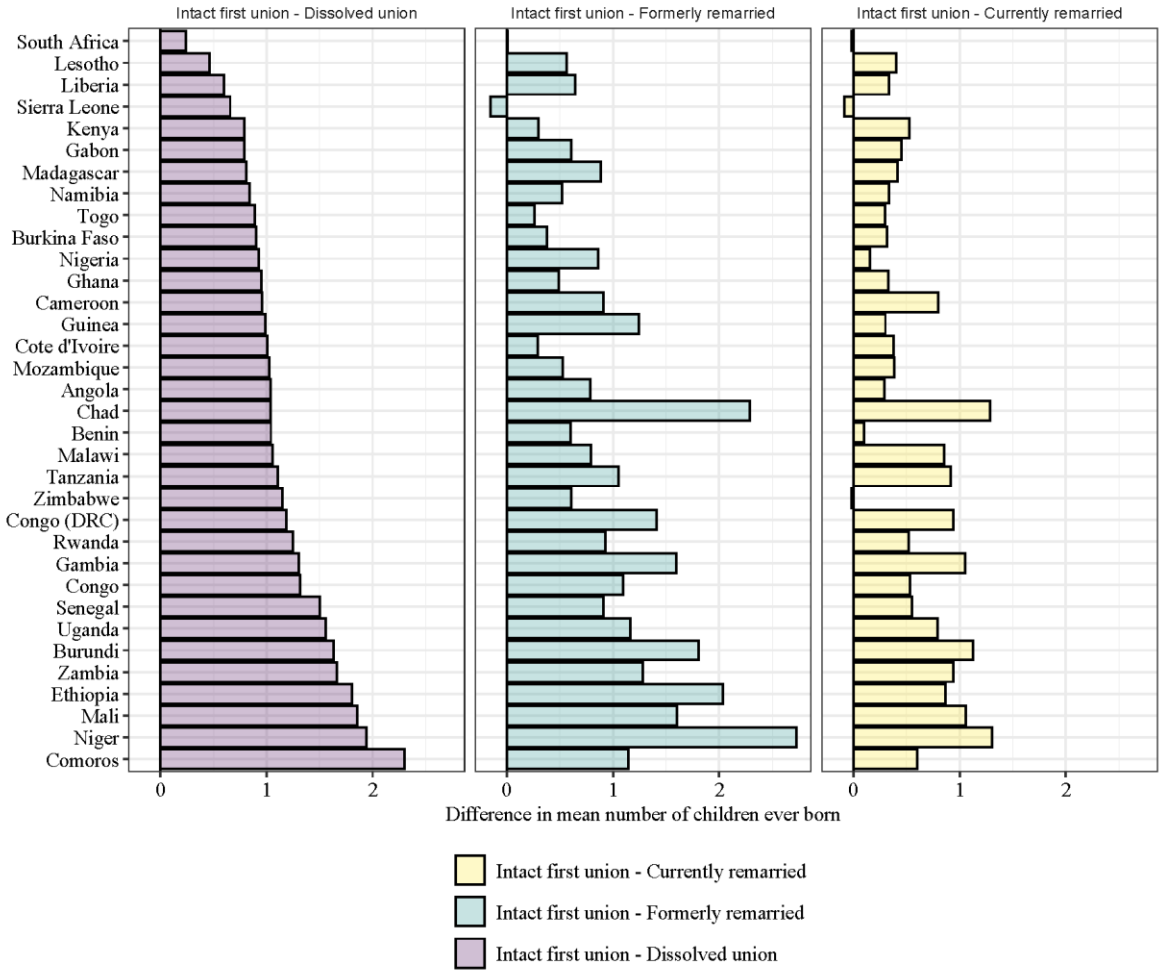
Abstract

Emerging research has documented lower fertility among women who experience union disruption in sub-Saharan Africa. However, it remains unclear whether this reflects lower fertility desires, constrained opportunities to achieve desired fertility, or both. Using nationally representative data from 34 countries, this study examines whether the fertility gradient between women in intact unions and those who experience marital dissolution is primarily driven by differences in fertility desires, unrealized fertility, or unwanted fertility. Findings reveal that unrealized fertility is widespread and especially pronounced among women whose first unions dissolved, particularly those who did not remarry. While remarriage offers partial fertility recuperation, it does not fully offset the reproductive disadvantage associated with union disruption. On the other hand, women in intact first unions have higher levels of unwanted fertility, which contribute to the fertility gradient. Differences in ideal number of children contribute little to fertility gaps, suggesting that constrained realization of fertility goals—rather than lower aspirations—drives these disparities. Additionally, women with disrupted unions are more likely to revise their fertility intentions downward or express uncertainty about future childbearing. These results underscore the need for reproductive health policies that address not only fertility limitation but also the achievement of desired fertility, recognizing both as essential components of reproductive autonomy

Introduction

Marital dissolution and repartnering are essential drivers of fertility variation, yet they have received limited attention in sub-Saharan Africa until recently (John & Adjiwanou, 2022). This is surprising given the scholarly interest in fertility variation in the region and the high frequency of divorce, widowhood, and remarriage (Bongaarts & Casterline, 2013; Casterline & Agyei-Mensah, 2017; Clark & Brauner-Otto, 2015; John & Nitsche, 2023). Recent research has shown that fertility is clearly patterned by marital history across sub-Saharan Africa: women in intact first unions have the highest fertility, followed by women who are remarried, with women in dissolved unions having the lowest levels of fertility. These patterns are consistent across almost all sub-Saharan African countries but are largest in contexts of high fertility (John, 2024; John & Adjiwanou, 2022).

FIGURE 1 Fertility Differences Between Women in Intact First Unions and Those Who Have Experienced Marital Dissolution



Notes:

1. These estimates update those found in John & Adjiwanou (2022) and John (2024). For consistency with the focus of the present paper, in contrast to the earlier studies, we separate out women who were remarried by whether or not they are currently married at the time of survey.
2. Dissolved union refers to women whose first marriage ended in separation or divorce, and who have not entered into a subsequent union.

The dominant explanation for this pattern is differences in exposure time. That is, women whose first unions dissolve have reduced exposure to regular sexual activity, which is necessary to maintain (presumably desired) high levels of fertility (Bongaarts et al., 1984; Davis & Blake, 1956). Yet, focusing only on outcomes risks inferring desires from action (Johnson-Hanks, 2007). In this paper, we focus explicitly on fertility desires, recognizing that observed variation in fertility by marital history must either be due to (i) differences in family size goals by marital history; or (ii) differences in the realization of those goals. Identifying which of these two mechanisms is driving fertility variation by marital history is important for understanding the meaning of this variation and how it contributes to women having—or not having—the children they desire. We use nationally representative data from 187,603 women across 34 sub-Saharan African countries to answer this question and examine the ways in which marital dissolution and remarriage shape women's ability to realize their fertility desires, and how these processes vary across countries.

Background

Marriage is nearly universal across sub-Saharan Africa and occurs at early ages on average (Garenne, 2004; John & Nitsche, 2023; Westoff et al., 2003). At the same time, demographers have described the fragility of marriages in the region for decades (Bledsoe, 1990; Lesthaeghe, 1989; Locoh & Thiriat, 1995; Reniers, 2003). Estimates suggest divorce is as common in sub-Saharan Africa as it is in Europe and that levels of divorce have been relatively stable over the last two decades. Levels of divorce are somewhat higher in East Africa and lower—but still high—in West Africa (Clark & Brauner-Otto, 2015). Relatively high mortality rates at reproductive ages have also meant that widowhood is common, although it will have been reduced by recent reductions in AIDS mortality across the region (Carter et al., 2024; Porter et al., 2004; Timaeus & Jasseh, 2004).

Although rates of marital dissolution are high, women often do not stay out of union long. Remarriage following divorce or widowhood is common in both polygynous and non-polygynous societies throughout the region with the exception of southern Africa (Antoine & Dial, 2003; Bledsoe, 1990; Reniers, 2003). It also tends to occur quickly following dissolution, meaning losses in exposure time are relatively small. Recent estimates suggest that women in the region spend only 4-16% of their reproductive years outside of marriage due to union dissolution (John & Nitsche, 2023). While exposure time likely explains some variation in fertility by union history, the rapidity of remarriage suggests that it does not explain it all.

