

# EXPLORING THE NEED FOR GENDER-EQUITABLE FISCAL POLICIES FOR A HUMAN ECONOMY

Evidence from Uganda and Zimbabwe

ANAM PARVEZ BUTT, JANE REMME, LUCIA ROST  
AND SANDRINE A. KOISSY-KPEIN

OXFAM GB

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**Fiscal policy can be a powerful tool for governments to help achieve a human economy, if those policies are designed to address the gender inequalities inherent in the current economic model and the gender biases in current macroeconomic thinking. This paper uses the case of one element of fiscal policy – public spending – to demonstrate how such policy design could help achieve gender equality and improve human development outcomes in developing countries.**

Drawing on feminist economics literature, the paper identifies unpaid care and domestic work as a key area where fiscal policy has a significant impact on gender equality. Using data from Oxfam's 2017 Household Care Survey in Uganda and Zimbabwe, the paper explores the direct impact of access to improved water sources, electricity, healthcare and childcare on adults' and children/adolescents' time use. It also considers secondary impacts on key measures of well-being and women's empowerment including women's health and decision making.

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# EXECUTIVE SUMMARY

Oxfam's vision of a human economy is one where responsive governments put in place policies which deliver equitable and fair benefits for every woman, man and child to live decent lives, and where women have choices and leadership in economic decision making. As a critical starting point for achieving gender equality and well-being outcomes, economic progress is re-conceptualized as more than increased monetized economic activity, and unpaid work and other non-monetized production and exchange are counted, as well as considering environmental costs and social value. Fiscal policy can be a powerful tool for governments to help achieve a human economy, if these policies are designed to address the gender inequalities inherent in the current economic model and the gender biases in current macroeconomic thinking. This paper uses the case of one element of fiscal policy – public spending – to demonstrate how such policy design could help achieve gender equality and improved human development outcomes in developing countries.

Drawing on feminist economics literature, the paper identifies unpaid care and domestic work (UCDW) as a key area where fiscal policy has a significant impact on gender equality (Seguino, 2013; Catagay, Elson and Grown 1999). This work is disproportionately carried out by women and requires long hours, which limits their opportunities to engage in other economic, political and social activities (Elson, 2000). Public spending and investments in key services have the potential to reduce and redistribute the time women spend on unpaid care work to public and private sector actors (Agénor et al, 2010).

The relationship is tested empirically using Oxfam's 2017 Household Care Survey data in Uganda and Zimbabwe. Using access to key public services and care-related infrastructure as a proxy for public investments, the paper examines the direct impact of access to an improved water source, electricity, healthcare and childcare on adults' and children/adolescents' time use. It also considers secondary impacts on key measures of well-being and women's empowerment.

The data provides both intuitive and interesting results. On adults' time use, in both countries, we find that access to an improved water source reduces the time women spend on care work as well as multi-tasking of care activities and increases the time they spend on leisure. In Uganda, access to an improved water source is also associated with reductions in the time men spend on care responsibilities. In contrast, our findings on the impact of access to electricity in Uganda suggest that it is associated with an increase in the time men spend on care work as a primary responsibility and a decrease in the time they spend on paid work, as well as a decrease in the time that women spend sleeping. Deeper analysis on electricity use suggests that this finding could be a result of many households in Uganda using electricity to meet basic needs such as lighting, which may enable men and women to spend more time doing unpaid care and domestic work and other tasks. In both countries, we find that access<sup>1</sup> to childcare services is associated with women spending more time on any care responsibilities and multi-tasking on care activities. This could be a result of increased supervision/secondary care responsibilities when children are in a childcare facility (women may be on call or responsible for dropping children/checking in) or additional care tasks being taken up by women at the same time as childcare, which they were previously unable to do.

The paper finds strong evidence pointing to the potential health and educational benefits of care-related services and infrastructure on the time use of children/adolescents. In households

with access to an improved water source, both boys and girls in the Zimbabwe sample, and boys in the Uganda sample, spend more time on leisure activities. Furthermore, access to an improved water source is also associated with girls sleeping longer in Uganda and studying longer in Zimbabwe. Access to electricity is associated with boys spending less time on care work and more time studying in Uganda. Furthermore, in households that used childcare facilities in Uganda, we also find that girls and boys spend less time on paid work.

The paper does not find evidence of the impact of investment in public services on the gendered distribution of unpaid care and domestic work within households, pointing to the potential influence of other factors such as discriminatory social norms. The analysis finds that progressive social norms are indeed associated with a more equal gendered distribution of unpaid care work. Greater attention to the redistribution of care work between men and women is particularly important, as our results from the Uganda sample show that where care work is shared more equitably, women have a stronger sense of decision making and influence. The paper also finds striking evidence of the costs of heavy and unequal levels of unpaid care and domestic work to women's health: at least one-third of women surveyed in Uganda and Zimbabwe reported that they had suffered some form of physical or mental harm as a direct result of unpaid care work in the past year.

These results emphasize the need for fiscal policy design and analysis to consider outcomes on gender equality, considering the different direct and indirect impacts of public spending on unpaid as well as paid work, and thus on men and women's work. Likewise, the research confirms the importance of complementing these policies with interventions which address gendered social norms that continue to assign women responsibility for providing unpaid care.

**Key words:** gender equality; fiscal policy; unpaid care and domestic work; human economy; sub-Saharan Africa

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# 1 INTRODUCTION: OXFAM'S VISION FOR GENDER-EQUITABLE FISCAL POLICIES FOR A HUMAN ECONOMY

Oxfam works to fight poverty and injustice in all its forms, through development projects, humanitarian responses, and campaigning. Central to Oxfam's approach is women's rights and gender equality, acknowledging that many of the challenges faced by people and communities are structural and rooted in complex systems of power, social norms and macroeconomic and environmental contexts that can entrench poverty and inequality. One of the most universal and persistent barriers for women and girls to achieve economic equality is the exclusion in economic policy making of unpaid work, including unpaid care and domestic work (UCDW). Women and girls, especially those in poor and marginalized communities, shoulder heavy workloads and unequal responsibility for UCDW, although this type of work is essential for the human economy (Elson, 2000). As such, Oxfam recognizes that economies need to be configured and managed differently to meet the needs of all people – women and men, young and old – while protecting the planet. Drawing on scholarship from feminist economics, the new economy movement and human development and rights theories, Oxfam conceptualizes the human economy as one in which sustainability, equity and social justice are the ultimate goals, and both monetized and non-monetized forms of work are counted, recognized and invested in. Such an economy is concerned with the quality and distribution of economic activity, rather than the belief that economic growth itself will deliver progress. It ensures that progress benefits women and men equally without harming the planet; closes gaps between women and men's enjoyment of rights; challenges instead of reinforces discriminatory social norms; and recognizes and values both paid and unpaid contributions to the economy.

Governments must play a proactive role in designing a human economy, alongside the private sector and civil society actors. They will need to design macroeconomic policies which address the whole economy and advance gender equality objectives, ensuring the achievement of women's rights and promoting inclusive development rather than focusing narrowly on increasing gross domestic product (GDP) or reducing inflation. These policies will be based on priorities and evidence from the entire labour force, thus making visible unpaid work – the majority of women's work in the developing world – and products and services arising from this work which are currently excluded from economic policy making. Likewise, policies will need to focus not only on meeting women's practical gender needs (e.g. through promoting women's employment, access to resources) but would also and equally strive to meet strategic gender needs (equality in power relations and decision-making) and the fulfilment of human rights (e.g. through challenging social norms, and public investments in areas that specifically benefit women, such as water infrastructure) (Elson, 1992).

A large and growing body of feminist economics research has shown that macroeconomic policies matter for gender equality, as they have distributional effects even when they are intended to be gender-neutral (Cagatay, Elson and Grown, 1995). Macroeconomic policies embedded in the current dominant economic model seeking growth and low inflation have, in many cases, undermined the achievement of women's rights and perpetuated economic and gender inequality.

One area where macroeconomic policies can have an important impact on gender inequality and in meeting practical and strategic gender needs is through unpaid care and domestic work. This includes provision of direct care (such as caring for children and the elderly) as well as domestic work (such as cooking, cleaning, washing and fetching water or firewood) (Budlender, 2008). Across the world, unpaid care and domestic work is considered to be the natural responsibility of and is disproportionately carried out by women and girls. On average, women spend between 2 and 10 times more time than men on care work, limiting the time they can spend, throughout their lifetime, on personal care, paid work, leisure, social and political engagement (Karimli *et al.*, 2016; Ferrant, Pesando and Nowacka, 2014). In turn, this results in gender inequalities in labour, education, health and other outcomes. The heavy and unequal levels of unpaid care and domestic work carried out by women and girls contribute to their time poverty, deplete their health and well-being and fundamentally undermine their rights as human beings (Sepulveda Carmona, 2013). The limited number of conventional economic studies looking at the impact of macroeconomic policy on time use and unpaid care and domestic work, compared with other outcomes such as income and employment, is itself a demonstration of the gender bias of economic policy making (Baden, 1993).

Feminist economists argue that when governments inadequately invest in providing physical and social infrastructure in health, childcare, education and transportation, unpaid care and domestic work then subsidizes the public sector, which should bear responsibility for providing this care. Moreover, because the goods and services provided are unpaid, and because the costs of care are borne by the provider rather than by the wider economy which benefits from this service, the market economy profits from the subsidies this unpaid care and domestic work provides (Antonopoulous, 2009). Despite providing the goods and services necessary for the healthy functioning and well-being of our societies using limited and valuable resources of time and energy, and subsidizing the state and economy, unpaid care and domestic work is seen as lying outside the market and production boundaries, and thus largely ignored by the mainstream economic model and measures of economic progress (Waring, 1990). Hence women's economic and social contributions are grossly underestimated, and as a result, unpaid care and domestic work is grossly underinvested in.

Furthermore, international institutions and donor agencies following the conventional economic frameworks overlook the potential significance of unpaid care and domestic work in economic frameworks, policies and strategies. Where it is discussed, it is often only referred to as a burden or barrier to women's paid labour force participation. Box 1 provides an insight into some of the dominant narratives around unpaid care and domestic work found in the economic frameworks and policy documents of key development aid agencies. Macroeconomic policies – and particularly fiscal policies based on this inherently gender-biased macroeconomic framework – have prioritized economic growth and other market-based criteria, often at the expense of social and environmental sustainability, exacerbating gender inequalities. Case studies from Latin America, South Asia, East Asia and sub-Saharan Africa have documented how cuts to public sector employment and government services have consistently and disproportionately had a devastating impact on women – with important variations across classes and social groups – who saw their real wages decline and their unpaid care work and paid work responsibilities increase (Beneria and Feldman, 1992).

