WPS8306

Policy Research Working Paper 8306

Marital Shocks and Women's Welfare in Africa

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WORLD BANK GROUP
Development Research Group
Human Development Team
January 2018

Policy Research Working Paper 8306

Abstract

Marital shocks are exceedingly common for women in Sub-Saharan Africa. The paper investigates whether women who have suffered a marital rupture experience lower welfare levels relative to married women in their first union. Conditional means for women's nutritional status are compared by marital status across 20 countries. Overall, the results indicate significantly lower nutritional status for Africa's widows and divorcees between ages 15 and 49. With some exceptions, this is found to be the case with country and household fixed effects and controls for HIV status. However, looking at country-specific associations underlines that disadvantage is by no means universal.

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Marital Shocks and Women's Welfare in Africa

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Keywords: Welfare, Nutrition, Gender, Marital dissolution, Widows, Divorcees, Africa

JEL: J12, J16, I31, I14

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1. Introduction

The marital experience is remarkably gendered in Sub-Saharan Africa. Figure 1 gives the proportions of men and women in each marital status group by age.[2] Although marriage is practically universal, African men spend far more of their lives married than do African women. From their early thirties to their early eighties, over 80% of all men are married. In contrast, the share of married women peaks at around 30—and lasts a much shorter period, dropping below 80% just after age 40. The drop is then precipitous and mirrored by a steady rise in the share of widows. By age 65, there are as many widows as there are married women; by age 80, 80% of women are living in widowhood. All along the age distribution, the share of divorcees is also higher among women than men.

These patterns reflect several factors including far higher male remarriage rates following widowhood or divorce, large spousal age gaps, higher average life expectancy of women, the practice of polygamy, and the ravages of HIV. As a result, one in ten African women 15 and older are widows, and 6% are divorcees. And these women are likely to head their own households —72% of widows are heads of the family. In Africa, many are also quite young.[3] Across the region, 3 percent of all women aged 15-49 are widows at any one point in time, and accounting for those who have remarried, 5% are ever-widowed.

This paper asks whether African women who have been widowed or divorced are poorer than otherwise similar women who are in their first marriage. When today's rich countries were as poor as Africa today, widows were often identified as among the poorest and most vulnerable individuals, which led to the introduction of pension schemes and widow benefits in the late 19th and early 20th centuries in many of those countries (Frohman 2008; Hopkins 2016; Thane 2000). In more recent times, divorced women too have been singled out in the academic literature for the consumption and income losses they often suffer as a result of their marriage's collapse (Amato 2000). Though the evidence is scarce, one might expect a similar situation for women who experience a marital shock in Africa, where most countries are characterized by underdeveloped safety net and insurance mechanisms, and high levels of gender inequality in rights, human development and access to assets and livelihoods. For African women, such a shock may well entail a loss of economic means and support that are acquired through and conditional on marriage—including access to productive assets

[2] See notes to Figure 1 for data sources.
[3] Throughout we shorten Sub-Saharan Africa to Africa.

such as agricultural land. It may be conjectured that Africa today is ready for similar policies targeting widows to those introduced long ago in today's rich word.

Against this view, family, community and local institutions may provide assistance to women following a marital dissolution. A literature in economics has pointed to the existence of risk-sharing arrangements in poor societies which, although they appear to be far from perfect, might be expected to offer some protection (Fafchamps 1992; Jalan and Ravallion 1999). As will be discussed below, in some African countries, polygamy and the continuing practice of the levirate (defined below) appear to serve this purpose to some degree. The widespread tradition of child fostering in Africa has also been identified as a tool for risk-sharing (Akresh 2005). A large literature has emphasized the role of the moral economy in African peasant economies, comprising informal solidarity networks, risk-sharing institutions and mutual insurance systems. Policy makers in Africa may be reasonably confident that the extended family and village support systems will assist widows and divorcees and their offspring, and that such systems work well in most cases.

Yet there does not seem to be much support for that view in the sociological, anthropological and human rights literatures, which have pointed to the plight of widows.[4] A number of NGOs focus specifically on helping African widows. Much qualitative and anecdotal evidence exists of social stigma, property dispossession, forced eviction, denial of child custody, degrading rituals and accusations of having caused the death in the case of widowhood (Human Rights Watch 2017; Loomba Foundation 2015).

Tragic anecdotes abound and undoubtedly occur, but there are no statistics on how common they are. Based on qualitative evidence and various sociological, anthropological and demographic writings, one might expect African women who have suffered a marriage shock to be highly disadvantaged relative to women who have not. Yet, here too there exists little quantitative analysis or evidence representative at the population level to indicate how widespread and generalizable this is within and across countries.

The consequences of marital ruptures for women in Africa have rarely been studied. Instead, the focus has been on female-headed households, whose heads are often abandoned, divorced or widowed. Among them, widow-headed households are frequently found to be particularly impoverished. Africa's widows have also figured in discussions of old-age poverty and more recently, in the context of gendered asset inheritance and the consequences of the HIV/AIDS

[4] For example, Human Rights Watch 2017; Kirwen 1979; Loomba Foundation 2015; Potash 1986; Owen 1986; and Ewelukwa 2002.

epidemic.[5] Although they are likely to be more heterogeneous across women, the welfare consequences of divorce also often appear to be negative and are likewise inadequately understood. There has been interest from demographers (Locoh and Thiriat 1995; Renniers 1998; Clark and Brauner-Otto 2015) and a beginning of one among economists (Lambert et al. 2017; Cherchye et al. 2016). But, all in all, surprisingly little is known about the well-being of Africa's widows and divorcees.

The paper asks whether Africa's widows and divorcees are relatively disadvantaged, as has historically been the case for them in western economies. As noted, in the history of social policy, widows have been a recurrent target group and widows' pensions were important in reducing poverty. The issue was never about the causal effect of widowhood on welfare but rather the correlation with poverty. Widowhood was taken to be an indicator. However, this has received little systematic study for Africa. And "Africa" comprises 48 countries, with different historical and cultural setups. What is true in one may not hold elsewhere.

The paper investigates whether women who have suffered a marital breakdown may also suffer lower welfare levels relative to married women in their first union. Associations are described in a consistent and systematic way across multiple African countries. The overall objective is to better understand the consequences of the loss of a spouse and what role policy may have in protecting women who have suffered a marital dissolution. Through changes in inheritance laws and their enforcement, cash transfer schemes, and preferential access to housing, training, employment and schooling for their children, social policies can potentially help compensate for misfortune stemming from marital shocks, if the evidence suggests that widows and/or divorcees are in fact poor.

Examining these issues is not straightforward even when causal attribution is not the aim. Poverty and vulnerability are mostly measured with the household as the basic unit of observation as data on individual consumption for specific household members are not available. Thus, potentially disadvantaged individuals *within* the household — such as current or remarried widows and divorcees and their children — remain invisible in standard data sources. We can only ask whether women who have had a marital breakup are disadvantaged with respect to other welfare proxies. We use Africa's Demographic and Health Surveys (DHS) and indicators of nutritional status — generally considered an important dimension of individual welfare — to compare conditional means

[5] For recent work on surviving spouses and children in the context of widespread HIV/AIDS deaths in certain countries, see Chapoto et al. (2011); on gendered asset inheritance, see Peterman (2010).

for ever-widowed and ever-divorced women relative to those of once married women across 20 countries. We pool all the data, control for a vast number of individual and household characteristics, and alternatively, country and household fixed effects. The regressions are also estimated with marital status and country interactions to examine country-specific associations.

Our approach is subject to caveats. Nutritional outcome indicators are collected only for those aged 15 through 49, which may well miss the most vulnerable and disadvantaged women. In addition, small overall sample sizes in some cases imply relatively few observations to work with at the country level. We are also limited in the number of usable surveys. DHSs have not consistently collected marital histories. In most surveys, remarried widows and divorcees cannot be distinguished from married-once women. We restrict the analysis to the 21 DHSs fielded between 2004 and 2013 which collected this information. Another difficulty concerns the fact that in regions subject to the AIDS epidemic it may be hard to identify associations with widowhood and divorce from those of being sick and undernourished due to AIDS. To address this possibility, we rerun our estimations on the sample of countries for which HIV tests are reported, controlling for HIV status. A final caveat relates to the possibility of selective mortality among widows and divorcees reflecting their treatment by society (Anderson and Ray 2016). Unfortunately, the paper is unable to address this issue. However, the existence of selective mortality itself constitutes evidence consistent with our findings that do not account for it.

Overall, the results indicate significantly lower nutritional status for Africa's widows and divorcees. This is generally found to be the case with both country and household fixed effects (though with some exceptions). Controls for HIV status reduce the magnitude of the estimates but statistically significant effects remain. However, when we study the country-specific associations we find that the disadvantage of a marital rupture is not universal. Significant disadvantage is found only for certain countries and for these, tends to endure under all specifications.

We begin with a brief review of the African context and literature as relevant to the potential vulnerability of African women to marital rupture. Section 3 discusses data issues and presents descriptive statistics. Section 4 describes our estimation methods while Section 5 presents the results testing for significant differences in women's welfare associated with marital status. Section 6 concludes.

2. Context and literature

African women tend to have significantly inferior human capital endowments to men which imperils their access to employment and public services. Despite recent progress in school attainment, gender gaps persist in school entry and remain considerable in attainment among poorer, older and rural women (Grant and Behrman 2010; Beegle et al. 2016). Fertility rates remain the highest of any region in the world at an average of close to 5 children per woman (United Nations 2015). Repeated child bearing and unreliable access to pre-natal and maternal care amplify the health risks faced by women.

Despite the wide variety of cultural groups and traditions, customs related to women and the rights afforded them in the case of marriage rupture are derived from customary laws that share basic similarities across African societies and patterns of kinship organization (Ndulo 2011). Across the continent, legal protection privileges men. This is particularly so with respect to the laws governing unions and their dissolution, child custody arrangements, property rights, and inheritance. Although constitutions, laws and international conventions have been adopted that forbid discrimination on the basis of gender, there continues to be a considerable chasm with actual practice. Civic law has been largely ineffective in displacing customary law which often denies women's rights. Two pillars of family law ─ inheritance and marriage ─ are still overwhelmingly controlled by customary law (Ndulo 2011, Richardson 2004). As the basis for production and women's avenue to social and economic rights, marriage and a surviving spouse remain crucial to a woman's access to resources and productive assets (Gray and Kevane 1999a, b; Fafchamps and Quisumbing 2005).

Traditional Islamic law as typically practiced in Africa dictates that daughters inherit half of what sons inherit and husbands are the sole owners of family property. Widows receive one-eighth of the inheritance, to be shared among any co-wives. Customary law also excludes women from property ownership and inheritance in much of the rest of Africa. Women's access to property and land use rights is obtained through marriage and contingent on marital status. In the case of divorce/separation or widowhood, the rights are lost.[6] Women who initiate divorce may need to return bride wealth, and are likely to get none of the jointly owned belongings. In all marital ruptures, women run the risk of losing custody of children.

Women's access and control over resources is thus limited. In West African cultures, men and their wives do not share incomes, keep separate budgets, and have different spending

[6] Exceptions occur, for example when a son who will eventually inherit is not of age or is currently busy with his studies; or in some matrilineal cultures.

responsibilities. Income from a personal plot acquired through marriage or petty trade is expected to provide wives and their dependents with any additional food and non-food needs. High fertility, responsibilities for child care, domestic tasks, and work on the household's communal land may result in little time to allocate to their own income earning activities. Different cultural traditions exist in East Africa, where (as a generalization) wives have historically had few possessions and no independent sources of income (Lesthaeghe 1989). Everywhere, women's limited assets and lower capacity for mobilizing resources are compounded by constraints linked to social norms, difficulties in accessing credit and public and private services (Gaddis et al. 2017). Access to own income sources as well as bargaining power within the extended household becomes crucial to welfare outcomes and to whether the loss of a husband turns out to be catastrophic.

Women thus face many restrictions that limit their possibilities for accumulating capital or earning income and have far lower access to various individual level coping mechanisms in times of downside shocks. They may be disproportionately vulnerable to shocks. There is evidence supporting this view in the results of Dercon and Krishnan (2000) for Ethiopia.

A frequent shock is union dissolution. Across Africa, early marriage to much older men is common. Eight of the world's 10 countries with the highest percentage of girls married before they are 18 were in SSA in 2010 (Walker 2012); and close to half (4 out of 10) of the women are married before they turn 18 (UNICEF 2016). Although many countries have set 15 as the legal minimum marriage age for girls and some have even managed to raise it further, special dispensations and customary law often intervene. Large age gaps between spouses are typical, as in Mali where they are around 12 and 14 years on average in urban and rural areas respectively, while in Senegal, a richer country than Mali, they are 11 and 13.[7] As a result, far more women than men experience the death of a spouse at some point in their lives; by the same token, significantly more elderly women are widows than men are widowers. Many also divorce and unlike men, stay divorced. As seen in Figure 1, women spend a considerably shorter part of their lives in marriage than do men.

Polygamy is legal in 25 Sub-Saharan African countries, either because civil marriage allows it or because traditional marriages are recognized. In Islamic countries and regions, the law typically permits up to 4 wives per man, in accordance with the Koran's recommendation. Some ethnic groups place no limits on the number of wives a man can take. In many Sub-Saharan cultures where remaining single is socially unacceptable for women, polygamous marriages offer a way for

[7] Authors' calculations from 2005 Mali DHS; and Senegal's Poverty and Family Structure survey 2006.

divorcees and widows to remarry quickly. A Senegal survey which collected such information reveals that of the 59 percent of divorcees who remarried, 47% did so in a polygamous relationship (Lambert et al. 2017). Among the 26% of widows who remarried, 72% did so to a polygamous husband and half of them in a leviratic union, for which 83% joined a polygamous union. Although they usually join as lesser ranked wives, such marriages offer women a status, and some protection and help with basic needs. By the same token, when a polygamous man dies, up to 4 new women become widows. Informal polygamy, without any legal basis in either customary or statutory law, is also rising across many African countries (Coast et al. 2011). In other countries, remarriage is forbidden or frowned upon.

Some form of leviratic union continues to be common in Africa.[8] By this custom, a widow is married to a relative of the deceased husband, thereby ensuring that her current and future offspring remain with the lineage. The levirate is made possible by polygamy and plays a similar role to it, providing support to widows and their children by ensuring that a male provider assumes responsibility for them and can make it easier for mother and children to stay together. In many kinship groups, a man's offspring are seen to belong to his lineage. Although a widow can refuse the levirate, she is not usually free to take with her the children she had with the deceased husband. Furthermore, a new husband from outside the lineage may not accept her children with another man.

The AIDS epidemic has not only contributed to the prevalence of widowhood but has also accentuated the vulnerability of widows who are typically assumed to be infected such that, as a result, the levirate practice is thought to be dying down in affected areas (Kudo 2017; Tenkorang 2014). The epidemic has likewise been associated with a higher risk of divorce by individuals using it as a protective measure (Reniers 2008). AIDS widows may be shunned and dispossessed by in-laws, yet left with debts incurred during the deceased's illness (Ntozi 1997). In the absence of relatives willing to take them in, or the incomplete and limited protection afforded by legally sanctioned polygamy and the levirate, widows and orphans can be left homeless and destitute after the death of their husband or father. Using DHSs, Peterman (2012) documents that across African countries, only a small share of widows receives any assets following a husband's death. In places where polygamy is illegal, de-facto wives are likely to be even more vulnerable to destitution when a partner dies since any enforced rights associated with marriage apply only to the legal wife. Where

[8] There do not appear to be any global data on the levirate, making it is difficult to know just how widespread the practice continues to be. However, many recent studies document its survival across many African countries. See Kudo (2017) for references and discussion. Also, see Lambert et al. 2017.

unregistered customary marriages are the norm, women without certificates have little legal recourse to dispossession by in-laws at widowhood (Human Rights Watch 2016 focusing on Zimbabwe). Property grabbing appears to be particularly frequent in the East and Southern African countries of Kenya, Lesotho, Tanzania, Uganda, Zambia and Zimbabwe where a number of NGOs fight to render justice. The presence of HIV/AIDs and the stigma attached to surviving widows aggravates the situation (Okuro 2007; Ngozi et al. 2009). For Zambia, Chapoto et al. (2011) find that a male head's demise often linked to AIDS is associated with a 40% decline in the household's landholdings. Using the same database, Dillon and Voena (2017) show that a lack of tenure security and hence, the real threat of dispossession at widowhood, reduces investment in land by couples. Izumi (2007) documents how this process often leads to eviction followed by destitution and forced migration for widows (also see Ntozi 1997).

Widows and divorcees may have access to support from private transfers and informal solidarity networks. However, given widespread patrilocality, women's individual kinship ties and support systems may also be weaker than men's. Although much has been written about risk-sharing between households, including about its limitations and the exclusion of some groups, much less is known about the ability of individuals to protect themselves.[9] This point is noted by Dercon and Krishnan (2000), in a study of rural Ethiopia which finds that women bear more of the costs of a shock than their husbands in the country's South, as well as in places where customary rules on settlement at divorce favor men.[10] As an alternative, formal social protection remains under-developed and piecemeal. To be sure, safety net programs and foundations for scaling up have significantly expanded in the last decade (Cirillo and Tebaldi 2016). Yet, excepting some southern African countries, nationwide and long-term mitigating public policy or social safety nets remain scarce, and none appear to explicitly focus on those who have lost a husband or their dependents outside the context of AIDS and old age.

Widowhood and divorce may well have different welfare implications. Widowhood is more likely to have adverse impacts, including grief, emotional loss, changes in social and economic status, and frequently, rejection and accusations of having caused the death. Degrading widowhood rites and cleansing rituals are widespread in African cultures (Ewelukwa 2002, Sossou 2002). Widows can be subject to strict social norms and superstitions such as cultural taboos against women

[9] On the limitations, scarcity or exclusion of the poorest and other groups, see for example, Goldstein et al. 2002; MacLean 2010; and Platteau 1997.
[10] Fafchamps (2008) provides a review of the literature on risk-sharing among households.

plowing and threshing in northern highland areas of Ethiopia, worsening their economic survival prospects (Loomba Foundation 2015).

Divorce on the other hand is more ambiguous in its welfare impacts; it could be an unwanted precursor to economic hardship or it could be desired. Although it remains easier for men to instigate divorce, in many countries the husband or wife can do so. A number of papers for various African countries have argued that young and educated women use divorce strategically as a way to improve their economic status (Locoh et al. 1995; Reniers 2003; Cherchye et al. 2017). Against that, there are also papers contending that those left by their husbands and their offspring can be dispossessed and impoverished (Clark and Hamplova 2013). Thus, there is likely to be both positive and negative selection into divorce.

As noted, union ruptures in Africa have not featured much in analytic work. There are a few important works on widows in India, who are found to be particularly discriminated against and disadvantaged (Chen 2000, Drèze and Srinivasan 1997, Jensen 2005). In Africa, detailed studies for Mali, Uganda and Zimbabwe find that households headed by widows are especially impoverished relative to male and other female headed households (Appleton 1996; Horrell and Krishnan 2007; van de Walle 2013).

Among the challenges in investigating the issue is the lack of individual measures of well-being. A few recent studies get around the data issues by using individual nutritional status or innovative measures of individualized consumption together with disaggregation by marital status. Some insights emerge from this approach: In Mali, widows are found to have lower levels of nutritional status than women of other marital statuses controlling for age. This disadvantage persists through remarriage and spills over to their children's health and education outcomes (van de Walle 2013). Milazzo and van de Walle (2017) find evidence to suggest that worse nutritional status for widows in Nigeria can be linked to inheritance practices and cultural attitudes and norms towards widows associated with certain ethnic and religious groups. In Senegal, and elsewhere, some protection for widows may be provided by the opportunity to remarry. The evidence suggests that among widows and divorcees in Senegal it is the worst off who remarry, while those who can afford not to do so often do not (Lambert et al. 2017). There is also evidence that Senegalese women whose husbands already have children from other marriages, and hence 'rivals' for his inheritance, reduce birth spacing and increase the number of pregnancies to potentially dangerous levels in their desperation to have a son as insurance against widowhood (Lambert and Rossi 2016).

Naturally, it may not be random that some women experience a marriage dissolution. If poorer husbands are more likely to die, their widows are also more likely to end up poor. A selection process whereby women start off with worse outcomes prior to becoming widows or divorcees is plausible. Available research with respect to both widowhood and divorce in western economies suggests that associations with economic hardship and negative impacts on well-being are in part due to selection effects as well as to stress associated with union disruption (Amato 2000; Hurd and Wise 1989; Sevak et al. 2003). However, in Africa the opposite is also possible given that widowhood at a young age is usually associated with the death of a possibly much older husband. In addition, considerable evidence for Africa suggests that a widow may end up poor not because her husband was poor but because inheritance rules dictate that she receives nothing, or because she has no son (who would inherit something), or because her in-laws dispossess and throw her out. In the context of land and property grabbing from widows in Zambia, Chapoto et al. (2011) find that it is wealthier widows who are most at risk of expropriation.

Unfortunately, the data do not allow us to disentangle all these explanations. However, the aim of this paper is not to make causal statements about the welfare effects of widowhood or divorce. The aim is to investigate the correlations. From the standpoint of anti-poverty policy what matters is whether women who have had a marital dissolution are significantly worse off than women who have not, and should thus be a target group. Whether it is widowhood or divorce per se that causes disadvantage or whether such women are a selected group is irrelevant from the point of view of whether social program resources should be targeted to them. That said, the nature of the selection may well matter to policy design and targeting.

3. Data and descriptive statistics

The most commonly used welfare measures such as per capita consumption are household based and may be unrevealing about the economic welfare of specific individuals within the household. Addressing the issue of interest clearly requires indicators of welfare at the individual-level. Here, we rely on measures of nutritional status from Demographic and Health Surveys (DHS) for women aged 15-49. The surveys are available for many countries in Africa, nationally representative and share a comparable format so that the situation of women can be compared across different contexts. DHSs do not include income or consumption expenditure data. However, given the paper's objectives, their most salient limitation is that the collection of detailed information is

restricted to women aged 15-49. It is thus impossible to shed light on the large group of widows and other women who are older than 49 (or younger than 15) using measures of nutritional status.

Prevalence of ever widowed and divorced women: Household surveys such as DHS usually only identify current marital status.[11] 'Married' is then a composite of women in first or subsequent unions, rendering comparisons across marital statuses treacherous. Uniquely, a version of the survey fielded between 2004 and 2013 also recorded how a previous union ended ─ whether in divorce/separation or widowhood ─ for currently married women not in their first marriage. Women who have had a marital shock can thus be adequately compared with women who have not. There are 21 DHSs covering 20 countries with this important added detail. The countries ─ Benin, Republic of Congo, Democratic Republic of Congo (DRC),[12] Ethiopia, Gabon, Guinea, Lesotho, Malawi, Mali, Namibia, Niger, Nigeria (2 surveys), Rwanda, Senegal, Sierra Leone, Swaziland, Tanzania, Uganda, Zambia and Zimbabwe ─ provide a substantial and relatively representative coverage of Sub-Saharan Africa.[13] The paper's analysis is based primarily on these countries and surveys (for the years listed in Table 2).

To more exhaustively describe the prevalence of current widows and divorcees among all adult women (aged 15 and older, including over 49) in SSA, we also draw on DHSs for which the household roster contains marital status information, using the latest survey when there are multiple such surveys for a given country. The 29 countries and survey years are listed in Table 1. To provide a point of comparison for the same date and a maximum coverage of Africa, we use these same surveys, to which we add the most recent for an additional 6 countries (without marital status in the roster) to show the prevalence of current widows among women aged 15 through 49.

Africa-wide, over one in ten adult women aged 15 and older is a current widow (Table 1).[14] Mean prevalence by sub-region ranges from 9.3% in West Africa to a high of 15.8% in Southern Africa (Table 1, column 1). Across countries, the highest prevalence is found in Lesotho (28.8%), followed by Zimbabwe (15.5%), and Rwanda (14.7%). The first two have particularly high HIV prevalence, while the last endured a genocide in 1994, in which far more men than women perished. In most regions, the percentage of widows tends to be higher in rural areas. This is particularly the

[11] Note that marital status is self-declared in surveys and not necessarily restricted to statuses endorsed by formal legal paperwork. 'Marriage' may well include some co-habitation and divorce may include 'separation.'
[12] We refer to the Republic of Congo (Brazzaville) as the Congo and to the Democratic Republic of Congo (Kinshasa) as the DRC.
[13] Even these questionnaires fail to identify cases of multiple marriage breakups. Unfortunately, the more recent version of the DHS questionnaires no longer collects this information and is thus vastly inferior for examining the issues at hand.
[14] Here, and throughout the paper, regional and Africa-wide totals are country population weighted.

case in Southern Africa, where the share is 10 percent in urban and close to double that (19%) in rural areas; in West Africa, there is no difference. Table 1 also shows the mean age of widows for each region. Current widows are on average in their late fifties to early sixties and consistently older in rural areas. This trait, as well as the tendency for widows to be somewhat older in West Africa than in other regions, reflects higher remarriage rates for young rural widows and more generally, for West African widows (see Table 2).

Table 1 also gives percentages of current widows by country based on the subsample of individually interviewed women aged 15-49. The share of current widows in this age group is much smaller, at about 3% of the entire African population of adult women with a mean age of approximately 40. As seen in Figure 1, these attributes are explained by an increasing incidence of widowhood with a simultaneously declining occurrence of remarriage as women age.

Keeping the focus on women aged 15 to 49, Table 2 shows the prevalence of ever-widowed women in the age bracket—a group that includes current widows and currently married, but previously widowed, women. This is a significantly larger group than that of current widows at 5% versus 3% of all women 15 to 49 Africa wide, suggesting that remarriage—although mostly hidden in surveys—is not uncommon among widows. Remarriage is higher in rural than in urban Africa: 45 (30) percent of ever-widowed women remarried in rural (urban) areas in SSA as a whole. Regional variation also emerges, with widows in Southern Africa least likely to remarry, and those in West and Central Africa most likely to do so. The frequency of remarriage is typically higher in Muslim populations. While data on previous marital status are available only for women in the 15 to 49 age band, we expect the number of ever-widowed women in the entire population to be much larger than indicated in Table 1.

Divorce is common in many SSA countries. Similarly to Table 1, Table 3 provides percentages of all women 15 years and older, and of women aged 15 to 49, who are current divorcees by country. In total, 5.5% of all adult women and 5.7% of those in the 15-49 age bracket are divorcees. In all regions and for both age groups, there are more divorcees living in urban than in rural areas although the differences are small. Prevalence in West Africa is less than half that found elsewhere in Africa. In both age brackets, the currently divorced are on average considerably younger than the currently widowed.

Table 4 focuses on ever-divorced women aged 15-49 and provides detail on the breakdown between the remarried and the currently divorced. The total numbers are considerably larger than found in Table 3. This reflects the fact that remarriage is widespread and that beyond a certain age,

women no longer tend to divorce. Africa-wide, 14% of women in the age group are ever-divorced. The shares are higher in rural areas in all regions, where remarriage also tends to be lower. As a generalization, a larger share of women under 50 get remarried than stay divorced across African countries. However, this pattern is reversed in Southern Africa. It should be noted that with respect both to widowhood and divorce, the numbers are underestimates given that multiple breakups may have happened. In Senegal, for example, Lambert et al. (2017) document that over 7% of ever-married women have had more than one marital dissolution.

Individual level welfare indicators: The analysis focuses on three nutrition-based indicators of individual welfare. The first is the body mass index (BMI), defined as a woman's weight (in kilograms) divided by her height (in meters) squared. DHSs exclude values of BMI smaller than 12 and greater than 60 on the grounds that these are almost certainly measurement errors. BMI is often used as a measure of health: low BMI may reflect heightened stress and undernourishment.[15] It has likewise been used to proxy for individual well-being (Steckel 1995; Brown et al. 2017). As noted by Sahn and Younger (2009), in addition to being measured for individuals, BMI has a number of important advantages as a measure of well-being: it captures consumption relative to needs (and so is better than caloric intake, for example), reflects command over food and non-food resources that affect health status, and is relatively easy to measure well. It is also found to be highly correlated with welfare measures based on consumption and income. One disadvantage is that beyond a certain threshold, higher BMI is associated with obesity and indicates an unhealthy state. However, obesity remains relatively rare in rural Africa and, significantly, evidence for South Africa shows that the relationship between BMI and more standard measures of economic resources is non-decreasing over the entire wealth/income range (Wittenberg 2011). Beegle et al. (2016) provide supportive Africa-wide evidence for this finding.

In addition to the level of BMI, we also examine the share of women whose BMI is below the underweight cut-off benchmark of 18.5, giving us a binary indicator denoted UW. Finally, to allow for differences in BMI among women who are underweight, we use the proportionate gap (log difference) below the BMI cutoff; at the individual level this is given by:

$$y_i^* = \ln[18.5 / \min(BMI_i, 18.5)]$$

[15] BMI is equal to weight/(height/100)^2. An individual is widely considered overweight if his or her BMI is larger than 25; and underweight if it is less than 18.5.

This transformation provides a continuous variable that places more weight on values that are further below the BMI cutoff. We then take the mean of y_i^* across all *i*, which we dub the Watts measure of underweight, following its original use by Watts (1968) in measuring income poverty.[16] This index has a number of desirable properties as a poverty measure, as shown by Zheng (1993). It is theoretically possible for mean log BMI to be lower for women of a given marital status, while underweight (say) is no different and the Watts measure of underweight is lower for them.

Table 5 presents sample mean values and standard deviations for the welfare indicators aggregated across countries by marital status and urban or rural residence. Unconditional average differences in BMI favor current widows, with previously widowed, married once, and ever-divorced women not too far behind. Patterns are somewhat different with respect to underweight where the lowest average rates are found for married-once women. Never married women, however, have by far the worst nutrition outcomes. Age plays a role here. At an average age of 19, the never married are also much younger than the other women and include adolescents undergoing growth spurts and menarche. Given our focus on marital shocks, it could make sense to exclude never married women from the analysis. However, the disadvantages of doing so are twofold: the loss of a substantial share of observations and the risk of creating sample selection bias. For these reasons, we keep never married women in the analysis, although we will not focus on them in the discussion.

Covariates including household wealth: The estimations below control for observed individual and household level characteristics that could affect nutritional status. Individual level attributes include age (represented by a full set of age dummies for maximum flexibility), years of education, whether pregnant, marital status dummies (with married once omitted), and relation to the head: whether she herself is head; the spouse of the head; a parent, child or sibling of the head; or no relation; with the left- out option being 'other relation'. Although there may be endogeneity concerns with the latter variables, leaving them out raises omitted variable concerns.[17] At the household level, covariates include log household size, the composition of the household by age and gender: shares of members aged 0-6, 7-15, and 65 and over (with the 16-64 age group omitted) all by gender; attributes of the head including gender, age, age squared, whether Muslim and years of education. Mean statistics by marital status are given in Table 6.

As a proxy for household wealth, the DHS Wealth Index is also entered linearly and in its squared form. Constructed separately for each country by the DHS using factor analysis on a

[16] We multiply the Watts UW measure by 100 to make the regressions easier to present.
[17] We test sensitivity to omitting the relation to the head variables below.

household's assets and amenities, the index is then rescaled to be centered on zero with a standard deviation of one. It provides a within-country relative measure and is not comparable across countries. However, as explained in Section 4 we believe that under the regression structure used, where country fixed effects will pick up the country-specific wealth effect, it can be included as a covariate.

Abstracting from issues of intra-household inequality, a household's wealth can be expected to have bearing on its members' nutritional status. To investigate whether women who have experienced a marital dissolution live in wealth poorer households on average, we run OLS regressions by country of a woman's household wealth index on a constant term and a set of marital status dummies excluding married-once women on the sample of ever-married women. Figure 2 plots the estimated country-specific coefficients for each marital status with 90% confidence intervals, interpretable as differences from that for married-once women.[18] Across countries, with just a few exceptions in West Africa, and more so in urban than in rural areas, ever-widowed women are more likely to live in wealth poor households than married-once women. The estimated coefficients are negative for a majority of countries and statistically significant in 9 countries (urban and rural areas) for widows; and in the urban areas of 17 countries and rural areas of 11 countries for ex-widows. Similar patterns are apparent for urban ever-divorced women, although the picture is more mixed for those residing in rural areas. To more concisely summarize these findings, Table 7 averages the coefficients across countries by re-estimating the regression on the pooled data. Never married women live in significantly richer households than married-once women, while as we have seen in Figure 2, urban ever-widowed or ever-divorced women reside in significantly wealth poorer households. We make no causal interpretation here. The wealth of one's household may reflect pre-rupture living standards as well as trajectories since.

Table 6 also shows that, as expected, never married women have the most years of schooling on average, followed by widows, divorcees and married-once women.[19] From this point of view, ex-widows and ex-divorcees are the most disadvantaged on average. These mean values are formed over aggregated data for a heterogeneous group of countries and without conditioning on key covariates such as age.

[18] A similar approach is taken by Case et al. (2004) to compare the living arrangements of orphans and non-orphans. We use OLS, weighted data and correct the standard errors for cluster level heteroskedasticity.
[19] We use 'married-once' or 'married women' as a shorthand for currently married women in their first union.

HIV/AIDS: Table 8 presents percentages of all tested women aged 15-49 who are HIV positive by marital status for 14 out of the 20 countries.[20] As testing is voluntary, not all sampled women were tested in the surveys that do report HIV incidence. Table 8 shows the shares that were tested in each country. Analysis of non-response conducted for most DHS surveys with HIV testing shows minimal bias.[21] However, this missing information results in reduced sample sizes and more imprecise estimates.

Prevalence rates vary substantially across countries but, as might be expected relative to married-once and never-married women, they are everywhere considerably higher for women who have had a marriage dissolution. Among them, the highest prevalence is generally evidenced for widows, followed by ex-widows, divorcees and lastly, ex-divorcees. It is clearly important to take account of HIV status in our estimations. Women who have suffered a marital dissolution and are HIV positive are doubly disadvantaged. Having HIV may have caused their widowhood or not. We cannot know. But having this often debilitating and life-threatening disease together with the stigma and ostracism that accompany it, can be expected to lead to even worse outcomes for women who have known a dissolution.

4. Methods

Across 20 African countries, we investigate the association between three nutrition-based welfare indicators and marital status for ever-married women aged 15 through 49. Our aim is to test the hypothesis that women who have suffered a marital breakdown also suffer disadvantage and lower well-being as reflected in their nutritional status.

We test this hypothesis using various regression specifications, each with its pros and cons. We begin with the following Africa-wide model in which the micro data are pooled across countries to enhance precision:

$$y_{ijc} = \alpha + \pi s_{ijc} + \beta x_{jc} + \gamma z_{ijc} + \delta_c + \varepsilon_{ijc} \qquad (1)$$

where y_{ijc} is the welfare indicator for woman i in household j in country c, s_{ijc} is a vector for marital status of i, x_{jc} is a vector of household-level variables, z_{ijc} is a vector of observable

[20] Unfortunately, the surveys for Benin, Nigeria, the Republic of Congo, Tanzania, Uganda and Namibia did not test for HIV or report results, and must be dropped from our sample.

[21] See http://dhsprogram.com/topics/HIV-Corner/HIV-Prevalence-and-HIV-Testing.cfm#sthash.U7qo27lQ.dpuf. Note also that HIV test results are not reported to tested women.

individual-level variables, δ_c is a country fixed effect, and ε_{ijc} is an error term.[22] The covariates, including a full set of marital status dummies with married-once women as the reference category, are as described in Section 3. The vector x_{jc} includes the wealth index. Recall that this is not comparable across countries. The fact that the DHS re-scales the index relative to the country mean creates this comparability problem. However, this can be corrected for by including country fixed effects as in (1). To see how this works, let the unobserved true (and comparable) wealth index be $w_{jc}^{DHS} + \bar{w}_c$, where $\bar{w}_c$ is country c's mean wealth index, which is also unobserved. Rearranging and plugging the DHS wealth index into an equation of the form of (1) gives: $y_{ijc} = \alpha + \beta(w_{jc}^{DHS} + \bar{w}_c) + \delta_c + \varepsilon_{ijc} = \alpha + \beta w_{jc}^{DHS} + \delta_c + \varepsilon_{ijc}$, and $\delta_c = \beta\bar{w}_c$. The difference between the household's and the country's wealth index ends up in the country fixed effect.

Differences in nutritional status between married-once women and those who have suffered a marital breakdown may reflect how households allocate resources to different women. This and other sources of latent heterogeneity across households can be addressed by including household fixed effects in the regression, so that one compares the welfare of women by marital status within the same household. This is only possible for the sub-sample of households that contain women of different marital statuses. So we run a household fixed effects model only on the sample of women who live in households where there are at least two women in the 15 to 49 age group. This reduces sample size but far less than if we restricted the sample to households with a married woman as well as at least one other of a different marital status. Thus, a second specification of the pooled model replaces the country fixed effects with household fixed effects η_{jc} as follows:

$$y_{ijc} = \alpha + \pi s_{ijc} + \gamma z_{ijc} + \eta_{jc} + \varepsilon_{ijc} \qquad (2)$$

In this formulation, the household effects can be said to control for all differences in the dependent variables due to both observed and unobserved household characteristics. (Of course, the wealth index can no longer be included as a separate regressor since its effect is already included in η_{jc}.)

Although the sample is restricted relative to (1), the specification in (2) provides a more powerful test in that (unlike (1)) it is robust to any latent household characteristics. Restricting the sample in this way may result in sample selection bias to the extent that the households with at least two adult women are not a random sub-sample. We will test and correct for this using a control

[22] Recall that there are two surveys for Nigeria. We include a dummy variable for the later year of the two surveys.

function given by a cubic function of logit estimates of the predicted probabilities of being in the sub-sample using the same set of covariates.

The pooled model assumes constant parameters across countries. To examine whether marital status parameters vary by country, we take each marital status dummy one at a time, and replace it by its interaction with a complete set of country dummies (and no leave out country). This enables us to capture differences between women of that marital status and married-once women within each country since the regression also controls for other marital statuses. By stratifying one parameter by country and imposing constancy of the other parameters, this approach ensures more efficiency and estimation precision than if we ran separate country-specific models. As before, we estimate this model version separately with country and household fixed effects. With country fixed effects the model is as follows:

$$y_{ijc} = \alpha + \pi_c s_{ijc} + \beta x_{jc} + \gamma z_{ijc} + \delta_c + \varepsilon_{ijc} \qquad (3)$$

where π_c are the marital status-specific country effects, and the reference is a married-once woman in the same country. All other things equal, the difference between the BMI of a widow in country c and that of a married woman in the same country is π_c when the interaction is for widows.

Finally, we test the degree to which being HIV positive affects our results. To do this we rerun the regressions with dummy variables for 'tested positive' and 'HIV test missing' on the sample of countries for which HIV test results are available (Table 8).[23] As noted, six surveys for which women's HIV test results are not available are dropped from our sample. In addition, not all sampled women were tested in the surveys that do report HIV incidence. For consistent comparison of the results controlling for whether a woman has tested HIV positive, we also re-estimate the regressions without such controls on the smaller sample of countries that report HIV tests.

We use OLS for the estimations.[24] As noted, when estimating with household effects we limit estimation to the sample of households containing at least two women, as reflected in considerably smaller sample sizes. Standard errors are corrected for heteroskedasticity within clusters.

[23] An alternative way to test the impact of HIV would be to estimate the regressions on the sample restricted to women who have tested HIV negative. We chose not to do so as this approach reduces the sample considerably.