Another potential explanation is that fertility experiences themselves shape union trajectories rather than only the other way around. Experiences with—or even perceptions of—infertility may destabilize unions, resulting in lower levels of fertility among women whose first unions dissolved. Additionally, among women with dissolved unions, having previously demonstrated fertility could increase their likelihood of remarriage (Fledderjohann, 2017; Isiugo-Abanihe, 1998). Together these mechanisms could contribute to the patterns found in Figure 1.

Demographic research to date has largely overlooked the role of fertility desires in shaping these patterns. Yet fertility desires are critical to understanding the drivers of this variation and to interpreting its meaning. Implicit in studies showing higher levels of fertility among women in intact unions is that these women are better able to achieve their desired (high) levels of fertility. This may not be the case, however since fertility outcomes are poor proxies for fertility goals (Johnson-Hanks, 2007; Smith-Greenaway et al., 2022). It is thus important to better understand how fertility differentials by marital history reflect variation in fertility desires and in the realization of those desires. In this paper, we empirically investigate these question.

Differences in fertility by marital history must be shaped by either differing fertility desires among women with divergent marital experiences or differences in their ability to realize their desires. In the case of the former, selection might lead to differences in the family size goals. Women whose subsequent marital histories unfold differently likely vary on a range of socioeconomic or cultural traits that could shape both their family size goals as well as their likelihood of marital dissolution (Adedini et al., 2020; Reniers, 2003). This could lead to women whose first unions subsequently dissolve having lower family size goals than women whose unions remain intact.

Alternatively, if these groups of women do not vary in their family size goals but still vary in their fertility outcomes, then there must be differences in their ability to achieve their fertility goals. Arguments focusing on reduced exposure time for women in dissolved unions implicitly suggest that women in intact unions are better able to realize their goals, whereas women who are remarried or in dissolved unions will have higher levels of unrealized fertility, having fewer children than desired, because of lost exposure time and the inability to "catch up" on their fertility. It is possible, however, that women in intact unions with the longest periods of exposure to regular sexual activity during their reproductive ages will be at greatest risk of unwanted fertility, having more children than desired, over their life course. Having the number of children one desires is an indicator of reproductive autonomy, while having either fewer or more children than desired are both indicators of limited reproductive autonomy (Bell et al., 2024).

In this paper, we focus on understanding the role of fertility desires in shaping fertility variation by marital history and explicitly include, rather than assume, women's fertility goals. Using data from women towards the end of their reproductive period in 34 sub-Saharan African countries collected between 2011-2023, we examine the extent to which differences in fertility by union history are due to differences in ideal number of children or differences in the realization of one's ideal number of children. We then examine whether women's union histories are associated with divergences between their initial desires and their current demand for children.

Data and Methods

We use the most recent Demographic and Health Surveys (DHS) collected in 34 sub-Saharan African countries. DHS data are nationally representative and include measures of fertility, nuptiality and socio-economic outcomes for women aged 15-49. We include all countries with surveys that contain the needed measures of fertility outcomes, fertility desires, and marriage histories. In total, this leaves us with 13 countries in West Africa, 6 countries in Central Africa, and 15 countries from East and southern Africa. In the first phase of the analysis, we limit our sample to women aged 40-49 who are near the end of their reproductive age range and thus will have realized—or not—their fertility already. Although women in their 40s, particularly their early 40s, can still have children, over 90% of fertility in the data we use occurs by age 40. In the second phase, we widen our sample to include women age 30 and above, many of whom will have experienced union dissolution already (John & Nitsche, 2023) while also maintaining fecundability and the possibility of future fertility.

Measures of fertility We measure women's fertility using the complete birth history. We focus on children ever born who are still living (hereafter *surviving children*) because that captures individuals' realized number of children rather than births. 2.8% of women in the sample are currently pregnant. We add current pregnancies to counts of surviving children.

Fertility desires DHS surveys include an indicator of ideal number of children (INC). Women with surviving children are asked: "If you could go back to the time when you did not have any children and could choose exactly the number of children to have in your whole life, how many children would that be?" Although INC is often interpreted as a proxy for current demand for children, recent research suggests this is often not appropriate. Both qualitative and quantitative research has found that most mothers are answering this question by reflecting back to the time before they had children as indicated in the prompt (Ezeh, 2023; Ibitoye et al., 2024). We, thus, interpret INC as a statement of a personal desired family size prior to the start of childbearing.

Unrealized/Unwanted We combine the measures of surviving children and ideal number of children to estimate unrealized fertility and unwanted fertility. Following others, we calculate unrealized fertility at the individual level as a woman's number of surviving children below her ideal number of children (Assaf & Moonzwe Davis, 2022; Casterline & Han, 2017; Channon & Harper, 2019).[1] Unwanted fertility, in contrast, is calculated as the number of surviving children above her ideal number of children (Casterline & El-Zeini, 2007; Lightbourne, 1985).

Measures of nuptiality Using data on current marital status and number of marriages, we create a 4-category marriage history variable. Women are classified as being in an intact first union if they report being married once and are currently married. Women are considered to be married in a dissolved union if they report one marriage and not being currently in union. Women are considered remarried if they have been married at least twice and are currently married. Lastly, women are considered formerly remarried if they have been married at least twice and are currently not in a union.

Table 1 provides a list of all countries included in the analysis, including the survey used and the sample size. Sample sizes refer to ever married women aged 30-49 who were not missing on any of our key variables and who provided a numeric answer to the ideal number of children question. These criteria excluded between 3.6% and 12.4% of women aged 30-49 in 22 countries, and between 14.3% and 28.2% cases in 10 countries. In Namibia, South Africa and Kenya these criteria excluded 35%, 39% and 52% of cases, respectively.

Analytical methods

Our analysis proceeds in three phases. In the first phase, we identify patterns in the relationship between marital history and realizing one's fertility goals by ages 40-49. After presenting the relationship descriptively for each of the 34 African countries under study, we use multinomial logistic regression models to assess the marginal effects of marital history on the probability of three outcomes: (1) achieving one's ideal number of surviving children, (2) experiencing unrealized fertility, and (3) experiencing unwanted childbearing. Our key explanatory variable is marital history, allowing us to compare (a) women married once whose union ended (vs. the reference group, women in an intact first union); (c) formerly remarried women (vs. intact first union); and (c) currently remarried women (vs. intact first union). The models are estimated separately for each country. Covariates include ideal number of children, educational attainment, place of residence, age at first marriage, current age, household income, and child mortality.

[1] Casterline and Han (2017) and Assaf and Davis (2022) also estimated unrealized fertility as women who reported desiring another child towards the end of the reproductive age range. This method produced lower estimates than the ideal number of children approach, but critically—particularly for our focus—excluded women who were outside of unions in 40% of surveys (Casterline & Han 2017).

TABLE 1 List of countries included in the analysis

Country	Survey Year	Sample Size
Angola	2015-16	4,851
Benin	2017-18	6,161
Burkina Faso	2021	6,950
Burundi	2016-17	6,638
Cameroon	2018-19	4,306
Chad	2014-15	5,420
Comoros	2012	1,759
Congo	2011-12	4,343
Congo (DRC)	2013-14	6,800
Cote d'Ivoire	2021	6,180
Ethiopia	2016	5,221
Gabon	2019-21	3,524
Gambia	2019-20	4,044
Ghana	2022-23	6,597
Guinea	2018	3,689
Kenya	2022	7,004
Lesotho	2023-24	2,654
Liberia	2019-20	3,081
Madagascar	2021	7,391
Malawi	2015-16	9,850
Mali	2018	3,799
Mozambique	2022-23	4,987
Namibia	2013	2,670
Niger	2012	4,428
Nigeria	2018	17,942
Rwanda	2019-20	6,067
Senegal	2023	5,527
Sierra Leone	2019	6,380
South Africa	2016	2,564
Tanzania	2022	6,189
Togo	2013-14	4,193
Uganda	2016	6,919
Zambia	2018-19	5,319
Zimbabwe	2015	4,156

In the second phase of our analysis, we examine the extent to which the fertility gradient between women in intact first unions and those who experience marital dissolution is driven by (a) differences in family size ideals, (b) differences in unrealized fertility, and (c) differences in unwanted fertility. We perform this analysis by decomposing the difference in the mean number of children ever born between women in intact first unions and their counterparts with different marital histories. We do this separately by country for women aged 40-49. Our estimation follows others in assuming that women conceptualize ideal number of children (inc) as the number of living children they wish to have (Casterline & Han, 2017; Lightbourne, 1985). Accordingly, we construct measures of unwanted and unrealized fertility by comparing the ideal number of children to the number of surviving children, rather than to the total number of children ever born (ceb).