**Box 1: Dominant narratives around unpaid care and domestic work in strategies, frameworks and policies of development aid agencies**

1. International financial institutions (IFIs) and donor agencies are often silent on the relevance of unpaid care and domestic work to economic development. Narratives interpret women's economic empowerment narrowly as simply providing more jobs in the formal market for women. This is mirrored in the majority of key economic policy documents and strategic frameworks of IFIs and donor agencies, including the Asian Development Bank (ADB), the UK Department for International Development (DFID), the International Monetary Fund (IMF) and the World Bank.
2. Unpaid care and domestic work is discussed in some IFI and donor strategies as only having a negative influence on economic development, primarily as a constraint to women's (paid) labour force participation. The language used suggests that it is less valuable than paid work as it is less productive/unproductive. The African Development Bank's (AfDB) Gender Strategy (2014–2018) only refers to unpaid care and domestic work as limiting the ability of women to take advantage of economic opportunities, while the ADB's Gender Operational Plan (2013–2020) refers to it as 'time consuming drudgery'.
3. As defined by the United Nations System of National Accounts, unpaid care and domestic work, excluding fuel and water collection and activities that do not produce goods, is not considered an economic activity as unpaid carers are not involved in the production of goods and services for sale in the market. Most national and international statistical bodies and development agencies, including the World Bank, follow this definition, which excludes all production of services for own final consumption within households.
4. The potential role that addressing unpaid care and domestic work could play in achieving health, education, nutrition, social protection and economic policy outcomes is not adequately recognized in existing strategies of key international institutions and aid agencies. The gender strategies of the World Bank, DFID and the United States Agency for International Development (USAID) highlight the economic and social value of unpaid care and domestic work, yet their education, social protection and health and nutrition strategies do not adequately cover unpaid care work, nor are there indicators pertaining to unpaid care and domestic work in any of the IFI/donor agencies' results frameworks.
5. Measuring unpaid care and domestic work is considered to be more difficult, time-consuming and less relevant than other aspects of household behaviour in key guidelines used by economic policy makers and statistical bodies. For example, in its handbook, *Designing Household Survey Questionnaires for Developing Countries* (2000), the World Bank includes time use as an 'optional' module and cautions against using it regularly in multi-topic surveys. On measuring GDP, the IMF notes that unpaid work is not included because 'it is difficult to measure and value'.

This paper seeks to advance our thinking on what gender-equitable fiscal policies embedded in a human economy framework could look like. To explore the impact that macroeconomic policies could have on gender inequality and in achieving a human economy, this paper focuses on fiscal policy, which directly influences public sector employment, investments in health, childcare and social protection systems, water access and infrastructure – all of which either create barriers or an enabling environment for human development and women's empowerment. The paper investigates how the accessibility of social services and care-related

infrastructure, as a proxy for public spending, affect gender equality and well-being outcomes. Our focus is on social and physical infrastructure and services in the areas of health, childcare, water and electricity.

The paper uses evidence on Uganda and Zimbabwe from Oxfam's 2017 multi-country Household Care Survey to test the relationships between access to care-related services and infrastructure on adults' and children/adolescents' time use, including time spent on unpaid care and domestic work,<sup>2</sup> leisure and paid work, as well as broader well-being outcomes related to women's decision making, influence and health. The paper contributes to the literature seeking to redress the bias in macroeconomic policy analysis, which overlooks the impact of macroeconomic policies on unpaid care and domestic work. The paper also makes an empirical contribution to strengthening the evidence base on the impacts of macroeconomic policies on gender equality and well-being in the sub-Saharan Africa region.

Part 2 reviews the feminist macroeconomics literature and secondary research to identify the key pathways through which fiscal policies, particularly public spending, affect gender equality and well-being outcomes through an analysis of the impact of certain services and infrastructure on the level and distribution of unpaid care and domestic work. Part 3 gives the background to Oxfam's work on Women's Economic Empowerment and Care in developing countries. Part 4 gives an overview of the regional context of unpaid care and domestic work. Part 5 describes the methodology used and data collected through Oxfam's Household Care Survey administered in specific districts in Uganda and Zimbabwe, and introduces the econometric model. Part 6 presents the descriptive statistics on time use and access to public services and infrastructure. The main findings are presented in Part 7 from testing the associations between access to care-related services and infrastructure and a range of outcomes on time use, gender equality and well-being. Finally, Part 8 explores the policy implications of the findings and proposes key transformative fiscal policies that can be advocated as components of a gender-equitable human economy.



## 2 LITERATURE REVIEW: THE IMPACT OF FISCAL POLICY ON GENDER INEQUALITY AND WELL-BEING FROM A FEMINIST ECONOMICS PERSPECTIVE

Building on the work of Kaleckian and structuralist macroeconomics, which explores the relationship between income inequalities and macroeconomic outcomes, feminist economics research stemmed out of a critique of neoclassical economics and its preoccupation with perfect markets. Neoclassical economics is built on the premise of self-interested, autonomous and rational individuals making decisions largely based on their preferences rather than social determinants, and coming together to engage in efficient production or exchange of goods or services in the 'public' sphere.

However, whereas Kaleckian and structuralist macroeconomics limit the critique of this approach to exploring inequalities in class (between capitalists and workers), feminist macroeconomics has expanded the use of the framework to shed light on how gender inequalities permeate all economic activities and how – critically – these economic activities take place outside of the traditionally conceived boundaries of 'the market'. This means that the conceptualization of the economy is limited to monetized markets is itself flawed, reflecting and generating gender inequality. (Palley, 2016; Seguino, 2013). Usually the 'economy' excludes the domestic and voluntary sector and what is considered to take place in the 'private sphere' of the home (Elson, 2002). In particular, feminist macroeconomics emphasizes unpaid care and domestic work, predominantly carried out by women, which – despite contributing significantly to the health and well-being of families and the wider society and sustaining the economy through cultivating a thriving populace – is excluded from mainstream economic models and macroeconomic analyses. As such, macroeconomic policies, monetary and fiscal policies embedded in such a model are inherently gender-biased even when they appear or are intended to be gender neutral (Cagatay, Elson and Grown, 1995).

The pathways through which macroeconomic policy can have an impact on gender and development are complex. It is possible to identify a relationship more directly through fiscal policy choices. The following sections are structured around key areas of feminist economics research that have explored links between fiscal policy, gender equality and well-being.

### 2.1 STRUCTURAL ADJUSTMENT: IMPACT OF PUBLIC SECTOR SPENDING ON THE QUANTITY AND QUALITY OF EMPLOYMENT

A large body of feminist research exploring the links between fiscal policies and gender equality and well-being outcomes originated in the analysis of the impact of macroeconomic stabilization and Structural Adjustment Programmes (SAPs) on gender equality and well-being. Sponsored by the World Bank and IMF and implemented since the late 1970s in many developing (and developed) countries in response to the debt crisis, structural adjustment programmes –

particularly through their recommendations of reductions in government spending – often exacerbated gender inequalities, reduced overall well-being of poor and vulnerable groups, and slowed the achievement of women and girls' rights (Elson, 1991b).

Studies have shown that fiscal austerity has had a largely negative impact on the levels of employment, pay and working conditions of both men and women, leading to a 'race to the bottom' of the labour market (Karamessini and Rubery, 2014). However, public retrenchment has been seen to have disproportionately affected women who experienced greater losses in jobs and reductions in real wages in contexts where they were overrepresented in public sector employment or were more vulnerable as a result of occupational or sectoral segregation, discriminatory social norms and differences in technical/vocational skills (Berik, Rodgers and Seguino, 2009). In Egypt, educated women saw their employment levels fall in the 1990s as public sector employment comprised a higher share of their total employment than men's; once displaced from that sector, they found little demand and poor working conditions from the private sector (Kabeer, 2015). The lack of government jobs, pushing women to consider other, often precarious forms of work, was also noted in Ethiopia, Uganda and Côte d'Ivoire (Appleton, Hoddinott and Krishnan, 1999).

Though in some countries, trade liberalization and the growth of labour-intensive, export-oriented manufacturing (particularly in the textiles and garments sector) rendered benefits to women in the form of increased wage employment (Standing, 1989), the quality of employment was seen to suffer (Kabeer, 2015). The concomitant deregulation of the labour market meant that women were often trapped in low-wage, informal and insecure working conditions. An increasing shift was noted towards home-based and part-time work, where women were already overrepresented, threatening their rights (Berik *et al.*, 2009). Furthermore, cuts to public sector spending in education, health and care, and reductions in food subsidies meant that women, especially those from low-income households, had to fill the gap in public sector provisioning by increasing their time spent on both unpaid care and paid work, increasing their double burden. In the context of Jamaica and the Dominican Republic, for example, this meant that women were 'working even harder, eating and spending less and migrating more' (Beneria and Feldman, 1992).

In the context of global austerity following the 2008 financial crisis, with rising cuts to social services and public services in many countries, women continue to be disproportionately affected. 'Intersecting Inequalities', a recent report by the Women's Budget Group exploring the impact of spending cuts in the UK since 2010 by income, gender and race finds that individuals in the poorest households lose most from tax and benefit changes; but in every income group, women, particularly those from a black, and minority ethnic (BME) background lose out the most: 'they earn less, own less and have more responsibility for unpaid care and domestic work.' (Hall *et al.*, 2017).

## 2.2 CARE ECONOMY: INVESTMENTS IN SOCIAL AND PHYSICAL INFRASTRUCTURE FOR THE CARE ECONOMY, AND THE IMPACT ON TIME USE AND BROADER WELL-BEING OUTCOMES

A second key area of feminist macroeconomics research, through which the pathways between fiscal policies and gender equality have been explored, is the care economy.<sup>1</sup> Researchers have documented the heavy workloads and unequal care responsibilities of women, particularly those living in poverty, and their implications for women's time use, health, participation in other

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<sup>1</sup> The care economy refers to paid care work as well as unpaid care work. Here we focus on the latter.

areas of life, agency, and societal and economic well-being. The literature has emphasized that recognizing changing patterns of unpaid care and domestic work is critical for gender equality but also crucial in its own right for achieving women's rights, as well as being a key entry point for reducing gender inequalities in other outcomes. In this context, some attention has been paid to the potential role of public sector investments and spending in key areas of health, education and care in promoting gender inequality directly and indirectly, through impacts on unpaid care and domestic work.

The main pathway which has been explored is the link between public investments in social care and related physical infrastructure, which seek to reduce the time required for unpaid care and domestic work in order to increase women's participation in paid work (Agénor, Canuto and da Silva, 2010). Research has found that in Africa and South Asia in particular, households' (and especially women's) high time poverty is associated with water collection and fetching firewood. Fontana and Natali (2008) used data from a nationally representative time use survey carried out in Tanzania to demonstrate through simulations the large-scale gender-equalizing impact of physical infrastructure investment on the time spent on unpaid care activities, specifically water, fuel collection and food preparation, where gender inequalities in unpaid care and domestic work are observed to be the greatest. With further simulations, they revealed that this freed-up time, if converted entirely towards seeking paid work, could represent close to 5 million jobs for women (provided they are available) and could also reduce gender earnings gaps (as women would benefit more than men). Seguino's (2013) estimates reveal that this earning potential would translate into a 17.7% increase in women's income and a 1.6% increase in men's income compared with the average.