[24] To analyze the likelihood of being underweight, we also estimated a logit and a conditional (fixed-effects) logistic regression model (clogit) which enables introducing household fixed effects in a binary dependent variable. In the clogit case, there is the additional requirement that there be variation in the incidence of underweight in included households. Because this resulted is so many dropped observations, we settled on the linear probability model (LPM). We found that the estimated coefficients are generally smaller with the LPM but not qualitatively different.

5. Results

We begin with our Africa-wide model using pooled DHS data, first with country fixed-effects then (on a more limited sample) household fixed-effects. We then study some country-specific aspects of our results, and the role of HIV status at the individual level.

5.1 Africa-wide results using the pooled model

Our estimated Africa-wide coefficients on marital status and women's other individual level attributes are presented in Tables 9 and 10 for equations (1) and (2), respectively.[25] Relative to the reference group of married-once women, current African widows and divorcees have worse nutritional status indicators on average, with lower levels of BMI, and higher rates of underweight and of the Watts UW measure. The differences are statistically significant, and the same is true across nutrition indicators when the sample is disaggregated by urban and rural areas. Larger estimated coefficients in the former possibly reflect rural-born women who have sought refuge and livelihood opportunities in urban areas post dissolution. The coefficient on ex-widows is also statistically significant for log BMI but the effect is less than half that estimated for current widows, while the parameter for ex-divorcees is not significantly different from zero.

A negative parameter on BMI implies lower nutritional well-being, while it is the opposite for both underweight measures. As one might expect given heterogeneity across countries, and despite highly significant coefficients for widows and divorcees across the board, average effects for Africa as a whole are not large. Across the pooled sample, and conditional on the covariates, being a widow aged 15-49 is correlated with 1.9 percent lower BMI on average, reducing a BMI of 18.5 to 18.2, and to 18.1 in urban areas; it is associated with an increase in the likelihood of being underweight of 1.8 percentage points on average, rising to 2.4 percentage points in urban areas. The Watts measure indicates that among those who are underweight, the mean (negative) percentage change in BMI associated with being a widow is 0.15%. (Recall that to make results easier to read, the Watts measure is multiplied by 100.) Relative to the reference married woman, being a divorcee reduces BMI by an average of 1.3 percent; raises the probability of underweight by 1.4 percentage points; and increases the proportionate change in underweight by 0.15%. As found for widows, all the estimates pertaining to divorcees are more pronounced in urban areas.[26]

[25] The full regressions are available in the Addendum.

[26] Dropping the wealth index from the regressions made practically no difference to the coefficients of interest. Omitting the living arrangement covariates results in somewhat lower coefficients on widows and divorcees although these remain statistically significant. Both regressions are in the Addendum.

One way to judge the importance of the effects of marital status on nutritional status is to compare them with those estimated for schooling by looking at the ratio of the coefficients.[27] The overall gain from not becoming a widow and remaining married is equivalent to about 6 to 7 years of schooling depending on the nutritional indicator. Around 4 to 6 years of education would be needed to compensate for divorce. Here, the impacts of education may be attenuated by the fact that the regressions also control for household wealth. When the wealth index is omitted, fewer years of education are required to make up the difference at 4 to 5 years for widows and 3 to 4 for divorcees.

In Table 10, the results from equation (2) are reported.[28] Once household fixed effects are introduced, the significant and negative effects on log BMI of being a current widow or divorcee persist with somewhat larger estimated parameters. On average, relative to married-once women, African widows have 2.4% lower BMI, while for divorcees the hit is equal to 1.9% reduction. The impacts on the Watts measure of UW are not statistically significant. Widowhood is associated with an overall (statistically insignificant) 1.9 percentage points increase in underweight, and a (statistically significant) 3.2 percentage points increase in urban Africa. The parameter estimates on divorce are an overall 1.6 and a statistically significant 3 percentage points increase in urban areas relative to being once married. The years of schooling needed to compensate for widowhood or divorce are even higher in the specification with household fixed effects, ranging from 10 to 12 years. It should be noted that where people live is endogenous. The household fixed effect estimations compare women within specific households. If women chose to go live with richer relatives after a marriage dissolution, they may look nutritionally worse off than women in that household but may still be better off than if they had moved to a poorer relative's house. Against that, we know from Figure 2 and Table 7 that widows and divorcees have a higher probability of living in wealth-poorer households, particularly in urban areas.

The estimated parameters on other individual-level controls accord with expectations. Pregnancy and years of education are positively associated with nutritional measures. The woman's link to the household's head is of clear importance. Relative to living in a household headed by a distant relative, women who are themselves head, his spouse or not related to its head have better nutritional outcomes all around.

[27] Based on equation (1) the gain in school years needed to compensate for widowhood ($dy = 0$) is π/γ.
[28] As noted earlier, we also implemented a selection bias correction. The estimated coefficients of interest and their statistical significance levels are somewhat higher when the correction is applied but the changes are small. The results are available in the addendum.

5.2 Country specific marital-status effects

Tables 11 and 12 provide the country-specific parameters for widow disadvantage for the models controlling for country and household fixed effects, respectively, as represented by Eq. (3). As noted, the country-specific parameters can be interpreted as the differences in nutritional indicators between widows and married-once women in each specific country. The corresponding parameters for divorcees are given in Tables 13 and 14.

The countries where we find that widows tend to have significant nutritional disadvantage are DRC, Ethiopia, Guinea, Lesotho, Malawi, Rwanda, Swaziland, Tanzania, Uganda, Zambia and Zimbabwe (Table 11). However, nutritional deprivation vis-à-vis married-once women is by no means universal across African countries. There is little sign in Table 11 of such a disadvantage for widows in Mali, Namibia, Niger, Nigeria, Senegal and Sierra Leone. Still, the estimated coefficients, although not always significant, indicate relatively worse outcomes for widows in most non-West African countries (where some correlations favor widows). In 12 countries, the estimated correlations suggest that widows are significantly worse off with respect to one or more nutritional indicators and at least one sector. In such cases, the associations are considerably more pronounced than the Africa-wide averages estimated on the pooled models for Eqs.1 and 2. Some of the strongest effects are found for Ethiopia, Rwanda and Zambia, where all estimates except for the Watts UW for urban widows (rural for Zambia) are statistically significant. For example, widowhood in Ethiopia is associated with BMI levels that are on average 7.5 percentage points lower than for married-once women and with a probability of being underweight that is 11.4 percentage points higher on average, rising to over 13 percentage points for urban widows. There are also strong significant effects on the Watts measure of UW.

Adding household fixed effects to this model results in some coefficients losing statistical significance, while those that maintain it (in 9 countries), increase in magnitude (Table 12). Controlling for household-level unobservables, widowhood in Ethiopia is estimated to be associated with levels of BMI that are 12 percentage points lower (14 in urban) than the reference, while their likelihood of being underweight is 15.3 percentage points higher on average. Urban widows in Lesotho are associated with BMI levels estimated to be 20 percentage points lower and an 18 percentage point higher probability of underweight. With household fixed effects, statistical significance vanishes for the Watts measure of underweight for Ethiopia and Rwanda, although widows do have a significantly higher probability of being underweight in both countries.

Turning to the estimated correlations between divorcees and nutritional outcomes in Table 13, we find similar results to those for widows with a few exceptions (Uganda exhibits no significant associations for divorcees, while Malawi and Namibia now do). Fewer of the initially statistically significant coefficients survive the inclusion of household fixed effects (Table 14).

We estimated the equivalent models with the dummies for ex-widowed and ex-divorced women replaced with their interaction with country dummies and found fewer significant effects (see Addendum). That said, it is also true that for both remarried widows and remarried divorcees there are large and significant effects for many of the same countries—Benin, DRC, Ethiopia, Malawi, Rwanda, Uganda, Zambia and Zimbabwe, with and without household fixed effects.

In summary, we find considerable overlap across specifications and the four possible marital dissolution statuses across countries: significant negative associations with nutrition repeatedly emerge for the same set of countries and never do so for the other set. One of the distinguishing attributes of the first set is that they are located in parts of Africa that have been much more affected by the AIDS epidemic. We next examine whether the widowhood and divorce associations are attributable to HIV status.

5.3 Allowing for HIV status

To test that our results are not simply the result of HIV infection, we rerun models (1) and (2) on the subsample of countries for which HIV test results are available with dummy variables for whether the woman 'tested HIV positive' or whether the test results are 'unavailable', with the left-out category being 'tested negative'. The results are summarized in Table 15 (see Addendum for full regressions results). The table first provides the coefficients on widows and divorcees corresponding to the model presented in Tables 9 and 10 for the country and household fixed effects models respectively, but estimated on the significantly reduced sample and set of countries.[29] These are followed by the estimated coefficients accounting for HIV status.

Results for equations (1) and (2) on the reduced sample ignoring HIV do not appreciably differ from the previous ones (Tables 9 and 10). As before, widows and divorcees have significantly lower BMI and higher rates of undernutrition and Watts undernutrition measures on average. In many cases, the magnitudes of the coefficients rise. However, reflecting the considerably reduced sample, statistical significance is somewhat lower in some cases.

[29] We focus attention on current widows and divorcees rather than the remarried among them for space reasons and because they appear not to be disadvantaged on average.

Our key findings are robust to controlling for HIV status. A further lesson is the relevance of HIV/AIDS to nutritional status. As expected, testing positive for HIV is strongly related to lower nutritional status and generally has a larger adverse effect than widowhood (in the country fixed effects model). There is not much effect of not having been tested. Yet controlling for HIV status and despite the smaller sample sizes, the finding that, on average, widows and divorcees have statistically significantly worse nutritional outcomes persists. This is particularly so for those residing in urban areas.

Relative to married-once women, a decline in BMI—of 1.1 percentage points on average and of 2.2 percentage points in urban areas (implying a reduction of a BMI level of 18.5 to 17.9) is associated with widowhood. The probability of being underweight for this same group is 2.3 percentage points higher and the proportionate change in underweight is increased by 0.14 percentage point (although the last is not statistically significant). Being a divorcee also reduces BMI relative to the reference, by an average of 1.4 percentage points rising to 1.8 percentage points for urban divorcees. It is associated with a probability of underweight that is higher by significant 1.1 and 1.4 percentage points on average and in urban areas, respectively; in urban Africa, divorcees are associated with a significant proportionate change of 0.17 percentage point in underweight. The foregoing refers to results for the model controlling for country fixed effects.

Allowing for household fixed effects, the coefficients are generally larger in magnitude (but less often significant probably due to the large drop in sample size) and close to those obtained when not controlling for HIV status. For example, relative to married-once women, widows are on average linked to a 2.4 percentage points reduction in BMI. This rises to 3.8 in urban Africa, implying a reduction of a BMI level of 18.5 to 17.8. The estimated and significant coefficients imply increases in the probability of underweight of 3.4 percentage points on average and 4.8 percentage points in urban areas.

Another way to quantify the extent of a widowhood or divorce shock is to compare it to the impact of HIV. The effects on nutritional status are about the same magnitude as that of being HIV positive when controlling for household fixed effects.

Tables 16 and 17 provide the country specific coefficients for Eq (3) with HIV status controls for widows with country and household fixed effects, respectively, while Tables 18 and 19 do the same for divorcees. The results parallel the earlier ones for which HIV status was not taken into account. Six to eight out of the 14 countries for which we have HIV status repeatedly exhibit statistically significant nutritional disadvantage across the 4 regressions. As before these include

Ethiopia, DRC, Lesotho, Malawi, Rwanda, Swaziland, Zambia and Zimbabwe. In many instances, the coefficients are somewhat reduced in size and at times significance level. Still, some of these effects are substantial: allowing for household fixed effects, young widows in Ethiopia are on average associated with levels of underweight that are 14.7 percentage points higher than that for married-once women. For urban widows in Lesotho the probability rises to 16.2 percentage points higher.[30] All in all, the conclusions are essentially as before.

6. Conclusions

The circumstances of women naturally vary across Africa, including across geographic areas, urban and rural residence, the legal context, income, education levels, ethnic, religious and cultural identity. Some countries are much more urban; some practice polygamy and encourage remarriage following spousal loss, while in others, marriage is strictly monogamous and remarriage may be frowned upon; some have been hard hit by AIDS and/or conflict. Yet, there are also some pronounced similarities across the continent: high levels of gender inequality in human development, access to assets and livelihoods and in rights (including inheritance and property rights) characterize all countries, together with underdeveloped or non-existing formal safety net and insurance mechanisms. Women's economic means and support—including access to productive assets, are typically acquired through, and conditional on, marriage.

One might thus expect African women to be vulnerable when faced with the shock of spousal loss. The neglect, economic marginalization, social stigma, property dispossession and demeaning cultural practices to which widows are submitted in various African countries have been popular topics in the sociological, anthropological and human rights literatures and a focus of various specialized NGOs. Less has been written about separation and divorce, although there are also suggestions of negative welfare consequences.

However, much of the evidence is qualitative, or based on individual case-studies, country or even village specific. With a few exceptions, economists have not studied the welfare consequences of marital ruptures for women in Africa and there have been no studies representative at the population level to indicate how widespread and generalizable the events and outcomes noted in the existing literature are within and across countries.

[30] The Addendum presents the equivalent regression results for remarried widows and remarried divorcees. Once again, disadvantage is apparent for those who have experienced a marital shock in many of the same countries in which widows and divorcees have been found to be nutritionally worse off than married-once women.

Based on DHSs for 29 African countries, we find that one in ten women aged 15 and older are current widows, and 5% are divorced. These numbers obscure the fact that some women remarry after marital dissolution. Among the 15-49 age group for the 20 countries for which such detail is available, 5.3% are ever-widowed and 15% are ever-divorced. Across African countries, ever-widowed women are found to live in wealth-poorer households on average, as are urban ever-divorced women. A further dimension of disadvantage is revealed by disaggregating HIV prevalence by marital status among women for whom test results are available: the probability of being HIV positive is highly correlated with having had a marital rupture.

We have investigated the association between marital status and well-being as reflected in three different measures of nutritional status for women aged 15-49. Pooling data for 20 countries and conditioning on a wide array of individual and household characteristics, and either country or household fixed effects, we examined whether women who have suffered a marital breakdown are nutritionally deprived relative to married women in their first union. The same regressions are re-estimated with marital status and country interactions to investigate how the relationships vary across countries. Finally, we tested the sensitivity of our results to HIV status.

A few analysis-related limitations should be flagged. For data reasons, our investigation has been limited to relatively young women, aged 15 to 49. We are unable to throw light on older widows and divorcees who may well face worse conditions. This age and other methodology-imposed restrictions also mean that we have worked with relatively small samples, especially in the specifications with household fixed effects. Although there are a fair number of widows, they are less prevalent than divorcees in the 15-49 age group, and exhibit a generally lower prevalence in countries where remarriage is expected for women of child-bearing age. We also examined remarried widows and divorcees but each individual group can be on the small side. Finally, our investigation has focused on correlations with nutritional status. We are unable to speak to other aspects of disadvantage. Furthermore, nutritional status may be a less appropriate or relevant measure of relative deprivation in countries where one expects intra-household inequalities to be more prominent with respect to non-food consumption (Lambert and de Vreyer 2017).

While acknowledging some exceptions, we find a reasonably general pattern whereby young widows and divorcees are significantly nutritionally disadvantaged in the Africa region as a whole. This finding is generally robust to differences in how nutritional status is measured and the controls used. Our estimates suggest that the negative health impacts of widowhood (in terms of being malnourished) are on average equivalent to the health gap associated with 6-7 years less schooling

when controlling for country fixed effects and at least 10 with household fixed effects. Considering the mean level of schooling, being widowed basically removes any protective health effects associated with education for women. Similar results are found for the impact of becoming divorced. Our findings are also robust to HIV positive status, which is a strong negative factor in its own right. The effects of marital dissolution on nutritional status are about the same magnitude as that of being HIV positive when controlling for household fixed effects.

However, there is clearly variation across countries. Nutritional disadvantage is by no means universal for women in the 15-49 age group who have undergone a marital shock. Much more pronounced negative correlations than are found on average for Africa are apparent under all specifications for certain countries in Central and East and Southern Africa. Ethiopia, Rwanda and Zambia particularly stand out. Significant negative nutritional associations also emerge for many of these same countries for remarried widows and divorcees. Interestingly, the countries where our analysis suggests significant nutritional disadvantage for widows and divorcees often coincide with those that are prominent in the sparse literature.

These findings are unlikely to be just about the welfare of widows and divorced women. For example, the paper has said little about their children who are necessarily also adversely affected. We have focused on what might be termed the first-round effects. The existence of such damaging first-round effects may well have far broader societal implications for children, girls, and gender inequalities more generally. As argued by Drèze (1990), "Combating the neglect of widows must be seen as an integral part of the broader struggle against gender inequalities." While Drèze is writing about India, the results of the paper suggest the point applies to Africa.

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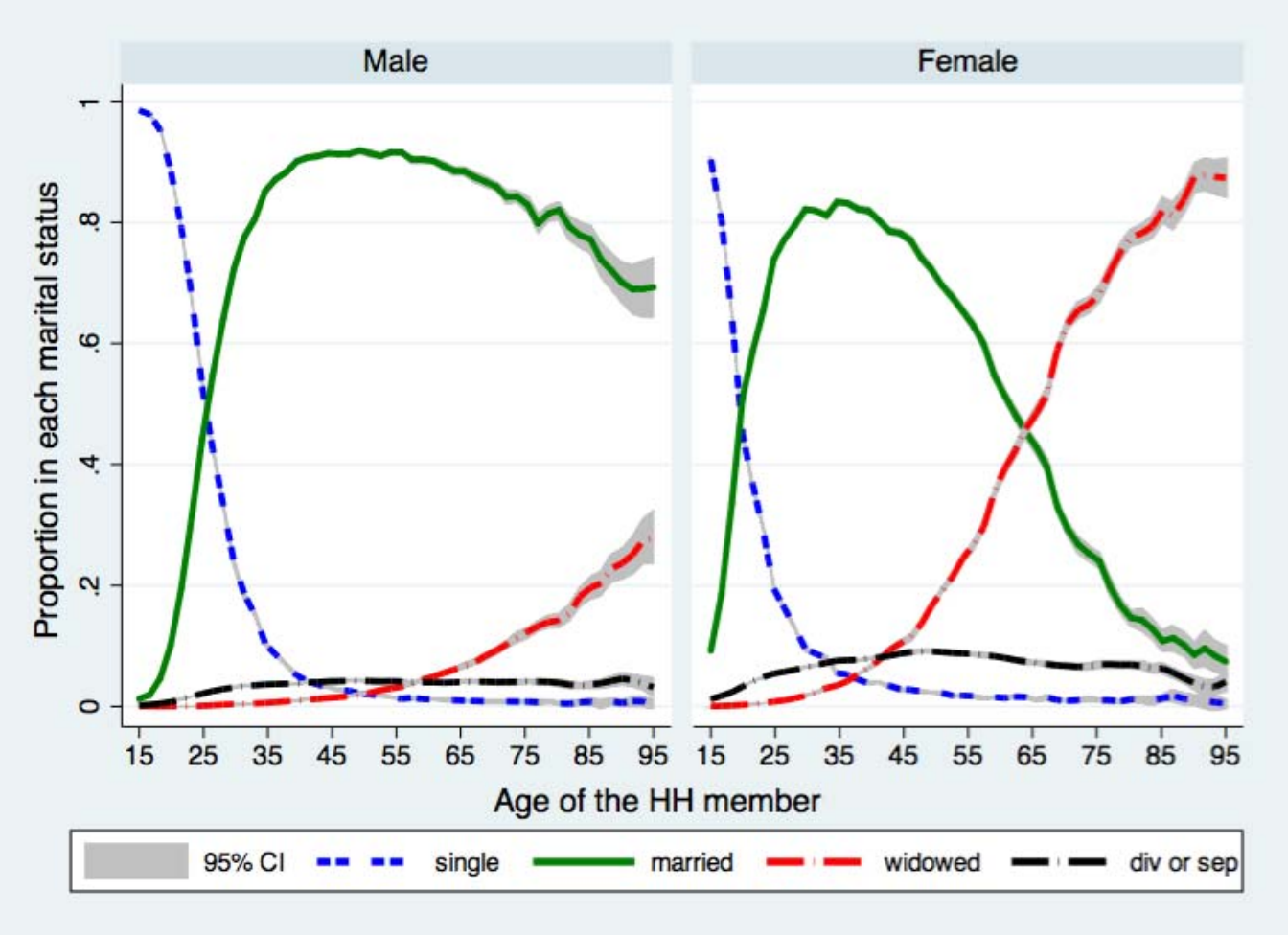
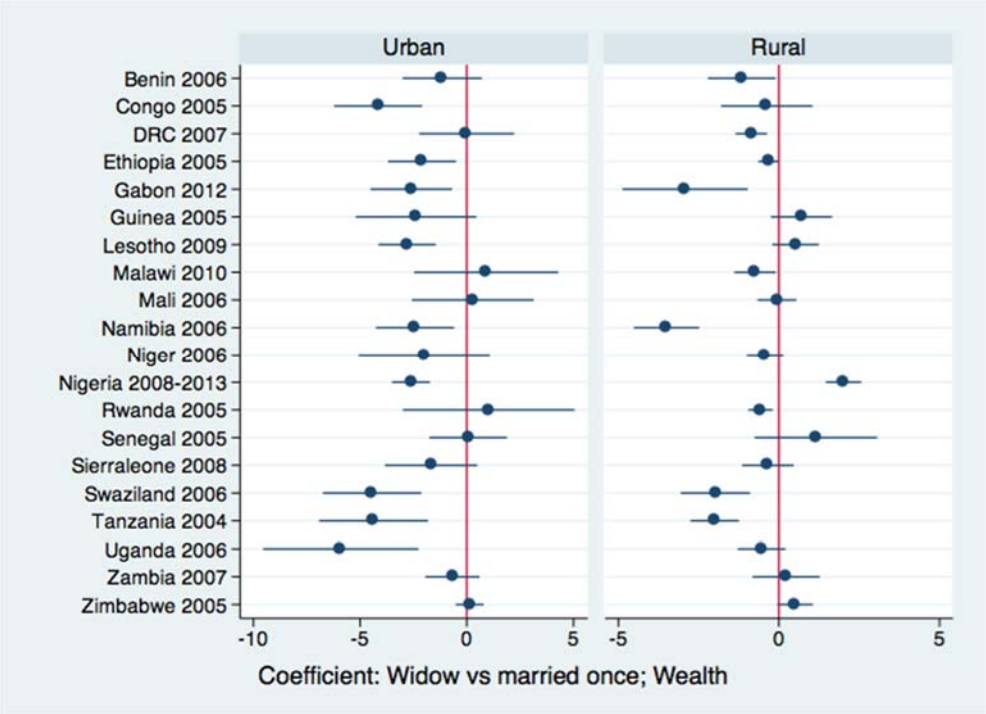
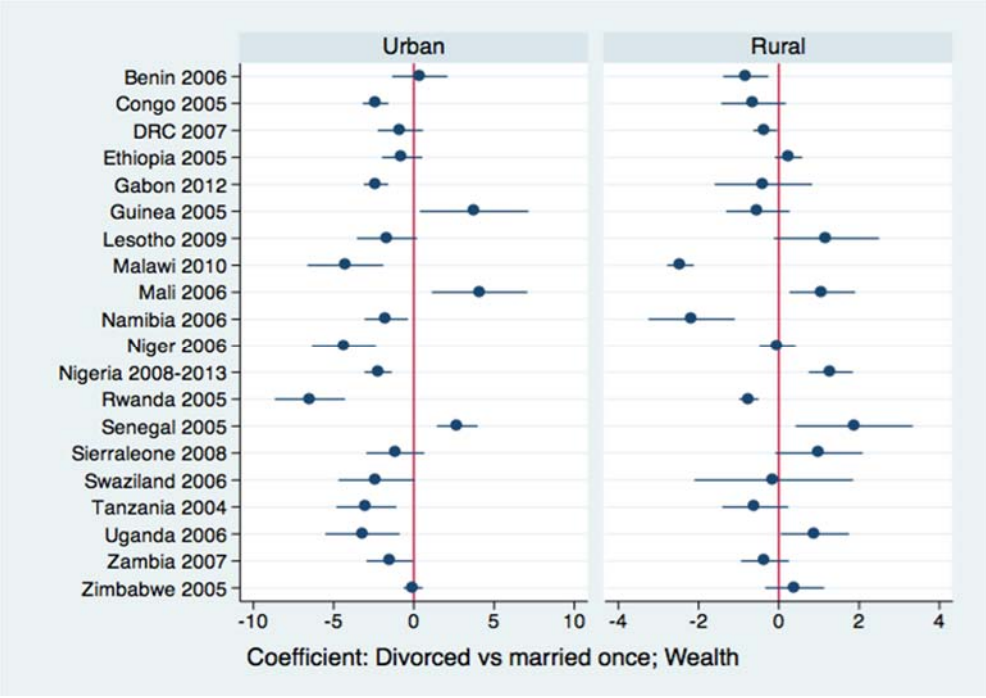
Figure 1: The African marital experience is gendered

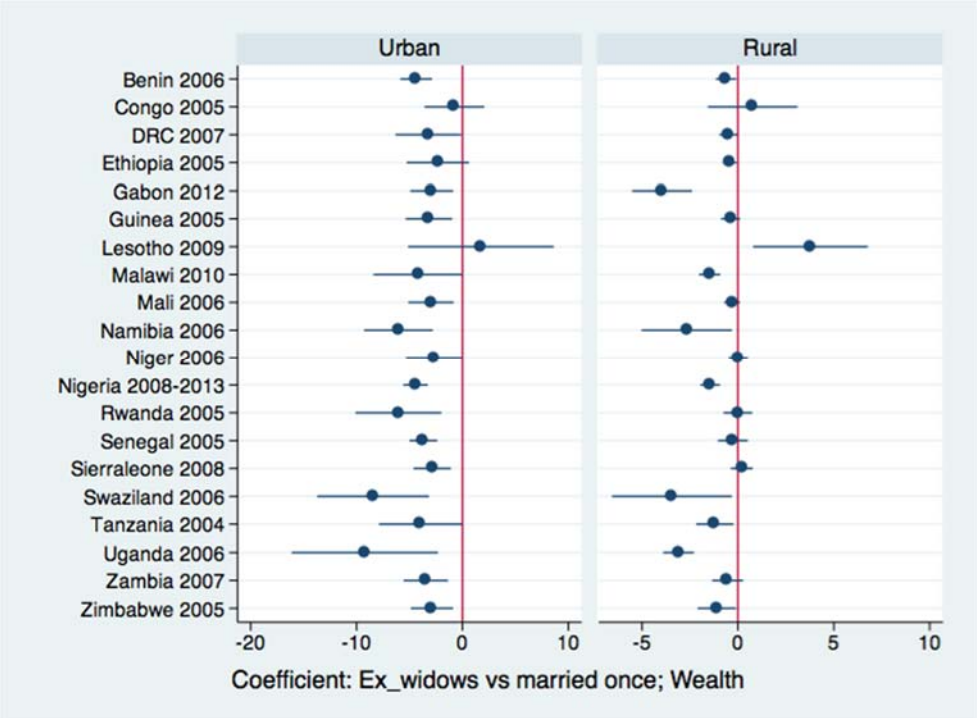


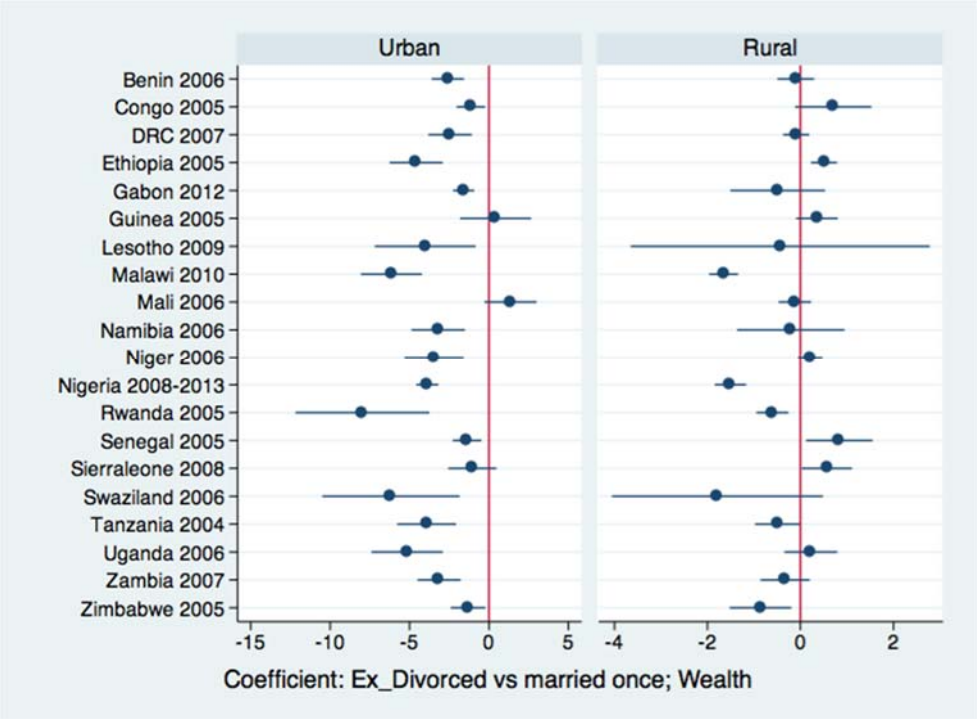
Note: DHS sample of the 29 countries for which marital status is available from the household roster for all members aged 15 and older. The survey years range from 2006 to 2013, with the latest survey used when there are more than one for a specific country. The vertical axis plots the proportion of men and women in each marital status.
Source: Authors' calculations from DHS.

Figure 2: Estimated household wealth differences associated with women's marital status relative to married-once women









Note: Estimated regression coefficients of the wealth Index on marital status with married-once left out. Standard errors are clustered at village level. 90% confidence intervals are drawn.
Source: Authors' calculations from DHS.

Table 1: Percentages of current widows among women aged 15 and older in Sub-Saharan Africa (%)

	Widows age 15 +			Widows age 15-49		
	All	Urban	Rural	All	Urban	Rural
WEST						
Benin 2011	9.5	8.6	10.2	1.8	1.9	1.7
Burkina Faso 2010	7.6	8.3	7.3	1.8	2.0	1.7
Côte d'Ivoire 2011	9.3	7.8	10.6	2.2	2.3	2.2
Ghana 2008	10.8	9.5	12.0	2.1	2.1	2.1
Guinea 2012	10.4	9.6	10.8	1.8	2.2	1.5
Liberia 2007	9.1	7.6	10.0	2.6	1.8	3.2
Mali 2006	-	-	-	1.5	1.9	1.3
Niger 2012	7.4	8.6	7.2	1.1	2.0	0.9
Nigeria 2013	9.1	9.9	8.6	2.5	2.9	2.2
Senegal 2010	9.2	9	9.3	1.1	1.1	1.0
Sierra Leone 2008	12.7	11.1	13.6	2.6	2.7	2.5
Togo 1998	-	-	-	2.3	2.5	2.2
Sub-total	9.3	9.5	9.1	2.2	2.5	1.9
Mean age	61.6	61.1	61.9	40.1	40.4	39.8
No. Obs.	18,710	7,171	11,539	3,163	1,370	1,793
CENTRAL						
Cameroon 2011	13.1	11.2	15.0	2.9	3.0	2.7
Central African Republic 1994	-	-	-	2.0	2.5	1.6
Chad 2004	-	-	-	3.2	4.8	2.8
Congo, Rep. 2011	8.9	6.7	13.2	1.9	1.5	2.7
Congo, Dem. Rep. 2007	9.1	8.6	9.5	2.0	2.0	2.0
Gabon 2012	9.4	7.4	19.8	1.6	1.6	1.5
São Tomé and Príncipe 2008	4.9	6.0	3.7	0.3	0.1	0.6
Sub-total	10.1	9.1	11.1	2.3	2.3	2.2
Mean age	59.5	58.7	60.2	40.7	40.8	40.5
No. Obs	7,509	2,701	4,808	1,338	659	679
EAST						
Burundi 2010	12.2	9.3	12.5	4.4	4.1	4.4
Comoros 2012	-	-	-	0.8	0.6	0.8
Ethiopia 2011	10.8	9.6	11.2	3.3	3.5	3.2
Kenya 2008	12.2	6.3	13.9	4.5	2.7	5.1
Madagascar 2008	7.7	7.6	7.7	1.9	1.9	1.9
Malawi 2010	10.8	7.6	11.5	3.6	4.2	3.4
Mozambique 2011	12.5	11.3	13.2	3.7	4	3.6
Rwanda 2010	14.7	13.2	15	5.5	5.6	5.5
Tanzania 2010	10.5	7.7	11.4	3	2.4	3.2
Uganda 2011	11.1	7.1	12	3.8	2.5	4.2
Zambia 2007	11.9	11.4	12.2	4.4	6.1	3.2
Sub-total	11.2	8.9	11.8	3.6	3.4	3.7
Age	58.8	55.4	59.6	39.2	38.3	39.6
No. Obs.	18,869	4,196	14,673	4,685	1,252	3,433
SOUTHERN						
Lesotho 2009	28.8	18.6	33.1	9.9	8.6	10.7
Namibia 2006	8.1	4.6	12.7	2.6	1.7	3.5
South Africa 1998	-	-	-	2.4	2.2	2.9
Swaziland 2006	12.7	7.2	14.4	5.7	4.7	6
Zimbabwe 2010	15.5	10.8	18.0	6.1	5.7	6.4
Sub-total	15.8	10.4	18.7	3.4	2.8	4.1
Mean age	59.2	53.2	61.0	40.2	40.1	40.2
No. Obs.	6,668	1,284	5,384	1,913	612	1,301

SSA total	10.4	9.3	11.0	2.8	2.7	2.9
Mean age	59.9	58.8	60.4	39.7	39.7	39.8
No. Obs.	51,756	15,352	36,404	11,099	3,893	7,206

Note: Percentages of all women aged 15 and older and mean age by region. Sub-totals and totals are country population weighted.
Source: Authors' calculations using dataset for women aged 15-49 from latest DHSs for 35 countries. Data for current widows age 15 + are for the subsample of 29 countries for which marital status is available in the roster for all household members.

Table 2: Percentages of ever, current and remarried widows among women aged 15-49 in SSA

	Total widowed			Urban widowed			Rural widowed		
	Ever	Current	Married	Ever	Current	Married	Ever	Current	Married
WEST									
Benin 2006	4.4	2.2	2.2	3.8	2.2	1.7	4.8	2.2	2.6
Guinea 2005	7.4	2.0	5.4	5.8	2.4	3.4	8.1	1.8	6.3
Mali 2006	4.9	1.5	3.4	4.4	1.9	2.5	5.1	1.3	3.8
Niger 2006	4.1	1.5	2.7	4.1	2.1	2.0	4.2	1.3	2.8
Nigeria 2013	3.8	2.5	1.3	3.9	2.9	0.9	3.8	2.2	1.6
Senegal 2005	4.1	1.1	3.0	3.6	1.5	2.1	4.6	0.8	3.8
Sierra Leone 2008	8.2	2.7	5.5	6.2	2.8	3.4	9.3	2.6	6.7
Sub-total	4.2	2.3	1.9	4.0	2.7	1.3	4.4	2.0	2.3
No. Obs.	5,051	2,209	2,842	1,786	992	794	3,265	1,217	2,048
CENTRAL									
Congo, Rep. 2005	3.3	2.3	1.1	2.5	1.7	0.8	4.5	3.10	1.5
Congo, Dem. Rep. 2007	3.9	2.0	1.9	3.3	2.0	1.3	4.4	2.0	2.5
Gabon 2012	2.8	1.6	1.2	2.7	1.6	1.1	3.6	1.6	2.1
Sub-total	3.8	2.0	1.8	3.2	1.9	1.2	4.4	2.0	2.4
No. Obs.	847	465	382	418	257	161	429	208	221
EAST									
Ethiopia 2005	6.3	4.0	2.3	6.5	5.3	1.2	6.2	3.7	2.5
Malawi 2010	6.3	3.6	2.7	6.5	4.3	2.3	6.3	3.5	2.8
Rwanda 2005	7.3	4.4	2.8	7.8	5.1	2.7	7.1	4.3	2.8
Tanzania 2004	4.4	2.7	1.8	3.5	2.1	1.4	4.8	2.9	1.9
Uganda 2006	6.6	4.4	2.2	5.1	3.9	1.1	6.9	4.5	2.4
Zambia 2007	7.2	4.4	2.8	8.5	6.1	2.4	6.3	3.2	3.1
Sub-total	6.1	3.8	2.3	5.8	4.3	1.6	6.1	3.7	2.5
No. Obs.	4,546	2,822	1,724	1,038	772	266	3,508	2,050	1,458
SOUTH									
Lesotho 2009	10.4	9.9	0.5	9.0	8.6	0.5	11.1	10.7	0.5
Namibia 2006	3.3	2.7	0.7	2.2	1.7	0.5	4.4	3.6	0.8
Swaziland 2006	6.2	5.7	0.6	5.3	4.8	0.6	6.6	6.0	0.5
Zimbabwe 2005	9.1	7.7	1.4	8.2	7.5	0.7	9.6	7.7	1.9
Sub-total	8.3	7.1	1.2	7.3	6.6	0.7	9.0	7.4	1.5
No. Obs.	1967	1713	254	564	498	66	1403	1215	188
SSA total	5.0	3.0	2.0	4.4	3.1	1.3	5.3	2.9	2.4
No. Obs.	12,411	7,209	5,202	3,806	2,519	1,287	8,605	4,690	3,915

Note: Percentages are given. Sub-totals and totals are country population weighted. Total widowed refers to ever-widowed women. These are disaggregated into those who are currently widowed and those who remarried post widowhood and are hence currently married.
Source: Authors' calculations based on 20 DHSs with marital status detail.