Therefore, given that the mean number of children ever born ($\overline{ceb}$) is a sum of mean surviving children ($\overline{sc}$) and mean children dead ($\overline{cd}$) i.e., $\overline{ceb} = \overline{sc} + \overline{cd}$, we can express ($\overline{sc}$) in terms of ideal number of children and fertility deviations as follows:

$$\overline{sc} = \overline{inc} - \left(\rho^{ur} \times \overline{urf}\right) + \left(\rho^{uw} \times \overline{uwf}\right) \quad \text{Eq.1}$$

where $\overline{urf}$ is mean unrealized fertility, ρ^{ur} is the proportion of women with unrealized fertility, $\overline{uwf}$ is the mean unwanted fertility, and ρ^{uw} is the proportion of women with unwanted fertility.

Substituting this into the original identity gives:

$$\overline{ceb} = \overline{inc} - \left(\rho^{ur} \times \overline{urf}\right) + \left(\rho^{uw} \times \overline{uwf}\right) + \overline{cd} \quad \text{Eq.2}$$

Therefore, for any two groups of women with different marital histories, denoted *i* and *j*, the difference in their mean number of children ever born $\left(\Delta\overline{ceb}_{i,j}\right)$ can be expressed as the sum of four components: the difference in their mean ideal number of children $\left(\Delta\overline{inc}_{i,j}\right)$, the difference in mean unrealized fertility $\left(\Delta\overline{urf}_{i,j}\right)$, the difference in mean unwanted fertility $\left(\Delta\overline{uwf}_{i,j}\right)$, and the difference in mean children dead $\left(\Delta\overline{cd}_{i,j}\right)$. That is,

$$\Delta\overline{ceb}_{i,j} = \Delta\overline{inc}_{i,j} - \Delta\overline{urf}_{i,j} + \Delta\overline{uwf}_{i,j} + \Delta\overline{cd}_{i,j} \quad \text{Eq.3}$$

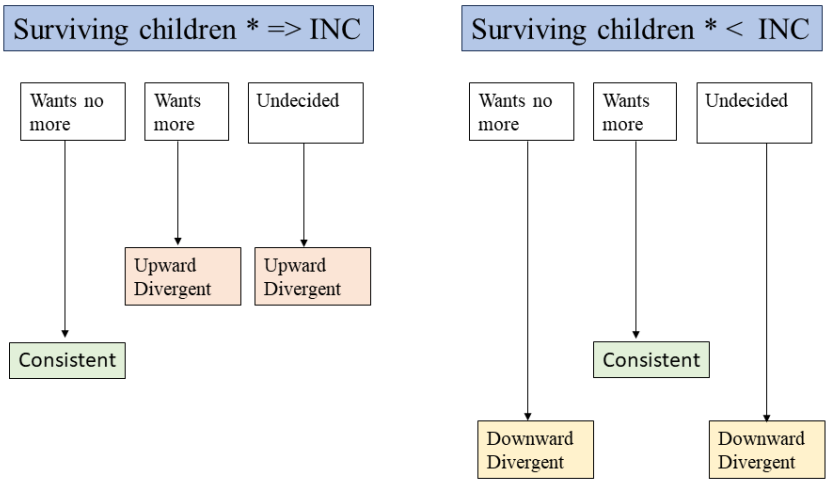
where:
$\Delta\overline{ceb}_{i,j} = \overline{ceb}_i - \overline{ceb}_j$;
$\Delta\overline{inc}_{i,j} = \overline{inc}_i - \overline{inc}_j$;
$\Delta\overline{urf}_{j,i} = \left(\rho^{ur} \times \overline{urf}\right)_i - \left(\rho^{ur} \times \overline{urf}\right)_j$;
$\Delta\overline{uwf}_{i,j} = \left(\rho^{uw} \times \overline{uwf}\right)_i - \left(\rho^{uw} \times \overline{uwf}\right)_j$; and
$\Delta\overline{cd}_{i,j} = \overline{cd}_i - \overline{cd}_j$;

In Equation 2, we set group *i* to represent women in intact first unions. The comparison groups (*j*) include women whose first union ended and who never remarried, formerly remarried women, and currently remarried women. The first three components on the right-hand side of Equation 2 are calculated using marginal means derived from the Poisson regression models. These models estimate ideal number of children, unrealized fertility, and unwanted fertility as functions of marital history, child mortality experience, and other sociodemographic characteristics.

In the third phase of our analysis, we employ a logistic regression model to examine whether women's union experiences are associated with a divergence between their current fertility preferences and their ideal number of children. To do so, we construct a fertility desires divergence variable by classifying women aged 30-49 into three categories based on the alignment between their number of surviving children, their stated fertility ideals, and their desire for further childbearing (see Figure 2). We consider women to have ***consistent fertility desires*** if their number of surviving children matches or exceeds their ideal number of children and they do not wish to have more children *or* they have fewer surviving children than their ideal and they wish to continue childbearing. We consider women to have ***downward divergent desires*** if their number of surviving children is below their ideal number of children and they either desire to cease childbearing or are undecided about whether to continue. We consider

women to have ***upward divergent fertility desires*** if their number of surviving children equals or exceeds their ideal number of children but they either wish to continue childbearing or are undecided about future childbearing.

FIGURE 2 Typology of fertility desire divergence among women based on reproductive histories and fertility desires



Results

Differentials in realization of fertility by marital history

Figure 3 presents the distribution of fertility realization among women aged 40–49 across 34 sub-Saharan African countries, disaggregated by marital history. The results show that unrealized fertility is the most prevalent outcome, regardless of women's marital trajectories or region. In 24 of the 34 countries, more than 50% of women report having fewer children than desired, whether they are in an intact first union, formerly married, or currently remarried. Notable exceptions appear in East and Southern Africa—specifically Burundi, Malawi, and Rwanda—where the share of women with unwanted fertility exceeds those with unrealized fertility, particularly among women in intact first unions.

Matched fertility is consistently the least common outcome across all countries and marital histories. On average, 18.6% of women in intact unions report matched fertility, ranging from 5.8% in Niger to 29.7% in South Africa. Among women whose first union ended without remarriage, the average is 17.7%, with proportions ranging from 8.8% in Chad to 26.9% in Kenya. Among formerly remarried women, matched fertility averages 16.4% (ranging from 3.0% in Niger to 30.0% in Lesotho). The lowest average is observed among currently remarried women (15.1%), with country-level estimates ranging from 5.0% in Chad to 32.9% in South Africa.

FIGURE 3 Proportion of women with matched, unrealized and unwanted fertility according to marital history