Using data from the 1991 Pakistan Integrated Household Survey in a reduced time equation, Ilahi and Grimard (2000) found that improvements in public water supply infrastructure were associated with a reduction in the time women spend collecting water and an increase in the time women allocate to income-generating activities. Other studies have found a less conclusive relationship (Koolwal and van de Walle, 2010; Lokshin and Yemtsov, 2005). The positive relationship between increased access to electricity and women's participation in paid work and earnings through reductions in levels of unpaid care work has also been found by a number of studies (Ilahi and Grimard, 2000). Consistent with these are Oxfam's findings from a 2015 Household Care Survey implemented in selected districts of five countries (Colombia, Ethiopia, the Philippines, Uganda and Zimbabwe), which found that compared with women in households with no electricity, women in households with electricity spent fewer hours on all care activities (Karimli *et al.*, 2016).

The impact of investments in social infrastructure (namely education, health and care provision) on women's employment has also been demonstrated through empirical research. Using a simulation methodology and input/output tables to estimate the total employment effects of investments in social and physical infrastructure for six emerging economies, the International Trade Union Confederation (ITUC) finds that investing 2% of GDP on health and care sectors would increase employment rates between 1.2 and 3.2%, with a larger share of jobs going to women. Investigating the potential impact of investing in social care infrastructure versus physical infrastructure on job creation in the United States, Antonopolous *et al.* (2010) found that the same level of investment in social care sectors of early childhood development and home-based healthcare generated twice as many jobs, with a higher number of the jobs going to low-income households and the vast majority going to women. Kim, İlkaran and Kaya (2017) similarly find that in Turkey, investments in early childhood care and pre-school education would generate sizeable employment gains for women, particularly those providing

unpaid care and domestic work who are not engaged in paid work, over investments in the construction sector, and that the jobs generated would be of higher quality (permanent, with social security benefits).

Recognizing that children, particularly girls, often support or substitute for their mother's unpaid care activities (Samman *et al.*, 2016), an important issue identified in the feminist macroeconomic literature on the care economy is the impact that investments in public physical and social infrastructure have on improving children's health and education outcomes. Koolwal and van de Walle (2010) found a positive and sizeable impact of greater access to water on both girls' and boys' enrolment in Yemen, Nepal and Pakistan (where enrolment levels are low and there are large gender gaps in schooling); they also found some evidence of improved child health outcomes in Yemen and Malawi through children's reduced participation in care activities, better quality of childcare and water quality. Njoh *et al.* (2016) find a significant and positive relationship between increased access to water, electricity and improved sanitation and girls' literacy and female secondary education in China through time freed from care-related activities and a better environment at school. There are additional positive outcomes related to these investments: studies also find a direct impact of access to social care and related physical infrastructure (piped water and early childhood education) on children's health and cognitive development (Koolwal and van de Walle 2010; Mangyo, 2008).

Investments in social and physical infrastructure which reduce time spent on unpaid care and domestic work, and its intensity, can go on to bring further improvements to the well-being of women, girls and their families. Rai, Hoskyns and Thomas (2014) use the term 'depletion' to describe the net cost of social reproduction – of which unpaid care work is a subset – to caregivers' physical and mental health, as well as to household and societal well-being. Mothers especially suffer from the double workload of providing care for their families and providing for them financially, with grave implications for their health.

Inadequate provision of care has also contributed to a crisis of childcare, where millions of children are being left without adult supervision, hindering their early childhood development (Samman *et al.*, 2016). To reverse depletion, Rai, Hoskyns and Thomas (2014) highlight public provision of health and education as a key replenishment strategy (though not necessarily transformational). Devoto *et al.* (2012), in their impact evaluation of a programme to improve household access to piped water in urban Morocco, found that it increased levels of happiness and quality of life reported by the beneficiaries, increased time spent on leisure, and reduced water-related tensions and conflict within and between households. Ezra and Deckman (1996) found that access to federal on-site childcare improved the work–life balance of federal employees, particularly women. Studies have also shown evidence that when time released from unpaid care and domestic work is spent on paid remunerative work, the increased earnings can increase women's agency, decision making over resource allocation and bargaining position within the household. It can also bring added health benefits for children (as women tend to spend more of their income on their children, and less on luxuries, than men) (Agénor *et al.*, 2010; Beneria and Feldman, 1992).

## 2.3 INTRAHOUSEHOLD GENDER INEQUALITIES: THE INTERACTION OF PUBLIC SPENDING, PRIVILEGE, POWER AND SOCIAL NORMS

A third substantive area of feminist economics research has highlighted how fiscal policies may interact with social norms and power relations within households. Feminist economists have criticized how neoclassical economic theory treats households as a single unit where needs are collectively maximized. Instead, they reveal the different levels of (male) privilege and power

within households and the social norms that govern who has control over labour and resources (and how these are negotiated and allocated), leading to gendered differences in well-being outcomes (Seguino, 2013; Kabeer, 1994). Women, though typically responsible for managing the household budget and ensuring spending on the needs of the family (with the tendency to prioritize collective interests over personal), are often not the ones in control of household resources, 'a source of constant problems and anxiety for poor women' (Beneria and Feldman, 1992). Furthermore, evidence of the strong influence of gender norms on the notion that unpaid care and domestic work is 'women's work' and, in many cases, men's power over women's labour (Parvez Butt, Gärber and Walsh, 2017) results in women doing the majority of this unpaid work and finding it very difficult to hand over significant amounts of it to men, even when women engage in paid work (Kabeer, 1994). In times of economic crises, this means that women often adopt survival strategies that are deleterious to their health and well-being, cutting down on their leisure and rest time and opting for more flexible and informal work on less pay to manage care and paid work responsibilities (Beneria and Feldman, 1992).

Macroeconomic policies, and particularly fiscal policies, interact with prevailing social norms and inequalities of privilege and power. They can challenge those norms and inequalities in a way that transforms gender relations and meets women's strategic needs; or can reinforce discriminatory norms, further strengthening gender inequalities. For instance, Berik (2008) highlights how in the case of Korea and Taiwan in the 1990s, the increasing trend in the sex ratio at birth (male to female) and sex-selective abortions could be explained by social norms around son preference, strengthened by the lack of state provision of eldercare and the gender inequalities in wages and conditions of employment. A number of studies (albeit limited) have incorporated these gendered relations into macroeconomic models using the Computable General Equilibrium (CGE) or Social Accounting Matrix (SAM) approach to examine mechanisms through which these interactions take place and implications for gender inequalities in outcomes (Cozzi and Bargawi, 2015; Sidiqqi 2009; Fontana, 2003; Darity, 1995). Public investments in social infrastructure and care-related physical infrastructure – insofar as they are targeted to women and girls in a way that improves their access to and control over resources, their agency and autonomy – have the potential to change power relations and social norms (Beneria and Feldman, 1992).

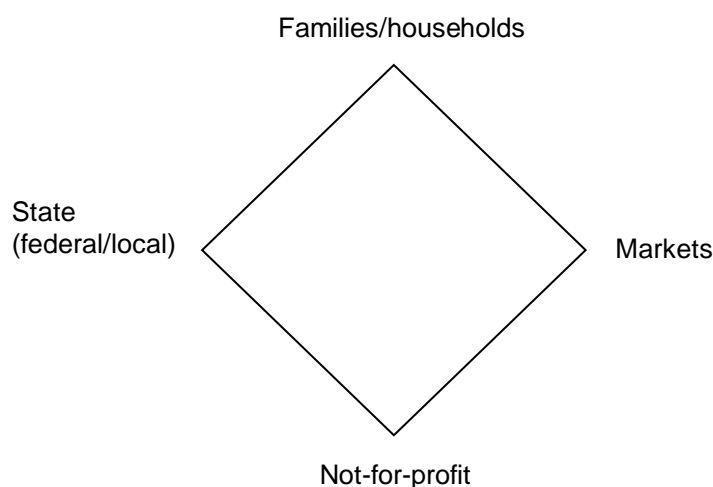
Informed by the pathways identified in the literature and reflecting the scope and focus of the Household Care Survey data, this paper empirically explores the impacts of access to four key care-related services and infrastructure – healthcare, childcare, water and electricity – on adults' and children/adolescents' time spent on care work, paid work, leisure and sleep. It also considers the frequency of women leaving dependants alone and the time children and adolescents spend studying. Finally, it examines the relationship between levels of and gendered inequalities in unpaid care and domestic work and their impact on women's physical and mental health, decision making and influencing.

### 3 BUILDING AN EVIDENCE BASE THROUGH OXFAM'S WORK ON WOMEN'S ECONOMIC EMPOWERMENT AND CARE

In its work on economic empowerment, workers' and women's rights, Oxfam has worked to recognize and address unpaid care and domestic work through its projects, and with the communities and partner organizations it works with. For Oxfam, women's economic empowerment is underpinned by women's enjoyment 'of their rights to control and benefit from resources, assets, income and their own time, as well as the ability to manage risk and improve their economic status and well-being' (Kidder *et al.*, 2017). In order to achieve this, Oxfam believes that developing better analysis of women's work and time, particularly the invisible and undervalued unpaid work women are primarily responsible for, is critical as a means of supporting the transformative empowerment of women.

As a result, in recent years, Oxfam has increased its efforts to address what is 'heavy' and 'unequal' about unpaid care and domestic work, both through its programmes and by bringing this critical issue to the fore of development and economic agendas (Karimli *et al.*, 2016). This led to the Women's Economic Empowerment and Care (WE-Care) initiative, which started in 2013. It aims to influence development policy and practice around unpaid care and domestic work by generating evidence on patterns and factors contributing to levels and distribution of such work, as well as evidence on what works to address it being heavy (i.e. long hours spent on care, multi-tasking) and unequal (i.e. inequality between men and women, boys and girls, and unequal responsibility for care provision between households, the state and employers). A critical consideration is that Oxfam's understanding of inequality in care provision goes beyond gendered inequalities within households. As articulated by Razavi (2007) in the 'care diamond' (Figure 1), there are four kinds of actors involved in care provision: households/families; the state/local government; the market/employers; and non-government organizations (NGOs), community groups or religious organizations.

**Figure 1: The care diamond**



Source: Razavi, 2007

However, the balance across the care diamond is unequally weighted on households and families to provide care, and this is especially heavy for poor households (*ibid.*). This imbalance

has informed Oxfam's focus on shifting the gendered responsibility for unpaid care and domestic work within households as well as on shifting more responsibility for this type of work onto the state by advocating for gender-responsive fiscal policies at local and national levels, which contribute to improving access and availability of care-related infrastructure and services.

The WE-Care initiative initially involved developing new quantitative and qualitative research methodologies (the Household Care Survey and the Rapid Care Analysis respectively) to generate localized participatory evidence to influence policy as well as to pilot strategies based on these findings (Karimli *et al.*, 2016; Kidder *et al.*, 2016). The methodologies developed were contextualized, informed by time-use studies when implemented and where such studies were available. The interventions informed by this research include work to shift attitudes on gender and care roles at community level, and to increase access to specific time-saving and labour-saving equipment such as fuel-efficient stoves, solar lamps and water tanks. To promote sustainable and inclusive development, Oxfam worked with local civil society organizations (CSOs), government officials, religious and community leaders, women's groups, women's rights organizations and the private sector. These partners are key actors in efforts to increase the recognition of care work, particularly in decision making spaces. They are also key when it comes to advocating for the inclusion of unpaid care and domestic work in economic measurement and policy, as well as for investments in care-related services, infrastructure and equipment (e.g. fuel-efficient stoves).