Table 3: Percentages of current divorcees among women aged 15 and older in Sub-Saharan Africa (%)

	Divorcees aged 15+			Divorcees aged 15-49		
	all	urban	Rural	All	urban	rural
WEST						
Benin	4.5	5.8	3.5	3.7	4.7	2.9
Burkina	1.1	2.3	0.7	1.3	3.1	0.6
Côte d'Ivoire	4.1	4.4	3.7	4.8	5.9	3.7
Ghana	9.1	10.1	8.3	7.0	7.4	6.5
Guinea	1.8	2.6	1.3	2.2	3.3	1.6
Liberia	6.4	6.9	6.0	7.1	8.5	6.0
Mali	-	-	-	1.8	3.8	0.9
Niger	2.4	5.2	1.8	2.5	5.7	1.7
Nigeria	2.0	2.2	1.9	2.1	2.2	2.0
Sierra Leone	3.7	3.9	3.6	3.4	4.3	3.4
Senegal	3.7	5.3	2.3	3.7	5.2	2.3
Togo	-	-	-	4.7	6.7	2.4
Sub-total	3.0	3.7	2.5	2.9	3.7	2.4
Age	42.0	42.6	41.4	32.6	33.3	31.8
No. Obs.	6,195	3,096	3,099	4,777	2,558	2,219
CENTRAL						
Cameroon	4.3	4.8	3.9	5.6	6.9	4.1
CAR	-	-	-	8.8	11.7	6.7
Chad	-	-	-	5.5	8.5	4.7
Congo, Rep.	13.6	14.8	11.1	13.7	14.9	11.1
Congo, Dem. Rep.	7.2	6.8	7.4	7.3	6.6	7.8
Gabon	6.8	6.7	7.4	9.1	9.0	9.8
São Tomé and Príncipe	17.7	17.5	18.0	10.7	10.1	11.5
Sub-total	6.8	6.9	6.7	7.1	7.5	6.7
Mean age	38.6	38.3	38.8	32.1	31.9	32.2
No. Obs.	5,108	2,364	2,744	4,685	2,454	2,231
EAST						
Burundi	4.2	4.8	4.2	4.6	5.4	4.5
Comoros	-	-	-	5.8	6.5	5.4
Ethiopia	7.7	10.5	6.9	7.2	9.4	6.5
Kenya	5.4	8.3	4.5	6.0	8.8	5.0
Madagascar	11.1	10.9	11.1	10.7	10.0	10.8
Malawi	10.1	7.6	10.6	9.3	7.2	9.8
Mozambique	9.9	11.2	9.3	9.9	10.9	9.4
Rwanda	5.2	5.1	5.2	5.3	5.1	5.4
Tanzania	8.7	9.5	8.4	8.7	9.0	8.5
Uganda	9.6	11.9	9.2	9.3	11.9	8.6
Zambia	7.8	7.2	8.2	8.0	7.7	8.3
Sub-total	8.0	9.7	7.6	7.9	9.3	7.5
Mean age	38.8	39.1	38.1	31.4	31.7	31.3
No. Obs.	14,045	3,890	10,155	10,720	3,222	7,498
SOUTH						
Lesotho	6.0	8.8	4.9	5.8	7.7	4.7
Namibia	4.1	3.3	4.7	4.4	5.3	3.5
South Africa	-	-	-	5.8	6.9	4.3
Swaziland	2.7	4.2	2.3	3.2	4.8	2.6
Zimbabwe	7.6	9.3	6.7	7.6	8.3	7.1
Sub-total	6.7	8.1	6.0	6.1	7.0	5.0
Mean age	38.0	38.4	37.5	34.5	36.0	32.0

No. Obs.	2,101	791	1,310	2,121	1,063	1,058
SSA total	5.5	6.7	5.2	5.7	6.2	5.4
Mean age	39.4	39.4	39.6	32.1	32.8	31.6
No. Obs.	27,449	10,141	17,308	22,303	9,297	13,006

Note: Percentages are given. Sub-totals and totals are country population weighted.
Source: Authors' calculations from data as in Table 1.

Table 4: Share of ever-divorced, current and remarried divorcees aged 15-49 in SSA (%)

	Total divorced			Urban divorced			Rural divorced		
	Ever	Current	Married	Ever	Current	Married	Ever	Current	Married
West									
Benin	11.5	2.6	8.9	11.9	3.6	8.3	11.2	1.9	9.3
Guinea	11.1	2.3	8.8	11.5	3.6	7.9	11.0	1.8	9.2
Mali	11.7	1.9	9.8	15.8	3.8	12.0	9.6	0.9	8.7
Niger	17.9	2.5	15.3	16.6	5.3	11.3	18.2	1.8	16.3
Nigeria	7.8	2.1	5.7	6.0	2.2	3.7	9.1	2.0	7.1
Senegal	13.7	4.3	9.4	15.7	6.4	9.3	11.7	2.3	9.4
Sierra Leone	13.9	3.5	10.4	13.6	4.5	9.1	14.1	3.0	11.1
Sub-total	9.3	2.3	7.0	7.9	2.8	5.1	10.3	2.0	8.3
No. Obs.	11,882	2,852	9,030	4,692	1,514	3,178	7,190	1,338	5,852
Central									
Congo, Rep.	23.1	11.9	11.2	24.4	13.2	11.2	21.4	10.3	11.1
DRC	17.8	7.3	10.4	14.4	6.7	7.7	20.6	7.9	12.7
Gabon	21.1	9.1	12	19.9	9.0	10.9	30.5	9.9	20.6
Sub-total	18.2	7.6	10.5	15.4	7.2	8.1	20.7	8.0	12.7
No. Obs.	5,204	2,215	2,989	3,049	1,428	1,621	2,155	787	1,368
East									
Ethiopia	19.5	6.6	12.9	17.5	10.7	6.8	20	5.7	14.2
Malawi	21.1	9.4	11.8	15.5	7.2	8.3	22.4	9.9	12.6
Rwanda	12.9	9.3	3.6	11.7	9.3	2.3	13.1	9.3	3.8
Tanzania	18.9	7.0	11.9	18.8	8.7	10.1	18.9	6.3	12.6
Uganda	20.1	9.3	10.8	19.8	13.4	6.4	20.1	8.5	11.6
Zambia	16.8	8.1	8.7	13.1	7.7	5.4	19.4	8.3	11.1
Sub-total	19.0	7.6	11.4	17.1	9.8	7.4	19.5	7.0	12.6
No. Obs.	13,215	6,090	7,125	2,579	1,520	1,059	10,636	4,570	6,066
South									
Lesotho	6.7	5.8	0.9	9.3	7.7	1.6	5.3	4.7	0.5
Namibia	8.1	4.4	3.7	9.2	5.4	3.8	7.1	3.5	3.6
Swaziland	5.5	3.2	2.2	7.1	4.8	2.3	4.9	2.7	2.2
Zimbabwe	13.4	7.9	5.5	11.8	7.9	3.8	14.5	7.8	6.7
Sub-total	11.7	7.0	4.7	11.0	7.4	3.6	12.1	6.7	5.5
No. Obs.	2,475	1,487	988	939	612	327	1,536	875	661
SSA total	14.2	5.1	9.0	11.5	5.4	6.1	15.5	5.0	10.5
No. Obs.	32,776	12,644	20,132	11,259	5,074	6,185	21,517	7,570	13,947

Note: Percentages of all women aged 15-49. Sub-totals and totals are country population weighted.
Source: Authors' calculations based on 20 DHSs with marital status detail.

Table 5: Descriptive statistics for dependent variables

	Married once	Never married	Ex widow	Ex divorced	Widow	Divorced	Total
			All women aged 15-49				
BMI	22.82	21.30	22.73	22.52	23.42	22.62	22.45
	(4.31)	(3.59)	(4.47)	(4.18)	(4.95)	(4.26)	(4.21)
Ln BMI	3.11	3.05	3.11	3.10	3.13	3.10	3.10
	(0.17)	(0.16)	(0.18)	(0.17)	(0.19)	(0.17)	(0.17)
Underweight (%)	10.01	19.24	12.14	11.16	10.82	11.81	12.42
	(30.02)	(39.42)	(32.66)	(31.49)	(31.07)	(32.27)	(32.98)
Watts underweight	0.65	1.51	0.75	0.70	0.75	0.80	0.87
	(2.69)	(4.27)	(2.83)	(2.67)	(2.95)	(3.14)	(3.18)
No of obs.	144,163	65,165	5,665	22,023	7,847	13,036	257,899
			Urban				
BMI	24.59	21.79	24.75	24.66	25.16	23.87	23.66
	(4.94)	(3.89)	(5.33)	(5.13)	(5.55)	(4.86)	(4.84)
Ln BMI	3.18	3.07	3.19	3.19	3.20	3.15	3.14
	(0.19)	(0.17)	(0.20)	(0.20)	(0.21)	(0.19)	(0.19)
Underweight (%)	6.11	16.35	6.58	5.99	7.16	8.88	9.65
	(23.95)	(36.98)	24.81)	(23.73)	(25.78)	(28.45)	(29.52)
Watts underweight	0.39	1.23	0.37	0.36	0.48	0.65	0.68
	(2.04)	(3.87)	(1.89)	(1.86)	(2.41)	(2.89)	(2.84)
No. Obs.	44,223	30,886	1.353	6,551	2.713	5,137	90,863
			Rural				
BMI	21.99	20.79	22.07	21.82	22.28	21.85	21.76
	(3.69)	(3.18)	(3.93)	(3.55)	(4.14)	(3.63)	(3.63)
Ln BMI	3.08	3.02	3.08	3.07	3.09	3.07	3.07
	(0.15)	(0.15)	(0.16)	(0.15)	(0.17)	(0.16)	(0.15)
Underweight (%)	11.85	22.20	13.94	12.83	13.22	13.63	13.99
	(32.32)	(41.56)	(34.65)	(33.45)	(33.88)	(34.32)	(34.69)
Watts underweight	0.78	1.80	0.87	0.81	0.92	0.89	0.98
	(2.94)	(4.63)	(3.07)	(2.88)	(3.25)	(3.29)	(3.35)
No. Obs.	99,940	34,279	4,312	15,472	5,134	7,899	167,036

Note: Standard deviations in parentheses. Means are reported for continuous variables and percentages for dummy variables. Watts underweight is a truncated variable that is 0 if BMI>18.5 and 100*log(18.5/BMI) otherwise.
Source: Authors' calculations from 21 DHSs with marital status detail.

Table 6: Descriptive statistics for women aged 15-49 by marital status

	Married once	Never married	Ex widow	Ex divorcee	Widow	Divorcee
Share of women	**57.2**	**23.6**	**2.0**	**9.1**	**3.0**	**5.1**
Individual characteristics						
Age	30.29	19.38	37.25	33.40	39.36	31.37
	(8.64)	(4.94)	(7.53)	(8.24)	(7.44)	(9.09)
Years of education	4.05	7.14	2.54	2.66	4.11	4.45
	(4.70)	(4.40)	(3.66)	(3.65)	(4.49)	(4.22)
Pregnant	0.15	0.01	0.12	0.14	0.01	0.04
	(0.36)	(0.12)	(0.32)	(0.34)	(0.12)	(0.19)
Head	0.07	0.06	0.19	0.10	0.78	0.43
	(0.26)	(0.24)	(0.39)	(0.30)	(0.41)	(0.50)
Spouse of head	0.83	0.00	0.74	0.81	0.00	0.00
	(0.37)	(0.00)	(0.44)	(0.39)	(0.00)	(0.00)
Head parent/child/ Sibling	0.03	0.71	0.04	0.05	0.16	0.44
	(0.18)	(0.45)	(0.19)	(0.21)	(0.37)	(0.50)
Head is no relation	0.00	0.04	0.00	0.00	0.01	0.03
	(0.06)	(0.19)	(0.06)	(0.06)	(0.10)	(0.16)
Head other relative	0.06	0.18	0.03	0.04	0.05	0.10
	(0.23)	(0.39)	(0.18)	(0.19)	(0.22)	(0.30)
Married once	1.00	.	0.00	0.00	0.81	0.71
	(0.00)	(.)	(0.00)	(0.00)	(0.39)	(0.45)
Age at first marriage	17.67	.	16.83	16.28	17.66	17.70
	(4.09)	(.)	(4.40)	(4.09)	(4.33)	(4.27)
Age at first birth	19.04	19.23	18.42	18.43	18.98	19.01
	(3.85)	(3.59)	(3.86)	(3.77)	(3.92)	(3.77)
Polygamous husband	0.24	.	0.47	0.36	.	.
	(0.43)	(.)	(0.50)	(0.48)	(.)	(.)
Share in urban areas	0.30	0.48	0.22	0.23	0.35	0.36
	(0.46)	(0.50)	(0.41)	(0.42)	(0.48)	(0.48)
Muslim	0.42	0.24	0.40	0.38	0.20	0.21
	(0.49)	(0.43)	(0.49)	(0.49)	(0.40)	(0.40)
Household characteristics						
Size	6.47	7.06	6.63	6.31	5.25	5.95
	(3.71)	(3.88)	(3.79)	(3.59)	(3.19)	(3.73)
Share of female <5	0.12	0.05	0.10	0.11	0.06	0.09
	(0.14)	(0.09)	(0.12)	(0.13)	(0.12)	(0.13)
Share of male <5	0.12	0.05	0.10	0.11	0.06	0.08
	(0.14)	(0.09)	(0.12)	(0.13)	(0.11)	(0.12)
Share of female 6-14	0.12	0.11	0.14	0.12	0.15	0.12
	(0.13)	(0.12)	(0.14)	(0.14)	(0.17)	(0.15)
Share of male 6-14	0.12	0.11	0.14	0.12	0.16	0.12
	(0.13)	(0.12)	(0.14)	(0.14)	(0.17)	(0.15)
Share of female >65	0.01	0.02	0.01	0.01	0.01	0.02
	(0.03)	(0.07)	(0.03)	(0.03)	(0.05)	(0.07)
Share of male >65	0.01	0.02	0.02	0.01	0.01	0.02
	(0.04)	(0.06)	(0.06)	(0.06)	(0.03)	(0.05)
Age of head	40.88	50.02	46.96	44.07	42.91	46.64
	(12.63)	(14.26)	(13.08)	(12.89)	(11.48)	(15.18)
Education of head	5.24	6.07	3.48	3.87	4.06	4.01
	(5.19)	(5.57)	(4.42)	(4.44)	(4.55)	(4.49)
No of observations	144,163	65,165	5,665	22,023	7,847	13,036

Note: Standard deviations in parentheses. Means are reported for continuous variables; percentages for dummy variables.
Source: Authors' calculations from 21 DHSs with marital status detail.

Table 7: Average estimated household wealth difference associated with women's marital status relative to married-once women

	Urban	Rural	Women aged under 35	Women aged over 35
Never married	2.674	2.820	3.000	4.028
	(0.509)	(0.240)	(0.280)	(1.480)
Ex-widow	-4.090	-1.121	-1.630	-2.301
	(1.343)	(0.332)	(0.535)	(0.501)
Ex-divorced	-3.668	-0.759	-1.402	-1.799
	(0.703)	(0.220)	(0.289)	(0.362)
Widow	-2.194	0.697	-0.397	-0.799
	(0.926)	(0.332)	(0.652)	(0.462)
Divorced	-1.762	0.608	-0.161	-0.496
	(0.712)	(0.308)	(0.398)	(0.593)

Note: Statistics are population weighted averages across countries of the estimated household wealth difference between married once women and those of other marital statuses, as summarized in Figure 2. For example, urban widows tend to live in households with wealth indices that are 2.2 lower than that for married women. In the two last columns, we control for region in addition to marital status. The standard deviation averaged across country-level estimations is given in parentheses. The wealth index is normalized to be centered on 0 with a standard deviation of 1.
Source: Authors' calculations using DHSs.

Table 8: Percentages of women aged 15-49 testing HIV positive by marital status

	Married once	Never married	Ex-widow	Ex-divorcee	Widow	Divorcee	Total	% women tested
Ethiopia	0.95	0.69	6.24	2.77	8.13	5.24	1.81	43.6
	(9.70)	(8.28)	(24.28)	(16.44)	(27.39)	(22.30)	(13.31)	
Gabon	5.44	3.29	10.89	9.79	13.12	11.21	5.99	62.8
	(22.69)	(19.25)	(31.33)	(29.74)	(33.99)	(31.59)	(24.10)	
Guinea	1.51	1.23	13.12	2.51	16.11	4.32	2.56	48.2
	(16.65)	(11.01)	(83.80)	(15.68)	(37.03	(20.47)	(25.69)	
Lesotho	25.36	18.20	79.26	65.80	58.01	58.30	28.57	47.5
	(43.52)	(38.61)	(42.20)	(48.55)	(49.45)	(49.49)	(45.18)	
Malawi	6.72	4.42	40.94	25.18	51.51	25.14	12.96	31.6
	(25.04)	(20.56)	(58.35)	(43.43)	(57.43)	(43.41)	(34.46)	
Mali	1.25	0.41	3.44	3.22	7.15	1.87	1.55	32.4
	(11.10)	(6.40)	(18.29)	(17.68)	(25.95)	(13.61)	(12.35)	
Niger	0.06	0.42	4.64	1.69	4.00	6.17	0.70	48.8
	(2.38)	(6.51)	(21.12)	(12.89)	(19.72)	(24.15)	(8.31)	
DRC	1.27	0.90	2.50	2.57	9.94	2.26	1.58	46.7
	(11.19)	(9.43)	(15.71)	(15.85)	(30.08)	(14.89)	(12.47)	
Rwanda	2.23	1.50	8.46	4.36	16.04	11.19	3.61	50.4
	(14.75)	(12.14)	(27.92)	(20.46)	(36.78)	(31.56)	(18.65)	
Senegal	0.69	0.36	3.20	1.61	1.64	4.57	0.93	31.3
	(8.28)	(6.01)	(17.67)	(12.61)	(12.83)	(20.95)	(9.62)	
Sierra Leone	1.27	2.12	3.84	1.20	5.78	2.45	1.73	46.7
	(11.21)	(14.41)	(19.26)	(10.80)	(23.47)	(15.51)	(13.04)	
Swaziland	31.11	26.08	47.95	43.55	54.75	50.75	31.01	92.2
	(46.31)	(43.92)	(50.86)	(49.85)	(49.87)	(50.18)	(46.26)	
Zambia	12.32	8.81	35.41	22.04	57.21	28.61	16.35	79.4
	(35.65)	(28.35)	(47.98)	(41.49)	(72.67)	(45.24)	(39.84)	
Zimbabwe	17.30	8.47	53.42	37.70	57.20	35.85	21.17	84.1
	(37.83)	(27.85)	(50.11)	(48.53)	(49.52)	(48.00)	(40.86)	

Note: Standard deviations multiplied by 100 are given in parentheses.
Source: Authors' calculations from DHS reports.

Table 9: Pooled base model with country fixed effects

	ln BMI			Watts underweight			Underweight		
	All	Urban	Rural	All	Urban	Rural	All	Urban	Rural
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Never	-0.047***	-0.040***	-0.042***	0.414***	0.344***	0.467***	0.050***	0.043***	0.054***
married	(0.002)	(0.003)	(0.002)	(0.029)	(0.041)	(0.042)	(0.003)	(0.004)	(0.004)
Ex-widow	-0.008***	-0.006	-0.006**	-0.029	-0.020	-0.037	0.003	0.000	0.003
	(0.003)	(0.006)	(0.003)	(0.043)	(0.073)	(0.053)	(0.005)	(0.008)	(0.006)
Ex-divorcee	0.001	0.001	0.001	0.004	0.006	0.006	0.003	0.003	0.003
	(0.002)	(0.003)	(0.002)	(0.024)	(0.038)	(0.031)	(0.003)	(0.004)	(0.003)
Widow	-0.019***	-0.021***	-0.017***	0.153***	0.190***	0.131**	0.018***	0.024***	0.014**
	(0.003)	(0.005)	(0.003)	(0.041)	(0.060)	(0.055)	(0.004)	(0.006)	(0.006)
Divorcee	-0.013***	-0.015***	-0.013***	0.146***	0.229***	0.103**	0.014***	0.018***	0.014***
	(0.002)	(0.004)	(0.003)	(0.038)	(0.058)	(0.051)	(0.004)	(0.006)	(0.005)
Education	0.003***	0.002***	0.003***	-0.024***	-0.010***	-0.036***	-0.003***	-0.001***	-0.004***
	(0.000)	(0.000)	(0.000)	(0.002)	(0.003)	(0.003)	(0.000)	(0.000)	(0.000)
Head	0.027***	0.034***	0.019***	-0.099**	-0.056	-0.117**	-0.009**	-0.004	-0.010*
	(0.002)	(0.004)	(0.003)	(0.041)	(0.061)	(0.056)	(0.004)	(0.006)	(0.006)
Spouse	0.013***	0.021***	0.005**	-0.003	0.027	-0.037	0.003	0.006	0.000
	(0.002)	(0.003)	(0.002)	(0.035)	(0.052)	(0.046)	(0.004)	(0.005)	(0.005)
Head: parent/	0.008***	0.004*	0.009***	0.153***	0.198***	0.105**	0.011***	0.019***	0.004
child/sib	(0.001)	(0.002)	(0.002)	(0.032)	(0.046)	(0.045)	(0.003)	(0.005)	(0.004)
Head no	0.008**	0.013***	0.015***	-0.412***	-0.359***	-0.422***	-0.046***	-0.044***	-0.040***
relation	(0.003)	(0.004)	(0.006)	(0.054)	(0.069)	(0.085)	(0.006)	(0.008)	(0.010)
Pregnant	0.048***	0.045***	0.050***	-0.463***	-0.330***	-0.520***	-0.068***	-0.050***	-0.075***
	(0.001)	(0.002)	(0.001)	(0.018)	(0.028)	(0.022)	(0.002)	(0.003)	(0.003)
Muslim	-0.016***	-0.011***	-0.019***	0.423***	0.309***	0.468***	0.046***	0.031***	0.051***
	(0.002)	(0.003)	(0.002)	(0.026)	(0.038)	(0.034)	(0.003)	(0.004)	(0.004)
Constant	3.028***	3.013***	3.035***	0.872***	0.797***	0.957***	0.135***	0.125***	0.146***
	(0.004)	(0.006)	(0.005)	(0.068)	(0.103)	(0.088)	(0.007)	(0.011)	(0.009)
N	189,813	69,736	120,077	189,813	69,736	120,077	189,813	69,736	120,077
R^2	0.206	0.221	0.167	0.039	0.038	0.040	0.052	0.055	0.051

Note: Standard errors clustered at the village level are given in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. OLS is used for all dependent variables. Estimations also control for country FEs, a full set of age dummies and HH characteristics including rural/urban residence, demographic size and composition by gender, head's age and education, the Wealth Index and Wealth Index squared, dummy for Nigeria survey of 2013.
Source: Authors' computations using DHS data.

Table 10: Pooled base model with household fixed effects

	ln BMI			Watts underweight			Underweight		
	All	Urban	Rural	All	Urban	Rural	All	Urban	Rural
	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
Never married	-0.053***	-0.044***	-0.047***	0.497***	0.388***	0.588***	0.057***	0.049***	0.062***
	(0.004)	(0.006)	(0.005)	(0.068)	(0.096)	(0.100)	(0.007)	(0.010)	(0.010)
Ex-widow	-0.001	0.007	-0.000	-0.078	-0.190	-0.025	-0.001	-0.002	-0.001
	(0.006)	(0.013)	(0.007)	(0.129)	(0.192)	(0.163)	(0.014)	(0.024)	(0.017)
Ex-divorcee	0.009**	0.014**	0.006	-0.049	-0.127	0.009	-0.005	-0.021*	0.005
	(0.004)	(0.007)	(0.004)	(0.075)	(0.116)	(0.097)	(0.008)	(0.012)	(0.010)
Widow	-0.024***	-0.031***	-0.017**	0.098	0.116	0.060	0.019	0.032*	0.005
	(0.007)	(0.011)	(0.008)	(0.114)	(0.171)	(0.153)	(0.012)	(0.017)	(0.016)
Divorcee	-0.019***	-0.021***	-0.017***	0.116	0.227	0.024	0.016*	0.030**	0.006
	(0.005)	(0.008)	(0.007)	(0.104)	(0.151)	(0.144)	(0.010)	(0.014)	(0.014)
Education	0.002***	0.002***	0.003***	-0.016**	0.003	-0.039***	-0.002**	0.000	-0.004***
	(0.000)	(0.000)	(0.000)	(0.007)	(0.009)	(0.010)	(0.001)	(0.001)	(0.001)
Head	0.031***	0.036***	0.019***	0.000	-0.065	0.067	0.000	-0.010	0.012
	(0.005)	(0.008)	(0.006)	(0.089)	(0.124)	(0.128)	(0.009)	(0.013)	(0.013)
Spouse	0.027***	0.040***	0.014***	-0.123	-0.057	-0.182	-0.012	-0.004	-0.018
	(0.004)	(0.007)	(0.005)	(0.080)	(0.116)	(0.111)	(0.008)	(0.012)	(0.012)
Head: parent/	0.016***	0.011**	0.016***	0.163**	0.152*	0.144	0.008	0.010	0.005
child/sib	(0.003)	(0.004)	(0.004)	(0.064)	(0.085)	(0.096)	(0.006)	(0.009)	(0.009)
Head no relation	-0.005	0.005	-0.010	-0.324***	-0.255*	-0.326*	-0.032***	-0.034**	-0.019
	(0.007)	(0.008)	(0.011)	(0.110)	(0.132)	(0.194)	(0.012)	(0.014)	(0.023)
Pregnant	0.057***	0.058***	0.057***	-0.596***	-0.524***	-0.630***	-0.082***	-0.071***	-0.087***
	(0.003)	(0.006)	(0.004)	(0.062)	(0.099)	(0.079)	(0.007)	(0.011)	(0.008)
Muslim	-0.002	0.007	-0.010	0.097	0.288	-0.074	0.013	0.035*	-0.008
	(0.008)	(0.012)	(0.011)	(0.139)	(0.183)	(0.207)	(0.016)	(0.020)	(0.024)
Constant	3.036***	3.052***	3.024***	1.217***	0.900***	1.497***	0.171***	0.138***	0.201***
	(0.005)	(0.008)	(0.006)	(0.096)	(0.138)	(0.135)	(0.010)	(0.015)	(0.014)
N	90,171	36,427	53,744	90,171	36,427	53,744	90,171	36,427	53,744
R^2	0.644	0.651	0.640	0.528	0.501	0.543	0.526	0.504	0.540

Note: Standard errors clustered at the village level are given in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. OLS is used for all dependent variables. Regressions control for a full set of age dummies, a dummy for Nigeria survey of 2013 and household fixed effects.
Source: Authors' computations using DHS data.

Table 11: Coefficients on widowhood in country FEs model with interactions between widow indicator and country dummies

	ln BMI			Watts underweight			Underweight		
	All	Urban	Rural	All	Urban	Rural	All	Urban	Rural
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Benin	-0.013	-0.006	-0.024**	0.217	0.484	0.022	0.022	0.017	0.028
	(0.010)	(0.017)	(0.011)	(0.160)	(0.303)	(0.160)	(0.017)	(0.022)	(0.024)
Congo, Rep.	-0.008	-0.007	-0.034*	0.006	-0.140	0.358	-0.008	-0.018	0.025
	(0.014)	(0.020)	(0.018)	(0.273)	(0.278)	(0.530)	(0.026)	(0.028)	(0.049)
Congo, Dem.	-0.050***	-0.042*	-0.072***	0.373	0.183	0.605	0.025	0.007	0.049
Rep.	(0.016)	(0.024)	(0.020)	(0.395)	(0.406)	(0.677)	(0.037)	(0.044)	(0.059)
Ethiopia	-0.075***	-0.083***	-0.071***	0.852***	0.724	0.927**	0.114***	0.131***	0.108***
	(0.009)	(0.020)	(0.008)	(0.299)	(0.448)	(0.388)	(0.028)	(0.047)	(0.035)
Gabon	0.008	-0.025	0.044	0.248	0.603	-0.355***	-0.001	0.037	-0.062***
	(0.019)	(0.025)	(0.030)	(0.321)	(0.483)	(0.079)	(0.022)	(0.032)	(0.009)
Guinea	-0.013	0.049*	-0.046**	0.762	-0.396***	1.322*	0.057	-0.061***	0.113*
	(0.019)	(0.028)	(0.021)	(0.511)	(0.112)	(0.745)	(0.047)	(0.013)	(0.067)
Lesotho	-0.032**	-0.055*	-0.014	0.140	0.213**	0.096	0.008	0.030*	-0.003
	(0.012)	(0.029)	(0.014)	(0.102)	(0.098)	(0.130)	(0.012)	(0.017)	(0.015)
Malawi	-0.037***	-0.061**	-0.024**	0.264*	0.298*	0.227	0.011	0.038	-0.001
	(0.010)	(0.024)	(0.010)	(0.155)	(0.157)	(0.191)	(0.015)	(0.029)	(0.017)
Mali	0.007	0.022	-0.016	0.011	-0.120	0.136	-0.011	-0.021	0.003
	(0.012)	(0.021)	(0.014)	(0.184)	(0.189)	(0.283)	(0.020)	(0.021)	(0.031)
Namibia	-0.016	0.019	-0.023	-0.006	0.324	-0.212	0.001	0.022	-0.013
	(0.013)	(0.026)	(0.014)	(0.209)	(0.392)	(0.244)	(0.022)	(0.037)	(0.027)
Niger	0.017	0.010	0.002	-0.039	0.124	-0.128	-0.019	0.019	-0.039
	(0.020)	(0.034)	(0.020)	(0.448)	(0.665)	(0.605)	(0.045)	(0.065)	(0.061)
Nigeria	-0.005	-0.009	-0.004	0.063	0.082	0.069	0.006	0.012	0.004
	(0.005)	(0.008)	(0.006)	(0.070)	(0.091)	(0.100)	(0.007)	(0.009)	(0.010)
Rwanda	-0.087***	-0.110***	-0.069***	0.361**	0.281	0.351**	0.060***	0.063*	0.053**
	(0.009)	(0.017)	(0.010)	(0.148)	(0.277)	(0.174)	(0.021)	(0.037)	(0.025)
Senegal	0.030	0.003	0.045	-0.601***	-0.527**	-0.651**	-0.028	-0.021	-0.028
	(0.027)	(0.029)	(0.054)	(0.173)	(0.213)	(0.292)	(0.042)	(0.050)	(0.078)
Sierra Leone	0.028	-0.026	0.059*	-0.330	-0.425***	-0.232	-0.018	-0.008	-0.019
	(0.023)	(0.033)	(0.032)	(0.288)	(0.147)	(0.487)	(0.024)	(0.024)	(0.037)
Swaziland	0.011	0.000	0.023	0.264***	0.233**	0.272***	0.032***	0.049**	0.023**
	(0.014)	(0.025)	(0.016)	(0.063)	(0.081)	(0.081)	(0.010)	(0.022)	(0.011)
Tanzania	-0.032***	-0.001	-0.032***	-0.055	0.155	-0.149	0.013	0.032	0.001
	(0.011)	(0.032)	(0.010)	(0.122)	(0.238)	(0.142)	(0.020)	(0.035)	(0.023)
Uganda	-0.040***	-0.087	-0.020	0.145	0.894	0.000	-0.014	0.103	-0.039
	(0.014)	(0.079)	(0.013)	(0.247)	(0.767)	(0.261)	(0.028)	(0.093)	(0.029)
Zambia	-0.031***	-0.035**	-0.046***	0.336***	0.425***	0.251	0.069***	0.061***	0.092***
	(0.010)	(0.015)	(0.012)	(0.124)	(0.158)	(0.202)	(0.019)	(0.022)	(0.033)
Zimbabwe	-0.023***	-0.049***	-0.007	0.080	0.215**	-0.010	0.008	0.026**	-0.003
	(0.007)	(0.014)	(0.009)	(0.078)	(0.093)	(0.108)	(0.010)	(0.013)	(0.013)
N	189,813	69,736	120,077	189,813	69,736	120,077	189,813	69,736	120,077
R^2	0.206	0.222	0.168	0.039	0.038	0.040	0.052	0.055	0.051

Note: Standard errors in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. OLS is used for all dependent variables. Estimations also control for country FEs, a full set of age dummies and HH characteristics including rural/urban residence, demographic size and composition by gender, head's age and education, the Wealth Index and Wealth Index squared, dummy for Nigeria survey of 2013.
Source: Authors' computations using DHS data.

Table 12: Coefficients on widowhood in household fixed effects model with interaction between widow indicator and country dummies

	LN BMI			Watts underweight			Underweight		
	All	Urban	Rural	All	Urban	Rural	All	Urban	Rural
Benin	-0.008	-0.028	0.001	0.066	0.512	-0.341	-0.002	0.055	-0.050
	(0.023)	(0.039)	(0.023)	(0.385)	(0.691)	(0.333)	(0.045)	(0.067)	(0.057)
Congo	-0.006	-0.003	-0.044	0.187	0.215	0.211	-0.007	-0.004	0.003
	(0.030)	(0.039)	(0.034)	(0.265)	(0.233)	(0.624)	(0.048)	(0.044)	(0.108)
DRC	-0.060**	-0.052	-0.117***	0.601	0.756	0.363	0.063	0.125	-0.038
	(0.029)	(0.034)	(0.036)	(0.466)	(0.506)	(0.988)	(0.059)	(0.084)	(0.055)
Ethiopia	-0.117***	-0.140***	-0.100***	0.137	-0.511	0.661	0.153*	0.123	0.180
	(0.023)	(0.039)	(0.025)	(0.892)	(1.231)	(1.244)	(0.078)	(0.108)	(0.110)
Gabon	-0.051	-0.084	-0.017	1.160	1.419	0.174	0.066	0.092	0.023
	(0.047)	(0.056)	(0.051)	(0.947)	(1.142)	(0.230)	(0.077)	(0.092)	(0.024)
Guinea	-0.026	0.010	-0.077**	-0.137	-1.223	1.139*	0.013	-0.129	0.177
	(0.036)	(0.047)	(0.036)	(0.922)	(1.495)	(0.589)	(0.090)	(0.096)	(0.110)
Lesotho	-0.052*	-0.199**	0.011	0.521**	1.063***	0.266	0.066	0.177**	0.018
	(0.029)	(0.081)	(0.030)	(0.257)	(0.264)	(0.318)	(0.043)	(0.074)	(0.050)
Malawi	-0.039	-0.070	-0.014	-0.078	0.060	-0.173	0.001	0.032	-0.020
	(0.026)	(0.051)	(0.030)	(0.378)	(0.717)	(0.450)	(0.043)	(0.068)	(0.053)
Mali	0.042	0.064	-0.020	-0.766*	-0.486	-1.022	-0.102*	-0.079	-0.113
	(0.031)	(0.042)	(0.034)	(0.437)	(0.502)	(0.780)	(0.053)	(0.066)	(0.087)
Namibia	-0.002	0.060	-0.026	-0.534	-0.402	-0.615	-0.069	-0.030	-0.097
	(0.029)	(0.052)	(0.029)	(0.490)	(0.763)	(0.632)	(0.051)	(0.089)	(0.063)
Niger	0.014	0.025	-0.045	0.047	-0.292	0.791	0.031	0.033	0.054
	(0.041)	(0.053)	(0.034)	(0.581)	(0.568)	(1.225)	(0.076)	(0.087)	(0.140)
Nigeria	-0.008	-0.024	0.000	0.207	0.068	0.288	-0.002	-0.002	-0.002
	(0.011)	(0.017)	(0.014)	(0.217)	(0.325)	(0.288)	(0.020)	(0.029)	(0.027)
Rwanda	-0.148***	-0.126***	-0.128***	0.421	0.412	0.324	0.093**	0.095**	0.074
	(0.018)	(0.032)	(0.022)	(0.402)	(0.339)	(0.556)	(0.045)	(0.047)	(0.060)
Senegal	0.029	0.016	-0.005	-0.380	-0.667	0.525	0.046	0.030	0.125
	(0.044)	(0.047)	(0.091)	(0.558)	(0.723)	(0.638)	(0.085)	(0.097)	(0.157)
Sierra Leone	-0.008	0.007	-0.022	-0.347	-1.094	0.092	-0.003	-0.012	0.000
	(0.033)	(0.048)	(0.043)	(0.547)	(1.252)	(0.282)	(0.059)	(0.087)	(0.081)
Swaziland	0.046*	0.008	0.083***	0.523***	0.244	0.498**	0.071***	0.118	0.040
	(0.028)	(0.065)	(0.031)	(0.184)	(0.486)	(0.198)	(0.028)	(0.073)	(0.029)
Tanzania	-0.035	-0.008	-0.028	-1.054	-0.718	-1.284	-0.033	0.000	-0.064
	(0.026)	(0.057)	(0.027)	(0.732)	(1.458)	(0.840)	(0.060)	(0.097)	(0.076)
Uganda	-0.107**	-0.074	-0.090*	0.906**	1.583*	0.704	0.046	0.141***	0.014
	(0.050)	(0.166)	(0.050)	(0.446)	(0.939)	(0.508)	(0.042)	(0.030)	(0.051)
Zambia	-0.046**	-0.058*	-0.067**	0.297	0.423	0.243	0.077**	0.086**	0.097
	(0.023)	(0.029)	(0.031)	(0.288)	(0.366)	(0.434)	(0.038)	(0.033)	(0.091)
Zimbabwe	-0.028*	-0.058**	-0.000	0.075	0.515***	-0.258	0.019	0.051	-0.010
	(0.017)	(0.029)	(0.021)	(0.261)	(0.178)	(0.400)	(0.028)	(0.038)	(0.038)
N	90,171	36,427	53,744	90,171	36,427	53,744	90,171	36,427	53,744
R^2	0.645	0.652	0.641	0.528	0.502	0.543	0.527	0.505	0.540

Note: Standard errors clustered at the village level are given in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. OLS is used for all dependent variables. Regressions control for a full set of age dummies, a dummy for Nigeria survey of 2013 and household fixed effects.
Source: Authors' computations using DHS data.

Table 13: Coefficients on divorce in country FEs model with interaction between divorce indicator and country FEs

	ln BMI			Watts underweight			Underweight		
	All	Urban	Rural	All	Urban	Rural	All	Urban	Rural
Benin	0.003	0.006	-0.011	0.152	0.446**	-0.195*	0.010	0.037*	-0.019
	(0.008)	(0.012)	(0.010)	(0.130)	(0.216)	(0.108)	(0.014)	(0.019)	(0.018)
Congo	-0.013*	-0.011	-0.015	0.272*	0.223	0.325	0.026*	0.022	0.033
	(0.008)	(0.009)	(0.013)	(0.144)	(0.164)	(0.302)	(0.014)	(0.015)	(0.032)
DRC	-0.020**	-0.023	-0.019	0.238	0.164	0.317	0.005	0.020	-0.011
	(0.010)	(0.014)	(0.014)	(0.265)	(0.268)	(0.464)	(0.022)	(0.029)	(0.033)
Ethiopia	-0.024***	-0.032**	-0.023***	0.136	0.439	0.013	0.032	0.034	0.051*
	(0.007)	(0.013)	(0.008)	(0.212)	(0.319)	(0.282)	(0.021)	(0.029)	(0.030)
Gabon	-0.003	-0.012	0.002	0.205*	0.259*	0.132	0.021*	0.013	0.047*
	(0.010)	(0.012)	(0.016)	(0.105)	(0.141)	(0.136)	(0.012)	(0.012)	(0.025)
Guinea	-0.003	-0.013	0.004	0.353	1.218	-0.235	-0.001	0.035	-0.025
	(0.017)	(0.036)	(0.017)	(0.502)	(1.205)	(0.284)	(0.034)	(0.054)	(0.044)
Lesotho	-0.036*	-0.036	-0.034	0.497*	0.197*	0.653	0.032	0.032	0.032
	(0.019)	(0.037)	(0.022)	(0.271)	(0.110)	(0.408)	(0.020)	(0.025)	(0.027)
Malawi	-0.023***	-0.011	-0.022***	0.082	0.036	0.093	0.023**	0.021	0.023*
	(0.005)	(0.017)	(0.006)	(0.076)	(0.139)	(0.086)	(0.011)	(0.029)	(0.012)
Mali	-0.003	-0.022	0.019	0.278	0.409	0.116	0.031	0.046*	0.017
	(0.013)	(0.018)	(0.019)	(0.200)	(0.267)	(0.297)	(0.021)	(0.025)	(0.035)
Namibia	-0.022*	-0.001	-0.044***	0.354	0.167	0.587*	0.021	-0.006	0.051
	(0.011)	(0.016)	(0.015)	(0.234)	(0.312)	(0.349)	(0.019)	(0.022)	(0.031)
Niger	0.042***	0.053**	0.009	-0.501**	-0.525*	-0.439	-0.054**	-0.071***	-0.023
	(0.015)	(0.024)	(0.016)	(0.205)	(0.275)	(0.313)	(0.025)	(0.027)	(0.044)
Nigeria	0.005	-0.002	0.008	0.138	0.381***	0.021	0.002	0.021*	-0.005
	(0.005)	(0.008)	(0.006)	(0.087)	(0.145)	(0.107)	(0.008)	(0.012)	(0.010)
Rwanda	-0.060***	-0.080***	-0.048***	0.280***	0.466**	0.218*	0.050***	0.092***	0.034**
	(0.007)	(0.015)	(0.008)	(0.108)	(0.218)	(0.125)	(0.014)	(0.031)	(0.016)
Senegal	-0.011	0.000	-0.031	-0.134	-0.486	0.415	-0.029	-0.070**	0.029
	(0.014)	(0.017)	(0.025)	(0.286)	(0.304)	(0.613)	(0.025)	(0.028)	(0.053)
Sierra Leone	0.028	-0.018	0.062**	0.017	0.159	-0.098	-0.014	0.007	-0.030
	(0.022)	(0.031)	(0.028)	(0.331)	(0.464)	(0.464)	(0.026)	(0.040)	(0.033)
Swaziland	-0.009	-0.017	0.013	0.242***	0.170***	0.206**	0.029***	0.018**	0.029
	(0.015)	(0.023)	(0.019)	(0.056)	(0.064)	(0.087)	(0.011)	(0.008)	(0.019)
Tanzania	-0.015**	-0.006	-0.019***	0.026	-0.107	0.108	0.015	-0.012	0.030*
	(0.007)	(0.014)	(0.007)	(0.103)	(0.119)	(0.139)	(0.012)	(0.017)	(0.016)
Uganda	0.018*	0.001	0.016	-0.043	0.116	-0.040	-0.028	0.035	-0.039*
	(0.011)	(0.025)	(0.012)	(0.186)	(0.176)	(0.241)	(0.019)	(0.032)	(0.023)
Zambia	-0.027***	-0.038**	-0.018**	0.123	0.152	0.104	0.021*	0.019	0.024
	(0.007)	(0.012)	(0.008)	(0.100)	(0.123)	(0.146)	(0.012)	(0.016)	(0.017)
Zimbabwe	-0.030***	-0.044***	-0.024***	0.074	0.234*	0.009	0.003	0.030**	-0.009
	(0.006)	(0.011)	(0.007)	(0.105)	(0.122)	(0.149)	(0.010)	(0.015)	(0.014)
N	189,813	69,736	120,077	189813	69736	120077	189,813	69,736	120,077
R^2	0.206	0.222	0.168	0.039	0.038	0.040	0.052	0.055	0.051

Note: Standard errors clustered at the village level are given in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. OLS is used for all dependent variables. Estimations also control for country FEs, a full set of age dummies and HH characteristics including rural/urban residence, demographic size and composition by gender, head's age and education, the Wealth Index and Wealth Index squared, dummy for Nigeria survey of 2013.