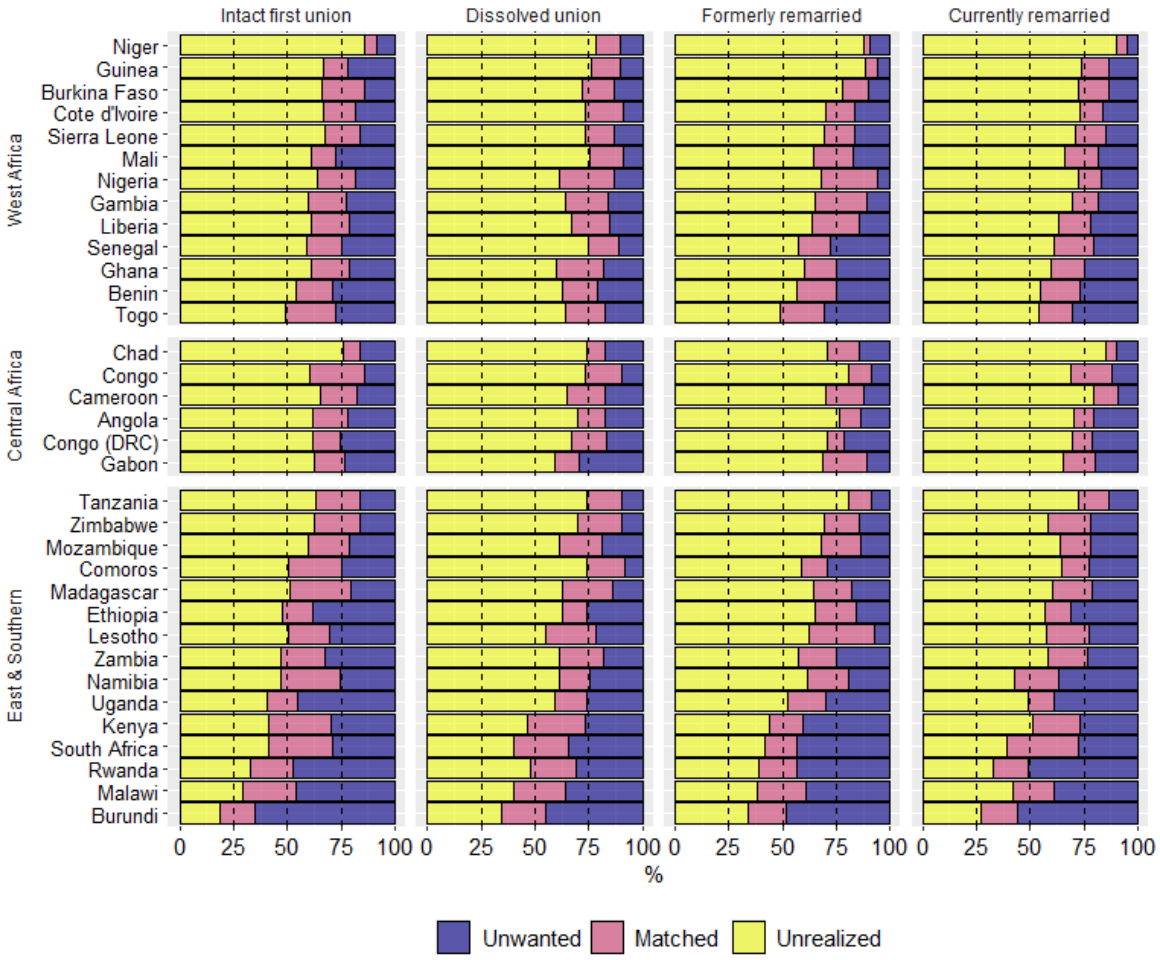
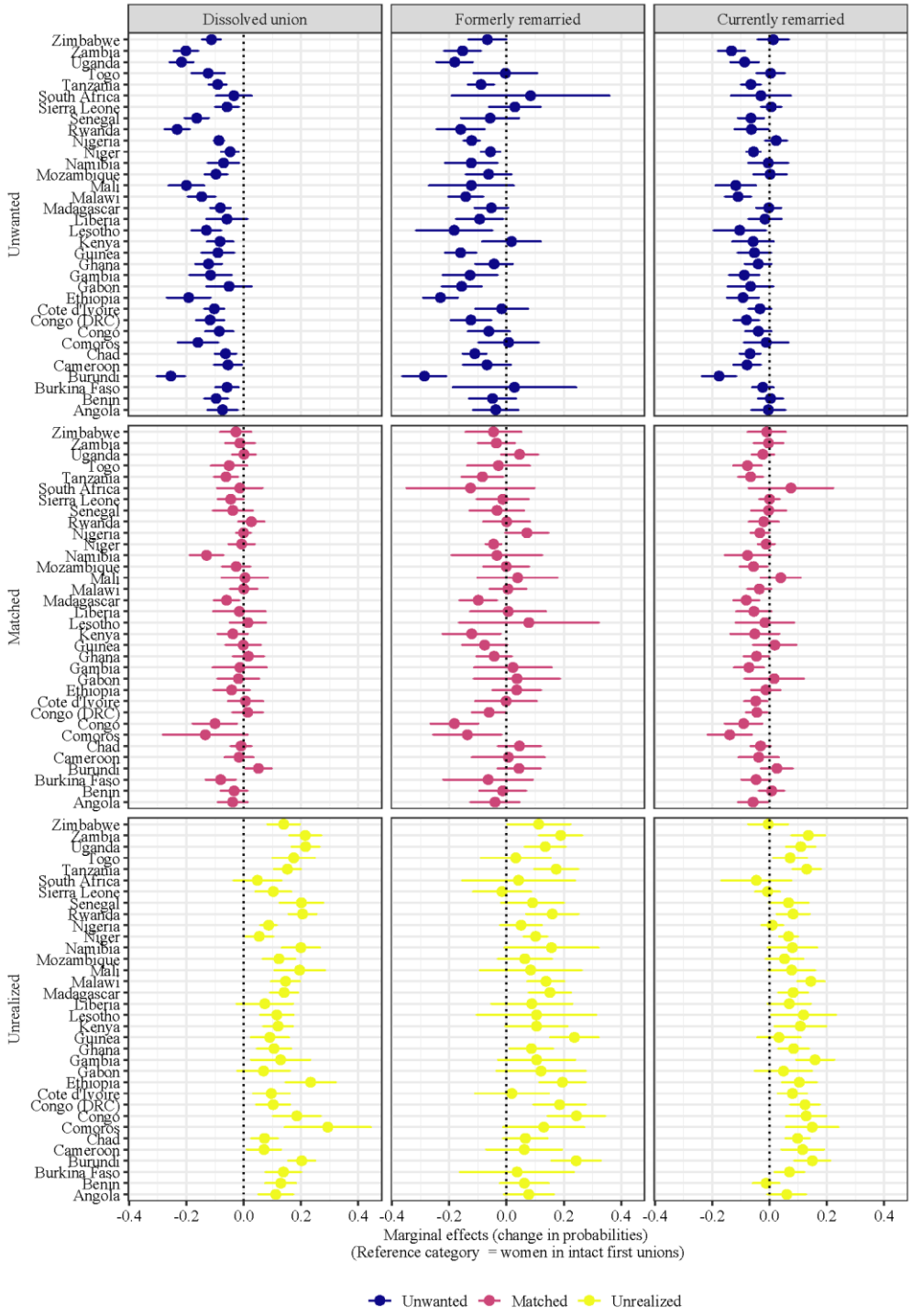


Figure 4 presents average marginal effects of marital history on the likelihood of ending one's childbearing years with matched (top panel), unrealized (middle), or unwanted fertility (bottom). We compare women in dissolved unions (never remarried), formerly remarried women, and currently remarried women to those in intact first unions. Overall, marital dissolution shows limited association with matched fertility. Only 6 of 34 countries show significant differences for women whose first union ended and were never remarried, with a positive effect in Burundi (0.051) and negative effects in five countries, with the largest effect in Namibia (-0.130). Similarly, significant differences for formerly remarried women are observed in 7 countries, while current remarriage is associated with lower matched fertility in 12 countries, most notably Comoros (-0.139). Across most countries, women who experienced marital dissolution are as likely as women in intact first unions to have the number of children they considered ideal.

In contrast, the findings suggest that marital dissolution, with or without remarriage, is linked to both higher unrealized and lower unwanted fertility. Unrealized fertility is consistently higher among women whose first union ended, regardless of remarriage. The association is significant in 31 countries, with effect sizes ranging from 0.054 in Niger to 0.294 in Comoros. Formally remarried women exhibit significantly higher unrealized fertility in 21 countries (e.g., 0.087 in Ghana to 0.244 in Congo), while current remarriage is associated with higher unrealized fertility in 14 countries (e.g., 0.067 in Niger to 0.159 in Gambia).

FIGURE 4 Marginal effects of marital history on matched, unrealized, and unwanted fertility across 34 African countries