Oxfam based its approach on the '3Rs' framework developed by Diane Elson – namely recognition, reduction and redistribution of care (Fälth and Blackden, 2009), to which Oxfam, the Institute for Development Studies (IDS) and ActionAid then added a fourth – representation of carers in decision making. Thus, the key aims of the research, subsequent interventions and influencing in policy spaces were: (1) to gain recognition of the significance of unpaid care and domestic work and its contribution to the household and economy; (2) to reduce what is heavy about unpaid care and domestic work, particularly for poor women and families; (3) to redistribute care responsibilities more equitably between women and men, as well as between households, communities, businesses and the state; and (4) to facilitate the representation of carers, especially women and girls, in policy making and decision making spaces (at community, local and national levels) to inform priorities and investments.

The first phase of the WE-Care initiative contributed to Oxfam's work in making unpaid care and domestic work an easily measurable and tangible policy issue that can be addressed in development programmes and more broadly. It did this by producing evidence on the status quo and on what works to address it in specific geographical areas in five countries (Colombia, Ethiopia, the Philippines, Uganda and Zimbabwe) (Rost, Bates and Dellepiane, 2015). The research methodologies and findings further contributed to making the case for unpaid care and domestic work to be understood and tackled as an economic issue (Kidder, Mapandi and Ortega, 2014).

The unequal manner in which unpaid care and domestic work is distributed and provided is a reflection of wider gendered economic inequality. There is growing acceptance that women's economic empowerment and participation in the formal economy contributes not just to achieving women's rights but also to broader development objectives and economic vitality (Rhodes, 2016). However, economic inequality is becoming more extreme, such that globally, just 42 people (mostly men) own as much as the poorest 3.7 billion people – a situation that is not just grossly unjust but also jeopardizes gender equality (Pimentel, Aymar and Lawson, 2018; Hardoon 2016; Rhodes, Parvez and Harvey, 2017; Rhodes, 2016).

According to Oxfam's recent research on inequality, in the past four decades, our current economic model has concentrated wealth at the top of the economy, causing extreme economic inequality and leaving the poorest women and girls behind (Rhodes *et al.*, 2017). Significantly, women's unpaid and/or low-paid labour often generates bigger earnings for others, which is certainly the case for the unpaid care and domestic work that women and girls do (Pimentel *et al.*, 2018). If women's economic empowerment is to benefit women, including the poorest, then structural causes of economic inequality need to be dealt with; otherwise women will continue to sustain an economic growth they do not benefit from (Rhodes, 2016). Oxfam has argued that this requires us to challenge policies that promote liberalization, privatization and a diminishing role for government (i.e. market fundamentalism) particularly in sectors that have important social implications. It also requires explicit actions and policies to design a human economy that benefits all equally. Such policies include universal access to free healthcare, education, social protection, progressive tax systems (to pay for these services), generating decent jobs, with decent pay and conditions that promote gender equality at work and in the home, as well as the '4Rs' of addressing unpaid care and domestic work.

In spite of its economic value, unpaid care and domestic work is still barely accounted for in economic data and policy – if at all – and remains heavily underinvested in by governments, communities and the market. Oxfam has argued that part of the challenge stems from inadequate data, and has tried to address this by developing research tools that could be utilized easily at the local level and beyond, and to inform solutions. Another challenge Oxfam has raised is the fact that women are overrepresented in informal, insecure and underpaid or unpaid work, and therefore economic policies often fail to support and invest in women – whereas it is women who fill the gaps where policies fall short (Rhodes, 2016). A clear example of this, particularly in developing countries, is the overrepresentation of women and girls in caring for people with HIV or AIDS, when this care is in the home and unpaid. The Joint United Nations Programme on HIV and AIDS (UNAIDS) has argued that the opportunity costs of this care are significant for women's earning potential, their emotional and physical well-being, and girls' ability to attend school, alongside other barriers that limit women's and girls' ability to fully enjoy their human rights (UNAIDS, 2006).

The second phase of Oxfam's WE-Care initiative has therefore focused on advocating for better data on women and unpaid care and domestic work and for it to inform economic decision making for budgeting, investments and fiscal policies that are more inclusive and beneficial to women and girls.



## 4 RESEARCH ON UNPAID CARE AND DOMESTIC WORK IN SUB-SAHARAN AFRICA

This section adds to the literature review by focusing on secondary research on unpaid care and domestic work in the context of sub-Saharan Africa. As part of its WE-Care research, Oxfam has been testing the factors significantly linked to heavy and unequal care hours, as well as the processes of change, in specific geographical areas in this region, focusing on Uganda and Zimbabwe (Rost and Koissy-Kpein, forthcoming; Karimli *et al.*, 2016; Rost *et al.*, 2015). The sub-Saharan Africa region has some of the most under-served populations in terms of public services and infrastructure; available statistics on fiscal policies are of poor quality, yet the needs for these services and infrastructure in the region are most acute (World Bank, 2017).

Esquivel and Kaufmann (2017) argue that ‘vast infrastructure deficits’ have slowed development and that the decrease in public spending over the past three decades has hit women hardest, as they fill these gaps with their own time and labour. The evidence gathered by Seguino and Were (2014) on this in relation to increased time on water collection or distance travelled to reach healthcare, as a result of poor investment and provision of care services and infrastructure, was mirrored in Oxfam’s qualitative research on unpaid care and domestic work (Esquivel and Kaufmann, 2017; Seguino and Were, 2014). In practice, the women and communities Oxfam works with (mostly poor and rural communities) in sub-Saharan African countries have repeatedly reported water, fuel collection, and childcare as some of the care tasks considered to have problematic consequences/dimensions in more than 20 participatory exercises conducted since 2013 (using Oxfam’s Rapid Care Analysis).

Esquivel and Kaufmann (2017) argue that the inadequacy of public services and infrastructure beyond care in the sub-Saharan African context is compounded by other development issues. High levels of poverty and growing economic inequality, some of the highest levels of gender inequality globally (driven by harmful social norms and formal and customary laws on land rights, inheritance, marriage, and women’s bodily integrity), and high demographic dependency rates due to a very young population and the HIV/AIDS epidemic are some of the significant challenges facing the region in achieving sustainable development and a human economy (Esquivel and Kaufmann, 2017). Further, gender-responsive fiscal policies and programmes in this context (e.g. social protection) have been very limited, and the *Africa Human Development Report 2016* argues that there would be value in expanding these, both in scope and scale (United Nations Development Programme Regional Bureau for Africa, 2016). The challenges are compounded by a lack of good-quality fiscal policy statistics for the region, which makes it difficult to assess policies and needs for investment (World Bank, 2017). From Oxfam’s perspective, this context has made addressing unpaid care and domestic work in sub-Saharan Africa a critical issue for economic policy as well as for overcoming inequality and promoting well-being.

There is evidence that policies supporting sustainable development and gender equality will contribute to women’s empowerment, as discussed in the literature review. Research shows us that investments in care-related infrastructure and services are one important example, and these have been the focus of Oxfam’s policy advocacy around unpaid care and domestic work. However, the current evidence is limited on the impact of care-related services and infrastructure on women’s time and the distribution of unpaid care and domestic work,

especially in developing countries. Many policies around care-related infrastructure and services do not focus on this issue, as grounds for action or as a priority to address. For example, most of the framing of policies relating to childcare services focus on child development outcomes, healthcare on health outcomes, and water infrastructure on disease, child and family health (primarily), although increasingly time spent on water collection is accounted for (Esquivel and Kaufmann, 2017).

Oxfam's research on unpaid care and domestic work has looked at the impact of various care-related services and infrastructure (childcare, healthcare, water, electricity, fuel-efficient stoves, etc.) on patterns of distribution of this type of work. Reviewing the available evidence of how childcare and water influences women's time use in the region deserves particular attention, because of an analysis of the context as well as evidence from Oxfam's qualitative research (including priorities expressed by women and communities themselves). According to Charmes, as mentioned in a World Bank working paper (Blackden and Wodon, 2006), childcare and cooking, to which water contributes, are the most time-consuming unpaid care and domestic work activities carried out by women in sub-Saharan Africa. When considering childcare, it takes 13 times more of women's time than men's in South Africa, 7 times more in Benin, and 6 times more in Madagascar, to name just a few countries. Studies in the same report have shown the significant savings women would make on their time in the region if they had access to a water source close to their household. For example, in Kasama (Zambia), one study found that women would save between 125 and 664 hours a year if there was a water source within 400m of their households; similar studies in other countries found similar trends (according to Barwell, as mentioned in Blackden and Wodon, 2006). However, in reality, countries covered in this study showed that women spent over an hour every day on water collection in Benin, Madagascar and South Africa (from surveys dated 1998, 2001 and 2000 respectively). This paper further makes the compelling argument, based on Harvey and Taylor (Grosh and Grewwe, 2000), that investments in public infrastructure such as water, childcare and transport would reduce the 'household time overhead' – or time spent on basic unpaid care and domestic work for survival – and would have wide-ranging developmental benefits, particularly for women (Blackden and Wodon, 2006).

Having access to affordable childcare is associated with higher earnings, higher labour force participation, and smaller unexplained gender gaps according to Christofides, Polycarpou and Vrachimis (2010) when analyzing the European context. Some localized and country-specific research in sub-Saharan Africa reflects this finding. In Kenya, for example, Lokshin, Glinskaya and Garcia (2000) found that the significant costs of childcare dissuaded families from enrolling their children in formal childcare, and this had an impact on labour market outcomes for women. However, when the Kenyan government increased the age covered by its pre-school programme up to five years old (from four years), women's labour force participation increased (Cassirer and Addati, 2007).

Care-related infrastructure such as water and energy are also critical areas for enabling sustainable development and women's empowerment. According to a recent study in 24 sub-Saharan African countries, Graham, Hirai and Kim (2016) estimated that women and children spend on average 30 minutes fetching water each day. The time spent collecting and managing water limit the ability for women and girls to engage in other activities of their choice and water collection is widely acknowledged to be particularly difficult and depleting work (Sweetman and Melland, 2017). Sweetman and Melland argue that access to water is in itself empowering, as it enables other forms of empowerment (e.g. more time to do other activities, improved hygiene and health, etc.); and there is evidence that water, sanitation and hygiene (WASH) programmes that explicitly aim to achieve strategic needs of women and gender equality can generate transformative change, particularly at the household level, as in the example provided by Leahy *et al.* (2017) on Vietnam.

# 5 METHODOLOGY, DATA AND DESCRIPTIVE STATISTICS

## 5.1 THE HOUSEHOLD CARE SURVEY

The Household Care Survey (HCS) developed by Oxfam is a quantitative research methodology that provides an in-depth analysis of how care is provided, by whom, and the factors influencing the patterns of unpaid care provision. It was initially developed to support Oxfam's programmes to better understand care provision and division of labour in households and communities, and to monitor the impact of local economic development initiatives on unpaid care work as well as on paid employment, income and food security. It also sought to identify the factors that influence patterns and division of care provision such as public services, care-related infrastructure and social norms. The aim was also to generate evidence to inform improved programme design and policy responses, and contribute to poverty reduction and women's empowerment by addressing unpaid care and domestic work.