Source: Authors' computations using DHS data.

Table 14: Coefficients on divorce in household FEs model with interaction between divorcee indicator and country dummies

	Ln BMI			Watts underweight			Underweight		
	All	Urban	Rural	All	Urban	Rural	All	Urban	Rural
Benin	0.005	-0.002	0.006	0.082	0.138	0.014	0.032	0.043	0.024
	(0.023)	(0.032)	(0.030)	(0.259)	(0.335)	(0.401)	(0.039)	(0.046)	(0.067)
Congo	-0.040***	-0.042**	-0.035	0.400	0.408	0.322	0.076***	0.093***	0.025
	(0.015)	(0.018)	(0.029)	(0.333)	(0.358)	(0.833)	(0.029)	(0.031)	(0.075)
DRC	-0.014	-0.025	-0.013	0.047	-0.167	0.365	0.036	0.030	0.057
	(0.021)	(0.028)	(0.033)	(0.186)	(0.249)	(0.273)	(0.050)	(0.071)	(0.063)
Ethiopia	-0.011	-0.013	-0.016	0.007	0.116	-0.093	0.053	0.028	0.074
	(0.016)	(0.027)	(0.019)	(0.244)	(0.287)	(0.393)	(0.049)	(0.059)	(0.073)
Gabon	0.023	-0.001	0.066*	0.122	0.268	-0.354	-0.032	-0.009	-0.088
	(0.023)	(0.026)	(0.039)	(0.188)	(0.219)	(0.314)	(0.031)	(0.034)	(0.068)
Guinea	0.008	0.001	0.009	0.141	0.851	-0.513	-0.016	0.036	-0.054
	(0.042)	(0.078)	(0.039)	(0.646)	(1.211)	(0.459)	(0.079)	(0.137)	(0.090)
Lesotho	-0.075	-0.034	-0.100*	0.394	0.327	0.458	-0.005	0.037	-0.020
	(0.051)	(0.100)	(0.055)	(0.670)	(0.180)	(0.971)	(0.069)	(0.058)	(0.109)
Malawi	-0.044***	-0.028	-0.045**	0.173	0.166	0.185	0.012	-0.018	0.018
	(0.017)	(0.038)	(0.019)	(0.100)	(0.237)	(0.115)	(0.037)	(0.096)	(0.040)
Mali	-0.041*	-0.042	-0.023	0.404	0.491	0.145	0.024	0.049	-0.034
	(0.023)	(0.030)	(0.031)	(0.419)	(0.533)	(0.641)	(0.039)	(0.045)	(0.074)
Namibia	-0.028	-0.017	-0.041	0.073	0.309	-0.220	0.041	0.039	0.048
	(0.026)	(0.035)	(0.036)	(0.659)	(0.844)	(1.033)	(0.048)	(0.059)	(0.079)
Niger	0.018	0.013	0.019	-0.193	0.139	-0.778	-0.022	0.021	-0.071
	(0.025)	(0.035)	(0.033)	(0.226)	(0.195)	(0.471)	(0.058)	(0.065)	(0.099)
Nigeria	0.006	0.000	0.007	-0.172	-0.120	-0.184	-0.002	0.015	-0.010
	(0.011)	(0.019)	(0.013)	(0.217)	(0.385)	(0.258)	(0.022)	(0.035)	(0.029)
Rwanda	-0.091***	-0.089**	-0.074***	0.390*	0.566*	0.317	0.065*	0.101	0.043
	(0.017)	(0.037)	(0.017)	(0.159)	(0.225)	(0.205)	(0.034)	(0.069)	(0.039)
Senegal	-0.014	-0.024	0.009	0.114	0.100	0.140	-0.005	-0.017	0.023
	(0.026)	(0.032)	(0.042)	(0.164)	(0.204)	(0.276)	(0.044)	(0.050)	(0.084)
Sierra Leone	0.038	0.055	0.022	0.050	-0.074	0.223	-0.028	-0.036	-0.014
	(0.041)	(0.054)	(0.059)	(0.307)	(0.473)	(0.367)	(0.045)	(0.085)	(0.035)
Swaziland	0.016	-0.013	0.041	-0.080	-0.042	-0.118	0.008	-0.012	0.014
	(0.028)	(0.054)	(0.033)	(0.209)	(0.258)	(0.292)	(0.028)	(0.042)	(0.035)
Tanzania	-0.028	-0.010	-0.035	0.008	-0.100	0.097	-0.020	-0.033	-0.012
	(0.016)	(0.028)	(0.018)	(0.277)	(0.240)	(0.423)	(0.029)	(0.044)	(0.038)
Uganda	0.004	-0.001	0.001	0.296	0.526***	0.248	0.054	0.202*	0.014
	(0.031)	(0.072)	(0.032)	(0.156)	(0.140)	(0.198)	(0.066)	(0.103)	(0.078)
Zambia	-0.044**	-0.040	-0.049*	0.249	0.122	0.371	0.030	0.019	0.043
	(0.017)	(0.023)	(0.024)	(0.225)	(0.196)	(0.414)	(0.033)	(0.034)	(0.057)
Zimbabwe	-0.020	-0.029	-0.019	-0.157	-0.056	-0.188	-0.014	0.006	-0.021
	(0.015)	(0.025)	(0.017)	(0.201)	(0.300)	(0.264)	(0.027)	(0.046)	(0.033)
N	90,171	36,427	53,744	122,561	49,109	73,452	90,171	36,427	53,744
R^2	0.645	0.651	0.640	0.523	0.492	0.540	0.526	0.505	0.540

Note: Standard errors clustered at the village level are given in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. OLS is used for all dependent variables. Regressions control for a full set of age dummies, a dummy for Nigeria survey of 2013 and household fixed effects.
Source: Authors' computations using DHS data.

Table 15: Pooled base model with country and household fixed effects on sample of countries with HIV tests

	Ln BMI			Watts underweight			Underweight		
	All	Urban	Rural	All	Urban	Rural	All	Urban	Rural
Country FEs									
Widows	-0.018***	-0.031***	-0.013***	0.147**	0.162*	0.145*	0.017***	0.028***	0.012
	(0.004)	(0.007)	(0.004)	(0.058)	(0.083)	(0.077)	(0.006)	(0.010)	(0.008)
Divorced	-0.017***	-0.021***	-0.015***	0.094*	0.180**	0.051	0.013**	0.016**	0.014*
	(0.003)	(0.005)	(0.003)	(0.051)	(0.077)	(0.067)	(0.005)	(0.008)	(0.007)
N	80,132	28,214	51,918	80,132	28,214	51,918	80,132	28,214	51,918
HH FEs									
Widows	-0.028***	-0.045***	-0.017	0.111	0.142	0.082	0.037**	0.053**	0.025
	(0.009)	(0.015)	(0.011)	(0.148)	(0.213)	(0.203)	(0.016)	(0.022)	(0.023)
Divorced	-0.023***	-0.021**	-0.025***	0.117	0.215	0.063	0.015	0.020	0.016
	(0.007)	(0.011)	(0.009)	(0.134)	(0.198)	(0.181)	(0.013)	(0.018)	(0.019)
N	38,594	16,079	22,515	38,594	16,079	22,515	38,594	16,079	22,515
	Controlling for HIV status								
Country FEs									
Widows	-0.011***	-0.022***	-0.007*	0.110*	0.124	0.109	0.014**	0.023**	0.010
	(0.004)	(0.007)	(0.004)	(0.059)	(0.084)	(0.080)	(0.006)	(0.010)	(0.008)
Divorced	-0.014***	-0.018***	-0.013***	0.080	0.166**	0.037	0.011**	0.014*	0.013*
	(0.003)	(0.005)	(0.003)	(0.051)	(0.077)	(0.067)	(0.005)	(0.008)	(0.007)
seropositive	-0.032***	-0.043***	-0.025***	0.174***	0.187***	0.171***	0.016***	0.024***	0.011**
	(0.002)	(0.004)	(0.003)	(0.038)	(0.060)	(0.050)	(0.004)	(0.006)	(0.005)
HIV test	-0.004**	-0.011***	0.000	0.020	0.023	0.028	0.000	0.008	-0.004
missing	(0.002)	(0.003)	(0.002)	(0.036)	(0.052)	(0.049)	(0.004)	(0.005)	(0.005)
N	80,132	28,214	51,918	80,132	28,214	51,918	80,132	28,214	51,918
HH FEs									
Widows	-0.024***	-0.038***	-0.014	0.075	0.128	0.025	0.034**	0.048**	0.022
	(0.009)	(0.015)	(0.011)	(0.149)	(0.212)	(0.205)	(0.016)	(0.023)	(0.023)
Divorced	-0.021***	-0.020*	-0.024***	0.105	0.211	0.042	0.014	0.018	0.015
	(0.007)	(0.011)	(0.009)	(0.133)	(0.198)	(0.181)	(0.013)	(0.018)	(0.019)
seropositive	-0.027***	-0.038***	-0.020**	0.218**	0.084	0.323**	0.020*	0.027	0.015
	(0.007)	(0.010)	(0.008)	(0.108)	(0.171)	(0.138)	(0.011)	(0.017)	(0.014)
HIV test	-0.007	-0.019*	0.002	-0.032	0.118	-0.257	-0.003	0.012	-0.020
missing	(0.008)	(0.011)	(0.012)	(0.169)	(0.192)	(0.300)	(0.017)	(0.021)	(0.029)
N	38,594	16,079	22,515	38,594	16,079	22,515	38,594	16,079	22,515

Note: Standard errors in parentheses, * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Sample of countries for which HIV tests are available. All estimations control for household and individual characteristics as listed in Tables 9 and 10, and either country or household FEs. We have estimated OLS for all dependent variables.
Source: Authors' calculations using DHS data.

Table 16: Coefficients on widowhood in country FEs model with interactions between widow indicator and country dummies and controls for HIV status, sample with HIV tests

	Ln BMI			Watts underweight			UW		
	All	Urban	Rural	All	Urban	Rural	All	Urban	Rural
Ethiopia	-0.064***	-0.077***	-0.063***	0.736**	0.638	0.801**	0.100***	0.122**	0.093***
	(0.009)	(0.020)	(0.008)	(0.301)	(0.454)	(0.388)	(0.028)	(0.048)	(0.035)
Gabon	0.019	-0.015	0.052*	0.154	0.517	-0.438***	-0.012	0.026	-0.069***
	(0.019)	(0.025)	(0.030)	(0.323)	(0.488)	(0.085)	(0.022)	(0.032)	(0.009)
Guinea	-0.000	0.067**	-0.039*	0.638	-0.521***	1.203	0.043	-0.073***	0.100
	(0.020)	(0.031)	(0.021)	(0.510)	(0.120)	(0.743)	(0.047)	(0.014)	(0.067)
Lesotho	-0.014	-0.042	0.003	0.013	0.146	-0.039	-0.008	0.019	-0.018
	(0.012)	(0.029)	(0.014)	(0.103)	(0.102)	(0.132)	(0.012)	(0.018)	(0.015)
Malawi	-0.016*	-0.032	-0.007	0.084	0.112	0.066	-0.008	0.014	-0.016
	(0.010)	(0.023)	(0.010)	(0.158)	(0.158)	(0.195)	(0.015)	(0.029)	(0.017)
Mali	0.015	0.027	-0.010	-0.092	-0.210	0.025	-0.023	-0.031	-0.010
	(0.013)	(0.021)	(0.015)	(0.185)	(0.191)	(0.283)	(0.020)	(0.021)	(0.031)
Niger	0.024	0.016	0.007	-0.140	0.042	-0.226	-0.030	0.012	-0.048
	(0.020)	(0.034)	(0.020)	(0.449)	(0.666)	(0.607)	(0.045)	(0.065)	(0.061)
DRC	-0.040**	-0.031	-0.067***	0.259	0.081	0.499	0.012	-0.004	0.038
	(0.016)	(0.025)	(0.020)	(0.394)	(0.408)	(0.672)	(0.037)	(0.044)	(0.059)
Rwanda	-0.072***	-0.089***	-0.057***	0.240	0.148	0.236	0.044**	0.045	0.039
	(0.009)	(0.018)	(0.010)	(0.150)	(0.274)	(0.177)	(0.021)	(0.037)	(0.025)
Senegal	0.037	0.005	0.055	-0.665***	-0.576***	-0.731**	-0.036	-0.027	-0.038
	(0.027)	(0.029)	(0.054)	(0.175)	(0.217)	(0.285)	(0.043)	(0.050)	(0.077)
Sierra Leone	0.037	-0.020	0.067**	-0.431	-0.478***	-0.387	-0.031	-0.016	-0.036
	(0.024)	(0.033)	(0.032)	(0.294)	(0.144)	(0.498)	(0.024)	(0.023)	(0.038)
Swaziland	0.026*	0.006	0.040**	0.188***	0.233**	0.185**	0.021**	0.048**	0.013
	(0.014)	(0.026)	(0.016)	(0.067)	(0.091)	(0.088)	(0.010)	(0.023)	(0.012)
Zambia	-0.013	-0.016	-0.032***	0.181	0.288*	0.094	0.052***	0.043**	0.075**
	(0.010)	(0.015)	(0.012)	(0.127)	(0.162)	(0.207)	(0.019)	(0.022)	(0.033)
Zimbabwe	-0.005	-0.030**	0.009	-0.060	0.097	-0.155	-0.008	0.011	-0.018
	(0.008)	(0.014)	(0.009)	(0.082)	(0.099)	(0.114)	(0.010)	(0.014)	(0.014)
N	80,132	28,214	51,918	80,132	28,214	51,918	80,132	28,214	51,918
R^2	0.225	0.227	0.205	0.046	0.041	0.050	0.060	0.059	0.062

Note: Standard errors in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. OLS is used for all dependent variables. Estimations also control for country FEs, individual and household level characteristics as detailed in Section 3. See Addendum for full regressions.
Source: Authors' computations using DHS data

Table 17: Coefficients on widowhood in household fixed effects model with interaction between widow indicator and country dummies and controls for HIV status, sample with HIV tests

	Ln BMI			Watts underweight			UW		
	All	Urban	Rural	All	Urban	Rural	All	Urban	Rural
Ethiopia	-0.111***	-0.143***	-0.092***	0.106	-0.573	0.600	0.147*	0.118	0.174
	(0.023)	(0.039)	(0.025)	(0.893)	(1.220)	(1.244)	(0.078)	(0.107)	(0.110)
Gabon	-0.041	-0.074	-0.014	1.094	1.430	0.142	0.057	0.086	0.014
	(0.047)	(0.056)	(0.051)	(0.940)	(1.124)	(0.309)	(0.076)	(0.092)	(0.031)
Guinea	-0.022	0.013	-0.080**	-0.127	-1.182	1.187*	0.009	-0.131	0.177
	(0.037)	(0.049)	(0.036)	(0.922)	(1.431)	(0.614)	(0.090)	(0.095)	(0.112)
Lesotho	-0.036	-0.181**	0.025	0.406	1.062***	0.140	0.050	0.162**	0.004
	(0.029)	(0.077)	(0.030)	(0.270)	(0.303)	(0.344)	(0.043)	(0.075)	(0.051)
Malawi	-0.026	-0.054	-0.006	-0.169	0.061	-0.259	-0.012	0.015	-0.029
	(0.026)	(0.051)	(0.030)	(0.379)	(0.719)	(0.456)	(0.043)	(0.066)	(0.053)
Mali	0.045	0.060	-0.020	-0.822*	-0.530	-1.069	-0.107**	-0.084	-0.117
	(0.031)	(0.042)	(0.035)	(0.434)	(0.492)	(0.788)	(0.053)	(0.065)	(0.088)
Niger	0.015	0.027	-0.051	0.063	-0.249	0.768	0.031	0.033	0.052
	(0.042)	(0.052)	(0.035)	(0.583)	(0.564)	(1.260)	(0.075)	(0.086)	(0.142)
DRC	-0.051*	-0.042	-0.120***	0.522	0.727	0.322	0.053	0.117	-0.043
	(0.029)	(0.036)	(0.036)	(0.467)	(0.514)	(0.971)	(0.059)	(0.083)	(0.058)
Rwanda	-0.136***	-0.113***	-0.117***	0.344	0.301	0.270	0.081*	0.074	0.064
	(0.019)	(0.032)	(0.022)	(0.409)	(0.339)	(0.564)	(0.045)	(0.047)	(0.061)
Senegal	0.032	0.013	0.003	-0.385	-0.630	0.415	0.046	0.037	0.115
	(0.044)	(0.047)	(0.091)	(0.555)	(0.712)	(0.666)	(0.085)	(0.096)	(0.159)
Sierra Leone	-0.008	0.001	-0.024	-0.336	-0.963	0.058	-0.003	-0.003	-0.001
	(0.034)	(0.052)	(0.043)	(0.560)	(1.267)	(0.311)	(0.060)	(0.090)	(0.083)
Swaziland	0.061**	0.016	0.098***	0.404**	0.185	0.311	0.056*	0.112	0.023
	(0.028)	(0.063)	(0.032)	(0.200)	(0.509)	(0.226)	(0.029)	(0.075)	(0.030)
Zambia	-0.033	-0.048	-0.056*	0.223	0.461	0.100	0.067*	0.077**	0.089
	(0.022)	(0.030)	(0.031)	(0.296)	(0.370)	(0.451)	(0.038)	(0.035)	(0.092)
Zimbabwe	-0.015	-0.042	0.009	-0.025	0.446**	-0.391	0.006	0.033	-0.018
	(0.018)	(0.030)	(0.021)	(0.267)	(0.203)	(0.407)	(0.029)	(0.039)	(0.040)
N	38,594	16,079	22,515	38,594	16,079	22,515	38,594	16,079	22,515
R^2	0.639	0.635	0.652	0.516	0.478	0.541	0.519	0.492	0.538

Note: Standard errors in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. OLS is used for all dependent variables. Estimations also control for household FEs and individual level characteristics.
Source: Authors' computations using DHS data.

Table 18: Coefficients on divorce in country FEs model with interaction between divorcee indicator and country dummies and controls for HIV status, sample with HIV tests

	Ln BMI			Watts underweight			UW		
	All	Urban	Rural	All	Urban	Rural	All	Urban	Rural
Ethiopia	-0.018***	-0.029**	-0.019**	0.069	0.443	-0.095	0.026	0.034	0.042
	(0.007)	(0.013)	(0.008)	(0.212)	(0.318)	(0.284)	(0.021)	(0.029)	(0.030)
Gabon	0.005	-0.004	0.008	0.134	0.198	0.051	0.013	0.005	0.039
	(0.010)	(0.012)	(0.017)	(0.107)	(0.146)	(0.140)	(0.012)	(0.013)	(0.025)
Guinea	0.004	0.002	0.007	0.272	1.156	-0.347	-0.008	0.027	-0.035
	(0.017)	(0.036)	(0.016)	(0.503)	(1.207)	(0.278)	(0.034)	(0.055)	(0.044)
Lesotho	-0.022	-0.025	-0.022	0.427	0.121	0.584	0.024	0.022	0.027
	(0.019)	(0.036)	(0.023)	(0.272)	(0.115)	(0.410)	(0.020)	(0.025)	(0.028)
Malawi	-0.017***	-0.004	-0.017***	0.016	-0.016	0.023	0.017	0.016	0.017
	(0.005)	(0.017)	(0.006)	(0.079)	(0.146)	(0.090)	(0.012)	(0.030)	(0.013)
Mali	-0.003	-0.019	0.018	0.255	0.394	0.037	0.030	0.043*	0.012
	(0.013)	(0.018)	(0.019)	(0.202)	(0.268)	(0.303)	(0.021)	(0.025)	(0.035)
Niger	0.043***	0.057**	0.008	-0.555***	-0.575**	-0.494	-0.058**	-0.076***	-0.026
	(0.015)	(0.024)	(0.016)	(0.208)	(0.280)	(0.315)	(0.025)	(0.027)	(0.044)
DRC	-0.017*	-0.022	-0.016	0.187	0.143	0.250	-0.001	0.018	-0.016
	(0.010)	(0.014)	(0.014)	(0.264)	(0.269)	(0.463)	(0.022)	(0.029)	(0.033)
Rwanda	-0.052***	-0.070***	-0.041***	0.225**	0.387*	0.173	0.043***	0.083***	0.029*
	(0.007)	(0.015)	(0.008)	(0.110)	(0.222)	(0.128)	(0.014)	(0.031)	(0.016)
Senegal	-0.006	0.009	-0.029	-0.193	-0.520*	0.353	-0.037	-0.077***	0.023
	(0.014)	(0.017)	(0.026)	(0.286)	(0.302)	(0.613)	(0.025)	(0.028)	(0.053)
Sierra Leone	0.033	-0.014	0.067**	-0.057	0.135	-0.202	-0.023	0.005	-0.039
	(0.021)	(0.030)	(0.028)	(0.329)	(0.460)	(0.461)	(0.025)	(0.039)	(0.033)
Swaziland	0.002	-0.006	0.023	0.201***	0.144*	0.175*	0.024**	0.014	0.026
	(0.015)	(0.023)	(0.019)	(0.060)	(0.075)	(0.091)	(0.011)	(0.009)	(0.019)
Zambia	-0.020***	-0.030**	-0.012	0.058	0.103	0.025	0.015	0.013	0.017
	(0.007)	(0.013)	(0.008)	(0.103)	(0.131)	(0.149)	(0.012)	(0.017)	(0.018)
Zimbabwe	-0.023***	-0.036***	-0.018**	0.020	0.196	-0.060	-0.002	0.025	-0.014
	(0.006)	(0.011)	(0.007)	(0.107)	(0.126)	(0.151)	(0.011)	(0.016)	(0.014)
N	80,132	28,214	51,918	80,132	28,214	51,918	80,132	28,214	51,918
R^2	0.224	0.227	0.204	0.046	0.041	0.050	0.059	0.059	0.062

Note: Standard errors in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. OLS is used for all dependent variables. Estimations also control for country FEs, individual and HH level characteristics as detailed in Section 3. (See Addendum for full regressions.)
Source: Authors' computations using DHS data.

Table 19: Coefficients on divorce in household FEs model with interaction between divorcee indicator and country dummies and controls for HIV status, sample with HIV tests

	Ln BMI			Watts underweight			UW		
	All	Urban	Rural	All	Urban	Rural	All	Urban	Rural
Ethiopia	-0.014	-0.012	-0.022	-0.059	-0.164	-0.022	0.060	0.033	0.083
	(0.016)	(0.028)	(0.019)	(0.487)	(0.628)	(0.722)	(0.048)	(0.060)	(0.073)
Gabon	0.026	0.003	0.063	0.096	0.401	-0.740	-0.034	-0.007	-0.091
	(0.023)	(0.026)	(0.040)	(0.351)	(0.426)	(0.508)	(0.031)	(0.034)	(0.068)
Guinea	0.005	0.006	-0.001	0.256	1.753	-0.828	-0.013	0.037	-0.042
	(0.041)	(0.079)	(0.039)	(1.228)	(2.536)	(0.832)	(0.079)	(0.137)	(0.091)
Lesotho	-0.064	-0.032	-0.090	0.475	0.431	0.529	-0.008	0.043	-0.023
	(0.050)	(0.095)	(0.055)	(1.239)	(0.309)	(2.028)	(0.070)	(0.057)	(0.111)
Malawi	-0.043**	-0.021	-0.047**	-0.051	-0.030	0.000	0.015	-0.019	0.026
	(0.017)	(0.039)	(0.019)	(0.292)	(0.614)	(0.341)	(0.037)	(0.097)	(0.041)
Mali	-0.046**	-0.041	-0.033	0.440	0.540	0.152	0.030	0.054	-0.026
	(0.023)	(0.030)	(0.031)	(0.447)	(0.574)	(0.671)	(0.040)	(0.046)	(0.074)
Niger	0.016	0.015	0.010	-0.310	0.438	-1.230	-0.016	0.025	-0.064
	(0.025)	(0.036)	(0.033)	(0.449)	(0.356)	(0.815)	(0.058)	(0.066)	(0.098)
DRC	-0.014	-0.025	-0.018	-0.017	-0.504	0.825	0.039	0.035	0.067
	(0.021)	(0.028)	(0.033)	(0.430)	(0.552)	(0.672)	(0.049)	(0.070)	(0.065)
Rwanda	-0.083***	-0.079**	-0.069***	0.410	0.625	0.343	0.063*	0.094	0.045
	(0.017)	(0.036)	(0.017)	(0.314)	(0.432)	(0.408)	(0.034)	(0.069)	(0.040)
Senegal	-0.015	-0.021	0.005	0.019	-0.009	0.211	-0.005	-0.016	0.022
	(0.026)	(0.032)	(0.042)	(0.579)	(0.706)	(0.992)	(0.044)	(0.049)	(0.085)
Sierra Leone	0.036	0.052	0.019	-0.148	-0.431	0.151	-0.019	-0.024	-0.008
	(0.040)	(0.054)	(0.059)	(0.609)	(1.035)	(0.679)	(0.044)	(0.083)	(0.034)
Swaziland	0.023	-0.003	0.046	-0.007	0.073	-0.038	0.007	-0.009	0.014
	(0.027)	(0.055)	(0.032)	(0.239)	(0.318)	(0.337)	(0.028)	(0.047)	(0.036)
Zambia	-0.039**	-0.031	-0.049**	0.355	0.260	0.476	0.030	0.016	0.047
	(0.017)	(0.023)	(0.024)	(0.237)	(0.225)	(0.432)	(0.033)	(0.034)	(0.057)
Zimbabwe	-0.018	-0.028	-0.020	-0.075	0.077	-0.090	-0.011	0.010	-0.014
	(0.015)	(0.024)	(0.018)	(0.219)	(0.329)	(0.288)	(0.027)	(0.046)	(0.033)
N	38,594	16,079	22,515	38,594	16,079	22,515	38,594	16,079	22,515
R^2	0.638	0.634	0.650	0.516	0.478	0.541	0.519	0.492	0.537

Note: Standard errors in parentheses, * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. OLS is used for all dependent variables. All estimations control for household FEs and individual level characteristics. We have estimated OLS for all dependent variables

Source: Authors' computations using DHS data.

Addendum: Marital shocks and Women's Welfare in Africa

Table A1: Sample sizes, total and with HIV test results, women 15-49

	Sample size	With BMI available	With HIV tests	With HIV tests and BMI available
WEST				
Benin 2006	16,841	15,833	-	-
Guinea 2005	7,635	3,794	3,679	3,646
Mali 2006	13,751	13,461	4,450	4,397
Niger 2006	8,840	4,350	4,262	4,234
Nigeria 2008	31,716	30,766	-	-
Nigeria 2013	36,756	36,195	-	-
Senegal 2005	13,550	4,272	4,165	4,132
Sierra Leone 2008	6,965	3,302	3,266	3,185
CENTRAL				
Congo 2005	6,184	6,019	-	-
DRC 2007	9,587	4,543	4,450	4,382
Gabon 2012	7,841	5,170	5,122	5,069
EAST				
Ethiopia 2005	13,642	6,459	5,786	5,731
Malawi 2010	22,132	7,259	7,065	6,999
Rwanda 2005	10,950	5,473	5,493	5,440
Tanzania 2004	9,758	9,668	-	-
Uganda 2006	7,940	2,640	-	-
Zambia 2007	6,866	6,771	5,495	5,472
SOUTH				
Lesotho 2009	4,952	2,486	2,418	2,407
Namibia 2006	8,869	8,644	-	-
Swaziland 2006	4,670	4,548	4,300	4,274
Zimbabwe 2005	8,454	8,273	7,123	7,022
Total	257,899	189,926	67,074	66,390

Note: Source: All DHSs with information on detailed marital status.

Table A2: Full pooled model with country fixed effects (Table 9 regression)

	Ln BMI			Watts underweight			Underweight		
	All	Urban	Rural	All	Urban	Rural	All	Urban	Rural
Single	-0.047***	-0.040***	-0.042***	0.414***	0.344***	0.467***	0.050***	0.043***	0.054***
	(0.002)	(0.003)	(0.002)	(0.029)	(0.041)	(0.042)	(0.003)	(0.004)	(0.004)
Ex-widow	-0.008***	-0.006	-0.006**	-0.029	-0.020	-0.037	0.003	0.000	0.003
	(0.003)	(0.006)	(0.003)	(0.043)	(0.073)	(0.053)	(0.005)	(0.008)	(0.006)
Ex-divorcee	0.001	0.001	0.001	0.004	0.006	0.006	0.003	0.003	0.003
	(0.002)	(0.003)	(0.002)	(0.024)	(0.038)	(0.031)	(0.003)	(0.004)	(0.003)
Widow	-0.019***	-0.021***	-0.017***	0.153***	0.190***	0.131**	0.018***	0.024***	0.014**
	(0.003)	(0.005)	(0.003)	(0.041)	(0.060)	(0.055)	(0.004)	(0.006)	(0.006)
Divorcee	-0.013***	-0.015***	-0.013***	0.146***	0.229***	0.103**	0.014***	0.018***	0.014***
	(0.002)	(0.004)	(0.003)	(0.038)	(0.058)	(0.051)	(0.004)	(0.006)	(0.005)
Education	0.003***	0.002***	0.003***	-0.024***	-0.010***	-0.036***	-0.003***	-0.001***	-0.004***
	(0.000)	(0.000)	(0.000)	(0.002)	(0.003)	(0.003)	(0.000)	(0.000)	(0.000)
Head	0.027***	0.034***	0.019***	-0.099**	-0.056	-0.117**	-0.009**	-0.004	-0.010*
	(0.002)	(0.004)	(0.003)	(0.041)	(0.061)	(0.056)	(0.004)	(0.006)	(0.006)
Head's spouse	0.013***	0.021***	0.005**	-0.003	0.027	-0.037	0.003	0.006	0.000
	(0.002)	(0.003)	(0.002)	(0.035)	(0.052)	(0.046)	(0.004)	(0.005)	(0.005)
Head is	0.008***	0.004*	0.009***	0.153***	0.198***	0.105**	0.011***	0.019***	0.004
parent/child/sib	(0.001)	(0.002)	(0.002)	(0.032)	(0.046)	(0.045)	(0.003)	(0.005)	(0.004)
Head no	0.008**	0.013***	0.015***	-0.412***	-0.359***	-0.422***	-0.046***	-0.044***	-0.040***
relation	(0.003)	(0.004)	(0.006)	(0.054)	(0.069)	(0.085)	(0.006)	(0.008)	(0.010)
Pregnant	0.048***	0.045***	0.050***	-0.463***	-0.330***	-0.520***	-0.068***	-0.050***	-0.075***
	(0.001)	(0.002)	(0.001)	(0.018)	(0.028)	(0.022)	(0.002)	(0.003)	(0.003)
Muslim	-0.016***	-0.011***	-0.019***	0.423***	0.309***	0.468***	0.046***	0.031***	0.051***
	(0.002)	(0.003)	(0.002)	(0.026)	(0.038)	(0.034)	(0.003)	(0.004)	(0.004)
Log of HH size	-0.002	-0.006***	0.000	-0.022	0.039	-0.042	-0.004**	0.006**	-0.010***
	(0.001)	(0.002)	(0.002)	(0.020)	(0.030)	(0.026)	(0.002)	(0.003)	(0.003)
Share female	-0.025***	-0.019***	-0.029***	-0.007	0.008	-0.020	0.010	0.007	0.013
<5yrs	(0.004)	(0.007)	(0.004)	(0.065)	(0.098)	(0.086)	(0.007)	(0.011)	(0.009)
Share male	-0.024***	-0.015**	-0.029***	-0.067	-0.034	-0.093	0.012*	0.014	0.012
<5yrs	(0.004)	(0.007)	(0.004)	(0.064)	(0.093)	(0.085)	(0.007)	(0.010)	(0.009)
Share female	0.002	0.010	-0.000	-0.009	0.105	-0.098	0.017**	0.011	0.018**
6-14yrs	(0.004)	(0.006)	(0.005)	(0.064)	(0.096)	(0.087)	(0.007)	(0.010)	(0.009)
Share male 6-	-0.009**	0.004	-0.013***	0.009	0.007	-0.015	0.013*	0.004	0.016*
14yrs	(0.004)	(0.006)	(0.004)	(0.064)	(0.093)	(0.086)	(0.007)	(0.010)	(0.009)
Share female	0.009	0.011	-0.002	-0.228	-0.350	-0.155	0.003	-0.010	0.015
>65yrs	(0.009)	(0.015)	(0.010)	(0.166)	(0.262)	(0.213)	(0.017)	(0.028)	(0.022)
Share male	-0.001	-0.017	0.007	-0.500***	-0.515*	-0.495**	-0.031*	-0.029	-0.033
>65yrs	(0.009)	(0.018)	(0.011)	(0.178)	(0.299)	(0.222)	(0.019)	(0.031)	(0.023)
Head age	0.000***	0.000***	0.000***	0.001	0.001	0.001	0.000	0.000	0.000
	(0.000)	(0.000)	(0.000)	(0.001)	(0.002)	(0.001)	(0.000)	(0.000)	(0.000)
Head	0.000***	0.000	0.001***	-0.003	-0.004	-0.001	-0.000	-0.000	-0.000
Education	(0.000)	(0.000)	(0.000)	(0.002)	(0.003)	(0.003)	(0.000)	(0.000)	(0.000)
Wealth index	0.004***	0.005***	0.004***	-0.022***	-0.022***	-0.020***	-0.003***	-0.003***	-0.002***
	(0.000)	(0.000)	(0.000)	(0.001)	(0.002)	(0.002)	(0.000)	(0.000)	(0.000)
Wealth index^2	-0.000***	-0.000***	-0.000***	0.000***	0.000***	0.001***	0.000***	0.000***	0.000***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Nigeria 2013	0.020***	0.021***	0.020***	-0.085**	-0.054	-0.111**	-0.016***	-0.009*	-0.021***
	(0.002)	(0.004)	(0.003)	(0.035)	(0.047)	(0.047)	(0.004)	(0.005)	(0.005)