Notes

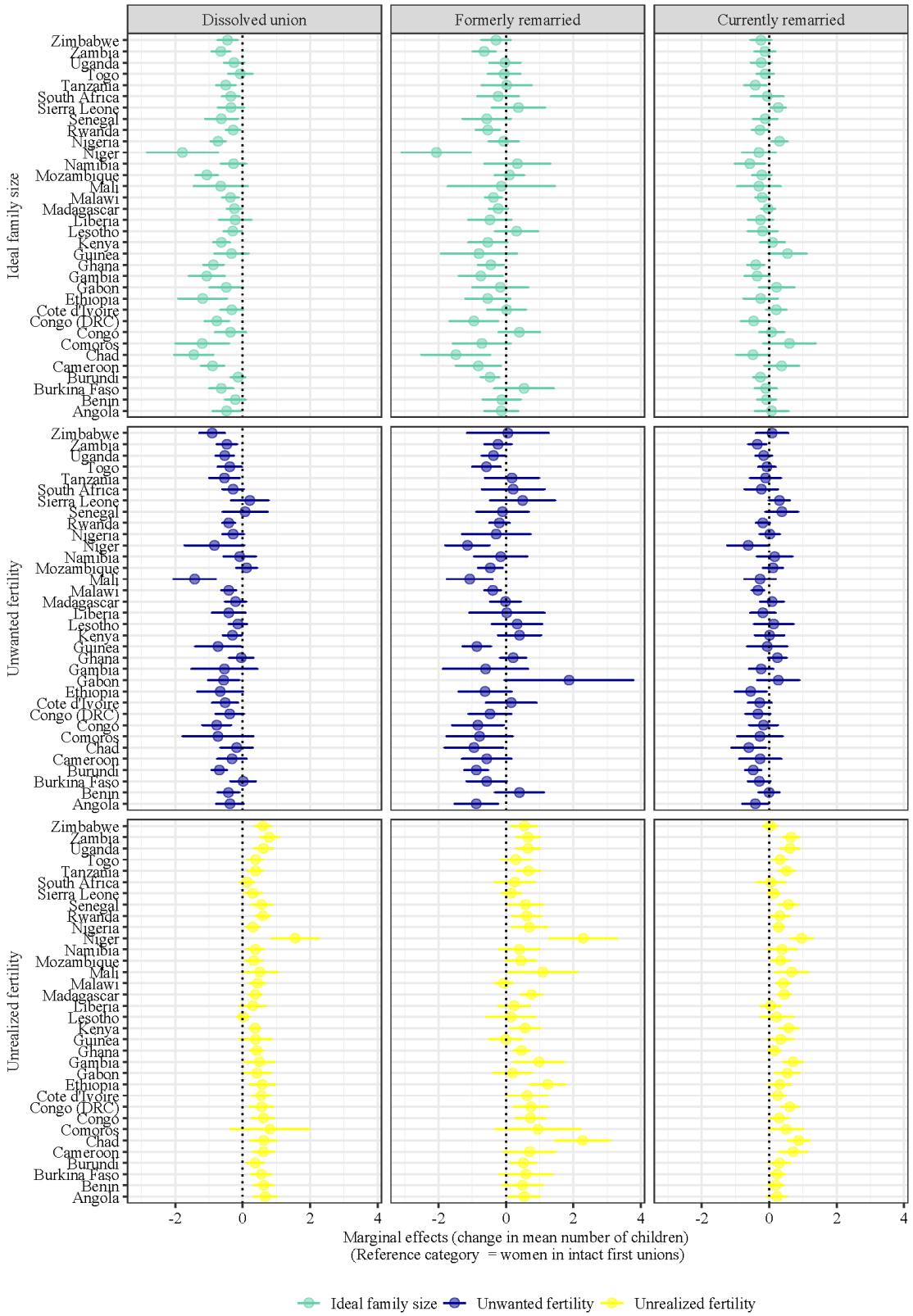
1. Estimates are derived from a multinomial logistic regression model, with the realization of fertility intentions—categorized as Matched, Unrealized, and Unwanted—as the outcome variable.

2. Models are estimated separately for each country, using data from women aged 40–49. Covariates include ideal family size, educational attainment, place of residence, age at first marriage, current age, household income, and child mortality

Unwanted fertility shows the opposite trend. Women in dissolved unions are significantly less likely to report unwanted fertility in most countries (e.g., -0.047 in Niger to -0.254 in Burundi),

with exceptions including Gabon, Liberia, and South Africa. This pattern holds for formerly remarried (18 countries; -0.056 to -0.287) and currently remarried women (15 countries; -0.055 to -0.176).

FIGURE 5 Differences in mean ideal number of children, mean unrealized fertility and mean unwanted fertility



Notes

1. Estimates are based on three Poisson regression models. **Model 1** (top panel): outcome = ideal numbers of children. **Model 2** (Middle panel): outcome = number of unrealized children. **Model 3** (bottom panel): outcome = number of unwanted children.

2. Models are estimated separately for each country using data from women aged 40–49. All models control for education, place of residence, age at first marriage, current age, household income, and child mortality. Models 2 and 3 additionally control for ideal number of children.

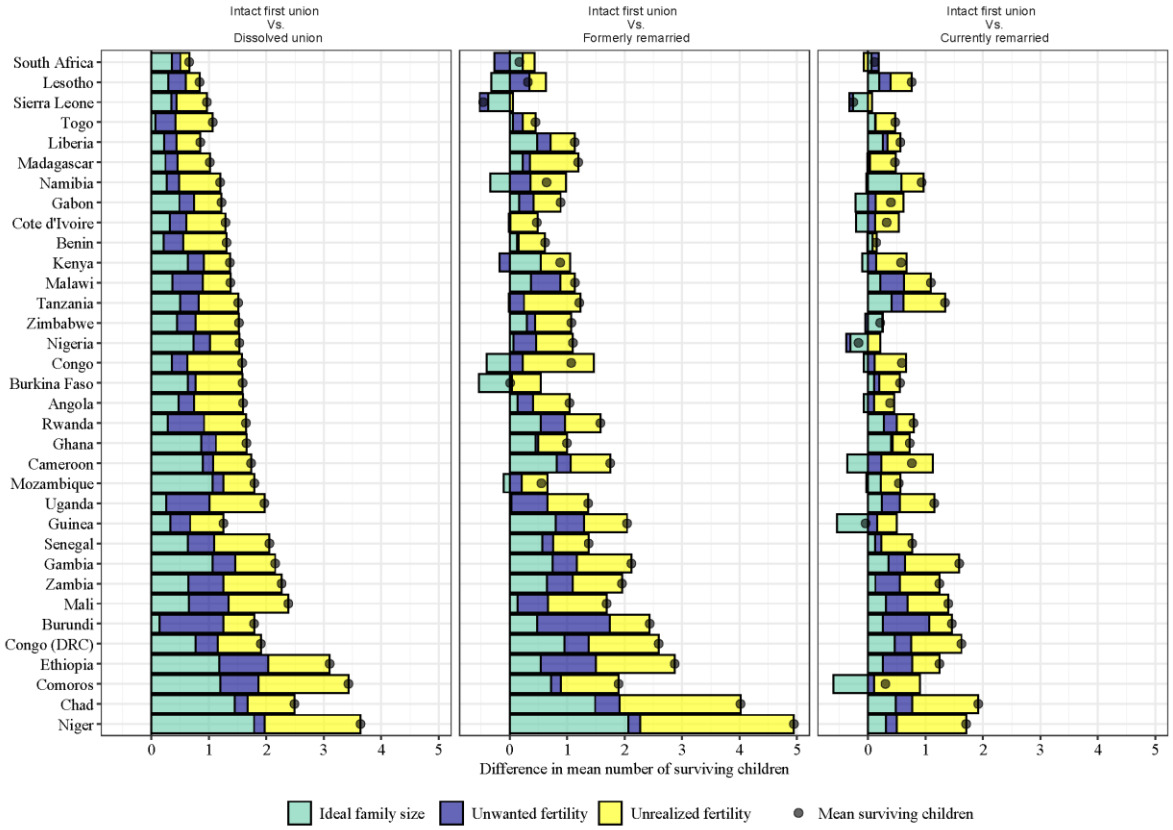
To identify whether differences in fertility by marital history are shaped by either differing ideal numbers of children or differences in their ability to realize those desires, Figure 5 presents marginal effects of marital dissolution on mean levels of ideal number of children, unrealized fertility, and unwanted fertility—relative to women in intact first unions. The results suggest that mean ideal numbers of children among women who have experienced marital dissolution, particularly those who remarry, are largely comparable to those in intact unions in most countries. Currently remarried women differ significantly in ideal family size from women in intact unions in only 9 of 34 countries—reporting higher ideals in Sierra Leone and Nigeria, but lower ideals in seven others, including Burundi, DRC, Ghana, Malawi, Namibia, and Rwanda. Formerly remarried women are associated with significantly lower ideals in 10 countries, with the largest difference observed in Niger (-2.064 children). Women whose first union ended and who never remarried show significantly lower ideals in nearly two-thirds of countries, with effects ranging from -0.069 children in Togo to -1.787 children in Niger.

Mean levels of unrealized fertility is consistently higher among women who experienced union dissolution. In 28 countries, women who never remarried following marital dissolution show significantly higher levels of unrealized fertility, with effects ranging from 0.302 fewer children than desires in Nigeria to 1.561 in Niger. Similarly, formerly and currently remarried women show higher unrealized fertility in 20 and 21 countries, respectively. In contrast, levels of unwanted fertility do not differ significantly between women in intact unions and those who experienced union dissolution in most countries.

However, currently remarried women report significantly lower mean numbers of unwanted fertility in seven countries, with reductions ranging from -0.354 fewer unwanted children in Zambia to -0.413 in Angola. Formerly remarried women are associated with lower unwanted fertility in 11 countries (effects varying between -0.371 in Uganda and -1.141 in Niger), while women who never remarried following marital dissolution have lower unwanted fertility in 15 countries (effects varying between -0.305 in Kenya and -1.423 in Mali).