The questionnaire is administered to both female and male heads of households, and in the most recent survey,<sup>3</sup> children and adolescents (aged 8–21 years). It collects data on household composition (e.g. age, number of household members, education level, main income-generating activity, specific needs), individual time use (using a 24-hour recall), perceptions of care and of gender roles, levels of acceptance of gender-based violence in relation to care activities and roles, access and distance to care-related services, infrastructure (water, healthcare, childcare, etc.), access to equipment (fuel-efficient stoves, kerosene lamps, etc.) and women's household decision making power, among other factors.

This methodology builds on previous time-use studies, and was innovative in capturing more accurately how time is spent on simultaneous activities, demonstrating how significant unpaid care and domestic work is for women. Specifically, in the time-use section of the survey (which uses a 24-hour recall), for each hourly slot, respondents are asked for primary and secondary activities taking place at that time. The questionnaire also asks whether the individual interviewed was responsible for the supervision of a child or a dependent adult in that same slot. The responsibility for supervision usually limits the respondent's mobility and choices – for example, to take part in education, meetings, income-generating work, and potentially her productivity, if work activities were interrupted by attending to a dependent child or adult, even for only a few minutes at a time. This approach has enabled us to better account for the level of multi-tasking done by women in care provision, but also to make visible and document care responsibilities which have high demands on time. For instance, in the 2015 study, Oxfam found that across the communities in the five countries with programmes on unpaid care and domestic work, women spent an average of 6 hours per day on unpaid care work. However, when hours supervising dependants were also considered, women reported some care responsibility during an average of 11.8 hours a day – almost doubling what was accounted for in the more traditional time-use methodology (Karimli *et al.*, 2016).

There are additional innovative components to the methodology. First, it measures social norms around care work, recognizing the influence of norms in perpetuating existing gendered divisions of care and perceptions of economic activities. Interviewees are asked to rank the 'value' and 'skills required' for a set of common household activities in order to compare perceptions of productive and care activities, whether paid or unpaid. Care tasks (e.g. childcare,

cooking, cleaning the house) are compared with other productive activities (e.g. farming, house repair). The hypothesis is that the perceptions of value and skills are not (wholly) related to gender roles, but are also perceived differently due to whether they produce goods or services for home consumption as opposed to for sale on the market. Moreover, tasks related to 'products' (e.g. furniture repair) are ranked more highly than those associated with 'services' and especially 'people care'. Oxfam's approach is based on experience that services (for people) carried out in homes are often considered less valuable than those done in the public sphere. In addition, the approach recognizes that 'women's work' is commonly undervalued and perceived to require less skill. We also ask respondents to give their opinions on vignettes that describe household situations in which a man is engaged in paid work while a woman does all the care work, and in which couples share paid and (unpaid) care work equally.

For the first time, the 2017 HCS also interviewed children and adolescents directly about their time use rather than asking their parents (as previous survey rounds had done). The 2015 HCS results indicated that parents were under-reporting care work of their children and adolescents.

## 5.2 DATA

We use household data from the 2017 HCS administered in Uganda and Zimbabwe between April and June 2017. In both countries, the samples were selected using a stratified random sampling technique in three districts (Kaboong, Kabale and Kampala) of three different regions of Uganda and five districts (Caledonia, Seke, Bubi, Masvingo and Gutu) in three different provinces in Zimbabwe. Table 1 provides some descriptive statistics of the sample. In total, we interviewed 1,076 households in Uganda and 408 households in Zimbabwe; there were women in every household we interviewed as well as some female-headed households in Uganda. We also interviewed the eldest boy and girl where available. Close to 40% of the sample in Uganda and 30% in Zimbabwe consisted of children and adolescents. Women and girls comprised over half of the sample interviewed. The average household consisted of six people in Uganda and five in Zimbabwe. Most households (66% in Uganda and 59% in Zimbabwe) had at least one child under the age of six; 8% of women in Uganda and 9% in Zimbabwe did not have any children under 18. The majority of women and men in both samples were married.

**Table 1: Profile of surveyed households**

	Sample size	Geographic spread	Composition by sex	Average household size	Household with child aged ≤6	Marital status
Uganda	1076 households	37% Dodoth 29% KCCA 5% Kabale 19% Ndwora 11% Rukiga	1076 women (56.5% of adults) 826 men (43.5% of adults) 636 girls <sup>4</sup> (52.5% of children) 576 boys (47.5% of children)	6	65.5%	Married women: 82% Married men: 98.2%
Zimbabwe	408 households	27% Caledonia 23% Masvingo 23% Seke 13% Bubi 14% Gutu	408 women (55% of adults) 332 men (45% of adults) 174 girls (51% of children) 165 boys (49% of children)	5	58.5%	Married women: 79% Married men: 92%

## 5.3 HYPOTHESES AND MODEL SPECIFICATION

Our regression model tests the associations between access to different care-related services and infrastructure for relevant household, individual and geographic characteristics. The control variables considered are the respondent's age and education, marital status, the proportion of females in the household, household size, women's income,<sup>5</sup> household wealth (quintiles for poorest, poor, middle, rich and richest income households as a continuous variable), and county (dummy variables for each county).

An important assumption we make to link our econometric model back to the fiscal policy question is that increased public spending on care-related infrastructure and services will improve access. We do recognize, however, that increased spending can result in reduced access for some people if services are not pro-poor, for instance. We also recognize that investments in and provisions of care-related services and infrastructure may come from outside the public sector (i.e. private sector, community-based organizations). However, we posit that ensuring adequate provision is first and foremost the state's responsibility.

We hypothesize that access to care-related infrastructure and services is associated with fewer and/or less heavy care hours for women and girls,<sup>6</sup> more equal gendered distribution of care hours, and more/less time spent on certain other activities (i.e. more time spent on rest for women and less time on paid work for children and adolescents). This can have positive implications, particularly for women's health and decision making, by influencing levels of and inequalities in unpaid care and domestic work.

The econometric model that we are testing and relationships we are exploring can be summarized in the models depicted below. The first multiple regression model tests the direct impact of access to different services and care-related infrastructure, namely improved water source, electricity, health and child day-care on adults' and children's/adolescents' time use as well as the frequency of dependants being left alone. The dependent variables we examine are adults' and children's/adolescents' time use – including hours spent in the past 24 hours on care work, multi-tasking, paid work, leisure, sleeping and studying – and the male-to-female ratio of care work, as well as the frequency of women reporting that dependants were left alone in the past week.

The second multiple regression model tests the indirect impact of access to different services and care-related infrastructure on a well-being outcome by exploring the associations between distribution of care work between men and women, and women's decision making and influence. The independent variable is measured as the male-to-female ratio of care hours. The dependent variable is an average score of women's decision making and influence across 10 areas of decision making (decisions about themselves, their family and children) drawn from the Women's Empowerment in Agriculture Index. Women were asked who in the household normally makes this decision, and to what extent they can change or influence decisions. The scale ranges from 0 (women are not involved and have no influence) to 3 (women are involved and have influence).

### **Multiple regression model (OLS)**

$$1. Y_{ij} = \beta_1 Z_1 + \beta_2 Z_2 + \beta_3 Z_3 + \beta_4 Z_4 + X_{ij} + S_i + G_j + \varepsilon$$

For individual  $i$  in locality  $j$

#### Direct impacts

Dependent variables:

Y-Time use; women and men's total care hours and ratio of care hours; women and men's hours spent on multi-tasking in care activities; women and men's time for paid work, leisure and sleep; women's frequency of leaving dependants alone. Boys' and girls' time spent on care work, leisure, paid activities and studying.

Independent variables:

Z- access to care-related services and infrastructure as proxy for fiscal policies:

Z1: HH use of improved water source

Z2: HH access to electricity

Z3: HH use of health facilities

Z4: HH use of child day care

Controls:

X<sub>ij</sub>: individual characteristics (i.e. age, education, women's income)

S<sub>i</sub>: household characteristics (i.e. wealth and HH size)

G<sub>j</sub>: geographical characteristics (county)

2.  $Y_{ij} = \beta Z + X_{ij} + S_i + G_j + \varepsilon$

For individual  $i$  in locality  $j$

Indirect impacts (through changes in time use)

Dependent variables:

Y- Women's decision making and influencing

Independent variables

Z- Ratio of care hours men/women

Please see Appendix 1 for a complete list of variables used in the regression analysis.

## 6 DESCRIPTIVE STATISTICS

This section describes the time use of women, men, boys and girls in the sample as well as their reported access to care-related services and infrastructure.

### 6.1 WOMEN AND MEN'S TIME USE IN UGANDA AND ZIMBABWE

Oxfam's HCS results on time use (Table 2) from selected districts in Uganda and Zimbabwe show that women spend significantly more time than men on care work in all categories of care and across different care-related tasks. This is consistent with the gendered patterns in time use observed in many other countries (Budlender, 2008). Mean comparison tests reveal these differences to be statistically significant (except elderly care in Uganda). In Uganda, the women interviewed spent 4 hours 26 minutes on care as a primary activity, while men spent 41 minutes on average. Similarly, in Zimbabwe, women interviewed spent 4 hours 40 minutes on average on care as a primary activity, compared with 50 minutes for men. When we consider care as a primary or secondary activity, women's time spent on care work increases to 5 hours 49 minutes in Uganda and Zimbabwe, which is approximately five times as much as that done by men in both country samples (59 minutes in Uganda and 1 hour 13 minutes in Zimbabwe). When we account for supervision responsibility, the time that women in Uganda reported spending on any care responsibility rose to an average of 10 hours 30 minutes a day, compared with 2 hours 55 minutes for men; in Zimbabwe, women spent 10 hours 52 minutes a day on any care responsibility compared with 3 hours for men. While the ratios of women's to men's hours are smaller when including supervision, the absolute difference of hours of care responsibility is large – 7.5 to 8 hours per day – and significant for understanding gender inequality in mobility and choices of economic and political activities. We also see that men's contribution to unpaid care and domestic work mainly consists of care as a supervision activity. This reinforces the importance of capturing care activities being carried out simultaneously, as well as of supervision responsibilities, to accurately measure time spent on unpaid work.

When breaking down primary and secondary care activities by task, we find that women in the samples spend the most time on meal preparation in both countries (3 hours 32 minutes in Uganda, 3 hours 5 minutes in Zimbabwe), followed by childcare (1 hour 31 minutes) and cleaning the house (43 minutes) in Uganda, and cleaning the house (1 hour 30 minutes) and childcare (1 hour 21 minutes) in Zimbabwe. This distribution of time across tasks varies among women with and without children in both country samples. Although women in both groups spend roughly the same amount of time in meal preparation (between 3 and 3.5 hours), women with children spend over an hour longer on childcare (on average) and, as a result, longer on care work overall than women without children.