Congo	-0.000	-0.007	0.014	0.512***	0.476***	0.398**	0.055***	0.047***	0.047**
	(0.005)	(0.005)	(0.010)	(0.078)	(0.088)	(0.156)	(0.008)	(0.008)	(0.019)
DRC	-0.049***	-0.058***	-0.039***	0.683***	0.513***	0.785***	0.081***	0.070***	0.084***
	(0.004)	(0.006)	(0.006)	(0.077)	(0.086)	(0.123)	(0.008)	(0.010)	(0.012)
Ethiopia	-0.084***	-0.091***	-0.079***	1.299***	1.060***	1.392***	0.153***	0.112***	0.169***
	(0.003)	(0.005)	(0.004)	(0.076)	(0.119)	(0.097)	(0.007)	(0.011)	(0.009)
Gabon	0.060***	0.053***	0.072***	0.030	-0.023	-0.006	-0.000	-0.006	-0.006
	(0.004)	(0.005)	(0.006)	(0.042)	(0.052)	(0.073)	(0.005)	(0.006)	(0.009)
Guinea	-0.018***	-0.024***	-0.011***	-0.014	0.067	-0.050	0.006	0.012	0.003
	(0.004)	(0.007)	(0.004)	(0.065)	(0.107)	(0.082)	(0.008)	(0.012)	(0.010)
Lesotho	0.085***	0.073***	0.085***	-0.078	-0.073	-0.045	-0.019***	-0.016	-0.015*
	(0.005)	(0.009)	(0.006)	(0.054)	(0.087)	(0.069)	(0.006)	(0.010)	(0.008)
Malawi	-0.010***	-0.023***	-0.006*	0.050	0.012	0.087*	0.005	0.010	0.007
	(0.003)	(0.007)	(0.003)	(0.040)	(0.074)	(0.050)	(0.005)	(0.010)	(0.006)
Mali	0.003	0.009	0.003	-0.011	-0.013	0.003	-0.001	-0.003	0.001
	(0.003)	(0.005)	(0.004)	(0.046)	(0.066)	(0.062)	(0.005)	(0.007)	(0.007)
Namibia	0.022***	0.026***	0.013***	0.714***	0.484***	0.880***	0.071***	0.051***	0.087***
	(0.003)	(0.005)	(0.005)	(0.055)	(0.069)	(0.082)	(0.006)	(0.007)	(0.008)
Niger	-0.015***	0.002	-0.022***	0.322***	0.376***	0.303***	0.045***	0.040***	0.048***
	(0.004)	(0.007)	(0.005)	(0.071)	(0.117)	(0.091)	(0.008)	(0.012)	(0.011)
Nigeria	-0.000	-0.011**	0.005	0.219***	0.177***	0.232***	0.025***	0.017***	0.028***
	(0.003)	(0.004)	(0.003)	(0.039)	(0.054)	(0.053)	(0.004)	(0.006)	(0.006)
Rwanda	-0.008***	-0.022***	-0.002	-0.012	0.033	-0.006	-0.001	0.008	-0.002
	(0.003)	(0.006)	(0.004)	(0.043)	(0.084)	(0.053)	(0.005)	(0.010)	(0.007)
Senegal	0.005	-0.007	0.012**	0.344***	0.428***	0.271***	0.043***	0.056***	0.032***
	(0.004)	(0.006)	(0.005)	(0.072)	(0.104)	(0.099)	(0.007)	(0.010)	(0.010)
Sierra Leone	0.055***	0.040***	0.067***	0.203*	0.162	0.224	-0.009	-0.013	-0.007
	(0.007)	(0.010)	(0.009)	(0.117)	(0.140)	(0.174)	(0.010)	(0.011)	(0.014)
Swaziland	0.156***	0.122***	0.165***	-0.354***	-0.179***	-0.407***	-0.055***	-0.035***	-0.059***
	(0.004)	(0.006)	(0.005)	(0.038)	(0.057)	(0.051)	(0.005)	(0.007)	(0.006)
Tanzania	-0.009***	0.001	-0.011***	0.148***	0.015	0.211***	0.021***	0.008	0.027***
	(0.003)	(0.006)	(0.004)	(0.045)	(0.068)	(0.058)	(0.005)	(0.008)	(0.007)
Uganda	-0.024***	0.014	-0.028***	0.270***	-0.066	0.355***	0.043***	-0.019	0.057***
	(0.004)	(0.009)	(0.005)	(0.065)	(0.106)	(0.077)	(0.008)	(0.012)	(0.010)
Zambia	-0.009***	-0.011**	-0.008**	0.184***	0.103*	0.222***	0.016***	0.007	0.020***
	(0.003)	(0.005)	(0.004)	(0.043)	(0.055)	(0.064)	(0.005)	(0.007)	(0.008)
Zimbabwe	0.017***	0.013***	0.018***	0.137***	0.046	0.199***	0.013**	0.003	0.020***
	(0.003)	(0.005)	(0.004)	(0.041)	(0.050)	(0.060)	(0.005)	(0.006)	(0.007)
Age= 20	0.025***	0.028***	0.027***	-0.506***	-0.400***	-0.564***	-0.056***	-0.049***	-0.060***
	(0.002)	(0.003)	(0.002)	(0.037)	(0.058)	(0.047)	(0.004)	(0.006)	(0.005)
Age= 21	0.028***	0.029***	0.033***	-0.563***	-0.434***	-0.654***	-0.069***	-0.054***	-0.082***
	(0.002)	(0.004)	(0.003)	(0.042)	(0.069)	(0.052)	(0.005)	(0.007)	(0.006)
Age= 22	0.033***	0.037***	0.037***	-0.579***	-0.458***	-0.657***	-0.066***	-0.061***	-0.072***
	(0.002)	(0.003)	(0.002)	(0.037)	(0.060)	(0.048)	(0.004)	(0.006)	(0.005)
Age=23	0.032***	0.038***	0.036***	-0.569***	-0.537***	-0.596***	-0.066***	-0.064***	-0.069***
	(0.002)	(0.004)	(0.003)	(0.039)	(0.060)	(0.052)	(0.004)	(0.007)	(0.006)
Age=24	0.036***	0.048***	0.036***	-0.462***	-0.452***	-0.472***	-0.060***	-0.061***	-0.061***
	(0.002)	(0.004)	(0.003)	(0.043)	(0.066)	(0.056)	(0.005)	(0.007)	(0.006)
Age=25	0.043***	0.056***	0.041***	-0.521***	-0.512***	-0.529***	-0.067***	-0.069***	-0.067***
	(0.002)	(0.003)	(0.002)	(0.037)	(0.060)	(0.047)	(0.004)	(0.006)	(0.005)
Age=26	0.048***	0.062***	0.047***	-0.521***	-0.444***	-0.583***	-0.068***	-0.070***	-0.071***
	(0.002)	(0.004)	(0.003)	(0.041)	(0.067)	(0.052)	(0.004)	(0.007)	(0.006)
Age= 27	0.053***	0.074***	0.047***	-0.549***	-0.555***	-0.555***	-0.072***	-0.078***	-0.072***

	(0.002)	(0.004)	(0.003)	(0.042)	(0.062)	(0.057)	(0.004)	(0.007)	(0.006)
Age= 28	0.060***	0.083***	0.054***	-0.553***	-0.497***	-0.592***	-0.075***	-0.076***	-0.076***
	(0.002)	(0.004)	(0.003)	(0.042)	(0.068)	(0.053)	(0.004)	(0.007)	(0.006)
Age=29	0.068***	0.095***	0.058***	-0.576***	-0.590***	-0.585***	-0.078***	-0.084***	-0.078***
	(0.003)	(0.005)	(0.003)	(0.042)	(0.061)	(0.057)	(0.005)	(0.007)	(0.006)
Age=30	0.067***	0.094***	0.058***	-0.557***	-0.604***	-0.543***	-0.075***	-0.088***	-0.071***
	(0.002)	(0.004)	(0.002)	(0.039)	(0.059)	(0.051)	(0.004)	(0.006)	(0.005)
Age=31	0.070***	0.095***	0.063***	-0.471***	-0.548***	-0.433***	-0.068***	-0.085***	-0.060***
	(0.003)	(0.005)	(0.004)	(0.049)	(0.070)	(0.068)	(0.005)	(0.008)	(0.007)
Age=32	0.078***	0.113***	0.065***	-0.605***	-0.645***	-0.589***	-0.079***	-0.087***	-0.076***
	(0.003)	(0.005)	(0.003)	(0.041)	(0.061)	(0.056)	(0.005)	(0.007)	(0.006)
Age=33	0.084***	0.122***	0.069***	-0.589***	-0.647***	-0.565***	-0.080***	-0.092***	-0.076***
	(0.003)	(0.005)	(0.003)	(0.045)	(0.066)	(0.061)	(0.005)	(0.007)	(0.007)
Age=34	0.086***	0.119***	0.072***	-0.564***	-0.565***	-0.577***	-0.076***	-0.090***	-0.070***
	(0.003)	(0.005)	(0.004)	(0.046)	(0.073)	(0.059)	(0.005)	(0.007)	(0.007)
Age=35	0.083***	0.116***	0.072***	-0.596***	-0.598***	-0.598***	-0.082***	-0.093***	-0.078***
	(0.002)	(0.005)	(0.003)	(0.043)	(0.068)	(0.055)	(0.005)	(0.007)	(0.006)
Age=36	0.090***	0.135***	0.071***	-0.591***	-0.633***	-0.579***	-0.077***	-0.093***	-0.071***
	(0.003)	(0.006)	(0.004)	(0.049)	(0.069)	(0.066)	(0.005)	(0.007)	(0.007)
Age=37	0.093***	0.135***	0.074***	-0.519***	-0.637***	-0.457***	-0.078***	-0.100***	-0.068***
	(0.003)	(0.006)	(0.004)	(0.053)	(0.077)	(0.072)	(0.005)	(0.007)	(0.008)
Age=38	0.096***	0.142***	0.077***	-0.573***	-0.696***	-0.515***	-0.083***	-0.104***	-0.074***
	(0.003)	(0.006)	(0.004)	(0.050)	(0.067)	(0.068)	(0.005)	(0.007)	(0.007)
Age= 39	0.104***	0.155***	0.080***	-0.588***	-0.639***	-0.573***	-0.081***	-0.098***	-0.073***
	(0.004)	(0.007)	(0.004)	(0.053)	(0.079)	(0.071)	(0.006)	(0.008)	(0.008)
Age= 40	0.089***	0.134***	0.074***	-0.552***	-0.636***	-0.521***	-0.072***	-0.091***	-0.066***
	(0.003)	(0.005)	(0.003)	(0.047)	(0.074)	(0.060)	(0.005)	(0.008)	(0.006)
Age= 41	0.102***	0.146***	0.084***	-0.621***	-0.793***	-0.534***	-0.085***	-0.108***	-0.075***
	(0.004)	(0.007)	(0.005)	(0.057)	(0.068)	(0.083)	(0.006)	(0.008)	(0.009)
Age=42	0.103***	0.156***	0.080***	-0.603***	-0.808***	-0.501***	-0.082***	-0.112***	-0.069***
	(0.003)	(0.006)	(0.004)	(0.052)	(0.067)	(0.071)	(0.006)	(0.008)	(0.008)
Age=43	0.101***	0.155***	0.077***	-0.544***	-0.696***	-0.470***	-0.077***	-0.097***	-0.068***
	(0.004)	(0.007)	(0.004)	(0.058)	(0.074)	(0.082)	(0.006)	(0.008)	(0.009)
Age=44	0.110***	0.161***	0.089***	-0.638***	-0.703***	-0.614***	-0.087***	-0.104***	-0.081***
	(0.004)	(0.008)	(0.005)	(0.058)	(0.084)	(0.078)	(0.007)	(0.009)	(0.009)
Age=45	0.101***	0.149***	0.085***	-0.568***	-0.684***	-0.521***	-0.085***	-0.107***	-0.077***
	(0.003)	(0.006)	(0.004)	(0.055)	(0.082)	(0.071)	(0.005)	(0.008)	(0.007)
Age=46	0.097***	0.158***	0.073***	-0.461***	-0.691***	-0.362***	-0.067***	-0.104***	-0.052***
	(0.004)	(0.008)	(0.005)	(0.066)	(0.090)	(0.087)	(0.007)	(0.009)	(0.009)
Age=47	0.107***	0.160***	0.085***	-0.450***	-0.651***	-0.354***	-0.072***	-0.100***	-0.060***
	(0.004)	(0.008)	(0.005)	(0.070)	(0.092)	(0.096)	(0.007)	(0.009)	(0.009)
Age=48	0.099***	0.167***	0.072***	-0.465***	-0.609***	-0.408***	-0.073***	-0.101***	-0.063***
	(0.004)	(0.007)	(0.004)	(0.067)	(0.099)	(0.087)	(0.006)	(0.009)	(0.009)
Age=49	0.102***	0.159***	0.079***	-0.530***	-0.711***	-0.449***	-0.078***	-0.108***	-0.066***
	(0.004)	(0.007)	(0.005)	(0.070)	(0.094)	(0.094)	(0.007)	(0.009)	(0.009)
urban	0.006***			0.053**			0.004*		
	(0.002)			(0.023)			(0.002)		
Constant	3.028***	3.013***	3.035***	0.872***	0.797***	0.957***	0.135***	0.125***	0.146***
	(0.004)	(0.006)	(0.005)	(0.068)	(0.103)	(0.088)	(0.007)	(0.011)	(0.009)
N	18,981	6,973	12,007	18,981	6,973	12,007	18,981	6,973	12,007
R^2	0.206	0.221	0.167	0.039	0.038	0.040	0.052	0.055	0.051

Table A3: Table 9 regressions omitting the household wealth index

	LN BMI			Watts underweight			Underweight		
	All	Urban	Rural	All	Urban	Rural	All	Urban	Rural
Single	-0.045***	-0.039***	-0.039***	0.405***	0.337***	0.457***	0.049***	0.042***	0.053***
	(0.002)	(0.003)	(0.002)	(0.029)	(0.042)	(0.042)	(0.003)	(0.004)	(0.004)
Ex-widow	-0.012***	-0.012	-0.009**	-0.015	-0.001	-0.025	0.005	0.003	0.004
	(0.003)	(0.006)	(0.003)	(0.043)	(0.074)	(0.053)	(0.005)	(0.008)	(0.006)
Ex-divorcee	-0.001	-0.003	-0.000	0.012	0.021	0.009	0.004	0.005	0.004
	(0.002)	(0.003)	(0.002)	(0.024)	(0.038)	(0.031)	(0.003)	(0.004)	(0.003)
Widow	-0.019***	-0.021***	-0.018***	0.154***	0.189**	0.137*	0.018***	0.024***	0.015*
	(0.003)	(0.005)	(0.003)	(0.041)	(0.061)	(0.055)	(0.004)	(0.006)	(0.006)
Divorcee	-0.014***	-0.017***	-0.014***	0.150***	0.234***	0.109*	0.015***	0.019***	0.015**
	(0.002)	(0.004)	(0.003)	(0.038)	(0.058)	(0.051)	(0.004)	(0.006)	(0.005)
Education	0.005***	0.005***	0.005***	-0.035***	-0.020***	-0.048***	-0.004***	-0.003***	-0.006***
	(0.000)	(0.000)	(0.000)	(0.002)	(0.003)	(0.003)	(0.000)	(0.000)	(0.000)
Head	0.025***	0.028***	0.020***	-0.095*	-0.036	-0.128*	-0.008	-0.001	-0.011
	(0.002)	(0.004)	(0.003)	(0.041)	(0.061)	(0.056)	(0.004)	(0.006)	(0.006)
Spouse	0.009***	0.017***	0.003	0.009	0.039	-0.025	0.005	0.008	0.002
	(0.002)	(0.003)	(0.002)	(0.035)	(0.052)	(0.046)	(0.004)	(0.005)	(0.005)
Head is parent	0.003	-0.004	0.005**	0.172***	0.223***	0.120**	0.014***	0.023***	0.006
child/sib	(0.001)	(0.002)	(0.002)	(0.032)	(0.046)	(0.045)	(0.003)	(0.005)	(0.004)
no relation	0.025***	0.028***	0.030***	-0.446***	-0.391***	-0.469***	-0.052***	-0.050***	-0.047***
	(0.003)	(0.004)	(0.006)	(0.053)	(0.068)	(0.085)	(0.006)	(0.008)	(0.010)
Pregnant	0.046***	0.042***	0.049***	-0.454***	-0.317***	-0.513***	-0.066***	-0.049***	-0.074***
	(0.001)	(0.002)	(0.001)	(0.018)	(0.028)	(0.022)	(0.002)	(0.003)	(0.003)
Muslim	-0.014***	-0.006*	-0.019***	0.425***	0.291***	0.482***	0.045***	0.028***	0.052***
	(0.002)	(0.003)	(0.002)	(0.026)	(0.039)	(0.034)	(0.003)	(0.004)	(0.004)
log HH size	0.003*	0.000	0.003	-0.035	0.025	-0.053*	-0.006**	0.004	-0.011***
	(0.001)	(0.002)	(0.002)	(0.020)	(0.030)	(0.026)	(0.002)	(0.003)	(0.003)
share female	-0.047***	-0.046***	-0.045***	0.078	0.091	0.055	0.022**	0.020	0.023*
<5yrs	(0.004)	(0.007)	(0.005)	(0.065)	(0.098)	(0.086)	(0.007)	(0.011)	(0.009)
share male	-0.046***	-0.042***	-0.044***	0.021	0.052	-0.016	0.024***	0.027**	0.022*
<5yrs	(0.004)	(0.007)	(0.004)	(0.063)	(0.092)	(0.084)	(0.007)	(0.010)	(0.009)
share female	-0.015***	-0.007	-0.013**	0.056	0.155	-0.033	0.025***	0.019	0.026**
6-14yrs	(0.004)	(0.007)	(0.005)	(0.064)	(0.097)	(0.086)	(0.007)	(0.010)	(0.009)
share male 6-	-0.029***	-0.019**	-0.028***	0.086	0.081	0.057	0.023***	0.015	0.025**
14yrs	(0.004)	(0.007)	(0.005)	(0.064)	(0.094)	(0.086)	(0.007)	(0.010)	(0.009)
share female	-0.010	-0.019	-0.013	-0.151	-0.247	-0.112	0.013	0.005	0.021
>65yrs	(0.009)	(0.016)	(0.010)	(0.166)	(0.262)	(0.213)	(0.017)	(0.028)	(0.022)
Share male	-0.020*	-0.054**	-0.003	-0.427*	-0.381	-0.443*	-0.021	-0.009	-0.027
>65yrs	(0.010)	(0.018)	(0.011)	(0.179)	(0.299)	(0.222)	(0.019)	(0.031)	(0.023)
Head age	0.000***	0.001***	0.000***	0.001	0.000	0.000	0.000	-0.000	0.000
	(0.000)	(0.000)	(0.000)	(0.001)	(0.002)	(0.001)	(0.000)	(0.000)	(0.000)
Head	0.003***	0.003***	0.003***	-0.012***	-0.013***	-0.011***	-0.002***	-0.002***	-0.002***
Education	(0.000)	(0.000)	(0.000)	(0.002)	(0.003)	(0.003)	(0.000)	(0.000)	(0.000)
Nigeria 2013	0.012***	0.011**	0.014***	-0.050	-0.016	-0.080	-0.011**	-0.003	-0.017**
	(0.002)	(0.004)	(0.003)	(0.035)	(0.048)	(0.048)	(0.004)	(0.005)	(0.005)
Urban	0.043***			-0.114***			-0.018***		
	(0.002)			(0.020)			(0.002)		
Constant	2.997***	3.008***	3.013***	1.034***	0.821***	1.098***	0.156***	0.128***	0.163***
	(0.004)	(0.007)	(0.005)	(0.068)	(0.104)	(0.088)	(0.007)	(0.011)	(0.009)
N	189813	69736	120077	189813	69736	120077	189813	69736	120077
R^2	0.186	0.195	0.151	0.037	0.036	0.039	0.050	0,051	0.049

Table A4: Table 9 regression omitting living arrangement dummies

	Ln BMI			Watts underweight			Underweight		
	All	Urban	Rural	All	Urban	Rural	All	Urban	Rural
Single	-0.046***	-0.045***	-0.037***	0.455***	0.371***	0.520***	0.051***	0.043***	0.054***
	(0.001)	(0.002)	(0.002)	(0.026)	(0.035)	(0.037)	(0.003)	(0.004)	(0.004)
Ex-widows	-0.008**	-0.007	-0.005	-0.032	-0.019	-0.039	0.002	0.000	0.002
	(0.003)	(0.006)	(0.003)	(0.043)	(0.073)	(0.053)	(0.005)	(0.008)	(0.006)
Ex-divorcee	0.001	0.001	0.001	0.005	0.008	0.007	0.003	0.003	0.003
	(0.002)	(0.003)	(0.002)	(0.024)	(0.038)	(0.031)	(0.003)	(0.004)	(0.003)
Widow	-0.013***	-0.020***	-0.009**	0.130***	0.170**	0.119*	0.012**	0.020***	0.009
	(0.003)	(0.005)	(0.003)	(0.038)	(0.056)	(0.051)	(0.004)	(0.006)	(0.005)
Divorcee	-0.010***	-0.017***	-0.007**	0.162***	0.237***	0.130**	0.012***	0.017***	0.012*
	(0.002)	(0.003)	(0.002)	(0.035)	(0.054)	(0.046)	(0.004)	(0.005)	(0.005)
Education	0.003***	0.002***	0.003***	-0.021***	-0.005	-0.035***	-0.003***	-0.000	-0.004***
	(0.000)	(0.000)	(0.000)	(0.002)	(0.003)	(0.003)	(0.000)	(0.000)	(0.000)
Pregnant	0.048***	0.045***	0.050***	-0.465***	-0.331***	-0.521***	-0.068***	-0.050***	-0.075***
	(0.001)	(0.002)	(0.001)	(0.018)	(0.028)	(0.022)	(0.002)	(0.003)	(0.003)
Muslim	-0.016***	-0.010***	-0.019***	0.424***	0.316***	0.465***	0.046***	0.032***	0.051***
	(0.002)	(0.003)	(0.002)	(0.026)	(0.039)	(0.034)	(0.003)	(0.004)	(0.004)
Log of HH size	-0.006***	-0.012***	-0.002	0.010	0.067*	-0.012	-0.002	0.009**	-0.008**
	(0.001)	(0.002)	(0.001)	(0.018)	(0.027)	(0.025)	(0.002)	(0.003)	(0.003)
Share of female	-0.019***	-0.012	-0.025***	-0.056	-0.034	-0.071	0.006	0.004	0.009
<5yrs	(0.004)	(0.007)	(0.004)	(0.064)	(0.096)	(0.085)	(0.007)	(0.011)	(0.009)
Share of male	-0.018***	-0.007	-0.025***	-0.115	-0.078	-0.142	0.008	0.010	0.009
<5yrs	(0.004)	(0.007)	(0.004)	(0.063)	(0.091)	(0.084)	(0.007)	(0.010)	(0.009)
Share of female	0.009*	0.018**	0.006	-0.052	0.080	-0.146	0.013	0.009	0.014
6-14yrs	(0.004)	(0.006)	(0.005)	(0.063)	(0.094)	(0.084)	(0.007)	(0.010)	(0.009)
Share of male 6-	-0.002	0.013*	-0.007	-0.032	-0.014	-0.063	0.009	0.003	0.012
14yrs	(0.004)	(0.006)	(0.004)	(0.062)	(0.090)	(0.084)	(0.007)	(0.010)	(0.009)
Share of female	0.004	0.007	-0.006	-0.361*	-0.550*	-0.235	-0.009	-0.032	0.010
>65yrs	(0.008)	(0.015)	(0.010)	(0.166)	(0.263)	(0.212)	(0.017)	(0.028)	(0.022)
Share of male	0.006	-0.005	0.011	-0.593***	-0.634*	-0.565*	-0.039*	-0.041	-0.038
>65yrs	(0.009)	(0.018)	(0.011)	(0.178)	(0.300)	(0.221)	(0.019)	(0.031)	(0.023)
Head age	0.000	0.000	0.000	0.002**	0.003*	0.002	0.000*	0.000	0.000
	(0.000)	(0.000)	(0.000)	(0.001)	(0.001)	(0.001)	(0.000)	(0.000)	(0.000)
Head Education	0.000**	0.000	0.001***	-0.004	-0.006	-0.001	-0.000	-0.000	-0.000
	(0.000)	(0.000)	(0.000)	(0.002)	(0.003)	(0.003)	(0.000)	(0.000)	(0.000)
HH wealth Ind	0.004***	0.005***	0.004***	-0.023***	-0.023***	-0.021***	-0.003***	-0.003***	-0.003***
	(0.000)	(0.000)	(0.000)	(0.001)	(0.002)	(0.002)	(0.000)	(0.000)	(0.000)
HH wealth Ind	-0.000***	-0.000***	-0.000***	0.000***	0.000***	0.001***	0.000***	0.000***	0.000***
in squared	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Nigeria 2013	0.020***	0.021***	0.020***	-0.086*	-0.057	-0.111*	-0.016***	-0.009	-0.021***
	(0.002)	(0.004)	(0.003)	(0.035)	(0.047)	(0.047)	(0.004)	(0.005)	(0.005)
Urban	0.006***			0.053*			0.004		
	(0.002)			(0.023)			(0.003)		
Constant	3.049***	3.044***	3.046***	0.801***	0.749***	0.862***	0.132***	0.124***	0.141***
	(0.003)	(0.005)	(0.004)	(0.050)	(0.077)	(0.064)	(0.006)	(0.008)	(0.007)
N	189813	69736	120077	189813	69736	120077	189813	69736	120077
R^2	0.205	0.220	0.167	0.038	0.036	0.040	0.052	0.054	0.051

Table A5: Full pooled base regression model with household fixed effects (corresponds to Table 10 regression)

	Ln BMI			Watts underweight			Underweight		
	All	Urban	Rural	All	Urban	Rural	All	Urban	Rural
Single	-0.053***	-0.044***	-0.047***	0.497***	0.388***	0.588***	0.057***	0.049***	0.062***
	(0.004)	(0.006)	(0.005)	(0.068)	(0.096)	(0.100)	(0.007)	(0.010)	(0.010)
Ex-widow	-0.001	0.007	-0.000	-0.078	-0.190	-0.025	-0.001	-0.002	-0.001
	(0.006)	(0.013)	(0.007)	(0.129)	(0.192)	(0.163)	(0.014)	(0.024)	(0.017)
Ex-divorcee	0.009**	0.014**	0.006	-0.049	-0.127	0.009	-0.005	-0.021*	0.005
	(0.004)	(0.007)	(0.004)	(0.075)	(0.116)	(0.097)	(0.008)	(0.012)	(0.010)
Widow	-0.024***	-0.031***	-0.017**	0.098	0.116	0.060	0.019	0.032*	0.005
	(0.007)	(0.011)	(0.008)	(0.114)	(0.171)	(0.153)	(0.012)	(0.017)	(0.016)
Divorcee	-0.019***	-0.021***	-0.017***	0.116	0.227	0.024	0.016*	0.030**	0.006
	(0.005)	(0.008)	(0.007)	(0.104)	(0.151)	(0.144)	(0.010)	(0.014)	(0.014)
Education	0.002***	0.002***	0.003***	-0.016**	0.003	-0.039***	-0.002**	0.000	-0.004***
	(0.000)	(0.000)	(0.000)	(0.007)	(0.009)	(0.010)	(0.001)	(0.001)	(0.001)
Head	0.031***	0.036***	0.019***	0.000	-0.065	0.067	0.000	-0.010	0.012
	(0.005)	(0.008)	(0.006)	(0.089)	(0.124)	(0.128)	(0.009)	(0.013)	(0.013)
Head's spouse	0.027***	0.040***	0.014***	-0.123	-0.057	-0.182	-0.012	-0.004	-0.018
	(0.004)	(0.007)	(0.005)	(0.080)	(0.116)	(0.111)	(0.008)	(0.012)	(0.012)
Head is parent/ child/sib	0.016***	0.011**	0.016***	0.163**	0.152*	0.144	0.008	0.010	0.005
	(0.003)	(0.004)	(0.004)	(0.064)	(0.085)	(0.096)	(0.006)	(0.009)	(0.009)
Head no relation	-0.005	0.005	-0.010	-0.324***	-0.255*	-0.326*	-0.032***	-0.034**	-0.019
	(0.007)	(0.008)	(0.011)	(0.110)	(0.132)	(0.194)	(0.012)	(0.014)	(0.023)
Pregnant	0.057***	0.058***	0.057***	-0.596***	-0.524***	-0.630***	-0.082***	-0.071***	-0.087***
	(0.003)	(0.006)	(0.004)	(0.062)	(0.099)	(0.079)	(0.007)	(0.011)	(0.008)
Muslim	-0.002	0.007	-0.010	0.097	0.288	-0.074	0.013	0.035*	-0.008
	(0.008)	(0.012)	(0.011)	(0.139)	(0.183)	(0.207)	(0.016)	(0.020)	(0.024)
Age= 20	0.026***	0.024***	0.032***	-0.568***	-0.421***	-0.672***	-0.064***	-0.059***	-0.068***
	(0.004)	(0.006)	(0.005)	(0.077)	(0.115)	(0.104)	(0.008)	(0.013)	(0.011)
Age= 21	0.022***	0.022***	0.031***	-0.453***	-0.307**	-0.600***	-0.053***	-0.044***	-0.065***
	(0.005)	(0.007)	(0.006)	(0.096)	(0.143)	(0.129)	(0.010)	(0.015)	(0.013)
Age= 22	0.028***	0.028***	0.036***	-0.549***	-0.441***	-0.644***	-0.070***	-0.069***	-0.073***
	(0.005)	(0.007)	(0.006)	(0.088)	(0.132)	(0.118)	(0.010)	(0.014)	(0.014)
Age=23	0.034***	0.042***	0.037***	-0.696***	-0.663***	-0.724***	-0.077***	-0.069***	-0.086***
	(0.005)	(0.008)	(0.007)	(0.103)	(0.144)	(0.147)	(0.011)	(0.016)	(0.016)
Age=24	0.033***	0.039***	0.038***	-0.477***	-0.532***	-0.435***	-0.057***	-0.068***	-0.051***
	(0.005)	(0.008)	(0.007)	(0.112)	(0.159)	(0.157)	(0.012)	(0.016)	(0.017)
Age=25	0.040***	0.044***	0.043***	-0.582***	-0.498***	-0.651***	-0.066***	-0.066***	-0.068***
	(0.005)	(0.008)	(0.006)	(0.103)	(0.159)	(0.137)	(0.011)	(0.016)	(0.014)
Age=26	0.044***	0.060***	0.040***	-0.550***	-0.527***	-0.594***	-0.060***	-0.060***	-0.063***
	(0.006)	(0.009)	(0.007)	(0.117)	(0.159)	(0.169)	(0.012)	(0.017)	(0.017)
Age= 27	0.046***	0.061***	0.043***	-0.574***	-0.496***	-0.664***	-0.081***	-0.070***	-0.094***
	(0.006)	(0.010)	(0.008)	(0.124)	(0.162)	(0.183)	(0.012)	(0.017)	(0.018)
Age= 28	0.056***	0.077***	0.049***	-0.468***	-0.422**	-0.520***	-0.067***	-0.068***	-0.069***
	(0.006)	(0.011)	(0.007)	(0.116)	(0.194)	(0.144)	(0.012)	(0.019)	(0.016)
Age=29	0.066***	0.092***	0.055***	-0.507***	-0.567***	-0.493**	-0.062***	-0.079***	-0.053**
	(0.007)	(0.012)	(0.009)	(0.139)	(0.185)	(0.204)	(0.014)	(0.018)	(0.022)
Age=30	0.067***	0.089***	0.061***	-0.623***	-0.606***	-0.662***	-0.085***	-0.090***	-0.085***
	(0.005)	(0.010)	(0.006)	(0.111)	(0.184)	(0.141)	(0.011)	(0.017)	(0.015)
Age=31	0.080***	0.106***	0.068***	-0.626***	-0.777***	-0.551**	-0.076***	-0.079***	-0.079***
	(0.009)	(0.014)	(0.011)	(0.172)	(0.247)	(0.238)	(0.017)	(0.023)	(0.024)
Age=32	0.081***	0.109***	0.071***	-0.704***	-0.676***	-0.752***	-0.087***	-0.093***	-0.087***
	(0.007)	(0.012)	(0.008)	(0.133)	(0.198)	(0.179)	(0.014)	(0.021)	(0.018)
Age=33	0.087***	0.116***	0.076***	-0.613***	-0.429**	-0.771***	-0.084***	-0.078***	-0.092***
	(0.008)	(0.013)	(0.009)	(0.156)	(0.208)	(0.221)	(0.016)	(0.021)	(0.023)
Age=34	0.088***	0.112***	0.079***	-0.654***	-0.584**	-0.740***	-0.087***	-0.093***	-0.088***
	(0.009)	(0.014)	(0.010)	(0.159)	(0.237)	(0.214)	(0.016)	(0.022)	(0.023)

Age=35	0.083***	0.103***	0.080***	-0.698***	-0.629***	-0.749***	-0.086***	-0.096***	-0.083***
	(0.006)	(0.011)	(0.007)	(0.119)	(0.190)	(0.154)	(0.012)	(0.018)	(0.016)
Age=36	0.094***	0.126***	0.081***	-0.693***	-0.761***	-0.674***	-0.089***	-0.102***	-0.084***
	(0.008)	(0.013)	(0.009)	(0.157)	(0.222)	(0.217)	(0.016)	(0.023)	(0.022)
Age=37	0.104***	0.135***	0.090***	-0.576***	-0.437*	-0.702***	-0.087***	-0.089***	-0.089***
	(0.008)	(0.014)	(0.009)	(0.159)	(0.253)	(0.204)	(0.016)	(0.023)	(0.022)
Age=38	0.100***	0.149***	0.077***	-0.480***	-0.619***	-0.421**	-0.082***	-0.102***	-0.073***
	(0.007)	(0.012)	(0.008)	(0.129)	(0.165)	(0.183)	(0.013)	(0.019)	(0.019)
Age= 39	0.113***	0.165***	0.083***	-0.644***	-0.706***	-0.629***	-0.093***	-0.124***	-0.074***
	(0.009)	(0.014)	(0.010)	(0.160)	(0.231)	(0.219)	(0.016)	(0.023)	(0.022)
Age= 40	0.094***	0.128***	0.084***	-0.745***	-0.720***	-0.772***	-0.086***	-0.104***	-0.080***
	(0.006)	(0.011)	(0.007)	(0.119)	(0.172)	(0.160)	(0.012)	(0.019)	(0.016)
Age= 41	0.104***	0.147***	0.082***	-0.538***	-0.786***	-0.394*	-0.073***	-0.088***	-0.066***
	(0.009)	(0.014)	(0.011)	(0.166)	(0.244)	(0.225)	(0.017)	(0.023)	(0.024)
Age=42	0.100***	0.150***	0.076***	-0.489***	-0.839***	-0.278	-0.064***	-0.107***	-0.040**
	(0.008)	(0.013)	(0.009)	(0.140)	(0.199)	(0.192)	(0.014)	(0.021)	(0.020)
Age=43	0.111***	0.158***	0.087***	-0.518***	-0.660***	-0.456**	-0.077***	-0.094***	-0.069***
	(0.009)	(0.014)	(0.010)	(0.157)	(0.237)	(0.210)	(0.016)	(0.023)	(0.022)
Age=44	0.122***	0.176***	0.098***	-0.629***	-0.772***	-0.571***	-0.091***	-0.120***	-0.077***
	(0.009)	(0.015)	(0.011)	(0.159)	(0.227)	(0.217)	(0.017)	(0.024)	(0.023)
Age=45	0.102***	0.155***	0.081***	-0.495***	-0.637***	-0.450***	-0.073***	-0.114***	-0.055***
	(0.007)	(0.012)	(0.008)	(0.127)	(0.192)	(0.169)	(0.013)	(0.020)	(0.017)
Age=46	0.096***	0.153***	0.070***	-0.288*	-0.413*	-0.240	-0.058***	-0.105***	-0.033
	(0.008)	(0.015)	(0.010)	(0.162)	(0.227)	(0.223)	(0.017)	(0.024)	(0.023)
Age=47	0.115***	0.169***	0.089***	-0.353**	-0.619**	-0.200	-0.067***	-0.094***	-0.053**
	(0.009)	(0.015)	(0.011)	(0.164)	(0.255)	(0.215)	(0.017)	(0.025)	(0.022)
Age=48	0.105***	0.166***	0.078***	-0.305**	-0.648***	-0.143	-0.062***	-0.100***	-0.043**
	(0.008)	(0.014)	(0.009)	(0.148)	(0.228)	(0.194)	(0.015)	(0.022)	(0.020)
Age=49	0.115***	0.180***	0.082***	-0.555***	-0.717***	-0.486**	-0.083***	-0.119***	-0.064***
	(0.009)	(0.015)	(0.011)	(0.178)	(0.250)	(0.244)	(0.017)	(0.024)	(0.023)
Constant	3.036***	3.052***	3.024***	1.217***	0.900***	1.497***	0.171***	0.138***	0.201***
	(0.005)	(0.008)	(0.006)	(0.096)	(0.138)	(0.135)	(0.010)	(0.015)	(0.014)
N	9,017	3,642	5,374	9,017	3,642	5,374	9,017	3,642	5,374
R^2	0.644	0.651	0.640	0.528	0.501	0.543	0.526	0.504	0.540

Table A6: Coefficients on ex-widow in country FEs model with interactions between ex-widow indicator and country dummies

	Ln BMI			Watts underweight			Underweight		
	All	Urban	Rural	All	Urban	Rural	All	Urban	Rural
Single	-0.048***	-0.040***	-0.042***	0.415***	0.343***	0.467***	0.051***	0.043***	0.054***
	(0.002)	(0.003)	(0.002)	(0.029)	(0.041)	(0.042)	(0.003)	(0.004)	(0.004)
Ex-divorcee	0.001	0.001	0.001	0.004	0.005	0.005	0.003	0.003	0.003
	(0.002)	(0.003)	(0.002)	(0.024)	(0.038)	(0.031)	(0.003)	(0.004)	(0.003)
Divorcee	-0.013***	-0.015***	-0.013***	0.148***	0.228***	0.104**	0.014***	0.018***	0.014***
	(0.002)	(0.004)	(0.003)	(0.038)	(0.058)	(0.051)	(0.004)	(0.006)	(0.005)
Widow	-0.019***	-0.022***	-0.017***	0.154***	0.190***	0.132**	0.018***	0.024***	0.014**
	(0.003)	(0.005)	(0.003)	(0.041)	(0.060)	(0.055)	(0.004)	(0.006)	(0.006)
Benin	-0.019**	-0.029**	-0.013	0.134	0.052	0.196	0.034**	0.023	0.043**
	(0.008)	(0.015)	(0.010)	(0.118)	(0.161)	(0.159)	(0.016)	(0.025)	(0.021)
Congo	0.003	0.014	-0.034	-0.202	-0.005	-0.353	-0.024	0.002	-0.043
	(0.023)	(0.035)	(0.028)	(0.205)	(0.289)	(0.290)	(0.028)	(0.038)	(0.042)
DRC	-0.035**	-0.039	-0.036*	0.762	-0.513**	1.227**	0.072	-0.074*	0.131**
	(0.017)	(0.033)	(0.020)	(0.474)	(0.240)	(0.619)	(0.046)	(0.042)	(0.058)
Ethiopia	-0.033***	-0.012	-0.027**	-0.193	-0.885**	-0.208	0.021	0.009	0.005
	(0.011)	(0.048)	(0.011)	(0.356)	(0.348)	(0.392)	(0.037)	(0.100)	(0.039)
Gabon	-0.003	-0.021	-0.008	-0.206**	-0.077	-0.231	-0.031*	-0.002	-0.045*
	(0.017)	(0.024)	(0.025)	(0.102)	(0.060)	(0.208)	(0.018)	(0.024)	(0.027)
Guinea	-0.012	0.029	-0.019*	0.237	0.183	0.247	0.020	0.023	0.018
	(0.011)	(0.032)	(0.011)	(0.258)	(0.447)	(0.304)	(0.023)	(0.044)	(0.027)
Lesotho	0.008	-0.085*	0.048	0.029	-0.003	0.018	-0.012	-0.015	-0.015
	(0.049)	(0.050)	(0.057)	(0.076)	(0.119)	(0.092)	(0.009)	(0.017)	(0.011)
Malawi	-0.007	-0.023	0.003	-0.036	1.057	-0.207***	0.010	0.094	-0.005
	(0.010)	(0.040)	(0.010)	(0.109)	(0.696)	(0.071)	(0.019)	(0.063)	(0.019)
Mali	-0.012	-0.003	-0.012	0.083	-0.214	0.175	0.005	-0.013	0.009
	(0.009)	(0.019)	(0.010)	(0.152)	(0.131)	(0.197)	(0.015)	(0.020)	(0.020)
Namibia	-0.021	-0.040	-0.007	-0.175	-0.296*	-0.113	0.035	-0.011	0.065
	(0.022)	(0.036)	(0.028)	(0.278)	(0.178)	(0.441)	(0.044)	(0.041)	(0.067)
Niger	0.003	0.042	-0.012	-0.195	-0.838***	0.068	-0.030	-0.105***	0.000
	(0.015)	(0.029)	(0.016)	(0.256)	(0.116)	(0.341)	(0.031)	(0.012)	(0.042)
Nigeria	0.004	0.004	0.007	-0.173**	0.042	-0.237***	-0.011	0.005	-0.016
	(0.005)	(0.012)	(0.006)	(0.082)	(0.191)	(0.090)	(0.009)	(0.016)	(0.011)
Rwanda	-0.035***	-0.010	-0.033***	0.108	-0.200**	0.186	0.007	-0.045***	0.019
	(0.010)	(0.026)	(0.011)	(0.104)	(0.089)	(0.128)	(0.017)	(0.011)	(0.021)
Senegal	0.050***	0.071**	0.042**	-0.787***	-0.730***	-0.789***	-0.081***	-0.082**	-0.076**
	(0.015)	(0.028)	(0.017)	(0.159)	(0.196)	(0.214)	(0.024)	(0.033)	(0.031)
Sierra Leone	0.017	0.060**	-0.001	-0.138	-0.186	-0.142	0.009	-0.007	0.013
	(0.015)	(0.029)	(0.017)	(0.205)	(0.311)	(0.257)	(0.024)	(0.028)	(0.032)
Swaziland	-0.011	-0.072	0.028	0.730*	0.935	0.603	0.076	0.118	0.051
	(0.037)	(0.070)	(0.041)	(0.404)	(0.834)	(0.441)	(0.048)	(0.106)	(0.049)
Tanzania	-0.033***	-0.094***	-0.011	0.322	0.283	0.310	0.029	0.047	0.021
	(0.013)	(0.033)	(0.013)	(0.221)	(0.421)	(0.254)	(0.024)	(0.049)	(0.027)
Uganda	-0.082***	0.151**	-0.081***	0.033	0.094	-0.028	0.022	-0.000	0.011
	(0.014)	(0.063)	(0.012)	(0.254)	(0.172)	(0.271)	(0.037)	(0.025)	(0.039)
Zambia	-0.007	-0.045	0.011	0.055	0.744*	-0.314***	-0.006	0.048	-0.033*
	(0.013)	(0.028)	(0.014)	(0.170)	(0.432)	(0.109)	(0.018)	(0.037)	(0.020)
Zimbabwe	-0.025*	-0.094***	-0.007	-0.018	-0.030	-0.024	-0.006	-0.017**	-0.005
	(0.013)	(0.033)	(0.015)	(0.162)	(0.059)	(0.194)	(0.023)	(0.007)	(0.027)
N	189,813	69,736	120,077	189,813	69,736	120,077	189,813	69,736	120,077
R^2	0.206	0.222	0.168	0.039	0.038	0.040	0.052	0.055	0.051