Figure 6 presents results from a decomposition analysis that examines the extent to which differences in ideal number of children, number of unwanted children, and number of unrealized children account for the fertility gaps between women in intact first unions and those who have experienced marital dissolution. The analysis adjusts for differential child mortality since children born to women with dissolved unions typically face higher mortality risks (Akinyemi et al., 2017; Clark & Hamplová, 2013). Positive contributions from ideal number of children and unwanted fertility indicate that women in intact unions have higher values for these components than those who experienced dissolution. For clarity, contributions from unrealized fertility are multiplied by -1, so positive values reflect higher unrealized fertility among women whose unions dissolved.

FIGURE 6 Decomposition of total fertility differences by marital history into differences in ideal number of children, unrealized fertility and unwanted fertility



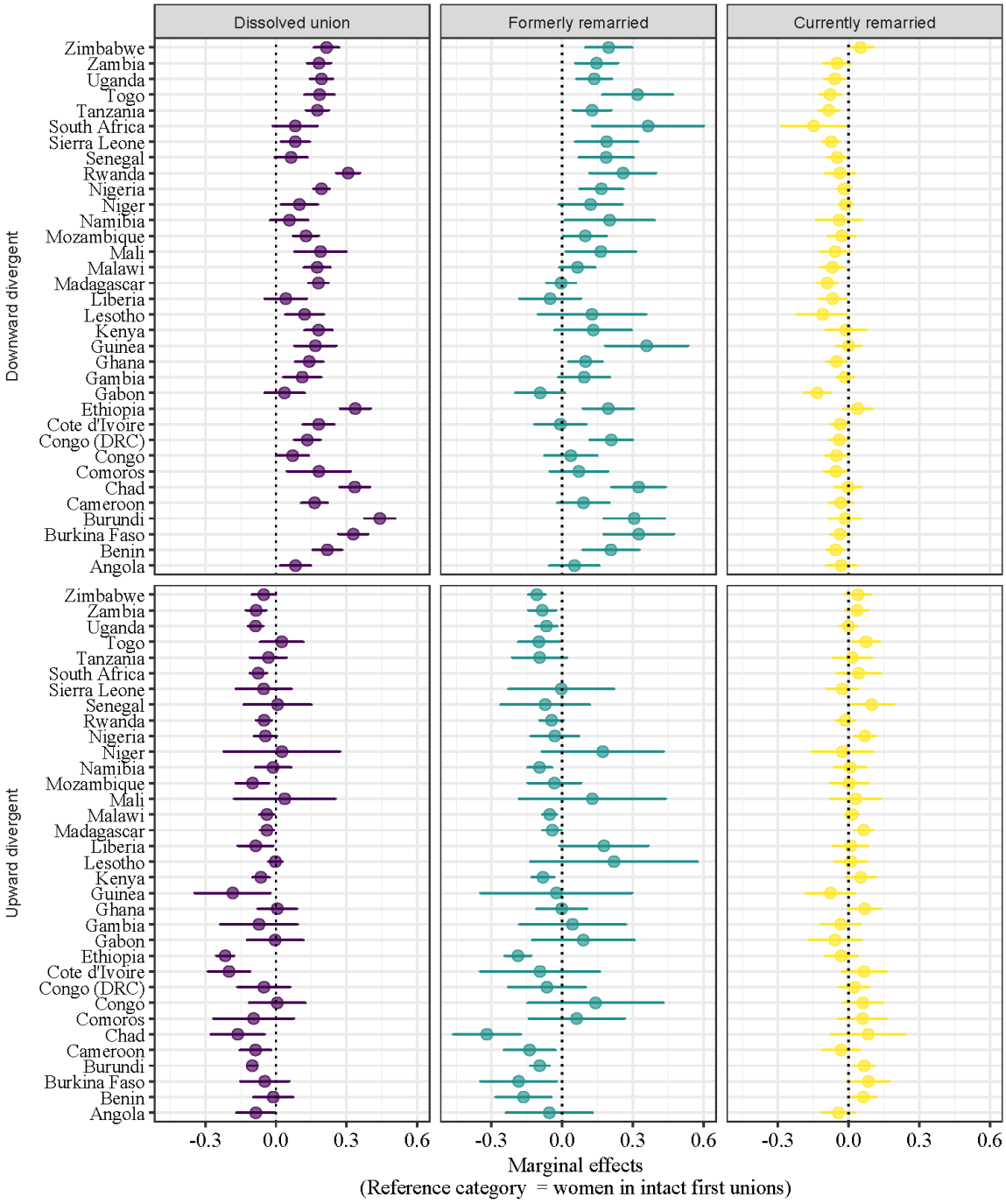
The results show that fertility gaps are generally positive, indicating that women in intact first unions have, on average, more surviving children than those whose first union ended. Exceptions include Sierra Leone and Nigeria, where currently remarried women have slightly higher fertility. These fertility gaps are most pronounced when comparing women in intact unions to those who never remarried, with differences ranging from 0.66 children in South Africa to 3.64 in Niger. In 30 countries, the fertility gap exceeds one surviving child. Comparisons between women in intact unions and currently remarried women reveal smaller gaps, ranging from -0.26 in Sierra Leone to 1.92 children, with over 10 countries showing differences of more than one child.

Unrealized fertility is the largest and most consistent contributor to these gaps. Among the 31 countries where currently remarried women have fewer surviving children than those in intact unions, over half of the fertility difference is attributable to higher unrealized fertility. Similarly, over 40% of the fertility gap between intact-union women and those who never remarried following marital dissolution is driven by unrealized fertility among the latter group. These findings suggest that while remarriage allows for some recuperation of fertility (via reduction in unrealized fertility), it does not fully offset the reproductive disadvantage linked to union dissolution.

Unwanted fertility also contributes to fertility gaps, accounting for between 2% and 39% of the differences across countries and union types. In specific contexts—such as Burundi, Malawi, and Lesotho (non-remarried women), and Ethiopia (remarried women)—unwanted fertility plays a larger role than unrealized fertility. That is, in these countries, the fertility gap between

women in intact first unions and women in dissolved unions is to a large degree explained by the former having more children than the desire. Differences in ideal number of children also explain a meaningful share of the fertility gap in several countries, notably Cameroon, Chad, Comoros, DRC, Ethiopia, Gambia, Ghana, Mozambique, and Niger. However, this component contributes less when comparing currently remarried women to those in intact unions, suggesting potential selective entry into remarriage among women with higher fertility preferences.

FIGURE 7a Association between marital dissolution and divergent fertility desires