Furthermore, we find that women spend more time than men across every care-related task. In Uganda, the greatest gender inequalities in care work are seen in meal preparation times; while the adult women in the sample spent on average 3 hours 32 minutes preparing food, adult men devoted only 13 minutes to this task. This is followed by water collection, fuel collection and cleaning. In Zimbabwe, the greatest gender inequalities in care work are found in laundry (1 hour 3 minutes for women versus 6 minutes for men) followed by meal preparation, elderly care and childcare.



**Table 2: Women's and men's time use in Uganda and Zimbabwe (hours)**

	Uganda				Zimbabwe			
	Mean F	Mean M	F/M ratio	t	Mean F	Mean M	F/M ratio	t
<b>Time use of adult women and men</b>								
Care as a primary activity	4.43	0.69	6.42	37.00***	4.67	0.84	5.55	1.77***
Care as a primary or secondary activity	5.81	0.98	5.93	37.92***	5.82	1.21	4.8	21.49***
Any care responsibility (primary or secondary or supervision)	10.53	2.91	3.61	26.24***	10.87	3.05	3.56	15.85***
Hours of paid work	4.15	6.94	0.59	-14.68***	3.71	6.16	0.60	-8.14***
Total hours of work (care and productive as a primary activity)	8.58	7.63	1.12	5.06***	8.38	7.00	1.19	4.54***
Hours of non-work (leisure+sleep+personal care)	14.58	15.39	0.94	-4.82***	13.85	15.68	0.88	-6.31***
<b>Hours in unpaid care and domestic work as a primary or secondary activity</b>								
Hours of water collection	0.56	0.08	7	13.83***	0.75	0.20	3.75	8.13***
Hours of fuel collection	0.51	0.09	5.66	10.43***	0.46	0.17	2.70	4.27***
Hours of meal preparation	3.53	0.22	16.04	40.66***	3.08	0.34	9.05	19.75***
Hours of cleaning the house	0.71	0.13	5.46	16.65***	1.50	0.25	6	10.72***
Hours of washing and drying clothes	0.46	0.13	3.53	7.43***	1.05	0.10	10.5	9.44***
Hours of childcare	1.51	0.49	3.08	8.59***	1.35	0.33	4.09	6.96***
Hours of elderly care	0.05	0.05	1	0.02	0.58	0.11	5.27	5.84***
Hours of shopping for household supplies	0.21	0.04	5.25	8.51***	0.14	0.09	1.5	1.19

\*\*\* p<0.001, \*\* p<0.01, \* p<0.05. p values indicate level of statistical significance with 0.05 being the cutoff

Conversely, we find that women in both country samples spend less time on average than men on paid/productive work. In Uganda, women spend 4 hours 9 minutes a day on paid work compared with 6 hours 54 minutes for men, and in Zimbabwe women spend 3 hours 43 minutes compared with 6 hours 10 minutes for men. However, when paid and care work as primary activities are taken together, women spend more hours in a day working than men in both country samples – 57 minutes more in Uganda and 83 minutes more in Zimbabwe. Women (on

average) also spend less time than men on leisure activities, including sleep and personal care – 1 hour 50 minutes less than men in Zimbabwe and 49 minutes less than men in Uganda.

We also find that due to heavy workloads, a significant minority of women respondents reported that it was impossible to avoid leaving dependants alone. In the previous week, 24% of women in the Zimbabwe sample and 18% of women in the Uganda sample had left a child under 6 alone, without someone available to care for him or her.

## 6.2 CHILDREN'S AND ADOLESCENTS' TIME USE

Gendered differences in children's and adolescents' (aged 8–21 years) time use in the two samples (see table 3) mirror those of adults' time use, though to a lesser extent, as boys are seen to participate more in care work than men. Girls spend significantly more time on care work (on average) than boys. In Uganda, girls interviewed spent 7 hours 37 minutes a day on care work as a primary, secondary or supervision responsibility on average whereas boys spent 4 hours 52 minutes. In Zimbabwe, girls spent 6 hours 4 minutes on care work (on average) while boys spent 4 hours 47 minutes. Girls also spent more time than boys collecting water in Uganda, while no statistically significant differences were seen in Zimbabwe.

Girls also spent less time than boys on paid work in both countries – 17 minutes less (on average) in Uganda and 13 minutes less in Zimbabwe. Similar to adult women, girls also report less time for leisure activities (including sleep and personal care) than boys. Boys spent close to an hour longer on leisure activities than girls in Uganda and 36 minutes more than girls in Zimbabwe. This gender inequality between boys and girls highlights the significance of social norms and the young age at which work patterns become gendered. Differences between boys' and girls' time spent studying were not statistically significant.

**Table 3: Children's and adolescents' time use in Uganda and Zimbabwe (hours)**

	Uganda			Zimbabwe		
	Mean (girls)	Mean (boys)	t	Mean (girls)	Mean (boys)	t
Hours care (primary, secondary or supervision)	7.61	4.88	14.12***	6.14	4.79	4.04***
Hours paid work	0.25	0.53	-3.49***	0.23	0.45	-1.69*
Hours leisure	2.98	3.93	-6.69***	3.34	3.93	-1.85*
Hours collecting water	1.24	1.05	3.39***	0.93	0.93	-0.01
Hours studying	0.52	0.53	-0.20	1.16	1.16	-0.00

\*\*\* p<0.001, \*\* p<0.01, \* p<0.05. p values indicate level of statistical significance with 0.05 being the cutoff

## 6.3 ACCESS TO CARE-RELATED SERVICES AND INFRASTRUCTURE

Table 4 presents the summary statistics for household use and availability of different care-related services and infrastructure as a measure of access.

**Table 4: Household use and availability of different care-related services and infrastructure**

	Uganda		Zimbabwe	
	%	N	%	N
Use an improved water source	76.94	824	72.06	294
Improved water source is government-provided	72.82	600	70.5	98
Use electricity in the house	33.43	358	12.29	50
Electricity is government-provided	69.55	249	48	24
Use health facilities when household members are ill	95.33	1021	96.07	391
Health facilities government-provided	81.43	829	73	287
Use child day care facilities for at least one child	9.39	101	20.34	83
Child day care facilities government-provided	56	57	12	10

In Uganda, 77% of the households used an improved water source, of which 73% reported that it was government-provided. In Zimbabwe, 73% of the households used improved water<sup>7</sup> and, similar to Uganda, 71% reported that it was government-provided. On access to electricity, compared with improved water source, a much lower percentage of households reported using electricity in their house: 33.4% in Uganda, of which 70% said it was government-provided, and 12.3% in Zimbabwe, of which 48 percent said it was government-provided. On healthcare, almost all households in both countries reported using health facilities when household members fall ill (95.3% in Uganda and 96% in Zimbabwe) and most said these health facilities were government-provided (81% in Uganda and 73% in Zimbabwe). As only 5% of the sample did not have access to healthcare facilities, there was not enough variation in the variable to be confident in the results of its impact on the outcomes of interest. Similar to access to electricity, access to childcare services for at least one child was reported to be very low among households in Uganda and Zimbabwe: 9% for the former and 20% for the latter.

## 7 RESULTS

This section presents the relevant results from our analysis of the 2017 HCS in Uganda and Zimbabwe.

### 7.1 DIRECT IMPACTS OF CARE-RELATED INFRASTRUCTURE AND SERVICES ON TIME USE

Tables A2 to A10 in the appendix present our estimates from the multiple regression model 1 for Uganda and Zimbabwe. The first set of results are depicted in tables A2 to A7 and look at the impact of care-related services and infrastructure on different indicators of women's and men's time use: the time spent on care work, multi-tasking on care activities, paid work, leisure, sleep; time spent on leaving dependants alone; and on the male-to-female ratio of care work. The second set of results, depicted in table A8, look at the impact of care-related services and infrastructure on different indicators of children's and adolescents' time use: the time spent on care work, paid work, leisure and studying. In both tables, results from the geographic, household and individual level controls as well as the  $R^2$  for each regression are also presented.

#### **Results from multiple regression model 1 for adult men and women in Uganda and Zimbabwe**

##### **a. The impact of household, individual and geographic characteristics on women's and men's time use**

Rows 5–13 of table A2 present the impact of various household, individual and geographic characteristics on women's and men's time use in the Uganda and Zimbabwe samples. We find that for women in the Uganda sample, being married is associated with spending on average 29 minutes more a day on care as a primary activity, whereas for men it is associated with spending 5 hours 39 minutes more on paid work.<sup>8</sup> This importantly reveals how marriage reinforces gendered roles, expectations and divisions of labour. In both countries, we also find that women's care hours (both any care and care as a primary activity) decrease with age and, in Zimbabwe, we find that men's care hours also decrease with age. In Uganda, in households with a greater proportion of females, women individually spend 2 hours 30 minutes less on care responsibilities and men spend 4 hours 16 minutes less, suggesting that care responsibilities get significantly distributed between female members of the households. As depicted in table A4, in Uganda, a higher proportion of females in the household is also associated with a reduced intensity in women's unpaid care and domestic work, with women spending 2 hours 34 minutes less multi-tasking.

We also find that in households where women have higher incomes in Uganda, men spend 7 minutes more on care as a primary activity but spend 26 minutes less on care as a supervision or secondary responsibility, indicating that this does not meaningfully or conclusively change their role in unpaid care and domestic work (table A2). In Uganda, an increase in women's income is also associated with women spending 22 minutes more in paid work and less time on leisure and sleeping. In both countries, increased household wealth is associated with men spending more time on paid work and, in Uganda, less time on leisure and sleep (table A2). In Uganda, women's higher levels of education are associated with men and women spending more time on any care responsibilities, while in Zimbabwe higher levels of education are associated with men spending less time on any care responsibilities. We do not find an association between higher levels of women's income, education, household wealth and

reductions in care hours for women or greater equality in the distribution of care hours between men and women. Most of these findings were mirrored in the HCS carried out in both these countries in 2015. These findings challenge the assumption that development itself will address heavy and unequal unpaid care and domestic work, and that as families become better off (as women are educated), women will negotiate about excessive responsibility for unpaid care and domestic work, resulting in lower, more productive and more equal care hours.

We do not find an association between higher levels of women's income, education, household wealth and reductions in care hours for women or greater equality in the distribution of care hours between men and women in either country sample.

#### **b. Impact of access to an improved water source on women's and men's time use**

Row 1 (table A2) presents results on the impact of household access to an improved water source on the treatment variables for women and men. A key finding is that in both country samples, household access to an improved water source (as measured by X) is associated with reductions in the time women spend on any care responsibility (with the results being driven by care as a secondary or supervision responsibility) and increases in the time women spend on leisure activities. In Uganda, women in households with access to an improved water source spend on average 2 hours less a day on any care. A greater impact on care hours is seen in Zimbabwe, where women in households with access to an improved water source spend on average 4 hours 17 minutes less on any care responsibilities than women in households without access – which may be linked to the distance to the nearest water source. In Uganda, household access to an improved water source is also associated with reductions in the time men spend on any care responsibilities; however, by a lesser amount than for women – by 1 hour 42 minutes. Furthermore, use of an improved water source is also significantly associated with an increase in the time women spend on leisure in both countries: 49 minutes more in Uganda and 25 minutes more in Zimbabwe.