Table A7: Coefficients on ex-widow in household fixed effects model with interaction between ex-widow indicator and country dummies

	Ln BMI			Watts underweight			Underweight		
	All	Urban	Rural	All	Urban	Rural	All	Urban	Rural
Single	-0.053***	-0.045***	-0.047***	0.498***	0.391***	0.589***	0.057***	0.049***	0.062***
	(0.004)	(0.006)	(0.005)	(0.069)	(0.096)	(0.100)	(0.007)	(0.010)	(0.010)
Ex-divorcee	0.009**	0.013**	0.006	-0.050	-0.126	0.008	-0.005	-0.021*	0.005
	(0.004)	(0.007)	(0.004)	(0.075)	(0.116)	(0.096)	(0.008)	(0.012)	(0.010)
Divorcee	-0.019***	-0.021***	-0.018***	0.117	0.233	0.027	0.017*	0.030**	0.006
	(0.005)	(0.008)	(0.007)	(0.104)	(0.151)	(0.144)	(0.010)	(0.014)	(0.014)
Widow	-0.024***	-0.032***	-0.017**	0.102	0.122	0.066	0.019	0.033*	0.006
	(0.007)	(0.011)	(0.008)	(0.114)	(0.172)	(0.154)	(0.012)	(0.017)	(0.016)
Benin	-0.029	-0.012	-0.034	0.336	0.431*	0.276	0.025	0.032	0.019
	(0.020)	(0.037)	(0.023)	(0.290)	(0.261)	(0.413)	(0.045)	(0.068)	(0.058)
Congo	-0.003	-0.020	-0.022	-0.325	-0.352	-0.169	-0.061	-0.073	-0.025
	(0.049)	(0.067)	(0.064)	(0.631)	(0.862)	(0.834)	(0.080)	(0.109)	(0.103)
DRC	-0.028	-0.066*	0.021	0.327	-0.184	0.834	0.004	-0.097	0.104
	(0.032)	(0.035)	(0.052)	(0.919)	(0.807)	(1.558)	(0.104)	(0.160)	(0.118)
Ethiopia	-0.113***	-0.069	-0.093**	0.329	-3.352	0.843	0.035	-0.018	0.032
	(0.043)	(0.116)	(0.045)	(1.966)	(3.062)	(2.178)	(0.162)	(0.652)	(0.160)
Gabon	0.007	-0.073	0.080	0.502***	0.646***	0.406	0.013	0.037	0.005
	(0.041)	(0.049)	(0.063)	(0.182)	(0.220)	(0.275)	(0.046)	(0.062)	(0.062)
Guinea	0.001	0.075	-0.012	-0.165	-0.865	0.011	-0.038	-0.062	-0.034
	(0.020)	(0.048)	(0.019)	(0.438)	(0.681)	(0.518)	(0.041)	(0.052)	(0.049)
Lesotho	-0.046	0.000	-0.015	0.655	0.000	0.510	0.071	0.000	0.062
	(0.139)	(.)	(0.143)	(0.422)	(.)	(0.452)	(0.053)	(.)	(0.060)
Malawi	-0.026	-0.211***	0.012	-0.610	3.141***	-0.790	0.059	1.130***	0.008
	(0.048)	(0.012)	(0.050)	(1.424)	(0.191)	(1.473)	(0.116)	(0.019)	(0.111)
Mali	-0.001	0.007	-0.002	0.215	0.034	0.284	-0.003	-0.014	0.001
	(0.020)	(0.036)	(0.023)	(0.369)	(0.372)	(0.502)	(0.036)	(0.059)	(0.045)
Namibia	-0.007	-0.023	-0.005	1.481	0.701	2.398	0.132	0.079	0.197
	(0.070)	(0.084)	(0.112)	(0.987)	(0.802)	(1.815)	(0.135)	(0.127)	(0.245)
Niger	0.010	0.049	-0.025	-0.642	-1.218	-0.280	-0.005	-0.096	0.052
	(0.030)	(0.050)	(0.032)	(0.689)	(1.126)	(0.859)	(0.074)	(0.090)	(0.100)
Nigeria	0.018	0.022	0.020	-0.217	-0.417	-0.146	-0.003	0.021	-0.010
	(0.011)	(0.025)	(0.012)	(0.228)	(0.494)	(0.257)	(0.027)	(0.052)	(0.031)
Rwanda	-0.111***	-0.055	-0.113***	1.420*	-0.097	2.039*	0.110	-0.011	0.151
	(0.037)	(0.052)	(0.041)	(0.844)	(1.221)	(1.045)	(0.119)	(0.161)	(0.152)
Senegal	0.037	0.070*	0.020	-0.837**	-0.727	-0.879	-0.041	-0.060	-0.029
	(0.026)	(0.041)	(0.032)	(0.423)	(0.660)	(0.546)	(0.050)	(0.089)	(0.060)
Sierra Leone	0.012	0.031	0.008	-0.261	0.509***	-0.574	0.001	0.074***	-0.028
	(0.032)	(0.068)	(0.034)	(0.483)	(0.156)	(0.657)	(0.050)	(0.018)	(0.068)
Swaziland	0.026	0.006	0.038	-0.319	-1.384	0.885***	-0.015	-0.112	0.089***
	(0.065)	(0.050)	(0.112)	(1.115)	(1.612)	(0.270)	(0.113)	(0.160)	(0.028)
Tanzania	-0.023	-0.090	0.006	0.091	0.746***	-0.069	0.020	-0.013	0.024
	(0.031)	(0.057)	(0.035)	(0.602)	(0.140)	(0.760)	(0.078)	(0.106)	(0.094)
Uganda	-0.112*	0.336***	-0.128***	1.378	0.947***	1.409	0.040	0.121***	0.020
	(0.066)	(0.012)	(0.039)	(1.328)	(0.187)	(1.449)	(0.145)	(0.019)	(0.157)
Zambia	-0.032	-0.068	-0.005	-0.071	0.406	-0.328	0.042	0.088	0.012
	(0.032)	(0.049)	(0.042)	(0.724)	(0.946)	(1.002)	(0.053)	(0.093)	(0.063)
Zimbabwe	-0.037	-0.116***	0.000	-0.262	0.812***	-0.533	-0.069	0.099***	-0.118
	(0.036)	(0.044)	(0.045)	(0.938)	(0.231)	(1.205)	(0.082)	(0.031)	(0.102)
N	90,171	36,427	53,744	90,171	36,427	53,744	90,171	36,427	53,744
R^2	0.645	0.651	0.640	0.528	0.501	0.543	0.526	0.504	0.540

Table A8: Coefficients on ex-divorcee in country FEs model with interaction between ex-divorcee indicator and country dummies

	Ln BMI			Watts underweight			Underweight		
	All	Urban	Rural	All	Urban	Rural	All	Urban	Rural
Single	-0.047***	-0.040***	-0.041***	0.412***	0.341***	0.466***	0.050***	0.043***	0.054***
	(0.002)	(0.003)	(0.002)	(0.029)	(0.041)	(0.042)	(0.003)	(0.004)	(0.004)
Ex-widow	-0.008***	-0.006	-0.006**	-0.030	-0.021	-0.039	0.003	0.000	0.002
	(0.003)	(0.006)	(0.003)	(0.043)	(0.073)	(0.053)	(0.005)	(0.008)	(0.006)
Divorcee	-0.013***	-0.015***	-0.013***	0.144***	0.226***	0.102**	0.014***	0.018***	0.014**
	(0.002)	(0.004)	(0.003)	(0.038)	(0.058)	(0.051)	(0.004)	(0.006)	(0.005)
Widow	-0.019***	-0.022***	-0.017***	0.153***	0.191***	0.131**	0.018***	0.025***	0.014**
	(0.003)	(0.005)	(0.003)	(0.041)	(0.060)	(0.055)	(0.004)	(0.006)	(0.006)
Benin	0.003	-0.009	0.008	0.081	0.189*	0.026	0.004	0.020**	-0.004
	(0.005)	(0.007)	(0.006)	(0.064)	(0.110)	(0.079)	(0.007)	(0.010)	(0.010)
Congo	0.005	-0.001	-0.007	0.081	0.017	0.282	0.010	0.013	0.014
	(0.008)	(0.010)	(0.013)	(0.127)	(0.158)	(0.205)	(0.013)	(0.015)	(0.026)
DRC	-0.019***	-0.008	-0.027***	-0.069	-0.217	-0.021	0.000	-0.010	0.007
	(0.007)	(0.013)	(0.008)	(0.142)	(0.161)	(0.201)	(0.016)	(0.026)	(0.021)
Ethiopia	-0.016***	-0.029**	-0.011**	-0.383**	-0.266	-0.459**	-0.013	0.010	-0.027
	(0.005)	(0.015)	(0.005)	(0.159)	(0.290)	(0.184)	(0.017)	(0.042)	(0.018)
Gabon	0.016**	-0.004	0.028**	0.033	0.005	0.144	-0.011	-0.009	-0.003
	(0.008)	(0.010)	(0.012)	(0.065)	(0.060)	(0.129)	(0.008)	(0.008)	(0.014)
Guinea	0.002	-0.009	0.007	0.014	0.557	-0.152	0.007	0.052	-0.006
	(0.008)	(0.018)	(0.009)	(0.166)	(0.456)	(0.159)	(0.018)	(0.036)	(0.020)
Lesotho	0.023	0.098*	-0.046	0.087	0.086	0.099	0.019	-0.001	0.036
	(0.040)	(0.056)	(0.050)	(0.167)	(0.092)	(0.310)	(0.042)	(0.011)	(0.080)
Malawi	-0.009*	-0.017	-0.001	-0.068	0.163	-0.105*	-0.011	0.013	-0.016*
	(0.005)	(0.017)	(0.005)	(0.056)	(0.208)	(0.059)	(0.009)	(0.032)	(0.009)
Mali	0.023***	0.031***	0.017***	-0.230***	-0.226**	-0.226**	-0.027***	-0.023*	-0.030**
	(0.005)	(0.009)	(0.006)	(0.069)	(0.107)	(0.091)	(0.009)	(0.012)	(0.012)
Namibia	0.023*	0.012	0.037**	-0.033	0.064	-0.111	0.010	0.002	0.015
	(0.013)	(0.020)	(0.017)	(0.178)	(0.239)	(0.256)	(0.019)	(0.026)	(0.026)
Niger	-0.001	0.029*	-0.013*	-0.127	-0.480**	0.040	-0.009	-0.052**	0.010
	(0.008)	(0.016)	(0.008)	(0.143)	(0.201)	(0.181)	(0.017)	(0.021)	(0.023)
Nigeria	-0.001	0.004	-0.001	0.138***	0.101	0.157**	0.017***	0.004	0.021***
	(0.003)	(0.006)	(0.003)	(0.051)	(0.083)	(0.062)	(0.005)	(0.008)	(0.007)
Rwanda	-0.043***	-0.111***	-0.024***	0.121	0.115	0.134	0.025	0.030	0.024
	(0.008)	(0.019)	(0.009)	(0.106)	(0.297)	(0.112)	(0.018)	(0.050)	(0.019)
Senegal	0.054***	0.067***	0.038***	-0.553***	-0.512***	-0.555***	-0.044***	-0.036*	-0.046**
	(0.008)	(0.013)	(0.011)	(0.112)	(0.169)	(0.150)	(0.014)	(0.020)	(0.020)
Sierra Leone	-0.002	-0.028	0.009	0.046	0.183	-0.032	0.005	0.056**	-0.022
	(0.012)	(0.019)	(0.015)	(0.213)	(0.289)	(0.284)	(0.016)	(0.027)	(0.019)
Swaziland	0.042*	0.024	0.061**	0.252**	0.142	0.281	0.035*	0.067	0.012
	(0.022)	(0.032)	(0.028)	(0.116)	(0.091)	(0.172)	(0.018)	(0.041)	(0.016)
Tanzania	-0.004	-0.015	0.005	-0.064	-0.044	-0.083	-0.003	-0.007	-0.004
	(0.005)	(0.013)	(0.006)	(0.073)	(0.097)	(0.089)	(0.010)	(0.016)	(0.012)
Uganda	-0.020**	-0.062**	-0.004	0.066	0.211	0.017	0.024	0.083*	0.009
	(0.009)	(0.029)	(0.009)	(0.154)	(0.179)	(0.174)	(0.021)	(0.044)	(0.023)
Zambia	-0.026***	-0.021	-0.026***	0.285**	0.016	0.415**	0.037***	0.013	0.050***
	(0.007)	(0.015)	(0.007)	(0.121)	(0.102)	(0.165)	(0.013)	(0.021)	(0.015)
Zimbabwe	-0.019***	-0.033*	-0.014*	0.024	0.397*	-0.085	0.001	0.033	-0.008
	(0.007)	(0.018)	(0.007)	(0.091)	(0.228)	(0.096)	(0.012)	(0.022)	(0.014)
N	189,813	69,736	120,077	189,813	69,736	120,077	189,813	69,736	120,077
R^2	0.207	0.222	0.168	0.039	0.038	0.041	0.052	0.055	0.051

Table A9: Coefficients on ex-divorcee in household FEs model with interaction between ex-divorcee indicator and country dummies

	LN BMI			Watts underweight			Underweight		
	All	Urban	Rural	All	Urban	Rural	All	Urban	Rural
Single	-0.053***	-0.045***	-0.047***	0.498***	0.398***	0.588***	0.057***	0.050***	0.062***
	(0.004)	(0.006)	(0.005)	(0.069)	(0.096)	(0.100)	(0.007)	(0.010)	(0.010)
Ex-widow	-0.001	0.007	-0.001	-0.076	-0.185	-0.026	-0.001	-0.002	-0.001
	(0.007)	(0.013)	(0.007)	(0.129)	(0.192)	(0.163)	(0.014)	(0.024)	(0.017)
Divorcee	-0.020***	-0.022***	-0.018***	0.121	0.240	0.029	0.017*	0.031**	0.007
	(0.005)	(0.008)	(0.007)	(0.104)	(0.151)	(0.144)	(0.010)	(0.014)	(0.014)
Widow	-0.024***	-0.032***	-0.017**	0.100	0.125	0.056	0.019	0.034**	0.005
	(0.007)	(0.011)	(0.008)	(0.115)	(0.171)	(0.154)	(0.012)	(0.017)	(0.016)
Benin	0.009	0.003	0.007	-0.018	-0.158	0.090	-0.000	-0.018	0.014
	(0.012)	(0.021)	(0.014)	(0.186)	(0.344)	(0.204)	(0.023)	(0.039)	(0.028)
Congo	0.019	0.004	-0.002	0.341	0.282	0.512	0.005	0.005	0.024
	(0.018)	(0.020)	(0.038)	(0.283)	(0.305)	(0.689)	(0.033)	(0.036)	(0.075)
DRC	-0.028	-0.025	-0.036	-0.642	-0.370	-0.954	-0.029	-0.038	-0.024
	(0.020)	(0.031)	(0.026)	(0.553)	(0.637)	(0.897)	(0.053)	(0.071)	(0.078)
Ethiopia	-0.079***	-0.074***	-0.076***	-0.101	-0.363	0.069	0.057	-0.039	0.109
	(0.016)	(0.024)	(0.020)	(0.661)	(0.644)	(0.955)	(0.063)	(0.077)	(0.085)
Gabon	0.025	0.014	0.011	0.185	-0.118	0.768**	0.021	-0.001	0.074**
	(0.018)	(0.022)	(0.028)	(0.214)	(0.274)	(0.303)	(0.023)	(0.029)	(0.032)
Guinea	-0.009	-0.020	-0.003	0.118	1.037	-0.250	0.038	0.038	0.038
	(0.019)	(0.036)	(0.023)	(0.440)	(1.029)	(0.420)	(0.040)	(0.071)	(0.048)
Lesotho	-0.164***	-0.211***	-0.193***	0.916*	1.128***	0.642**	0.099	0.149***	0.064**
	(0.016)	(0.013)	(0.014)	(0.473)	(0.202)	(0.317)	(0.063)	(0.021)	(0.031)
Malawi	-0.031	-0.040	-0.007	0.284	0.455	0.290	0.018	0.048	0.012
	(0.019)	(0.062)	(0.020)	(0.324)	(0.738)	(0.350)	(0.044)	(0.158)	(0.046)
Mali	0.020*	0.027	0.015	-0.249	-0.304	-0.192	-0.039*	-0.046	-0.031
	(0.012)	(0.018)	(0.015)	(0.228)	(0.323)	(0.318)	(0.023)	(0.029)	(0.035)
Namibia	0.045	0.032	0.047	-0.280	0.623	-1.283	-0.012	0.041	-0.066
	(0.034)	(0.046)	(0.051)	(0.537)	(0.574)	(0.881)	(0.053)	(0.066)	(0.082)
Niger	0.040**	0.102***	0.004	-0.216	-1.093*	0.232	-0.047	-0.144***	0.002
	(0.018)	(0.036)	(0.016)	(0.362)	(0.588)	(0.445)	(0.040)	(0.050)	(0.052)
Nigeria	0.016***	0.024*	0.015**	-0.016	-0.233	0.060	-0.003	-0.034	0.007
	(0.006)	(0.013)	(0.007)	(0.134)	(0.245)	(0.157)	(0.014)	(0.028)	(0.017)
Rwanda	-0.162***	-0.255***	-0.116**	0.376	-1.315	0.850	0.110	0.217	0.080
	(0.045)	(0.098)	(0.048)	(1.025)	(2.932)	(0.960)	(0.110)	(0.203)	(0.128)
Senegal	0.057***	0.069***	0.039**	-0.619**	-0.400	-0.783*	-0.071**	-0.065	-0.070
	(0.015)	(0.022)	(0.019)	(0.314)	(0.413)	(0.474)	(0.035)	(0.051)	(0.049)
Sierra Leone	-0.023	-0.025	-0.022	-0.239	-0.290	-0.228	-0.005	0.059	-0.046
	(0.024)	(0.035)	(0.031)	(0.695)	(1.094)	(0.900)	(0.049)	(0.082)	(0.058)
Swaziland	0.031	0.009	0.046	0.569***	0.416	0.649***	0.041	0.047	0.038
	(0.056)	(0.080)	(0.071)	(0.163)	(0.512)	(0.160)	(0.040)	(0.088)	(0.046)
Tanzania	-0.013	-0.032	0.005	0.194	0.308	0.192	0.009	0.025	0.004
	(0.015)	(0.033)	(0.017)	(0.299)	(0.273)	(0.395)	(0.034)	(0.055)	(0.042)
Uganda	-0.060*	-0.067	-0.039	0.621	0.947***	0.529	0.120	0.139***	0.107
	(0.032)	(0.099)	(0.032)	(0.656)	(0.237)	(0.776)	(0.090)	(0.024)	(0.106)
Zambia	-0.069***	-0.062**	-0.072***	0.432	0.308	0.514	0.060*	0.069	0.053
	(0.018)	(0.030)	(0.020)	(0.399)	(0.416)	(0.608)	(0.036)	(0.051)	(0.049)
Zimbabwe	0.001	-0.022	0.011	-0.138	0.253	-0.334	-0.033	0.019	-0.062
	(0.022)	(0.043)	(0.024)	(0.427)	(0.682)	(0.538)	(0.035)	(0.054)	(0.044)
N	90,171	36,427	53,744	90,171	36,427	53,744	90,171	36,427	53,744
R^2	0.645	0.652	0.640	0.528	0.502	0.543	0.527	0.505	0.540

Table A10: Full pooled base regression model with country FEs on sample of countries with HIV tests and controlling for HIV status

	LN BMI			Watts underweight			Underweight		
	All	Urban	Rural	All	Urban	Rural	All	Urban	Rural
Single	-0.046***	-0.039***	-0.039***	0.524***	0.468***	0.561***	0.059***	0.052***	0.062***
	(0.002)	(0.004)	(0.003)	(0.044)	(0.065)	(0.060)	(0.005)	(0.007)	(0.006)
Ex-widow	-0.001	0.002	-0.000	-0.050	-0.100	-0.039	-0.006	-0.013	-0.004
	(0.004)	(0.009)	(0.004)	(0.062)	(0.091)	(0.076)	(0.007)	(0.010)	(0.008)
Ex-divorcee	0.005**	0.007	0.004	-0.101***	-0.102**	-0.098**	-0.009**	-0.005	-0.011**
	(0.002)	(0.004)	(0.002)	(0.034)	(0.051)	(0.044)	(0.004)	(0.006)	(0.005)
Widow	-0.011***	-0.022***	-0.007*	0.110*	0.124	0.109	0.014**	0.023**	0.010
	(0.004)	(0.007)	(0.004)	(0.059)	(0.084)	(0.080)	(0.006)	(0.010)	(0.008)
Divorcee	-0.014***	-0.018***	-0.013***	0.080	0.166**	0.037	0.011**	0.014*	0.013*
	(0.003)	(0.005)	(0.003)	(0.051)	(0.077)	(0.067)	(0.005)	(0.008)	(0.007)
Seropositive	-0.032***	-0.043***	-0.025***	0.174***	0.187***	0.171***	0.016***	0.024***	0.011**
	(0.002)	(0.004)	(0.003)	(0.038)	(0.060)	(0.050)	(0.004)	(0.006)	(0.005)
HIV test	-0.004**	-0.011***	0.000	0.020	0.023	0.028	0.000	0.008	-0.004
missing	(0.002)	(0.003)	(0.002)	(0.036)	(0.052)	(0.049)	(0.004)	(0.005)	(0.005)
Education	0.002***	0.001***	0.002***	-0.014***	-0.004	-0.022***	-0.002***	-0.001	-0.003***
	(0.000)	(0.000)	(0.000)	(0.004)	(0.005)	(0.006)	(0.000)	(0.001)	(0.001)
Head	0.026***	0.033***	0.017***	0.009	0.079	-0.028	0.005	0.013	0.001
	(0.003)	(0.006)	(0.004)	(0.061)	(0.090)	(0.084)	(0.006)	(0.009)	(0.008)
Head's	0.015***	0.024***	0.006*	0.012	0.071	-0.036	0.007	0.012	0.003
spouse	(0.003)	(0.005)	(0.003)	(0.051)	(0.075)	(0.070)	(0.005)	(0.008)	(0.007)
Head is par	0.011***	0.003	0.012***	0.220***	0.238***	0.189***	0.019***	0.029***	0.010*
/child/sib	(0.002)	(0.003)	(0.003)	(0.045)	(0.068)	(0.061)	(0.005)	(0.007)	(0.006)
Head no	0.015***	0.023***	0.021**	-0.419***	-0.442***	-0.274**	-0.052***	-0.056***	-0.029*
relation	(0.005)	(0.006)	(0.008)	(0.076)	(0.092)	(0.137)	(0.009)	(0.010)	(0.016)
Pregnant	0.048***	0.043***	0.051***	-0.477***	-0.368***	-0.518***	-0.070***	-0.056***	-0.076***
	(0.002)	(0.004)	(0.002)	(0.026)	(0.046)	(0.032)	(0.003)	(0.005)	(0.004)
Muslim	0.002	0.016***	-0.005	0.210***	0.118	0.225***	0.024***	0.014	0.025***
	(0.003)	(0.005)	(0.003)	(0.059)	(0.087)	(0.076)	(0.006)	(0.009)	(0.007)
Log HH size	-0.002	-0.005	-0.002	-0.007	0.059	-0.029	-0.001	0.007	-0.004
	(0.002)	(0.003)	(0.002)	(0.030)	(0.043)	(0.041)	(0.003)	(0.004)	(0.004)
Share female	-0.014**	-0.001	-0.022***	-0.387***	-0.469***	-0.322**	-0.022**	-0.039**	-0.011
age <5yrs	(0.006)	(0.011)	(0.007)	(0.099)	(0.153)	(0.128)	(0.011)	(0.017)	(0.014)
Share male	-0.019***	-0.008	-0.027***	-0.264***	-0.219	-0.247*	-0.006	0.001	-0.005
age <5yrs	(0.006)	(0.011)	(0.007)	(0.102)	(0.157)	(0.131)	(0.011)	(0.017)	(0.014)
Share female	0.002	0.009	0.003	-0.154	-0.044	-0.237*	0.000	-0.012	0.003
6 - 14yrs	(0.006)	(0.010)	(0.007)	(0.099)	(0.152)	(0.130)	(0.010)	(0.016)	(0.013)
Share male 6	-0.004	0.009	-0.005	-0.155	-0.214	-0.159	0.003	-0.019	0.010
- 14yrs	(0.006)	(0.010)	(0.007)	(0.100)	(0.147)	(0.134)	(0.010)	(0.015)	(0.014)
Share female	0.028**	0.029	0.009	-0.439	-0.250	-0.457	-0.035	-0.031	-0.026
>65yrs	(0.013)	(0.028)	(0.015)	(0.280)	(0.490)	(0.340)	(0.027)	(0.048)	(0.032)
Share male	0.003	-0.017	0.012	-0.550*	-0.646	-0.548	0.003	0.012	-0.003
>65yrs	(0.015)	(0.033)	(0.017)	(0.290)	(0.501)	(0.350)	(0.031)	(0.058)	(0.036)
Head age	0.000***	0.000**	0.000**	0.001	0.001	0.001	0.000	0.000	0.000
	(0.000)	(0.000)	(0.000)	(0.001)	(0.002)	(0.002)	(0.000)	(0.000)	(0.000)
Head	0.001**	0.000	0.001***	-0.002	-0.003	-0.000	-0.000	0.000	-0.000
education	(0.000)	(0.000)	(0.000)	(0.004)	(0.005)	(0.005)	(0.000)	(0.001)	(0.001)
Wealth	0.004***	0.004***	0.003***	-0.019***	-0.019***	-0.019***	-0.002***	-0.002***	-0.002***
index	(0.000)	(0.000)	(0.000)	(0.002)	(0.004)	(0.003)	(0.000)	(0.000)	(0.000)
Wealth	-0.000***	-0.000***	-0.000***	0.000***	0.000***	0.000**	0.000***	0.000***	0.000
index^2	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Ethiopia	-0.153***	-0.143***	-0.161***	1.357***	1.068***	1.557***	0.162***	0.113***	0.189***
	(0.004)	(0.006)	(0.007)	(0.083)	(0.127)	(0.117)	(0.008)	(0.012)	(0.012)
Guinea	-0.098***	-0.103***	-0.099***	0.187**	0.292**	0.236**	0.028***	0.036***	0.034***
	(0.005)	(0.008)	(0.007)	(0.083)	(0.126)	(0.115)	(0.009)	(0.014)	(0.013)

Lesotho	0.035***	0.039***	0.017**	-0.213***	-0.191**	-0.127	-0.028***	-0.027***	-0.015
	(0.005)	(0.009)	(0.007)	(0.058)	(0.091)	(0.083)	(0.007)	(0.010)	(0.010)
Malawi	-0.068***	-0.067***	-0.079***	0.029	0.022	0.126*	0.004	0.012	0.014*
	(0.004)	(0.007)	(0.006)	(0.047)	(0.078)	(0.071)	(0.006)	(0.011)	(0.008)
Mali	-0.076***	-0.068***	-0.086***	0.211***	0.244**	0.295***	0.025***	0.021**	0.038***
	(0.005)	(0.008)	(0.007)	(0.074)	(0.101)	(0.110)	(0.008)	(0.011)	(0.012)
Niger	-0.097***	-0.080***	-0.113***	0.572***	0.622***	0.648***	0.072***	0.067***	0.086***
	(0.005)	(0.009)	(0.008)	(0.092)	(0.139)	(0.128)	(0.010)	(0.014)	(0.014)
DRC	-0.111***	-0.110***	-0.116***	0.677***	0.544***	0.842***	0.083***	0.076***	0.093***
	(0.005)	(0.006)	(0.008)	(0.078)	(0.087)	(0.133)	(0.008)	(0.010)	(0.014)
Rwanda	-0.069***	-0.076***	-0.077***	-0.059	0.077	-0.017	-0.003	0.018*	0.001
	(0.004)	(0.006)	(0.006)	(0.051)	(0.088)	(0.075)	(0.006)	(0.010)	(0.009)
Senegal	-0.078***	-0.089***	-0.078***	0.561***	0.661***	0.588***	0.067***	0.083***	0.068***
	(0.005)	(0.008)	(0.008)	(0.090)	(0.124)	(0.130)	(0.009)	(0.013)	(0.014)
Sierra Leone	-0.022***	-0.032***	-0.021*	0.367***	0.319**	0.500***	0.010	0.006	0.025
	(0.007)	(0.010)	(0.011)	(0.119)	(0.140)	(0.188)	(0.010)	(0.012)	(0.016)
Swaziland	0.108***	0.088***	0.098***	-0.517***	-0.305***	-0.524***	-0.067***	-0.046***	-0.063***
	(0.005)	(0.007)	(0.007)	(0.044)	(0.064)	(0.068)	(0.005)	(0.007)	(0.008)
Zambia	-0.065***	-0.052***	-0.082***	0.135***	0.074	0.242***	0.015***	0.006	0.028***
	(0.004)	(0.005)	(0.006)	(0.046)	(0.056)	(0.079)	(0.006)	(0.007)	(0.009)
Zimbabwe	-0.035***	-0.026***	-0.052***	0.042	-0.009	0.148**	0.007	-0.002	0.023***
	(0.004)	(0.005)	(0.006)	(0.045)	(0.054)	(0.075)	(0.005)	(0.006)	(0.009)
Age= 20	0.025***	0.017***	0.034***	-0.436***	-0.170*	-0.594***	-0.048***	-0.021**	-0.065***
	(0.003)	(0.005)	(0.003)	(0.060)	(0.095)	(0.077)	(0.006)	(0.010)	(0.008)
Age= 21	0.025***	0.023***	0.033***	-0.542***	-0.356***	-0.671***	-0.069***	-0.053***	-0.081***
	(0.003)	(0.005)	(0.003)	(0.058)	(0.098)	(0.070)	(0.006)	(0.010)	(0.008)
Age= 22	0.033***	0.034***	0.039***	-0.542***	-0.305***	-0.699***	-0.061***	-0.046***	-0.073***
	(0.003)	(0.005)	(0.003)	(0.053)	(0.090)	(0.065)	(0.006)	(0.010)	(0.008)
Age=23	0.030***	0.030***	0.038***	-0.508***	-0.385***	-0.597***	-0.059***	-0.053***	-0.066***
	(0.003)	(0.006)	(0.004)	(0.054)	(0.092)	(0.067)	(0.006)	(0.010)	(0.008)
Age=24	0.033***	0.047***	0.033***	-0.331***	-0.302***	-0.365***	-0.045***	-0.049***	-0.046***
	(0.003)	(0.006)	(0.004)	(0.065)	(0.105)	(0.083)	(0.007)	(0.011)	(0.009)
Age=25	0.042***	0.051***	0.043***	-0.397***	-0.254**	-0.487***	-0.056***	-0.052***	-0.061***
	(0.003)	(0.006)	(0.003)	(0.058)	(0.107)	(0.067)	(0.006)	(0.010)	(0.008)
Age=26	0.047***	0.060***	0.046***	-0.436***	-0.283***	-0.547***	-0.063***	-0.063***	-0.068***
	(0.003)	(0.006)	(0.004)	(0.062)	(0.107)	(0.075)	(0.006)	(0.010)	(0.008)
Age= 27	0.049***	0.067***	0.047***	-0.450***	-0.355***	-0.525***	-0.058***	-0.061***	-0.061***
	(0.004)	(0.007)	(0.004)	(0.061)	(0.102)	(0.076)	(0.007)	(0.011)	(0.009)
Age= 28	0.057***	0.074***	0.054***	-0.551***	-0.432***	-0.635***	-0.078***	-0.073***	-0.084***
	(0.004)	(0.007)	(0.004)	(0.065)	(0.109)	(0.081)	(0.007)	(0.010)	(0.009)
Age=29	0.060***	0.082***	0.056***	-0.443***	-0.390***	-0.495***	-0.067***	-0.065***	-0.072***
	(0.004)	(0.007)	(0.005)	(0.062)	(0.089)	(0.083)	(0.007)	(0.011)	(0.009)
Age=30	0.058***	0.095***	0.048***	-0.386***	-0.520***	-0.353***	-0.055***	-0.072***	-0.051***
	(0.003)	(0.007)	(0.004)	(0.062)	(0.084)	(0.082)	(0.007)	(0.010)	(0.009)
Age=31	0.065***	0.091***	0.057***	-0.318***	-0.237*	-0.386***	-0.056***	-0.064***	-0.056***
	(0.004)	(0.008)	(0.005)	(0.074)	(0.121)	(0.093)	(0.008)	(0.012)	(0.010)
Age=32	0.070***	0.107***	0.058***	-0.480***	-0.511***	-0.475***	-0.065***	-0.074***	-0.064***
	(0.004)	(0.008)	(0.005)	(0.062)	(0.084)	(0.085)	(0.007)	(0.011)	(0.010)
Age=33	0.076***	0.117***	0.061***	-0.445***	-0.448***	-0.458***	-0.068***	-0.083***	-0.062***
	(0.004)	(0.008)	(0.005)	(0.069)	(0.112)	(0.087)	(0.007)	(0.011)	(0.010)
Age=34	0.079***	0.122***	0.063***	-0.439***	-0.467***	-0.438***	-0.058***	-0.081***	-0.048***
	(0.005)	(0.009)	(0.006)	(0.065)	(0.103)	(0.084)	(0.008)	(0.011)	(0.011)
Age=35	0.070***	0.108***	0.060***	-0.433***	-0.353***	-0.485***	-0.064***	-0.083***	-0.060***
	(0.004)	(0.007)	(0.004)	(0.071)	(0.121)	(0.089)	(0.007)	(0.011)	(0.010)
Age=36	0.080***	0.120***	0.067***	-0.429***	-0.387***	-0.474***	-0.058***	-0.069***	-0.056***
	(0.005)	(0.009)	(0.005)	(0.073)	(0.110)	(0.095)	(0.008)	(0.012)	(0.011)
Age=37	0.081***	0.124***	0.064***	-0.401***	-0.460***	-0.387***	-0.060***	-0.083***	-0.050***
	(0.005)	(0.009)	(0.006)	(0.077)	(0.114)	(0.102)	(0.008)	(0.012)	(0.011)
Age=38	0.082***	0.130***	0.065***	-0.420***	-0.542***	-0.377***	-0.064***	-0.087***	-0.056***

	(0.005)	(0.009)	(0.005)	(0.077)	(0.103)	(0.104)	(0.008)	(0.011)	(0.011)
Age= 39	0.094***	0.144***	0.074***	-0.458***	-0.371***	-0.521***	-0.066***	-0.070***	-0.067***
	(0.005)	(0.010)	(0.006)	(0.079)	(0.131)	(0.099)	(0.009)	(0.013)	(0.011)
Age= 40	0.077***	0.131***	0.063***	-0.398***	-0.448***	-0.399***	-0.053***	-0.067***	-0.052***
	(0.004)	(0.009)	(0.005)	(0.073)	(0.114)	(0.093)	(0.008)	(0.013)	(0.010)
Age= 41	0.091***	0.134***	0.077***	-0.437***	-0.630***	-0.361***	-0.067***	-0.097***	-0.057***
	(0.006)	(0.011)	(0.006)	(0.090)	(0.101)	(0.126)	(0.009)	(0.012)	(0.013)
Age=42	0.089***	0.134***	0.074***	-0.411***	-0.668***	-0.308***	-0.057***	-0.093***	-0.043***
	(0.005)	(0.009)	(0.006)	(0.083)	(0.098)	(0.114)	(0.009)	(0.012)	(0.012)
Age=43	0.084***	0.139***	0.064***	-0.425***	-0.541***	-0.384***	-0.064***	-0.084***	-0.058***
	(0.006)	(0.010)	(0.006)	(0.084)	(0.108)	(0.114)	(0.009)	(0.013)	(0.012)
Age=44	0.094***	0.158***	0.071***	-0.562***	-0.540***	-0.588***	-0.080***	-0.097***	-0.075***
	(0.006)	(0.012)	(0.007)	(0.082)	(0.137)	(0.103)	(0.010)	(0.014)	(0.013)
Age=45	0.087***	0.138***	0.073***	-0.399***	-0.434***	-0.400***	-0.063***	-0.085***	-0.057***
	(0.005)	(0.010)	(0.006)	(0.085)	(0.145)	(0.105)	(0.009)	(0.013)	(0.011)
Age=46	0.080***	0.143***	0.061***	-0.252**	-0.430***	-0.196	-0.042***	-0.082***	-0.029**
	(0.006)	(0.012)	(0.006)	(0.103)	(0.153)	(0.132)	(0.010)	(0.015)	(0.014)
Age=47	0.090***	0.154***	0.067***	-0.281***	-0.569***	-0.159	-0.050***	-0.096***	-0.031**
	(0.006)	(0.012)	(0.007)	(0.107)	(0.123)	(0.146)	(0.010)	(0.014)	(0.014)
Age=48	0.085***	0.164***	0.057***	-0.222**	-0.579***	-0.090	-0.042***	-0.093***	-0.024*
	(0.006)	(0.012)	(0.007)	(0.107)	(0.128)	(0.143)	(0.011)	(0.014)	(0.014)
Age=49	0.091***	0.167***	0.065***	-0.400***	-0.613***	-0.323**	-0.060***	-0.103***	-0.044***
	(0.006)	(0.013)	(0.007)	(0.100)	(0.131)	(0.132)	(0.011)	(0.014)	(0.015)
Urban	0.015***			-0.038			-0.009**		
	(0.002)			(0.037)			(0.004)		
Constant	3.091***	3.079***	3.113***	0.805***	0.581***	0.829***	0.121***	0.096***	0.123***
	(0.006)	(0.010)	(0.008)	(0.105)	(0.150)	(0.147)	(0.011)	(0.015)	(0.015)
N	8,013	2,821	5,191	8,013	2,821	5,191	8,013	2,821	5,191
R^2	0.224	0.226	0.203	0.046	0.041	0.050	0.059	0.058	0.061

Table A11: Pooled base model with household fixed effects on sample of countries with HIV tests controlling for HIV status