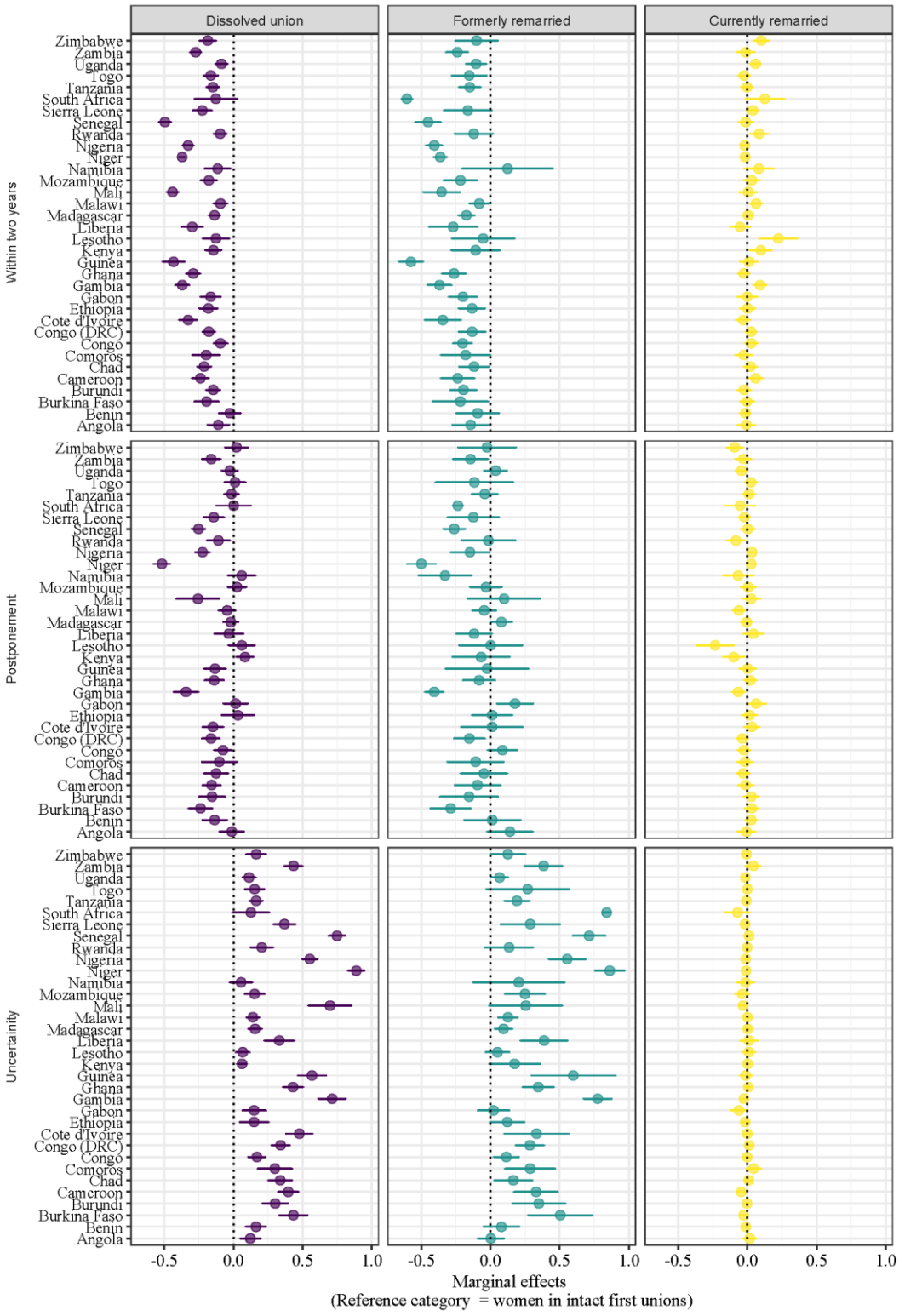
Notes

1. Estimates are derived from two logistic regression models. Model 1 (top panel) compares consistent and downwardly divergent fertility desires among women at risk of downward divergence— i.e., women with a number of surviving children below their stated ideal number of children. Model 2 (bottom panel)

compares consistent and upwardly divergent fertility desires among women at risk of upward divergence—i.e., women with surviving children equal to or exceeding their ideal number of children.

2. The models are estimated separately for each country and are restricted to women aged 30–49. Covariates include ideal number of children, current age, age at first marriage, educational attainment, place of residence, household income, child mortality experience, and number of surviving children.

Figure 7b. Association between marital dissolution and fertility timing intentions



Notes

1. Estimates are based on a multinomial logistic regression model, with fertility timing intentions as the outcome variable. The three categories of timing intentions are: intending to have a child within two years, intending to wait more than two years (postponement), and being uncertain about timing.

2. The models are estimated separately for each country and restricted to women aged 30–49. Covariates include ideal number of children, current age, age at first marriage, educational attainment, place of residence, household income, child mortality experience, number of surviving children, number of children under age five, whether the woman had a birth in the past five years, current pregnancy status, and whether her fertility intentions are consistent or upwardly divergent.

Nevertheless, Figure 6 demonstrates that even in the absence of selection effects, fertility gaps between women in intact first unions and those who have experienced marital dissolution persist. These gaps are primarily driven by higher levels of unrealized fertility among women who experienced marital dissolution, and to a lesser extent, by higher levels of unwanted fertility among women in intact first unions. Figures 7a and 7b explore potential sources of this unrealized fertility.

We first hypothesize that marital dissolution may prompt women to cease childbearing despite not having achieved their ideal number of children. However, in the event of remarriage, we expect the downward divergence in fertility desires to be weaker, with the potential for upward divergence driven by pressures to have additional children within the new union. Figure 7a supports this hypothesis, showing that downward divergence in fertility desires (i.e., desiring to stop childbearing despite unmet fertility goals) is more prevalent among women whose unions ended and never remarried, as well as among formerly remarried women. In 29 countries, never-remarried women show significantly higher desires to stop childbearing early, with effect sizes ranging from 0.07 in Congo to 0.44 in Burundi. Formerly remarried women show similar patterns in 21 countries, with effects ranging from 0.10 in Mozambique to 0.37 in South Africa. Conversely, upward divergence—wanting more children despite reaching ideal family size—is less common among these groups in 17 and 15 countries, respectively.

As expected, currently remarried women show weaker patterns of downward divergence that trend in the opposite direction. In 18 countries where differences are statistically significant, currently remarried are less likely to report desires to end childbearing early, with small negative effects (-0.04 to -0.15). However, in a handful of countries (e.g., Benin, Madagascar, Nigeria, Togo, Senegal), currently remarried women are slightly more likely to want additional children despite reaching ideal family size, though effects are minimal (0.06–0.10).

Our second hypothesis posits that unrealized fertility may result from delayed childbearing desires among women post-dissolution. However, Figure 7b shows limited support for this. Women who never remarried or were formerly remarried are generally less likely to express a desire for a child soon (within two years) but are not correspondingly more likely to desire to postpone childbearing (beyond two years). In fact, in 19 and 11 countries, respectively, these groups are less likely to have clear postponement desires. Instead, marital dissolution appears to elevate the likelihood of uncertainty about fertility timing. Women who never remarried are significantly more likely to report uncertainty in nearly all countries except Namibia and South Africa, with effect sizes ranging between 0.06 in Kenya and 0.89 in Niger. Formerly remarried women also show elevated uncertainty in 27 countries.

In contrast, patterns for currently remarried women show minimal differences between those of women in intact first unions. Only eight countries show a significant increase in short-term childbearing desires, with the strongest effect in Lesotho (0.223). In a few countries (e.g.,

Nigeria), these women are more likely to postpone childbearing, and in five others, they report reduced uncertainty, though effects are minor (-0.027 to -0.031).

Discussion and Conclusion

This study set out to examine how union dissolution and remarriage influence the realization of fertility desires in sub-Saharan Africa (SSA) and to assess whether the fertility gradient between women in intact unions and those who experience marital dissolution reflects differences in fertility desires or differences in their realization. The analyses draw on recent DHS data from 34 countries. As with many comparative studies relying on cross-sectional data, our use of DHS limits our ability to track how fertility desires and outcomes evolve over time in response to marital transitions. Women's retrospective reports of ideal family size may be subject to ex-post rationalization. Nevertheless, recent studies have found that women on the whole interpreted the DHS question as it was intended, reflecting their desires before they began childbearing (Ezeh, 2023; Ibitoye et al., 2024). But even if fertility goals are considered as moving targets that people revise in response to life experiences such marital dissolution, infertility, or socioeconomic constraints, research consistently shows that women are more likely to revise their fertility ideals downward than upward (Lee, 1980; Müller et al., 2022; Trinitapoli & Yeatman, 2017). Our own findings support this pattern: downward divergence—where women report a desire to stop childbearing despite not yet reaching their stated ideal number of children—is common, especially among formerly and never-remarried women. This suggests that that estimates of unrealized fertility in this study may represent a conservative assessment of unmet reproductive goals. Thus, rather than overstating constraint, our findings thus likely underestimate the degree to which marital instability limits realization of fertility desires.

In addition, the nuptiality histories available in DHS do not allow us to fully distinguish between different causes of marital dissolution—such as divorce and widowhood—which may have distinct effects on fertility intentions and outcomes. Our main models also do not account for HIV/AIDS status due to limited availability of this information across the sample. Nonetheless, prior analyses (John 2023) indicate that the association between marital dissolution and fertility outcomes persists regardless of HIV status. Despite these limitations our findings offer new insights into the fertility-union nexus by moving beyond observed fertility behaviour to explicitly consider women's reproductive goals and the extent to which marital instability shape realization of these goals.

Specifically, the findings reveal that unrealized fertility is widespread across the region, regardless of whether a woman remained in a first union, remarried, or stayed single after marital dissolution. This finding parallels emerging evidence on the realization of fertility desires in the region (Casterline & Han, 2017; Channon & Harper, 2019) and provides further evidence that challenges the prevailing narrative that high fertility in SSA primarily reflects excess fertility. Indeed, we found that, unwanted fertility—often assumed to be the primary reproductive challenge—is notably more prevalent only among women in intact unions and in select country countries. Furthermore, matched fertility—the scenario where women have the number of children they desired—is consistently rare, underscoring the pervasive mismatch between fertility aspirations and outcomes.