Another key finding is that in Uganda and Zimbabwe, access to improved water is not only associated with reductions in the hours women spend on any care responsibilities but also higher levels of productivity of those hours, reflected by women in Uganda spending 55 minutes less and women in Zimbabwe 2 hours 12 minutes less multi-tasking. The reduction in the work intensity of care hours has important health implications for women by reducing levels of stress and physical burden.

However, as shown in table A5, access to improved water leads to a decrease in the male-to-female ratio of total care work. This finding is consistent with Oxfam's earlier research, which indicated that time- and labour-saving equipment on its own is not associated with redistribution of care hours between women and men. The finding remains that public services are necessary for reducing long care hours, but insufficient on their own for redistribution of care between women and men (Newth, 2016).

We do not find an impact of household access to improved water and any other outcome variable, including time spent on paid work, sleeping, or frequency of leaving dependants alone.

In both countries, we find that access to an improved water source reduces the time women spend on care work (2 hours less a day in Uganda and 4 hours 17 minutes less in Zimbabwe) as well as multi-tasking of care activities and increases the time they spend on leisure. Deeper analysis on electricity use suggests that this finding could be a result of many households in Uganda using electricity to meet basic needs such as lighting, which may enable men and women to spend more time doing unpaid care and domestic work and other tasks.

### **c. Impact of access to electricity on women's and men's time use**

Row 2 (table A2) presents findings on the impact of household access to electricity (as measured by X) on women's and men's time use in the two country samples. Findings from Uganda suggest that access to electricity increases the time men spend on care work as a primary activity by 36 minutes. One reason for this could be that since a large majority of households in Uganda are electricity poor, electricity needs are very basic (light, rather than heating/cooking) and when these are met, men returning from working outside the home are able to carry out unpaid care and domestic work as they are able to work after dark. To test this hypothesis, we looked at the impact of having a kerosene lamp in the household on the hours men (Uganda sample) spend on unpaid care and domestic work. We find that compared with men in households without a kerosene lamp, men in households with a kerosene lamp spend 10 minutes more on any care responsibilities (table A7).

We find no statistically significant impact of access to electricity on levels of multi-tasking for men and women in either country sample (table A4), suggesting that men are doing additional unpaid care and domestic work activities that they were not previously able to do after dark. There is need for additional research to distinguish between the impact of access to small amounts of electricity (only sufficient for electric light) on levels and inequalities of unpaid care and domestic work, and access to sufficient, low-cost electric energy to enable mechanized time- and labour-saving equipment such as grinding mills, water pumps or refrigeration.

In the Uganda sample, we also see that access to electricity is associated with a 1 hour 30 minutes' decrease in the time men spend on paid work. For Uganda, in households with access to electricity, women spend 37 minutes less sleeping than women in households with no access to electricity. This could suggest that similar to men in these households, women are spending more time on other activities that they were previously unable to do after dark; however, these may not have been captured by the HCS.

There is no significant relationship between household access to electricity and any time use variable in Zimbabwe. As mentioned earlier, this could have to do with the kind of electricity that is being accessed and used (e.g. lighting vs washing machines).

We also do not find an impact of household access to electricity on the gendered distribution of care work.

In Uganda, we find that access to electricity is associated with an increase in the time men spend on care work as a primary responsibility and a decrease in the time they spend on paid work, as well as a decrease in the time that women spend sleeping.

### **d. Impact of access to health facilities on women's and men's time use**

Row 3 (table A2) presents findings on the impact of household access to health facilities (As measured by X) on women and men's time use. While we present the findings from the

analysis, it is important to acknowledge that to be confident in the results, a greater sample of households without access to healthcare facilities would be needed.

Oxfam's analysis suggests that for the Uganda sample, in households which use health facilities when family members are ill, men spend 20 minutes longer on care as a primary activity and 2 hours 10 minutes less on paid work. We also find that access to health facilities when family members are ill is associated with women and men spending more time multi-tasking in Uganda. These trends are likely to be associated with travel time required to healthcare facilities, time spent waiting to receive care, and unpaid care and domestic work responsibilities that need to be done simultaneously (and which may have been pending while seeking healthcare). Furthermore, for both country samples, access to health facilities is associated with women sleeping for approximately an hour longer and men spending over an hour on leisure activities. Although the focus here is largely on the inputs into care, we believe the care received with access to healthcare is likely of higher quality.

Similar to findings related to access to electricity and healthcare, we find no significant relationship between access to health facilities and a more equal gendered distribution of care work. We also do not find any associations between access to healthcare and the frequency of dependants being left alone.

#### **e. Impact of access to childcare on women's and men's time use**

Row 4 (table A2) presents results on the impact of household access to childcare services (as measured by X) on women and men's time use. An interesting finding is that in households where families use child day care facilities, compared with households that do not, women spend more time on any care responsibilities – on average 1 hour 42 minutes more in Uganda and 2 hours 19 minutes more in Zimbabwe – with the results being driven by care as a secondary activity and supervision responsibility. One explanation could be that families accessing childcare services have other children under the age of 7 who are not in a childcare facility, yet require significant care. Controlling for whether all children under the age of 7 are in a childcare facility in both country samples (row 4, table A3), we find that the increase in hours spent is no longer significant, although the reduced sample size (5 percent in Uganda and 11 percent in Zimbabwe) may be driving these results.

We find that access to childcare facilities is also associated with women spending more hours multi-tasking in both country samples. It could be the case that while women are not engaged in care work directly when their children are in a childcare facility, they may still consider it to be a secondary or supervision responsibility (they may be on call, or be responsible for dropping food/checking in). Likewise, Oxfam's qualitative research (2014, 2017) finds that as childcare is often done simultaneously with other work tasks in the home, access to childcare facilities is seldom found to reduce time spent on other care tasks.

Similar to findings around access to electricity and healthcare facilities, we do not find access to childcare facilities to be associated with more equal distribution of care work between men and women.



In both country samples, we find that access to childcare services is associated with women spending more time on any care responsibilities and multi-tasking on care activities. This could be a result of increased supervision/secondary care responsibilities when children are in a childcare facility or additional care tasks being taken up by women at the same time as childcare, which they were previously unable to do. This is an area that warrants further research.

## Results from multiple regression model 1 for children and adolescents in Uganda and Zimbabwe

### a. The impact of household, individual and geographic characteristics on children's and adolescents' time use

Rows 5–13 of table A8 present results on the impact of various household, individual and geographic characteristics on children's and adolescents' time use.<sup>9</sup> In the Zimbabwe sample, we find that older boys spend 20 minutes more on care work and less time sleeping than younger boys. In Uganda, we find that older girls and boys respectively spend 9 and 10 minutes less on leisure activities and less time sleeping than younger girls and boys, and that older boys spend more time in paid work than younger boys. In Uganda, we also find that in households with a greater proportion of females, boys spend 2 hours less on care work, though no impact is seen on girls' time spent on care work. This redistribution of care work away from boys but not girls reflects the gender norms that reproduce the gender inequalities in the distribution of care work from one generation to the next. In the Uganda sample, in households where women have higher income, boys are spending 40 minutes more on care work, indicating greater gender equality in the distribution of care work among children and adolescents in these households.

In the Uganda sample, in households where women have higher incomes, boys are spending 40 minutes more on care work, indicating greater gender equality in the distribution of care work among children and adolescents in these households.

Additionally, in Uganda, increased women's income is associated with boys and girls spending more time studying, though they are seen to spend less time sleeping. Interestingly, conversely to women's income, increased household wealth (in both countries) is associated with boys spending less time on care work and, in Uganda, more time on leisure; yet we do find a positive impact on the time boys spend studying in Uganda and the time girls spend studying in Zimbabwe. These findings seem to suggest that women's income may be a stronger factor than household wealth in determining a more gender-equitable distribution of care work among children/adolescents.

Interestingly, conversely to women's income, increased household wealth is associated with boys in both country samples spending less time on care work and, in Uganda, more time on leisure.

### b. Impact of access to an improved water source on children's and adolescents' time use

Row 1 of table A8 presents results on the impact of household access to an improved water source on the treatment variables for girls and boys. We find that in households that reported they use an improved water source (compared with those that reported they did not), both boys and girls in Zimbabwe and boys in Uganda spend more time on leisure activities: 2 hours 4 minutes more for girls and 2 hours 19 minutes more for boys in Zimbabwe, and 35 minutes more for boys in Uganda. Furthermore, access to an improved water source is associated with



girls sleeping longer (in the Uganda sample) and girls studying longer (Zimbabwe sample). This indicates the potential benefits of gender equality that are to be gained from greater household access to an improved water source, by enabling girls to benefit from more equal health and educational activities for children.

Access to an improved water source is associated with girls sleeping longer (in the Uganda sample) and studying longer (in the Zimbabwe sample).

#### **c. Impact of access to electricity on children's and adolescents' time use**

Row 2 of table A8 presents findings on the impact of household access to electricity on children /adolescents' time use. A key finding from Uganda is that access to electricity is associated with boys spending 1 hour 7 minutes less on care work and 41 minutes more on studying. The educational benefits of access to electricity (in terms of children having more time to study) have been evidenced by a number of studies (Pueyo et al., 2013; Aguirre, 2017), particularly in contexts where basic electricity needs are unmet. We find no statistically significant relationship between household access to electricity and any other aspect of children/adolescents' time use in Zimbabwe or Uganda.

A key finding from Uganda is that access to electricity is associated with boys spending 1 hour 7 minutes less on care work and 41 minutes more on studying.

#### **d. Impact of access to health facilities on children's and adolescents' time use**

Row 3 of table A8 presents findings on the impact of household access to a health facility on girls' and boys' time use. As mentioned, we present these findings with the important caveat that there is not sufficient variability in the data to be confident in the results. Our analysis on the impact of access to healthcare facilities when a family member is ill on children's and adolescents' time use suggests that in Uganda this is associated with a reduction of more than two hours in the time boys spend on care work, and an increase by 53 minutes in the time boys spend sleeping. We also find that in Zimbabwe, access to health facilities is associated with a significant increase of 3 hours 30 minutes in the time boys spend sleeping. We do not, however, find any impact of household access to healthcare on girls' time use in either country. This could be linked to the fact that girls are typically secondary caregivers, after women, and before boys. Therefore, when the need for care in the household overall is reduced, boys are first to see their hours reduce, in line with prevailing gender norms around boys' roles.

#### **e. Impact of access to childcare on children's and adolescents' time use**

Row 4 of table A8 presents findings on the impact of household access to a childcare facility on the treatment variables for girls and boys. In Uganda, we find that in households which reported they use childcare facilities, girls and boys spend less time on paid work: 8 and 53 minutes respectively. While this may indicate a heterogeneity bias whereby unobserved household characteristics may be impacting family decisions to send their children to childcare facilities, this requires further research.

## 7.2 INDIRECT IMPACTS OF PUBLIC SERVICES AND CARE-RELATED INFRASTRUCTURE ON WOMEN'S WELL-BEING AND EMPOWERMENT

Along with looking at how access to different social services and infrastructure directly impact patterns of time use among adults and children and gendered inequalities in care work, we also consider how changes in the levels and inequalities in care work can in turn affect broader well-being outcomes for women. The two dimensions of well-being we consider are the physical or mental harm to women and women's decision making and influence.