	LN BMI			Watts underweight			Underweight		
	All	Urban	Rural	All	Urban	Rural	All	Urban	Rural
Single	-0.052***	-0.044***	-0.045***	0.591***	0.497***	0.667***	0.065***	0.059***	0.068***
	(0.005)	(0.008)	(0.007)	(0.096)	(0.129)	(0.143)	(0.010)	(0.014)	(0.015)
Ex-widow	0.003	0.014	0.001	-0.151	-0.282	-0.075	-0.012	-0.020	-0.008
	(0.009)	(0.017)	(0.011)	(0.188)	(0.243)	(0.247)	(0.019)	(0.031)	(0.023)
Ex-divorcee	0.011*	0.020**	0.003	-0.147	-0.226	-0.059	-0.014	-0.029*	0.000
	(0.006)	(0.010)	(0.007)	(0.116)	(0.170)	(0.157)	(0.012)	(0.017)	(0.016)
Widow	-0.024***	-0.038***	-0.014	0.075	0.128	0.025	0.034**	0.048**	0.022
	(0.009)	(0.015)	(0.011)	(0.149)	(0.212)	(0.205)	(0.016)	(0.023)	(0.023)
Divorcee	-0.021***	-0.020*	-0.024***	0.105	0.211	0.042	0.014	0.018	0.015
	(0.007)	(0.011)	(0.009)	(0.133)	(0.198)	(0.181)	(0.013)	(0.018)	(0.019)
Seropositive	-0.027***	-0.038***	-0.020**	0.218**	0.084	0.323**	0.020*	0.027	0.015
	(0.007)	(0.010)	(0.008)	(0.108)	(0.171)	(0.138)	(0.011)	(0.017)	(0.014)
HIV test missing	-0.007	-0.019*	0.002	-0.032	0.118	-0.257	-0.003	0.012	-0.020
	(0.008)	(0.011)	(0.012)	(0.169)	(0.192)	(0.300)	(0.017)	(0.021)	(0.029)
Education	0.001	0.000	0.001*	-0.002	0.004	-0.021	-0.000	0.000	-0.001
	(0.001)	(0.001)	(0.001)	(0.010)	(0.013)	(0.018)	(0.001)	(0.001)	(0.002)
Head	0.029***	0.034***	0.019**	0.115	0.121	0.131	0.016	0.015	0.021
	(0.007)	(0.011)	(0.009)	(0.127)	(0.176)	(0.180)	(0.013)	(0.017)	(0.019)
Head's spouse	0.020***	0.038***	0.002	-0.061	0.046	-0.142	-0.002	0.006	-0.008
	(0.006)	(0.010)	(0.007)	(0.111)	(0.155)	(0.158)	(0.011)	(0.016)	(0.016)
Head is par/child/s	0.020***	0.012*	0.019***	0.210**	0.185	0.203	0.012	0.015	0.009
	(0.004)	(0.006)	(0.006)	(0.083)	(0.113)	(0.124)	(0.009)	(0.012)	(0.013)
Head no relation	-0.005	0.011	-0.016	-0.423***	-0.426**	-0.299	-0.043**	-0.053***	-0.014
	(0.009)	(0.011)	(0.017)	(0.151)	(0.173)	(0.306)	(0.017)	(0.018)	(0.036)
Pregnant	0.056***	0.060***	0.055***	-0.535***	-0.412***	-0.602***	-0.083***	-0.062***	-0.094***
	(0.005)	(0.009)	(0.006)	(0.090)	(0.135)	(0.119)	(0.010)	(0.015)	(0.013)
Muslim	0.004	0.021	-0.005	0.116	0.335	-0.039	0.021	0.032	0.009
	(0.012)	(0.019)	(0.014)	(0.239)	(0.354)	(0.319)	(0.026)	(0.033)	(0.038)
Age= 20	0.030***	0.019**	0.046***	-0.576***	-0.264	-0.841***	-0.062***	-0.046**	-0.078***
	(0.005)	(0.008)	(0.007)	(0.121)	(0.171)	(0.173)	(0.013)	(0.019)	(0.017)
Age= 21	0.023***	0.020**	0.035***	-0.474***	-0.215	-0.728***	-0.065***	-0.059***	-0.075***
	(0.007)	(0.010)	(0.008)	(0.140)	(0.212)	(0.182)	(0.014)	(0.022)	(0.018)
Age= 22	0.031***	0.029***	0.044***	-0.645***	-0.363*	-0.918***	-0.083***	-0.072***	-0.097***
	(0.007)	(0.011)	(0.009)	(0.134)	(0.200)	(0.177)	(0.015)	(0.022)	(0.021)
Age=23	0.029***	0.029**	0.041***	-0.703***	-0.530**	-0.872***	-0.077***	-0.052**	-0.105***
	(0.008)	(0.012)	(0.010)	(0.159)	(0.220)	(0.230)	(0.017)	(0.025)	(0.023)
Age=24	0.028***	0.042***	0.028***	-0.381**	-0.492*	-0.298	-0.061***	-0.084***	-0.045*
	(0.008)	(0.013)	(0.010)	(0.178)	(0.258)	(0.244)	(0.018)	(0.025)	(0.027)

Age=25	0.035***	0.036***	0.044***	-0.578***	-0.406	-0.753***	-0.071***	-0.060**	-0.085***
	(0.008)	(0.012)	(0.009)	(0.166)	(0.263)	(0.212)	(0.017)	(0.024)	(0.024)
Age=26	0.044***	0.057***	0.044***	-0.597***	-0.432**	-0.797***	-0.068***	-0.054**	-0.088***
	(0.009)	(0.013)	(0.011)	(0.168)	(0.210)	(0.258)	(0.018)	(0.024)	(0.026)
Age= 27	0.045***	0.054***	0.049***	-0.692***	-0.318	-1.114***	-0.085***	-0.054**	-0.123***
	(0.010)	(0.016)	(0.013)	(0.177)	(0.234)	(0.261)	(0.020)	(0.026)	(0.030)
Age= 28	0.054***	0.067***	0.053***	-0.421**	-0.298	-0.564***	-0.070***	-0.078***	-0.068***
	(0.009)	(0.016)	(0.011)	(0.177)	(0.288)	(0.218)	(0.019)	(0.028)	(0.025)
Age=29	0.060***	0.075***	0.062***	-0.523***	-0.565**	-0.563**	-0.065***	-0.070***	-0.073**
	(0.011)	(0.017)	(0.014)	(0.183)	(0.241)	(0.274)	(0.020)	(0.025)	(0.032)
Age=30	0.063***	0.080***	0.060***	-0.619***	-0.684***	-0.652***	-0.078***	-0.079***	-0.083***
	(0.008)	(0.015)	(0.010)	(0.159)	(0.232)	(0.216)	(0.017)	(0.024)	(0.024)
Age=31	0.069***	0.095***	0.058***	-0.390*	-0.405	-0.432*	-0.053**	-0.049	-0.063*
	(0.012)	(0.019)	(0.016)	(0.211)	(0.338)	(0.263)	(0.023)	(0.031)	(0.035)
Age=32	0.077***	0.103***	0.070***	-0.806***	-0.855***	-0.817***	-0.097***	-0.105***	-0.098***
	(0.011)	(0.019)	(0.013)	(0.195)	(0.275)	(0.272)	(0.022)	(0.033)	(0.029)
Age=33	0.082***	0.106***	0.075***	-0.560**	-0.339	-0.762**	-0.079***	-0.079***	-0.085***
	(0.012)	(0.019)	(0.014)	(0.227)	(0.318)	(0.316)	(0.023)	(0.030)	(0.033)
Age=34	0.091***	0.116***	0.082***	-0.586***	-0.432	-0.755**	-0.095***	-0.093***	-0.103***
	(0.012)	(0.019)	(0.016)	(0.219)	(0.264)	(0.332)	(0.023)	(0.029)	(0.035)
Age=35	0.081***	0.094***	0.083***	-0.720***	-0.428	-0.940***	-0.088***	-0.082***	-0.096***
	(0.009)	(0.016)	(0.011)	(0.197)	(0.312)	(0.255)	(0.019)	(0.025)	(0.027)
Age=36	0.097***	0.116***	0.092***	-1.024***	-0.911***	-1.155***	-0.106***	-0.123***	-0.099***
	(0.011)	(0.018)	(0.014)	(0.245)	(0.323)	(0.353)	(0.024)	(0.034)	(0.034)
Age=37	0.100***	0.130***	0.089***	-0.587**	-0.485	-0.724**	-0.085***	-0.099***	-0.082**
	(0.011)	(0.019)	(0.013)	(0.232)	(0.379)	(0.291)	(0.024)	(0.034)	(0.033)
Age=38	0.089***	0.145***	0.064***	-0.331	-0.572**	-0.223	-0.074***	-0.113***	-0.053*
	(0.011)	(0.017)	(0.013)	(0.208)	(0.225)	(0.312)	(0.021)	(0.027)	(0.030)
Age= 39	0.105***	0.162***	0.075***	-0.413*	-0.592*	-0.340	-0.077***	-0.107***	-0.060*
	(0.012)	(0.020)	(0.014)	(0.228)	(0.321)	(0.316)	(0.023)	(0.032)	(0.032)
Age= 40	0.090***	0.143***	0.072***	-0.705***	-0.974***	-0.606**	-0.093***	-0.126***	-0.080***
	(0.010)	(0.017)	(0.011)	(0.189)	(0.288)	(0.250)	(0.020)	(0.031)	(0.026)
Age= 41	0.100***	0.145***	0.084***	-0.587**	-0.731**	-0.558*	-0.083***	-0.081**	-0.090***
	(0.013)	(0.022)	(0.015)	(0.231)	(0.355)	(0.306)	(0.024)	(0.033)	(0.033)
Age=42	0.088***	0.130***	0.076***	-0.360	-0.700**	-0.200	-0.052**	-0.088***	-0.035
	(0.011)	(0.019)	(0.014)	(0.225)	(0.281)	(0.324)	(0.022)	(0.031)	(0.031)
Age=43	0.095***	0.125***	0.085***	-0.369*	-0.295	-0.476	-0.054**	-0.052*	-0.061*
	(0.012)	(0.020)	(0.015)	(0.219)	(0.302)	(0.308)	(0.023)	(0.032)	(0.033)
Age=44	0.114***	0.188***	0.086***	-0.658***	-0.826**	-0.622*	-0.097***	-0.150***	-0.073**
	(0.013)	(0.023)	(0.015)	(0.237)	(0.351)	(0.319)	(0.025)	(0.035)	(0.034)
Age=45	0.098***	0.161***	0.079***	-0.498**	-0.566*	-0.527**	-0.075***	-0.123***	-0.057**
	(0.011)	(0.020)	(0.012)	(0.200)	(0.306)	(0.262)	(0.021)	(0.032)	(0.027)
Age=46	0.092***	0.149***	0.069***	-0.285	-0.308	-0.312	-0.061**	-0.109***	-0.036

	(0.012)	(0.021)	(0.014)	(0.251)	(0.360)	(0.345)	(0.025)	(0.033)	(0.035)
Age=47	0.102***	0.158***	0.079***	0.027	-0.276	0.174	-0.039	-0.078**	-0.020
	(0.013)	(0.022)	(0.016)	(0.224)	(0.328)	(0.302)	(0.024)	(0.036)	(0.032)
Age=48	0.096***	0.171***	0.066***	-0.177	-1.045***	0.245	-0.045*	-0.124***	-0.006
	(0.013)	(0.022)	(0.016)	(0.244)	(0.376)	(0.317)	(0.024)	(0.033)	(0.033)
Age=49	0.105***	0.196***	0.069***	-0.601**	-1.182***	-0.339	-0.082***	-0.161***	-0.045
	(0.014)	(0.023)	(0.016)	(0.259)	(0.397)	(0.337)	(0.026)	(0.039)	(0.035)
Constant	3.054***	3.070***	3.036***	1.024***	0.692***	1.357***	0.148***	0.120***	0.178***
	(0.007)	(0.012)	(0.009)	(0.144)	(0.217)	(0.194)	(0.015)	(0.022)	(0.022)
N	3,859	1,607	22,515	3,859	1,607	22,515	3,859	1,607	22,515
R^2	0.638	0.633	0.649	0.516	0.477	0.540	0.519	0.491	0.537

Table A12: Coefficients on ex-widow in country FEs model with interactions between ex-widow indicator and country dummies and controls for HIV status, sample with HIV tests

	LN BMI			Watts underweight			Underweight		
	All	Urban	Rural	All	Urban	Rural	All	Urban	Rural
Single	-0.046***	-0.039***	-0.039***	0.524***	0.468***	0.561***	0.059***	0.052***	0.062***
	(0.002)	(0.004)	(0.003)	(0.044)	(0.066)	(0.060)	(0.005)	(0.007)	(0.006)
Ex-divorcee	0.005**	0.007	0.004	-0.102***	-0.102**	-0.100**	-0.009**	-0.005	-0.011**
	(0.002)	(0.004)	(0.002)	(0.034)	(0.051)	(0.044)	(0.004)	(0.006)	(0.005)
Divorcee	-0.014***	-0.018***	-0.013***	0.080	0.166**	0.035	0.011**	0.014*	0.013*
	(0.003)	(0.005)	(0.003)	(0.051)	(0.077)	(0.067)	(0.005)	(0.008)	(0.007)
Widow	-0.011***	-0.022***	-0.007	0.110*	0.127	0.107	0.014**	0.023**	0.010
	(0.004)	(0.007)	(0.004)	(0.060)	(0.084)	(0.080)	(0.006)	(0.010)	(0.008)
Seropositive	-0.032***	-0.043***	-0.026***	0.175***	0.175***	0.175***	0.016***	0.024***	0.011**
	(0.002)	(0.004)	(0.003)	(0.038)	(0.060)	(0.050)	(0.004)	(0.006)	(0.005)
HIV test missing	-0.004**	-0.011***	0.000	0.020	0.021	0.029	0.000	0.008	-0.004
	(0.002)	(0.003)	(0.002)	(0.036)	(0.052)	(0.049)	(0.004)	(0.005)	(0.005)
Education	0.002***	0.001***	0.002***	-0.014***	-0.004	-0.022***	-0.002***	-0.001	-0.003***
	(0.000)	(0.000)	(0.000)	(0.004)	(0.005)	(0.006)	(0.000)	(0.001)	(0.001)
Head	0.027***	0.033***	0.017***	0.005	0.079	-0.032	0.004	0.013	0.000
	(0.003)	(0.006)	(0.004)	(0.061)	(0.090)	(0.084)	(0.006)	(0.009)	(0.008)
Head's spouse	0.015***	0.024***	0.006*	0.010	0.067	-0.039	0.007	0.011	0.003
	(0.003)	(0.005)	(0.003)	(0.051)	(0.075)	(0.070)	(0.005)	(0.008)	(0.007)
Head par/child/	0.011***	0.003	0.011***	0.220***	0.237***	0.190***	0.019***	0.029***	0.011*
	(0.002)	(0.003)	(0.003)	(0.045)	(0.068)	(0.061)	(0.005)	(0.007)	(0.006)
Head no relation	0.015***	0.023***	0.022**	-0.423***	-0.446***	-0.282**	-0.052***	-0.057***	-0.029*
	(0.005)	(0.006)	(0.008)	(0.076)	(0.092)	(0.137)	(0.009)	(0.010)	(0.016)
Pregnant	0.049***	0.044***	0.051***	-0.478***	-0.368***	-0.518***	-0.070***	-0.056***	-0.076***
	(0.002)	(0.004)	(0.002)	(0.026)	(0.046)	(0.032)	(0.003)	(0.005)	(0.004)
Muslim	0.002	0.016***	-0.005	0.209***	0.119	0.223***	0.024***	0.014	0.024***
	(0.003)	(0.005)	(0.003)	(0.059)	(0.087)	(0.076)	(0.006)	(0.009)	(0.007)
Ethiopia	-0.027**	-0.012	-0.019*	-0.227	-0.852**	-0.269	0.015	0.012	-0.004
	(0.011)	(0.048)	(0.011)	(0.354)	(0.358)	(0.391)	(0.037)	(0.101)	(0.039)
Gabon	0.003	-0.019	-0.002	-0.256**	-0.108*	-0.291	-0.038**	-0.004	-0.053*
	(0.017)	(0.023)	(0.026)	(0.104)	(0.065)	(0.214)	(0.018)	(0.024)	(0.027)
Guinea	-0.006	0.035	-0.013	0.180	0.117	0.199	0.011	0.016	0.009
	(0.011)	(0.032)	(0.011)	(0.258)	(0.452)	(0.303)	(0.023)	(0.043)	(0.027)
Lesotho	0.030	-0.068	0.067	-0.112	-0.063	-0.152	-0.027***	-0.023	-0.032**
	(0.048)	(0.050)	(0.056)	(0.092)	(0.155)	(0.118)	(0.010)	(0.020)	(0.013)
Malawi	0.004	-0.008	0.013	-0.112	0.977	-0.275***	0.001	0.082	-0.014
	(0.010)	(0.041)	(0.010)	(0.110)	(0.704)	(0.073)	(0.019)	(0.064)	(0.019)
Mali	-0.007	-0.002	-0.006	0.024	-0.265**	0.126	-0.004	-0.019	0.000
	(0.009)	(0.019)	(0.010)	(0.151)	(0.133)	(0.196)	(0.015)	(0.021)	(0.019)
Niger	0.008	0.043	-0.006	-0.233	-0.835***	0.004	-0.036	-0.104***	-0.008
	(0.015)	(0.029)	(0.016)	(0.256)	(0.115)	(0.343)	(0.031)	(0.012)	(0.042)
DRC	-0.031*	-0.045	-0.030	0.740	-0.464**	1.178*	0.068	-0.067	0.124**
	(0.017)	(0.032)	(0.020)	(0.474)	(0.236)	(0.622)	(0.046)	(0.041)	(0.058)
Rwanda	-0.029***	-0.012	-0.026**	0.109	-0.177*	0.182	0.005	-0.044***	0.016
	(0.010)	(0.026)	(0.011)	(0.104)	(0.094)	(0.129)	(0.017)	(0.011)	(0.021)
Senegal	0.057***	0.071**	0.050***	-0.827***	-0.741***	-0.839***	-0.087***	-0.081**	-0.085***
	(0.015)	(0.029)	(0.017)	(0.159)	(0.198)	(0.212)	(0.024)	(0.034)	(0.031)
Sierra Leone	0.022	0.055*	0.005	-0.163	-0.144	-0.192	0.004	-0.003	0.005
	(0.015)	(0.029)	(0.017)	(0.206)	(0.314)	(0.258)	(0.024)	(0.028)	(0.032)

Swaziland	-0.001	-0.075	0.042	0.723*	0.992	0.571	0.074	0.127	0.046
	(0.038)	(0.069)	(0.042)	(0.405)	(0.824)	(0.448)	(0.048)	(0.103)	(0.050)
Zambia	0.003	-0.037	0.021	0.000	0.708*	-0.379***	-0.013	0.045	-0.042**
	(0.013)	(0.028)	(0.014)	(0.170)	(0.429)	(0.110)	(0.018)	(0.036)	(0.020)
Zimbabwe	-0.013	-0.080**	0.003	-0.070	-0.140*	-0.045	-0.012	-0.028***	-0.008
	(0.013)	(0.031)	(0.015)	(0.164)	(0.074)	(0.197)	(0.023)	(0.008)	(0.028)
Urban	0.015***			-0.038			-0.009**		
	(0.002)			(0.037)			(0.004)		
N	80,132	28,214	51,918	80,132	28,214	51,918	80,132	28,214	51,918
R^2	0.224	0.227	0.204	0.046	0.041	0.050	0.059	0.059	0.062

Table A13: Coefficients on ex-widow in household fixed effects model with interaction between ex-widow indicator and country dummies and controls for HIV status, sample with HIV tests

	LN BMI			Watts underweight			Underweight		
	All	Urban	Rural	All	Urban	Rural	All	Urban	Rural
Single	-0.052***	-0.044***	-0.045***	0.591***	0.501***	0.667***	0.065***	0.060***	0.068***
	(0.005)	(0.008)	(0.007)	(0.096)	(0.130)	(0.144)	(0.010)	(0.014)	(0.015)
Ex-divorcee	0.011*	0.020**	0.003	-0.147	-0.222	-0.060	-0.014	-0.029*	0.000
	(0.006)	(0.010)	(0.007)	(0.116)	(0.170)	(0.157)	(0.012)	(0.017)	(0.016)
Divorcee	-0.022***	-0.020*	-0.025***	0.104	0.218	0.042	0.014	0.019	0.015
	(0.007)	(0.011)	(0.009)	(0.134)	(0.199)	(0.182)	(0.013)	(0.018)	(0.019)
Widow	-0.024***	-0.039***	-0.014	0.074	0.135	0.024	0.034**	0.049**	0.023
	(0.009)	(0.015)	(0.011)	(0.149)	(0.213)	(0.206)	(0.016)	(0.023)	(0.023)
Seropositive	-0.027***	-0.037***	-0.021**	0.220**	0.078	0.331**	0.020*	0.026	0.016
	(0.007)	(0.010)	(0.008)	(0.109)	(0.172)	(0.141)	(0.011)	(0.017)	(0.014)
HIV test missing	-0.007	-0.019*	0.003	-0.030	0.123	-0.255	-0.002	0.012	-0.019
	(0.008)	(0.011)	(0.012)	(0.169)	(0.192)	(0.298)	(0.017)	(0.021)	(0.029)
Education	0.001	0.000	0.001*	-0.003	0.003	-0.022	-0.000	0.000	-0.001
	(0.001)	(0.001)	(0.001)	(0.010)	(0.013)	(0.018)	(0.001)	(0.001)	(0.002)
Head	0.030***	0.034***	0.019**	0.108	0.125	0.118	0.016	0.015	0.021
	(0.007)	(0.011)	(0.009)	(0.127)	(0.176)	(0.180)	(0.013)	(0.017)	(0.019)
Head's spouse	0.021***	0.039***	0.002	-0.070	0.048	-0.154	-0.003	0.006	-0.008
	(0.006)	(0.009)	(0.007)	(0.111)	(0.156)	(0.158)	(0.012)	(0.016)	(0.016)
Head is par/child/	0.020***	0.012*	0.019***	0.209**	0.183	0.201	0.011	0.015	0.008
	(0.004)	(0.006)	(0.006)	(0.083)	(0.113)	(0.124)	(0.009)	(0.012)	(0.013)
Head no relation	-0.005	0.012	-0.016	-0.429***	-0.429**	-0.302	-0.044***	-0.053***	-0.014
	(0.009)	(0.011)	(0.017)	(0.152)	(0.174)	(0.306)	(0.017)	(0.019)	(0.036)
Pregnant	0.057***	0.061***	0.055***	-0.537***	-0.412***	-0.604***	-0.083***	-0.062***	-0.095***
	(0.005)	(0.009)	(0.006)	(0.090)	(0.135)	(0.119)	(0.010)	(0.015)	(0.013)
Muslim	0.004	0.021	-0.005	0.106	0.322	-0.048	0.021	0.031	0.009
	(0.012)	(0.019)	(0.014)	(0.240)	(0.355)	(0.321)	(0.026)	(0.033)	(0.038)
Ethiopia	-0.103**	-0.059	-0.082*	0.334	-3.305	0.894	0.031	-0.016	0.031
	(0.043)	(0.110)	(0.045)	(1.958)	(2.930)	(2.186)	(0.161)	(0.638)	(0.159)
Gabon	0.019	-0.066	0.095	0.433**	0.675***	0.210	0.002	0.035	-0.014
	(0.041)	(0.051)	(0.063)	(0.203)	(0.252)	(0.381)	(0.047)	(0.064)	(0.062)
Guinea	0.006	0.079*	-0.007	-0.183	-0.888	0.002	-0.041	-0.067	-0.036
	(0.020)	(0.048)	(0.019)	(0.432)	(0.653)	(0.511)	(0.041)	(0.049)	(0.049)
Lesotho	-0.013	0.000	0.022	0.402	0.000	0.156	0.048	0.000	0.046
	(0.133)	(.)	(0.143)	(0.478)	(.)	(0.581)	(0.060)	(.)	(0.067)
Malawi	-0.011	-0.192***	0.025	-0.631	3.248***	-0.780	0.056	1.132***	0.009
	(0.049)	(0.018)	(0.052)	(1.425)	(0.240)	(1.495)	(0.117)	(0.024)	(0.112)
Mali	0.004	0.008	0.003	0.184	0.011	0.265	-0.007	-0.016	-0.004
	(0.019)	(0.036)	(0.023)	(0.366)	(0.372)	(0.498)	(0.036)	(0.059)	(0.045)
Niger	0.014	0.051	-0.021	-0.656	-1.208	-0.313	-0.006	-0.095	0.051
	(0.030)	(0.050)	(0.032)	(0.685)	(1.118)	(0.860)	(0.074)	(0.089)	(0.100)
DRC	-0.019	-0.063*	0.039	0.341	-0.139	0.825	0.002	-0.092	0.096
	(0.033)	(0.035)	(0.052)	(0.923)	(0.821)	(1.567)	(0.105)	(0.158)	(0.120)
Rwanda	-0.093**	-0.040	-0.096**	1.372	-0.114	2.020*	0.099	-0.021	0.144
	(0.037)	(0.051)	(0.040)	(0.837)	(1.180)	(1.036)	(0.118)	(0.159)	(0.150)
Senegal	0.041	0.073*	0.025	-0.811*	-0.707	-0.864	-0.041	-0.061	-0.031
	(0.026)	(0.041)	(0.032)	(0.429)	(0.670)	(0.550)	(0.051)	(0.090)	(0.061)
Sierra Leone	0.015	0.031	0.013	-0.254	0.661***	-0.571	-0.001	0.085***	-0.031
	(0.032)	(0.070)	(0.034)	(0.485)	(0.185)	(0.661)	(0.050)	(0.023)	(0.068)
Swaziland	0.033	0.009	0.048	-0.354	-1.420	0.796**	-0.019	-0.111	0.080*
	(0.071)	(0.052)	(0.119)	(1.085)	(1.533)	(0.337)	(0.109)	(0.155)	(0.041)
Zambia	-0.015	-0.052	0.008	-0.149	0.296	-0.370	0.030	0.073	0.005
	(0.032)	(0.052)	(0.042)	(0.713)	(0.948)	(0.981)	(0.052)	(0.093)	(0.063)
Zimbabwe	-0.020	-0.106***	0.015	-0.350	0.755***	-0.616	-0.078	0.086**	-0.123
	(0.036)	(0.037)	(0.045)	(0.939)	(0.285)	(1.198)	(0.083)	(0.035)	(0.102)

Constant	3.054***	3.070***	3.036***	1.033***	0.697***	1.370***	0.149***	0.120***	0.179***
	(0.007)	(0.012)	(0.009)	(0.145)	(0.217)	(0.194)	(0.015)	(0.022)	(0.022)
N	38,594	16,079	22,515	38,594	16,079	22,515	38,594	16,079	22,515
R^2	0.638	0.634	0.649	0.516	0.478	0.541	0.519	0.492	0.537

Table A14: Coefficients on ex-divorcee in country FEs model with interaction between ex-divorcee indicator and country dummies and controls for HIV status, sample with HIV tests

	LN BMI			Watts underweight			Underweight		
	All	Urban	Rural	All	Urban	Rural	All	Urban	Rural
Single	-0.045***	-0.039***	-0.039***	0.528***	0.471***	0.569***	0.059***	0.052***	0.063***
	(0.002)	(0.004)	(0.003)	(0.044)	(0.066)	(0.060)	(0.005)	(0.007)	(0.006)
Ex-widow	-0.001	0.001	-0.000	-0.048	-0.097	-0.038	-0.005	-0.012	-0.004
	(0.004)	(0.009)	(0.004)	(0.062)	(0.091)	(0.076)	(0.007)	(0.010)	(0.008)
Divorcee	-0.014***	-0.018***	-0.013***	0.087*	0.170**	0.050	0.012**	0.014*	0.014*
	(0.003)	(0.005)	(0.003)	(0.051)	(0.077)	(0.067)	(0.005)	(0.008)	(0.007)
Widow	-0.012***	-0.023***	-0.008*	0.119**	0.131	0.118	0.014**	0.024**	0.011
	(0.004)	(0.007)	(0.005)	(0.060)	(0.084)	(0.080)	(0.006)	(0.010)	(0.008)
Seropositive	-0.032***	-0.042***	-0.025***	0.168***	0.179***	0.165***	0.015***	0.024***	0.010**
	(0.002)	(0.004)	(0.003)	(0.038)	(0.060)	(0.050)	(0.004)	(0.006)	(0.005)
HIV test missing	-0.004**	-0.011***	0.000	0.019	0.021	0.029	0.000	0.008	-0.004
	(0.002)	(0.003)	(0.002)	(0.036)	(0.052)	(0.049)	(0.004)	(0.005)	(0.005)
Education	0.002***	0.001**	0.002***	-0.014***	-0.004	-0.021***	-0.002***	-0.000	-0.003***
	(0.000)	(0.000)	(0.000)	(0.004)	(0.005)	(0.006)	(0.000)	(0.001)	(0.001)
Head	0.026***	0.033***	0.017***	0.009	0.080	-0.027	0.005	0.013	0.001
	(0.003)	(0.006)	(0.004)	(0.061)	(0.090)	(0.084)	(0.006)	(0.009)	(0.008)
Head's spouse	0.015***	0.025***	0.006*	0.014	0.072	-0.032	0.007	0.012	0.003
	(0.003)	(0.005)	(0.003)	(0.051)	(0.075)	(0.069)	(0.005)	(0.008)	(0.007)
Head is parent/child/sib	0.011***	0.003	0.011***	0.219***	0.238***	0.187***	0.019***	0.029***	0.010*
	(0.002)	(0.003)	(0.003)	(0.045)	(0.068)	(0.062)	(0.005)	(0.007)	(0.006)
Head no relation	0.015***	0.023***	0.021**	-0.423***	-0.442***	-0.281**	-0.052***	-0.056***	-0.029*
	(0.005)	(0.006)	(0.008)	(0.076)	(0.091)	(0.137)	(0.009)	(0.010)	(0.016)
Pregnant	0.048***	0.043***	0.051***	-0.476***	-0.363***	-0.518***	-0.070***	-0.056***	-0.076***
	(0.002)	(0.004)	(0.002)	(0.026)	(0.046)	(0.032)	(0.003)	(0.005)	(0.004)
Muslim	0.002	0.016***	-0.005*	0.205***	0.113	0.216***	0.024***	0.013	0.024***
	(0.003)	(0.005)	(0.003)	(0.059)	(0.088)	(0.076)	(0.006)	(0.009)	(0.007)
Ethiopia	-0.013**	-0.033**	-0.006	-0.379**	-0.230	-0.471**	-0.014	0.014	-0.032*
	(0.005)	(0.016)	(0.005)	(0.159)	(0.291)	(0.184)	(0.017)	(0.042)	(0.018)
Gabon	0.022***	-0.000	0.033***	0.020	-0.011	0.126	-0.014*	-0.011	-0.007
	(0.008)	(0.010)	(0.012)	(0.067)	(0.063)	(0.131)	(0.008)	(0.009)	(0.014)
Guinea	0.006	-0.008	0.011	-0.010	0.555	-0.177	0.003	0.051	-0.011
	(0.008)	(0.017)	(0.009)	(0.167)	(0.456)	(0.160)	(0.018)	(0.036)	(0.021)
Lesotho	0.033	0.108*	-0.036	0.078	0.102	0.103	0.015	-0.004	0.033
	(0.040)	(0.056)	(0.050)	(0.170)	(0.101)	(0.311)	(0.043)	(0.012)	(0.079)
Malawi	-0.005	-0.018	0.003	-0.064	0.158	-0.092	-0.012	0.014	-0.016*
	(0.005)	(0.017)	(0.005)	(0.057)	(0.213)	(0.060)	(0.009)	(0.032)	(0.009)
Mali	0.026***	0.033***	0.019***	-0.242***	-0.242**	-0.237***	-0.030***	-0.025**	-0.032***
	(0.005)	(0.009)	(0.007)	(0.069)	(0.107)	(0.091)	(0.009)	(0.012)	(0.012)
Niger	0.002	0.029*	-0.010	-0.133	-0.478**	0.028	-0.011	-0.050**	0.007
	(0.008)	(0.016)	(0.008)	(0.143)	(0.202)	(0.182)	(0.017)	(0.021)	(0.023)
DRC	-0.016**	-0.010	-0.023***	-0.067	-0.198	-0.022	-0.000	-0.008	0.006
	(0.007)	(0.013)	(0.008)	(0.143)	(0.161)	(0.201)	(0.016)	(0.026)	(0.021)
Rwanda	-0.041***	-0.117***	-0.019**	0.147	0.143	0.174	0.025	0.035	0.025
	(0.008)	(0.019)	(0.009)	(0.106)	(0.303)	(0.112)	(0.018)	(0.050)	(0.019)
Senegal	0.058***	0.067***	0.043***	-0.570***	-0.521***	-0.573***	-0.048***	-0.038*	-0.050**
	(0.008)	(0.013)	(0.011)	(0.112)	(0.168)	(0.151)	(0.014)	(0.020)	(0.020)
Sierra Leone	-0.001	-0.036*	0.013	0.068	0.248	-0.042	0.006	0.062**	-0.025
	(0.012)	(0.019)	(0.015)	(0.213)	(0.292)	(0.284)	(0.016)	(0.028)	(0.019)
Swaziland	0.048**	0.028	0.068**	0.268**	0.136	0.330*	0.035*	0.066	0.015
	(0.021)	(0.030)	(0.028)	(0.114)	(0.094)	(0.170)	(0.018)	(0.041)	(0.016)
Zambia	-0.021***	-0.018	-0.021***	0.280**	0.009	0.411**	0.035***	0.013	0.047***
	(0.007)	(0.015)	(0.007)	(0.121)	(0.106)	(0.166)	(0.013)	(0.021)	(0.016)
Zimbabwe	-0.012*	-0.021	-0.008	0.007	0.338	-0.069	-0.002	0.026	-0.007

	(0.007)	(0.018)	(0.007)	(0.090)	(0.230)	(0.096)	(0.012)	(0.022)	(0.014)
Urban	0.014***			-0.037			-0.009**		
	(0.002)			(0.037)			(0.004)		
N	80,132	28,214	51,918	80,132	28,214	51,918	80,132	28,214	51,918
R^2	0.225	0.229	0.204	0.046	0.041	0.050	0.059	0.059	0.062

Table A15: Coefficients on ex-divorcee in household FEs model with interaction between ex-divorcee indicator and country dummies and controls for HIV status, sample with HIV tests

	LN BMI			Watts underweight			Underweight		
	All	Urban	Rural	All	Urban	Rural	All	Urban	Rural
Single	-0.052***	-0.044***	-0.045***	0.597***	0.504***	0.681***	0.066***	0.060***	0.069***
	(0.005)	(0.008)	(0.007)	(0.096)	(0.129)	(0.143)	(0.010)	(0.014)	(0.015)
Ex-widow	0.002	0.014	0.001	-0.146	-0.274	-0.077	-0.011	-0.019	-0.008
	(0.009)	(0.017)	(0.011)	(0.189)	(0.243)	(0.248)	(0.019)	(0.031)	(0.023)
Divorcee	-0.022***	-0.021*	-0.025***	0.114	0.218	0.062	0.016	0.020	0.017
	(0.007)	(0.011)	(0.009)	(0.133)	(0.198)	(0.181)	(0.013)	(0.018)	(0.019)
Widow	-0.025***	-0.040***	-0.014	0.083	0.137	0.032	0.035**	0.050**	0.023
	(0.009)	(0.015)	(0.011)	(0.149)	(0.213)	(0.206)	(0.016)	(0.023)	(0.023)
Seropositive	-0.026***	-0.036***	-0.020**	0.205*	0.074	0.310**	0.019*	0.025	0.015
	(0.007)	(0.010)	(0.008)	(0.108)	(0.171)	(0.138)	(0.011)	(0.017)	(0.014)
HIV test missing	-0.007	-0.020*	0.002	-0.035	0.114	-0.259	-0.003	0.012	-0.020
	(0.008)	(0.011)	(0.012)	(0.169)	(0.193)	(0.300)	(0.017)	(0.021)	(0.029)
Education	0.001	0.000	0.001*	-0.002	0.003	-0.020	-0.000	0.000	-0.001
	(0.001)	(0.001)	(0.001)	(0.010)	(0.013)	(0.018)	(0.001)	(0.001)	(0.002)
Head	0.029***	0.034***	0.019**	0.110	0.121	0.126	0.016	0.014	0.021
	(0.007)	(0.011)	(0.009)	(0.127)	(0.176)	(0.180)	(0.013)	(0.017)	(0.019)
Head's spouse	0.022***	0.039***	0.003	-0.070	0.054	-0.155	-0.003	0.005	-0.009
	(0.006)	(0.010)	(0.007)	(0.112)	(0.156)	(0.159)	(0.012)	(0.016)	(0.016)
Head is parent/child/sib	0.020***	0.012**	0.018***	0.206**	0.181	0.193	0.011	0.015	0.008
	(0.004)	(0.006)	(0.006)	(0.083)	(0.113)	(0.125)	(0.009)	(0.013)	(0.013)
Head no relation	-0.005	0.011	-0.015	-0.430***	-0.429**	-0.325	-0.044***	-0.054***	-0.016
	(0.009)	(0.011)	(0.017)	(0.151)	(0.173)	(0.307)	(0.017)	(0.018)	(0.036)
Pregnant	0.056***	0.061***	0.055***	-0.532***	-0.413***	-0.598***	-0.083***	-0.062***	-0.094***
	(0.005)	(0.009)	(0.006)	(0.090)	(0.135)	(0.119)	(0.010)	(0.014)	(0.013)
Muslim	0.004	0.021	-0.006	0.113	0.336	-0.041	0.021	0.031	0.010
	(0.012)	(0.019)	(0.014)	(0.239)	(0.352)	(0.320)	(0.026)	(0.033)	(0.038)
Ethiopia	-0.070***	-0.072***	-0.064***	-0.088	-0.381	0.124	0.057	-0.040	0.111
	(0.016)	(0.024)	(0.020)	(0.660)	(0.633)	(0.956)	(0.064)	(0.077)	(0.086)
Gabon	0.034*	0.020	0.019	0.169	-0.125	0.733**	0.018	-0.002	0.072**
	(0.018)	(0.022)	(0.028)	(0.218)	(0.278)	(0.319)	(0.023)	(0.029)	(0.032)
Guinea	-0.006	-0.019	0.000	0.125	1.039	-0.237	0.039	0.042	0.038
	(0.019)	(0.035)	(0.023)	(0.440)	(1.024)	(0.417)	(0.040)	(0.070)	(0.047)
Lesotho	-0.144***	-0.162***	-0.195***	0.892**	1.237***	0.788*	0.105**	0.136***	0.091**
	(0.014)	(0.021)	(0.021)	(0.417)	(0.288)	(0.437)	(0.046)	(0.034)	(0.045)
Malawi	-0.020	-0.027	0.005	0.277	0.405	0.308	0.017	0.038	0.013
	(0.019)	(0.060)	(0.021)	(0.326)	(0.693)	(0.356)	(0.044)	(0.152)	(0.047)
Mali	0.022*	0.030	0.017	-0.234	-0.305	-0.153	-0.037	-0.048*	-0.028
	(0.012)	(0.018)	(0.015)	(0.228)	(0.321)	(0.318)	(0.023)	(0.029)	(0.035)
Niger	0.044**	0.107***	0.007	-0.212	-1.116*	0.248	-0.048	-0.147***	0.004
	(0.018)	(0.035)	(0.016)	(0.361)	(0.586)	(0.447)	(0.040)	(0.049)	(0.053)
DRC	-0.021	-0.020	-0.029	-0.644	-0.382	-0.967	-0.030	-0.037	-0.026
	(0.020)	(0.031)	(0.026)	(0.553)	(0.634)	(0.904)	(0.053)	(0.071)	(0.079)
Rwanda	-0.148***	-0.247***	-0.103**	0.385	-1.299	0.929	0.107	0.212	0.079
	(0.044)	(0.090)	(0.047)	(1.000)	(2.742)	(0.932)	(0.108)	(0.189)	(0.125)
Senegal	0.061***	0.069***	0.043**	-0.619**	-0.394	-0.761	-0.071**	-0.065	-0.070
	(0.015)	(0.022)	(0.019)	(0.315)	(0.413)	(0.479)	(0.035)	(0.051)	(0.049)
Sierra Leone	-0.019	-0.025	-0.016	-0.235	-0.237	-0.247	-0.005	0.064	-0.048
	(0.024)	(0.035)	(0.030)	(0.691)	(1.075)	(0.906)	(0.049)	(0.082)	(0.058)
Swaziland	0.042	0.004	0.059	0.501***	0.377	0.556**	0.035	0.044	0.033
	(0.055)	(0.079)	(0.070)	(0.178)	(0.507)	(0.217)	(0.040)	(0.087)	(0.047)
Zambia	-0.056***	-0.050*	-0.060***	0.406	0.277	0.544	0.055	0.063	0.053
	(0.018)	(0.030)	(0.021)	(0.399)	(0.419)	(0.612)	(0.036)	(0.051)	(0.050)
Zimbabwe	0.012	-0.007	0.019	-0.138	0.241	-0.303	-0.034	0.012	-0.059
	(0.023)	(0.045)	(0.024)	(0.429)	(0.689)	(0.531)	(0.035)	(0.056)	(0.045)