The study further reveals that women in intact first unions report both higher levels of unwanted fertility and lower levels of unrealized fertility compared to those who experienced marital dissolution. By contrast, women who divorced or were widowed, particularly those who did not remarry, are substantially more likely to end their reproductive years with fewer children

than they desired. Even among remarried women, unrealized fertility remains elevated, suggesting that remarriage only partially mitigates the reproductive disadvantage introduced by union disruption. Indeed, by decomposing the fertility gaps across union trajectories, we show that unrealized fertility is the single largest contributor to fertility gap between women in intact union and those who have experienced union dissolution. In most countries, over 40% of the fertility gap is due to unrealized fertility. Differences in ideal number of children account for a much smaller share of the fertility gap and are statistically significant in only a subset of countries. Similarly, unwanted fertility plays a secondary role and is more relevant among women in intact unions. These results suggest that the documented fertility gradient by union history in sub-Saharan Africa (John, 2024; John & Adjiwanou, 2022) is less a reflection of differences in desired family size and more a reflection of constraints in achieving those desires.

Importantly, our findings also highlight how marital trajectories shape the alignment between ideal family size desires and current intentions. Using a typology of divergent fertility intentions, we show that women whose unions dissolved are more likely to report downward divergence—a decision to stop childbearing despite having fewer children than originally desired. This phenomenon suggests that the disruption of marriage alters not only exposure to reproduction but also women's fertility intentions and expectations in ways that constrain the realization of fertility goals. Formerly and never-remarried women, in particular, show significantly elevated levels of early cessation of childbearing relative to their fertility ideals.

We hypothesized that unrealized fertility might partly reflect the postponement of childbearing following union dissolution. However, the results offered limited direct support for this hypothesis. Instead, they reveal a high level of uncertainty regarding the timing of future childbearing among women who experience marital dissolution, particularly those not currently in a union. Rather than explicitly intending to delay childbearing, these women frequently report indecision, suggesting ambivalence or reduced reproductive agency in the absence of a stable partnership. Such patterns indicate that union dissolution may not only constrain the opportunity for childbearing but also undermine women’s capacity to formulate concrete reproductive plans, thereby contributing to unmet fertility desires. Nonetheless, it is important to note that although these women do not express a desire to postpone childbearing, they do not necessarily express desire to have children soon. Thus, their uncertainty may translate into postponed fertility. In this way, fertility postponement—emerging indirectly from uncertainty—may still play a meaningful role in limiting the realization of fertility goals among women who have experienced marital dissolution.

The results documented in this paper contribute to a growing body of literature that emphasizes the fluidity of fertility desires and the importance of considering both goals and outcomes. The findings resonate with prior work suggesting that reproductive goals are revised in response to life-course events, including union transitions (Trinitapoli & Yeatman, 2017; Yeatman et al., 2013). Our study reinforces this view but also highlights that such revisions often reflect constrained choice rather than free adaptation. In particular, downward divergence of fertility desires among women who have experienced marital dissolution and are not currently in union and the lack thereof for currently remarried appear to be less about preference change and more about reduced opportunities and expectations for fertility realization.

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Table 2 :Distribution of proportion of women with Matched, Unrealized, and Unwanted fertility by marital history in 34 Sub-Saharan Africa

	Intact first union			Married once-dissolved union			Remarried-dissolved union			Currently remarried		
	Matched	Unrealized	Unwanted	Matched	Unrealized	Unwanted	Matched	Unrealized	Unwanted	Matched	Unrealized	Unwanted
West Africa												
Benin	17.4	54.0	28.6	16.3	62.8	20.9	18.4	56.7	24.9	18.0	54.8	27.3
Burkina Faso	20.0	66.2	13.8	15.2	71.7	13.1	12.3	77.8	9.9	14.6	72.1	13.3
Cote d'Ivoire	15.3	66.7	18.0	17.7	73.1	9.2	13.6	70.0	16.4	10.7	73.1	16.2
Gambia	17.5	59.7	22.8	20.2	63.9	15.9	23.6	65.2	11.2	11.5	69.7	18.8
Ghana	17.7	60.9	21.4	21.8	60.1	18.1	14.9	60.1	25.0	15.1	59.8	25.1
Guinea	11.6	66.6	21.8	13.2	76.3	10.5	5.7	88.2	6.0	13.1	73.7	13.2
Liberia	18.0	60.9	21.1	17.8	67.2	15.0	21.9	63.3	14.8	14.2	63.4	22.3
Mali	11.1	61.2	27.7	15.4	75.7	8.9	18.3	64.6	17.1	15.9	65.8	18.3
Niger	5.8	86.2	8.1	11.7	78.3	10.1	3.0	87.7	9.3	5.2	89.7	5.1
Nigeria	17.7	63.7	18.6	25.3	61.1	13.5	26.4	68.0	5.6	10.7	72.0	17.3
Senegal	16.5	59.1	24.3	14.4	74.8	10.8	15.1	57.1	27.8	18.1	61.3	20.5
Sierra Leone	16.1	67.7	16.3	13.3	73.7	12.9	13.5	69.6	16.8	13.9	71.2	14.8
Togo	23.4	48.9	27.7	18.5	64.2	17.3	20.3	48.7	31.0	15.5	53.8	30.7
Central Africa												
Angola	16.2	61.7	22.1	12.5	70.1	17.5	10.3	76.2	13.5	8.7	70.4	20.9
Cameroon	16.8	65.3	17.9	17.7	64.7	17.6	17.5	70.1	12.4	11.1	79.4	9.5
Chad	7.8	76.3	15.9	8.8	74.0	17.2	14.9	70.6	14.6	5.0	84.7	10.3
Congo	26.1	60.2	13.7	17.4	73.2	9.5	10.4	80.9	8.7	18.8	68.8	12.4
Congo (DRC)	13.3	61.6	25.1	16.0	67.1	16.9	7.8	70.4	21.8	8.6	69.8	21.6
Gabon	14.4	62.5	23.1	11.4	59.3	29.3	20.3	68.9	10.8	14.9	65.4	19.7

Table 2 continued

	Intact first union			Married once-dissolved union			Remarried-dissolved union			Currently remarried		
	Matched	Unrealized	Unwanted	Matched	Unrealized	Unwanted	Matched	Unrealized	Unwanted	Matched	Unrealized	Unwanted
South & East Africa												
Burundi	16.3	18.6	65.1	20.4	34.5	45.1	17.7	33.7	48.6	16.9	27.4	55.8
Comoros	25.1	50.6	24.4	17.3	74.2	8.5	11.7	58.9	29.4	12.5	64.9	22.7
Ethiopia	13.8	48.0	38.2	11.1	62.8	26.2	19.3	64.8	16.0	12.1	56.5	31.3
Kenya	29.0	41.4	29.6	26.9	46.7	26.3	16.1	43.5	40.4	22.3	50.9	26.7
Lesotho	19.2	50.5	30.3	23.1	54.9	22.0	30.0	62.6	7.4	20.5	57.1	22.4
Madagascar	28.4	51.2	20.4	23.0	62.9	14.1	17.9	64.2	17.9	18.8	60.1	21.1
Malawi	24.3	29.7	46.0	23.9	40.0	36.1	22.9	38.3	38.9	18.9	41.7	39.3
Mozambique	18.7	60.0	21.3	20.2	61.3	18.6	18.4	67.8	13.7	13.6	64.1	22.3
Namibia	27.7	46.7	25.6	14.0	61.5	24.5	19.5	61.3	19.2	20.6	42.5	36.9
Rwanda	19.6	32.9	47.4	21.4	48.0	30.6	17.7	38.6	43.7	16.4	32.8	50.8
South Africa	29.7	41.4	28.9	24.9	40.4	34.7	15.1	41.6	43.3	32.9	39.2	27.9
Tanzania	20.4	63.2	16.4	15.9	74.4	9.7	10.3	80.7	9.0	14.0	72.4	13.6
Uganda	14.5	40.3	45.2	15.1	59.4	25.6	17.9	52.4	29.7	11.8	48.9	39.3
Zambia	20.6	46.7	32.7	20.5	61.3	18.2	17.7	57.0	25.4	18.5	58.1	23.4
Zimbabwe	21.0	62.8	16.2	20.5	69.7	9.8	16.5	69.0	14.5	19.2	58.5	22.3