Constant	3.054***	3.070***	3.037***	1.025***	0.692***	1.359***	0.148***	0.121***	0.178***
	(0.007)	(0.012)	(0.009)	(0.144)	(0.217)	(0.194)	(0.015)	(0.022)	(0.022)
N	38,594	16,079	22,515	38,594	16,079	22,515	38,594	16,079	22,515
R^2	0.639	0.635	0.650	0.517	0.478	0.541	0.519	0.492	0.538

Selection Test:

Table A16: Logit model for selection into the sample of households with at least two adult female members

	All	Urban	Rural
Single	0.635***	0.540***	0.663***
	(0.017)	(0.027)	(0.022)
Ex-widow	0.098***	-0.044	0.148***
	(0.027)	(0.053)	(0.031)
Ex-divorcee	0.159***	0.098***	0.185***
	(0.014)	(0.026)	(0.017)
Widow	0.266***	0.174***	0.316***
	(0.025)	(0.042)	(0.032)
Divorcee	0.388***	0.294***	0.415***
	(0.022)	(0.035)	(0.029)
Education	-0.006***	-0.001	-0.010***
	(0.001)	(0.002)	(0.002)
Head	0.131***	-0.061*	0.240***
	(0.023)	(0.035)	(0.030)
Head's spouse	-0.569***	-0.789***	-0.456***
	(0.019)	(0.031)	(0.024)
Head is parent/child/sibling	0.042***	-0.010	0.098***
	(0.016)	(0.024)	(0.021)
Head not related	0.232***	0.066	0.411***
	(0.037)	(0.047)	(0.062)
Pregnant	0.017	0.013	0.024
	(0.013)	(0.025)	(0.016)
Muslim	0.084***	-0.009	0.115***
	(0.011)	(0.019)	(0.014)
Log HH size	2.939***	2.673***	3.119***
	(0.014)	(0.021)	(0.018)
Share of female age <5yrs	-3.255***	-3.024***	-3.380***
	(0.039)	(0.065)	(0.050)
Share of male age <5yrs	-3.285***	-3.076***	-3.405***
	(0.039)	(0.065)	(0.050)
Share of girls 6-14	-3.903***	-3.372***	-4.239***
	(0.037)	(0.058)	(0.048)
Share of boys 6-14	-4.049***	-3.642***	-4.300***
	(0.037)	(0.059)	(0.047)
Share of women >65yrs	-2.983***	-2.464***	-3.229***
	(0.091)	(0.151)	(0.116)
Share of men >65yrs	-3.164***	-2.342***	-3.618***
	(0.098)	(0.168)	(0.122)
Head age	-0.017***	-0.021***	-0.015***
	(0.000)	(0.001)	(0.001)
Head education	0.003**	0.005***	0.002
	(0.001)	(0.002)	(0.001)
Wealth Index	0.003***	0.000	0.005***
	(0.001)	(0.001)	(0.001)
Wealth Index^2	0.000***	0.000***	0.000***
	(0.000)	(0.000)	(0.000)
Nigeria 2013	0.012	0.018	0.012
	(0.013)	(0.022)	(0.016)
Congo	-0.040	-0.039	-0.103**
	(0.027)	(0.035)	(0.045)
DRC	-0.052*	-0.036	-0.076*
	(0.029)	(0.043)	(0.039)

Ethiopia	-0.129***	0.129***	-0.242***
	(0.025)	(0.044)	(0.031)
Gabon	0.045	0.098***	-0.152***
	(0.028)	(0.037)	(0.048)
Guinea	0.316***	0.153**	0.361***
	(0.031)	(0.060)	(0.037)
Lesotho	0.088**	0.051	0.117***
	(0.036)	(0.073)	(0.043)
Malawi	-0.170***	-0.008	-0.181***
	(0.025)	(0.057)	(0.029)
Mali	0.031	0.067*	0.022
	(0.021)	(0.035)	(0.026)
Namibia	0.050**	0.061*	0.010
	(0.024)	(0.036)	(0.033)
Niger	0.116***	0.120**	0.137***
	(0.030)	(0.053)	(0.037)
Nigeria	0.163***	0.080***	0.190***
	(0.017)	(0.028)	(0.023)
Rwanda	0.170***	0.198***	0.188***
	(0.027)	(0.053)	(0.032)
Senegal	0.085**	0.225***	0.009
	(0.036)	(0.061)	(0.045)
Sierra Leone	-0.182***	-0.194***	-0.167***
	(0.031)	(0.049)	(0.041)
Swaziland	0.189***	0.264***	0.143***
	(0.030)	(0.051)	(0.037)
Tanzania	-0.149***	0.028	-0.195***
	(0.023)	(0.042)	(0.028)
Uganda	-0.152***	0.047	-0.176***
	(0.035)	(0.085)	(0.040)
Zambia	-0.039	0.057	-0.120***
	(0.025)	(0.038)	(0.034)
Zimbabwe	0.047**	0.036	0.064**
	(0.023)	(0.038)	(0.031)
age== 20	-0.122***	-0.122***	-0.138***
	(0.020)	(0.034)	(0.025)
age== 21	-0.242***	-0.228***	-0.262***
	(0.026)	(0.040)	(0.033)
age== 22	-0.239***	-0.244***	-0.248***
	(0.023)	(0.037)	(0.029)
age== 23	-0.317***	-0.308***	-0.338***
	(0.025)	(0.040)	(0.033)
age== 24	-0.254***	-0.227***	-0.283***
	(0.026)	(0.040)	(0.034)
age== 25	-0.268***	-0.335***	-0.261***
	(0.021)	(0.036)	(0.026)
age== 26	-0.300***	-0.298***	-0.316***
	(0.025)	(0.040)	(0.033)
age== 27	-0.331***	-0.295***	-0.367***
	(0.025)	(0.041)	(0.033)
age== 28	-0.283***	-0.307***	-0.283***
	(0.024)	(0.040)	(0.031)
age== 29	-0.351***	-0.275***	-0.422***
	(0.029)	(0.044)	(0.038)
age== 30	-0.275***	-0.285***	-0.298***
	(0.022)	(0.038)	(0.027)
age== 31	-0.350***	-0.285***	-0.401***
	(0.031)	(0.049)	(0.041)

age== 32	-0.241***	-0.207***	-0.275***
	(0.026)	(0.043)	(0.034)
age== 33	-0.227***	-0.168***	-0.273***
	(0.029)	(0.047)	(0.037)
age== 34	-0.204***	-0.131***	-0.258***
	(0.030)	(0.047)	(0.039)
age== 35	-0.127***	-0.055	-0.187***
	(0.023)	(0.040)	(0.029)
age== 36	-0.088***	-0.016	-0.133***
	(0.029)	(0.048)	(0.037)
age== 37	-0.110***	0.051	-0.216***
	(0.030)	(0.049)	(0.038)
age== 38	0.009	0.163***	-0.080**
	(0.028)	(0.047)	(0.035)
age== 39	0.037	0.145***	-0.036
	(0.033)	(0.053)	(0.042)
age== 40	0.096***	0.199***	0.026
	(0.025)	(0.044)	(0.030)
age== 41	0.095***	0.292***	-0.034
	(0.035)	(0.056)	(0.045)
age== 42	0.139***	0.286***	0.053
	(0.031)	(0.051)	(0.039)
age== 43	0.159***	0.362***	0.044
	(0.034)	(0.056)	(0.042)
age== 44	0.202***	0.192***	0.207***
	(0.037)	(0.062)	(0.046)
age== 45	0.172***	0.349***	0.072**
	(0.028)	(0.051)	(0.035)
age== 46	0.182***	0.304***	0.115***
	(0.035)	(0.061)	(0.043)
age== 47	0.261***	0.439***	0.163***
	(0.036)	(0.061)	(0.045)
age== 48	0.322***	0.400***	0.284***
	(0.033)	(0.057)	(0.041)
age== 49	0.342***	0.444***	0.292***
	(0.036)	(0.062)	(0.045)
Urban	0.027**		
	(0.011)		
Constant	-2.690***	-2.066***	-3.073***
	(0.035)	(0.057)	(0.044)
N	189813	69736	120077
Pseudo R^2	0.48	0.49	0.47

Table A17: Baseline Model with country fixed effects when controlling for the selection probability.

	LN BMI			Watts underweight			Underweight		
	All	Urban	Rural	All	Urban	Rural	All	Urban	Rural
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Single	-0.061***	-0.047***	-0.056***	0.667***	0.522***	0.794***	0.068***	0.056***	0.076***
	(0.004)	(0.007)	(0.006)	(0.093)	(0.124)	(0.138)	(0.009)	(0.013)	(0.013)
Ex-widow	-0.003	0.007	-0.003	-0.050	-0.201	0.021	0.001	-0.003	0.002
	(0.006)	(0.013)	(0.007)	(0.128)	(0.191)	(0.164)	(0.014)	(0.024)	(0.017)
Ex-divorcee	0.006*	0.013*	0.003	0.000	-0.098	0.070	-0.002	-0.019	0.009
	(0.004)	(0.007)	(0.004)	(0.076)	(0.118)	(0.099)	(0.008)	(0.012)	(0.011)
Widow	-0.027***	-0.031***	-0.021**	0.164	0.146	0.159	0.023*	0.034**	0.012
	(0.007)	(0.011)	(0.008)	(0.116)	(0.170)	(0.160)	(0.012)	(0.017)	(0.017)
Divorcee	-0.024***	-0.022***	-0.023***	0.225**	0.299*	0.161	0.024**	0.033**	0.015
	(0.005)	(0.008)	(0.007)	(0.110)	(0.157)	(0.155)	(0.010)	(0.014)	(0.015)
Education	0.003***	0.002***	0.003***	-0.019***	0.001	-0.043***	-0.002***	-0.000	-0.004***
	(0.000)	(0.000)	(0.000)	(0.007)	(0.009)	(0.010)	(0.001)	(0.001)	(0.001)
Head	0.031***	0.037***	0.017***	-0.004	-0.122	0.102	-0.000	-0.015	0.015
	(0.005)	(0.008)	(0.007)	(0.090)	(0.126)	(0.130)	(0.009)	(0.013)	(0.014)
Head's spouse	0.037***	0.046***	0.021***	-0.317***	-0.317*	-0.342**	-0.024**	-0.017	-0.028**
	(0.005)	(0.010)	(0.006)	(0.107)	(0.179)	(0.137)	(0.010)	(0.017)	(0.013)
Head is parent/	0.016***	0.011**	0.015***	0.162**	0.142*	0.154	0.007	0.009	0.005
child/sibling	(0.003)	(0.004)	(0.004)	(0.064)	(0.085)	(0.097)	(0.006)	(0.009)	(0.009)
Head no	-0.007	0.005	-0.014	-0.283**	-0.245*	-0.247	-0.029**	-0.033**	-0.012
relation	(0.007)	(0.008)	(0.011)	(0.110)	(0.132)	(0.198)	(0.012)	(0.014)	(0.023)
Pregnant	0.057***	0.058***	0.056***	-0.584***	-0.518***	-0.614***	-0.081***	-0.071***	-0.086***
	(0.003)	(0.006)	(0.004)	(0.062)	(0.098)	(0.078)	(0.007)	(0.011)	(0.008)
Muslim	-0.004	0.007	-0.012	0.123	0.285	-0.033	0.015	0.035*	-0.005
	(0.008)	(0.012)	(0.011)	(0.139)	(0.182)	(0.207)	(0.016)	(0.020)	(0.024)
Prob.	0.182*	-0.050	0.251**	-4.341*	-3.973	-5.579*	-0.312	-0.216	-0.436
	(0.104)	(0.193)	(0.118)	(2.268)	(3.586)	(2.970)	(0.222)	(0.355)	(0.289)
$Prob^2$	-0.230	0.134	-0.370*	5.344	5.043	7.354	0.376	0.194	0.624
	(0.181)	(0.332)	(0.207)	(3.912)	(6.114)	(5.166)	(0.384)	(0.610)	(0.503)
$Prob^3$	0.132	-0.073	0.209*	-2.805	-2.757	-3.863	-0.188	-0.071	-0.337
	(0.104)	(0.189)	(0.121)	(2.265)	(3.513)	(3.030)	(0.220)	(0.349)	(0.291)
Constant	2.971***	3.044***	2.953***	2.684***	2.300***	3.186***	0.274***	0.221***	0.322***
	(0.024)	(0.044)	(0.027)	(0.527)	(0.843)	(0.702)	(0.050)	(0.081)	(0.065)
No. Obs	89035	36013	53022	89035	36013	53022	89035	36013	53022
R^2	0.640	0.647	0.636	0.522	0.498	0.537	0.521	0.500	0.534

Table A18: Model with interaction between widow and country dummies when controlling for the selection probability.

	LN BMI			Watts underweight			Underweight		
	All	Urban	Rural	All	Urban	Rural	All	Urban	Rural
Single	-0.061***	-0.047***	-0.056***	0.672***	0.527***	0.796***	0.068***	0.056***	0.076***
	(0.004)	(0.007)	(0.006)	(0.093)	(0.124)	(0.139)	(0.009)	(0.013)	(0.013)
Ex-widow	-0.003	0.008	-0.003	-0.053	-0.202	0.019	0.000	-0.003	0.001
	(0.006)	(0.013)	(0.007)	(0.128)	(0.191)	(0.164)	(0.014)	(0.024)	(0.017)
Ex-divorcee	0.006*	0.013**	0.003	-0.002	-0.101	0.068	-0.002	-0.020	0.008
	(0.004)	(0.007)	(0.004)	(0.076)	(0.118)	(0.099)	(0.008)	(0.012)	(0.011)
Divorcee	-0.025***	-0.022***	-0.024***	0.225**	0.299*	0.159	0.024**	0.033**	0.015
	(0.005)	(0.008)	(0.007)	(0.111)	(0.157)	(0.155)	(0.010)	(0.014)	(0.015)
Benin	-0.011	-0.028	-0.004	0.138	0.538	-0.231	0.003	0.056	-0.043
	(0.023)	(0.039)	(0.023)	(0.386)	(0.685)	(0.341)	(0.045)	(0.066)	(0.058)
Congo	-0.009	-0.003	-0.049	0.255	0.248	0.316	-0.003	-0.002	0.010
	(0.030)	(0.039)	(0.034)	(0.266)	(0.233)	(0.627)	(0.048)	(0.044)	(0.108)
DRC	-0.064**	-0.053	-0.122***	0.684	0.798	0.474	0.068	0.127	-0.031
	(0.028)	(0.034)	(0.036)	(0.463)	(0.503)	(0.982)	(0.059)	(0.083)	(0.054)
Ethiopia	-0.120***	-0.140***	-0.105***	0.204	-0.487	0.770	0.157**	0.123	0.187*
	(0.023)	(0.039)	(0.024)	(0.888)	(1.225)	(1.237)	(0.078)	(0.107)	(0.109)
Gabon	-0.055	-0.084	-0.024	1.249	1.459	0.356	0.072	0.094	0.036
	(0.047)	(0.055)	(0.052)	(0.941)	(1.134)	(0.234)	(0.076)	(0.092)	(0.024)
Guinea	-0.029	0.010	-0.081**	-0.077	-1.189	1.225**	0.016	-0.128	0.182*
	(0.036)	(0.047)	(0.035)	(0.925)	(1.498)	(0.593)	(0.089)	(0.096)	(0.110)
Lesotho	-0.057*	-0.199**	0.005	0.626**	1.124***	0.411	0.073*	0.181**	0.028
	(0.029)	(0.080)	(0.030)	(0.258)	(0.264)	(0.322)	(0.043)	(0.074)	(0.050)
Malawi	-0.044*	-0.071	-0.019	0.016	0.114	-0.044	0.007	0.036	-0.012
	(0.026)	(0.051)	(0.030)	(0.378)	(0.710)	(0.453)	(0.043)	(0.067)	(0.053)
Mali	0.039	0.064	-0.024	-0.703	-0.466	-0.910	-0.097*	-0.078	-0.106
	(0.031)	(0.042)	(0.034)	(0.436)	(0.501)	(0.776)	(0.053)	(0.066)	(0.087)
Namibia	-0.003	0.060	-0.026	-0.526	-0.339	-0.625	-0.072	-0.026	-0.103*
	(0.029)	(0.052)	(0.028)	(0.482)	(0.762)	(0.617)	(0.050)	(0.089)	(0.061)
Niger	0.012	0.025	-0.049	0.099	-0.274	0.857	0.034	0.034	0.059
	(0.041)	(0.052)	(0.033)	(0.572)	(0.563)	(1.199)	(0.075)	(0.087)	(0.138)
Nigeria	-0.011	-0.024	-0.004	0.271	0.093	0.384	0.002	-0.002	0.004
	(0.011)	(0.017)	(0.014)	(0.216)	(0.323)	(0.291)	(0.020)	(0.029)	(0.027)
Rwanda	-0.152***	-0.126***	-0.133***	0.492	0.458	0.423	0.098**	0.098**	0.080
	(0.018)	(0.032)	(0.022)	(0.401)	(0.340)	(0.555)	(0.044)	(0.047)	(0.060)
Senegal	0.028	0.017	-0.006	-0.356	-0.671	0.546	0.047	0.029	0.126
	(0.044)	(0.047)	(0.091)	(0.554)	(0.716)	(0.660)	(0.085)	(0.096)	(0.157)
Sierra Leone	-0.012	0.007	-0.027	-0.265	-1.063	0.208	0.003	-0.011	0.008
	(0.033)	(0.048)	(0.043)	(0.545)	(1.249)	(0.287)	(0.059)	(0.086)	(0.080)
Swaziland	0.043	0.008	0.079***	0.585***	0.282	0.588***	0.075***	0.119	0.047
	(0.028)	(0.064)	(0.031)	(0.185)	(0.485)	(0.202)	(0.027)	(0.073)	(0.029)
Tanzania	-0.038	-0.008	-0.033	-0.984	-0.698	-1.167	-0.029	0.000	-0.056
	(0.026)	(0.057)	(0.027)	(0.729)	(1.450)	(0.839)	(0.060)	(0.096)	(0.076)
Uganda	-0.110**	-0.075	-0.093*	0.968**	1.632*	0.786	0.049	0.144***	0.019
	(0.050)	(0.164)	(0.050)	(0.441)	(0.918)	(0.503)	(0.042)	(0.028)	(0.050)
Zambia	-0.049**	-0.058**	-0.072**	0.370	0.455	0.355	0.082**	0.087***	0.104
	(0.023)	(0.029)	(0.031)	(0.288)	(0.365)	(0.436)	(0.038)	(0.033)	(0.091)
Zimbabwe	-0.032*	-0.058**	-0.005	0.149	0.548***	-0.152	0.024	0.052	-0.003
	(0.017)	(0.029)	(0.021)	(0.261)	(0.179)	(0.400)	(0.028)	(0.038)	(0.038)
No. Obs.	89035	36013	53022	89035	36013	53022	89035	36013	53022
R^2	0.641	0.648	0.637	0.523	0.499	0.537	0.521	0.501	0.534

Table A19: Model with interaction between current divorcee and country dummies when controlling for the selection probability.

	LN BMI			Watts underweight			Underweight		
	All	Urban	Rural	All	Urban	Rural	All	Urban	Rural
Single	-0.061***	-0.046***	-0.056***	0.667***	0.521***	0.797***	0.069***	0.056***	0.076***
	(0.004)	(0.007)	(0.006)	(0.093)	(0.125)	(0.139)	(0.009)	(0.013)	(0.013)
Ex-widow	-0.003	0.008	-0.003	-0.051	-0.202	0.023	0.000	-0.004	0.002
	(0.006)	(0.013)	(0.007)	(0.129)	(0.191)	(0.164)	(0.014)	(0.024)	(0.017)
Ex-divorcee	0.007*	0.013*	0.003	0.000	-0.097	0.069	-0.002	-0.019	0.009
	(0.004)	(0.007)	(0.004)	(0.076)	(0.118)	(0.099)	(0.008)	(0.012)	(0.011)
Widow	-0.028***	-0.032***	-0.022***	0.166	0.144	0.168	0.023**	0.034**	0.013
	(0.007)	(0.011)	(0.008)	(0.116)	(0.171)	(0.160)	(0.012)	(0.017)	(0.017)
Benin	-0.000	-0.003	-0.001	0.307	0.387	0.206	0.038	0.045	0.034
	(0.023)	(0.032)	(0.030)	(0.293)	(0.365)	(0.473)	(0.039)	(0.046)	(0.067)
Congo	-0.045***	-0.043**	-0.041	0.612*	0.588	0.568	0.084***	0.097***	0.036
	(0.015)	(0.018)	(0.029)	(0.352)	(0.383)	(0.870)	(0.029)	(0.031)	(0.075)
DRC	-0.021	-0.027	-0.020	0.075	-0.479	0.913	0.045	0.033	0.068
	(0.021)	(0.028)	(0.032)	(0.438)	(0.576)	(0.659)	(0.050)	(0.071)	(0.063)
Ethiopia	-0.017	-0.014	-0.022	0.006	-0.121	0.095	0.061	0.032	0.085
	(0.016)	(0.027)	(0.019)	(0.489)	(0.627)	(0.723)	(0.048)	(0.060)	(0.073)
Gabon	0.018	-0.002	0.060	0.206	0.439	-0.583	-0.025	-0.006	-0.078
	(0.023)	(0.026)	(0.039)	(0.349)	(0.425)	(0.496)	(0.031)	(0.035)	(0.067)
Guinea	0.003	0.000	0.003	0.363	1.805	-0.745	-0.010	0.038	-0.045
	(0.041)	(0.077)	(0.039)	(1.220)	(2.561)	(0.788)	(0.079)	(0.137)	(0.089)
Lesotho	-0.081	-0.035	-0.108**	0.649	0.436	0.843	0.005	0.042	-0.008
	(0.051)	(0.099)	(0.055)	(1.248)	(0.293)	(2.035)	(0.069)	(0.058)	(0.109)
Malawi	-0.050***	-0.030	-0.051***	0.061	0.049	0.109	0.020	-0.014	0.028
	(0.017)	(0.037)	(0.019)	(0.289)	(0.602)	(0.336)	(0.037)	(0.096)	(0.040)
Mali	-0.046**	-0.043	-0.029	0.514	0.580	0.267	0.031	0.053	-0.024
	(0.023)	(0.030)	(0.031)	(0.442)	(0.568)	(0.664)	(0.039)	(0.045)	(0.073)
Namibia	-0.033	-0.018	-0.048	0.355	0.605	0.047	0.048	0.042	0.059
	(0.026)	(0.035)	(0.036)	(0.688)	(0.885)	(1.072)	(0.048)	(0.058)	(0.079)
Niger	0.014	0.012	0.016	-0.285	0.415	-1.210	-0.017	0.023	-0.066
	(0.025)	(0.035)	(0.033)	(0.448)	(0.340)	(0.810)	(0.057)	(0.065)	(0.098)
Nigeria	0.001	-0.001	0.001	-0.005	0.054	-0.015	0.005	0.019	-0.002
	(0.011)	(0.019)	(0.013)	(0.234)	(0.418)	(0.278)	(0.022)	(0.035)	(0.029)
Rwanda	-0.096***	-0.090**	-0.080***	0.524*	0.737*	0.461	0.072**	0.104	0.052
	(0.017)	(0.037)	(0.017)	(0.310)	(0.430)	(0.401)	(0.034)	(0.068)	(0.039)
Senegal	-0.020	-0.025	-0.001	0.093	-0.032	0.348	0.000	-0.015	0.032
	(0.026)	(0.032)	(0.042)	(0.580)	(0.699)	(1.018)	(0.044)	(0.049)	(0.086)
Sierra Leone	0.032	0.054	0.016	-0.096	-0.423	0.274	-0.020	-0.031	-0.004
	(0.040)	(0.053)	(0.059)	(0.616)	(1.041)	(0.688)	(0.045)	(0.084)	(0.035)
Swaziland	0.010	-0.014	0.035	0.109	0.034	0.139	0.015	-0.009	0.023
	(0.028)	(0.054)	(0.033)	(0.236)	(0.278)	(0.334)	(0.028)	(0.043)	(0.036)
Tanzania	-0.034**	-0.012	-0.041**	0.199	0.071	0.320	-0.012	-0.029	-0.002
	(0.016)	(0.028)	(0.018)	(0.289)	(0.266)	(0.436)	(0.029)	(0.044)	(0.038)
Uganda	-0.002	-0.002	-0.006	0.496	1.091***	0.377	0.063	0.205**	0.025
	(0.031)	(0.072)	(0.031)	(0.537)	(0.410)	(0.686)	(0.065)	(0.103)	(0.077)
Zambia	-0.050***	-0.042*	-0.055**	0.485**	0.342	0.622	0.038	0.024	0.053
	(0.017)	(0.023)	(0.024)	(0.238)	(0.219)	(0.430)	(0.033)	(0.034)	(0.057)
Zimbabwe	-0.026*	-0.031	-0.025	0.039	0.114	0.045	-0.006	0.011	-0.011
	(0.015)	(0.025)	(0.017)	(0.215)	(0.318)	(0.286)	(0.027)	(0.045)	(0.033)
No. Obs.	89035	36013	53022	89035	36013	53022	89035	36013	53022
R^2	0.641	0.647	0.636	0.523	0.499	0.537	0.521	0.501	0.534

Table A20: Model with interaction between Ex-widow and country dummies when controlling for the selection probability.

	LN BMI			Watts underweight			Underweight		
	All	Urban	Rural	All	Urban	Rural	All	Urban	Rural
Single	-0.061***	-0.046***	-0.055***	0.665***	0.520***	0.791***	0.068***	0.055***	0.076***
	(0.004)	(0.007)	(0.006)	(0.093)	(0.124)	(0.139)	(0.009)	(0.013)	(0.013)
Ex-divorcee	0.007*	0.013*	0.003	-0.002	-0.098	0.067	-0.002	-0.019	0.008
	(0.004)	(0.007)	(0.004)	(0.076)	(0.118)	(0.099)	(0.008)	(0.012)	(0.011)
Divorcee	-0.024***	-0.022***	-0.023***	0.224**	0.301*	0.161	0.024**	0.033**	0.015
	(0.005)	(0.008)	(0.007)	(0.111)	(0.157)	(0.155)	(0.010)	(0.014)	(0.015)
Widow	-0.027***	-0.032***	-0.021***	0.167	0.150	0.163	0.023*	0.034**	0.012
	(0.007)	(0.011)	(0.008)	(0.116)	(0.171)	(0.160)	(0.012)	(0.017)	(0.017)
Benin	-0.031	-0.011	-0.036	0.365	0.401	0.332	0.027	0.029	0.023
	(0.020)	(0.037)	(0.023)	(0.288)	(0.262)	(0.410)	(0.045)	(0.067)	(0.058)
Congo	-0.004	-0.019	-0.023	-0.308	-0.382	-0.131	-0.060	-0.075	-0.023
	(0.049)	(0.067)	(0.063)	(0.626)	(0.850)	(0.860)	(0.080)	(0.108)	(0.104)
DRC	-0.029	-0.065*	0.020	0.338	-0.215	0.853	0.004	-0.100	0.104
	(0.032)	(0.035)	(0.051)	(0.905)	(0.810)	(1.522)	(0.103)	(0.160)	(0.116)
Ethiopia	-0.112***	-0.066	-0.092**	0.281	-3.404	0.806	0.031	-0.021	0.030
	(0.043)	(0.114)	(0.045)	(1.951)	(3.000)	(2.161)	(0.160)	(0.645)	(0.159)
Gabon	0.006	-0.072	0.079	0.522***	0.605***	0.459	0.015	0.035	0.008
	(0.041)	(0.049)	(0.063)	(0.177)	(0.211)	(0.282)	(0.045)	(0.061)	(0.062)
Guinea	-0.001	0.074	-0.014	-0.122	-0.839	0.070	-0.036	-0.060	-0.030
	(0.020)	(0.047)	(0.019)	(0.435)	(0.677)	(0.515)	(0.041)	(0.052)	(0.049)
Lesotho	-0.047	0.000	-0.016	0.690	0.000	0.565	0.074	0.000	0.064
	(0.140)	(.)	(0.144)	(0.424)	(.)	(0.461)	(0.053)	(.)	(0.060)
Malawi	-0.024	-0.212***	0.012	-0.634	3.103***	-0.785	0.058	1.133***	0.009
	(0.048)	(0.013)	(0.050)	(1.413)	(0.211)	(1.460)	(0.116)	(0.021)	(0.110)
Mali	-0.002	0.007	-0.004	0.245	0.020	0.334	-0.001	-0.015	0.004
	(0.019)	(0.036)	(0.023)	(0.367)	(0.365)	(0.500)	(0.036)	(0.058)	(0.045)
Namibia	-0.008	-0.021	-0.005	1.510	0.670	2.442	0.134	0.079	0.199
	(0.070)	(0.084)	(0.111)	(0.980)	(0.805)	(1.797)	(0.134)	(0.126)	(0.243)
Niger	0.007	0.048	-0.027	-0.589	-1.173	-0.226	-0.001	-0.092	0.055
	(0.029)	(0.050)	(0.032)	(0.686)	(1.119)	(0.856)	(0.074)	(0.089)	(0.100)
Nigeria	0.015	0.022	0.017	-0.184	-0.421	-0.094	-0.001	0.020	-0.006
	(0.011)	(0.025)	(0.012)	(0.227)	(0.491)	(0.257)	(0.026)	(0.052)	(0.031)
Rwanda	-0.110***	-0.056	-0.111***	1.398*	-0.099	2.002*	0.109	-0.009	0.148
	(0.036)	(0.051)	(0.041)	(0.839)	(1.249)	(1.038)	(0.118)	(0.164)	(0.151)
Senegal	0.034	0.069*	0.017	-0.777*	-0.689	-0.801	-0.037	-0.058	-0.023
	(0.026)	(0.040)	(0.032)	(0.420)	(0.657)	(0.540)	(0.050)	(0.089)	(0.060)
Sierra Leone	0.011	0.032	0.006	-0.248	0.424**	-0.522	0.002	0.068***	-0.024
	(0.032)	(0.068)	(0.034)	(0.480)	(0.169)	(0.654)	(0.050)	(0.019)	(0.068)
Swaziland	0.025	0.007	0.035	-0.292	-1.414	0.950***	-0.014	-0.114	0.093***
	(0.064)	(0.047)	(0.112)	(1.127)	(1.638)	(0.266)	(0.114)	(0.162)	(0.029)
Tanzania	-0.023	-0.090	0.005	0.088	0.721***	-0.057	0.019	-0.014	0.025
	(0.031)	(0.057)	(0.035)	(0.600)	(0.155)	(0.757)	(0.078)	(0.107)	(0.094)
Uganda	-0.112*	0.330***	-0.128***	1.361	1.114***	1.396	0.038	0.137***	0.020
	(0.065)	(0.014)	(0.039)	(1.332)	(0.217)	(1.457)	(0.145)	(0.021)	(0.157)
Zambia	-0.031	-0.067	-0.005	-0.099	0.341	-0.336	0.040	0.083	0.012
	(0.032)	(0.049)	(0.042)	(0.718)	(0.922)	(1.000)	(0.052)	(0.091)	(0.063)
Zimbabwe	-0.037	-0.114***	-0.001	-0.282	0.737***	-0.528	-0.071	0.093***	-0.117
	(0.036)	(0.043)	(0.045)	(0.929)	(0.226)	(1.193)	(0.082)	(0.029)	(0.101)
No. Obs.	89035	36013	53022	89035	36013	53022	89035	36013	53022
R^2	0.641	0.647	0.636	0.523	0.499	0.537	0.521	0.501	0.534

Table A21: Model with interaction between Ex-divorcee and country dummies when controlling for the selection probability

	LN BMI			Watts underweight			Underweight		
	All	Urban	Rural	All	Urban	Rural	All	Urban	Rural
Single	-0.060***	-0.046***	-0.055***	0.667***	0.527***	0.791***	0.068***	0.056***	0.076***
	(0.004)	(0.007)	(0.006)	(0.093)	(0.124)	(0.139)	(0.009)	(0.013)	(0.013)
Ex-widow	-0.003	0.007	-0.003	-0.049	-0.197	0.019	0.001	-0.003	0.002
	(0.006)	(0.013)	(0.007)	(0.129)	(0.191)	(0.164)	(0.014)	(0.024)	(0.017)
Divorcee	-0.024***	-0.022***	-0.024***	0.228**	0.308**	0.162	0.024**	0.034**	0.016
	(0.005)	(0.008)	(0.007)	(0.111)	(0.157)	(0.155)	(0.010)	(0.014)	(0.015)
Widow	-0.027***	-0.032***	-0.021**	0.165	0.154	0.153	0.023*	0.035**	0.011
	(0.007)	(0.011)	(0.008)	(0.116)	(0.171)	(0.160)	(0.012)	(0.017)	(0.017)
Benin	0.006	0.003	0.005	0.036	-0.125	0.157	0.003	-0.016	0.019
	(0.012)	(0.020)	(0.014)	(0.187)	(0.344)	(0.207)	(0.023)	(0.039)	(0.028)
Congo	0.017	0.003	-0.004	0.401	0.315	0.582	0.008	0.007	0.029
	(0.018)	(0.020)	(0.037)	(0.283)	(0.304)	(0.686)	(0.033)	(0.036)	(0.075)
DRC	-0.030	-0.025	-0.038	-0.605	-0.360	-0.902	-0.027	-0.037	-0.021
	(0.020)	(0.031)	(0.026)	(0.550)	(0.634)	(0.889)	(0.053)	(0.071)	(0.078)
Ethiopia	-0.078***	-0.074***	-0.075***	-0.146	-0.386	0.015	0.054	-0.041	0.106
	(0.016)	(0.024)	(0.019)	(0.657)	(0.644)	(0.949)	(0.063)	(0.077)	(0.084)
Gabon	0.023	0.014	0.009	0.242	-0.078	0.821***	0.025	0.002	0.077**
	(0.018)	(0.022)	(0.028)	(0.213)	(0.273)	(0.303)	(0.022)	(0.029)	(0.031)
Guinea	-0.012	-0.020	-0.005	0.173	1.050	-0.176	0.042	0.038	0.042
	(0.019)	(0.036)	(0.023)	(0.437)	(1.028)	(0.418)	(0.040)	(0.071)	(0.048)
Lesotho	-0.157***	-0.208***	-0.178***	0.663	0.971***	0.155	0.079	0.132***	0.032
	(0.019)	(0.013)	(0.016)	(0.570)	(0.218)	(0.371)	(0.070)	(0.023)	(0.036)
Malawi	-0.031	-0.039	-0.008	0.278	0.455	0.300	0.018	0.048	0.013
	(0.019)	(0.061)	(0.020)	(0.323)	(0.725)	(0.349)	(0.044)	(0.156)	(0.046)
Mali	0.017	0.026	0.012	-0.190	-0.267	-0.120	-0.035	-0.045	-0.027
	(0.012)	(0.019)	(0.015)	(0.229)	(0.325)	(0.319)	(0.023)	(0.029)	(0.035)
Namibia	0.044	0.035	0.045	-0.257	0.644	-1.244	-0.011	0.042	-0.063
	(0.035)	(0.047)	(0.051)	(0.542)	(0.589)	(0.872)	(0.053)	(0.068)	(0.081)
Niger	0.037**	0.101***	0.001	-0.147	-1.039*	0.307	-0.043	-0.142***	0.007
	(0.018)	(0.036)	(0.016)	(0.359)	(0.583)	(0.443)	(0.040)	(0.050)	(0.052)
Nigeria	0.013**	0.024*	0.012*	0.043	-0.203	0.132	0.001	-0.032	0.012
	(0.006)	(0.013)	(0.007)	(0.132)	(0.243)	(0.155)	(0.014)	(0.028)	(0.017)
Rwanda	-0.162***	-0.256***	-0.117**	0.365	-1.329	0.867	0.109	0.217	0.082
	(0.045)	(0.098)	(0.048)	(1.014)	(2.901)	(0.949)	(0.109)	(0.199)	(0.127)
Senegal	0.055***	0.069***	0.036*	-0.555*	-0.358	-0.704	-0.067*	-0.064	-0.065
	(0.015)	(0.022)	(0.019)	(0.314)	(0.416)	(0.470)	(0.035)	(0.051)	(0.049)
Sierra Leone	-0.025	-0.025	-0.025	-0.198	-0.287	-0.165	-0.003	0.059	-0.042
	(0.024)	(0.035)	(0.031)	(0.691)	(1.089)	(0.894)	(0.048)	(0.081)	(0.058)
Swaziland	0.029	0.009	0.043	0.617***	0.430	0.728***	0.044	0.047	0.043
	(0.056)	(0.080)	(0.071)	(0.159)	(0.486)	(0.164)	(0.039)	(0.085)	(0.046)
Tanzania	-0.014	-0.031	0.004	0.209	0.303	0.223	0.010	0.024	0.006
	(0.015)	(0.032)	(0.017)	(0.298)	(0.269)	(0.394)	(0.034)	(0.055)	(0.042)
Uganda	-0.060*	-0.066	-0.041	0.634	0.930***	0.567	0.120	0.136***	0.109
	(0.032)	(0.098)	(0.032)	(0.648)	(0.237)	(0.766)	(0.089)	(0.025)	(0.105)
Zambia	-0.070***	-0.062**	-0.073***	0.451	0.328	0.531	0.061*	0.070	0.055
	(0.018)	(0.030)	(0.020)	(0.397)	(0.418)	(0.603)	(0.036)	(0.051)	(0.048)
Zimbabwe	0.000	-0.022	0.010	-0.120	0.259	-0.311	-0.033	0.019	-0.061
	(0.022)	(0.043)	(0.024)	(0.427)	(0.684)	(0.538)	(0.035)	(0.054)	(0.044)
No. Obs.	89035	36013	53022	89035	36013	53022	89035	36013	53022
R^2	0.641	0.648	0.636	0.523	0.499	0.537	0.521	0.501	0.534