Table A9 presents descriptive statistics on physical and mental harm from unpaid care and domestic work reported by women. When asked if they suffered any injury, disability or other physical or mental harm as a direct result of their unpaid care and domestic work in the past year, 33% of women surveyed in Uganda and 38% in Zimbabwe reported that they had. More than half of these women said the physical or mental harm they suffered had a long-term effect. This is striking evidence of the costs of social reproduction or 'depletion' that women face associated with heavy unpaid care work, as recently illustrated in research conducted in a number of contexts, including in Nepal and Tanzania (Rai *et al.*, 2014; Zambelli *et al.*, 2017; Ghosh, Singh and Chigateri, 2017). Furthermore, 9% of women in Zimbabwe and 4% in Uganda reported that the physical or mental harm they suffered prevents them from working at all, suggesting that the levels and inequalities in unpaid care and domestic work have had a permanent and damaging impact on their lives. Were unpaid care and domestic work considered and analysed as part of the national labour force, this finding would indicate that a significant segment of the working population has high levels of work-related injuries, with some no longer able to work and support themselves and their families.

More than a third of women surveyed in Uganda and Zimbabwe said they had suffered an injury, disability or other form of physical or mental harm as a direct result of their unpaid care and domestic work in the past year. More than half of these women said the physical or mental harm they suffered had a long-term effect.

When asked about the type of harm they faced, backache was most commonly reported by women in Uganda and Zimbabwe (57% in Uganda and 61% in Zimbabwe). This was followed by burns (25%), headaches (20%) and fatigue (13%) in Uganda and headaches (28%), respiratory illness (19%) and stress in Zimbabwe (10%). Furthermore, regardless of whether they had or had not already experienced harm, the majority of women (63% in Zimbabwe and 61% in Uganda) said they were somewhat or very concerned about future harm resulting from their unpaid care and domestic work.

These results suggest that social services (which redistribute responsibility for care provision from poor families to the state) and care-related infrastructure (which reduces women's heavy workloads of unpaid and domestic care) can have a positive impact on women's mental and physical health.

The HCS also captured women's decision making and influence in 10 different areas of decision making, including decisions about themselves (i.e. how they spend their time, their own health), the family (i.e. which family member should do unpaid care and domestic tasks or paid work, spending decisions) and their children (i.e. schooling and health). Women were asked who in the household makes most of the decisions and if it is not the women themselves, to what extent they are able to influence or change the decision.

Measures of women's involvement in decision making have been adapted from the Demographic Health Survey (Kishor and Subaiya, 2008), Women's Empowerment in Agriculture Index and related research on agency (Ibrahim and Alkire, 2007). A decision making and influencing score has been calculated along the following scale: 0 = woman is not involved and cannot influence; 1 = involved, but no influence; 2 = not involved, but can influence; 3 = involved and can influence. The mean decision making and influencing scale ranges from 0 (i.e. a woman is not involved and cannot influence decisions on any of the 10 items) to 3 (i.e. a woman is involved and can influence decisions on all 10 areas). A higher mean score indicates more decision making and influence on average.

Table 5 presents some descriptive statistics on women's decision making and influencing in the country samples. The mean scores for decision making and influence are 1.39 in Zimbabwe and 1.24 in Uganda, indicating that women in Zimbabwe have marginally higher levels of decision making and influence. We also note that there is a wide range in the mean decision making and influencing scores, with some women reporting no decision making or influencing power over any of the 10 areas while others report decision making and influencing power in all 10 areas.

**Table 5: Descriptive statistics on women's decision making and influence**

	Uganda					Zimbabwe				
	Mean	Sd	Min	Max	N	Mean	Sd	Min	Max	N
Decision making and influencing score total	15.06	7.09	0	30	884	16.93	8.70	0	30	336
Decision making and influencing score mean	1.24	0.86	0	3	1076	1.39	1.02	0	3	408

Table A10 presents the results from multiple regression model 2, which tests the relationship between gendered inequalities in care work (measured as the ratio of hours male-to-female on unpaid care and domestic work) and women's decision making and influencing.

Interestingly, we find that in both Uganda and Zimbabwe, married women report higher levels of decision making and influencing than unmarried women. We also find that a rise in women's income is positively associated with greater levels of influencing and decision making; however, the opposite is seen to be the case for a rise in household wealth. Mirroring the results on impacts of individual and household characteristics on adults' time use, this challenges some mainstream assumptions about increases in women's education levels and household wealth automatically increasing women's levels of decision making and influencing, though we do find women's income to have a positive influence on both elements. Women's income appears to provide more bargaining power than education level or household wealth.

Married women report higher levels of decision making and influencing than women who are not married. We also find that a rise in women's income is positively associated with greater levels of influencing and decision making; however, the opposite is seen to be the case for a rise in household wealth.

On the relationship between the gendered distribution of care and women's decision making and influencing, our estimates (table A10) suggest that in Uganda, a more equitable distribution of care work between men and women is associated with women reporting higher levels of decision making and influencing; the relationship is positive but not significant in Zimbabwe. However, based on earlier results, we cannot claim that greater investments in social services and infrastructure alone will increase women's decision making and influencing through encouraging men to spend more time on care work relative to women.

These findings point to the importance of other more influential factors such as gender norms on the unequal distribution of care work between women and men. To capture social norms, the HCS 2017 includes questions around approval/disapproval related to vignettes in which three situations are described, varying from an equal to very unequal distribution of paid and unpaid care work between a woman and her partner (Karimli *et al.*, 2016).

Testing the relationship between women's and men's approval of a more equitable division of care work and the ratio of care responsibilities between men and women (table A11), we find that in Uganda, in households where women and men report strong approval of an equitable distribution of care work between spouses (i.e. indication of more progressive social norms), care hours are more equally distributed.

The paper does not find evidence of the impact of investment in public services on the gendered distribution of unpaid care and domestic work within households, pointing to the potential influence of other factors such as discriminatory social norms. In Uganda, in households where women and men report strong approval of an equitable distribution of care work between spouses (i.e. indication of more progressive social norms), care hours are more equally distributed.

## 8 CONCLUSION AND RECOMMENDATIONS

Governments' public spending decisions in the context of their broader approach to fiscal policy have important impacts on people and their well-being. Oxfam believes that spending decisions should be used to foster a human economy, which includes meeting women's practical as well as strategic gender needs as part of a just and sustainable society (Beneria and Feldman, 1992). Feminist economics literature finds that public investments in social and physical infrastructure in particular can contribute to gender equality, well-being and women's empowerment, partly by reducing women's and girls' unpaid care and domestic work. There is huge potential to do so in sub-Saharan Africa, where large gaps exist in social and infrastructural development and social sector spending remains low (Esquivel and Kaufmann, 2017). Moreover, investments in such fiscal policies are beneficial as they will create their own fiscal space by expanding the productive and taxable base of the economy, improving supply-side efficiency and taxation systems. Furthermore, these investments in the short term will save costs in the long term (e.g. health) (Seguino and Were, 2013).

This research contributes to the evidence on the impact of fiscal policies – in this case, public spending on infrastructure and services – on the level and distribution of unpaid care and domestic work for women, men, girls and boys. This type of analysis is, in itself, challenging the bias of much mainstream economic policy analysis, which overlooks or excludes impacts on the portion of economic activity that is unpaid. Research on the impacts of public infrastructure on women's empowerment is often narrowly focused on women's participation in the paid labour force, which renders invisible the pathway of change related to women's unpaid work, especially unpaid care work. This research methodology makes visible the majority of women's working hours which are unpaid, and thus expands opportunities for fiscal policy to strengthen women's empowerment.

The paper demonstrates that analysis of unpaid care and domestic work as part of fiscal policy design is feasible and that studies exploring time use should include supervision hours and simultaneous activities, as well as care work as a primary activity.

Our results find some evidence to support the hypothesis that increased access to public services and infrastructure reduces the time women spend on unpaid care and domestic work, multi-tasking of care provision, and increases the time women and children spend on other beneficial activities. In both Uganda and Zimbabwe, access to an improved water source is associated with a significant reduction in the time women spend on care work, reduction in multi-tasking of care provision as well as an increase in the time they spend on leisure. It is also associated with some children and adolescents in both countries spending more time on leisure, studying and sleep. We also find positive impacts of access to electricity and childcare facilities on children's time use. In Uganda, household access to electricity is associated with boys spending less time on care work and more time studying, and household use of childcare facilities is associated with girls and boys spending less time on paid work.

**Our first recommendation for the sub-Saharan context is to increase public investment in care-related infrastructure such as water, electricity and childcare.**

Our findings on the impact of access to electricity and childcare on the time women and men spend on unpaid care and domestic work point to the need for further research. Findings from

Uganda suggest that access to electricity increases the time men spend on care work as a primary activity and decreases the time women spend sleeping. We speculate that this is largely because most households are electricity poor and electricity is being used to meet basic needs such as lighting, which enables women and men to carry out unpaid care and other tasks they were previously unable to do after dark. We find evidence to support this when looking at the impact of household access to equipment (kerosene lamp), used for a similar purpose, on the care hours of men in Uganda. These findings highlight the need for further research into the amount of electricity or the purpose of its use on levels and inequalities of unpaid care and domestic work.

The paper also finds that in households with access to childcare facilities, in both country samples, women spend on average more hours on any care responsibilities driven by care as a secondary activity and supervision responsibility, though when we control for whether all children are in day care, the results are no longer significant. We also find that access to childcare facilities is associated with an increase in women's time spent multi-tasking. Further research is needed into the nature of these increased secondary care and supervision responsibilities and factors influencing family decisions to use childcare facilities.

**Our second recommendation therefore calls for more research to explicitly explore the impact of public services and infrastructure on women's time use and well-being,** which could shed light on some of the findings mentioned here and inform dedicated gender-transformative programmes and fiscal policies.

The paper finds striking evidence of the costs to women's health or 'depletion' as a direct result of their heavy and unequal levels of unpaid care and domestic work. At least one-third of women surveyed in Uganda and Zimbabwe reported that they had suffered an injury, disability or other physical or mental harm as a direct result of this work in the past year, with a meaningful percentage reporting this had permanently damaged their lives, resulting in their inability to ever work again. This is a grave violation of women's and workers' rights. There is an urgent need not only to include unpaid care and domestic work, performed predominantly by women, in our conceptualization of the economy but also to recognize and better understand the hidden costs women bear as a result. Furthermore, where an objective of public policy is to increase women's paid labour force participation, investments that reduce the considerable incidence of injury and illness due to daily housework would be advantageous. More research is also needed to understand which types of public investments might sustain the health and productivity of this (unpaid care) workforce, reduce 'lost work days' in paid or unpaid work and (potentially) for healthcare to treat injured workers.

**Our third recommendation is for greater analysis of and investments in care-related services and infrastructure that reduce women's levels of unpaid care and domestic work to reduce the costs of this work to women's health and well-being.**

Public care services are, by definition, a means of redistributing unpaid care and domestic work from women and households to the state, although the gender distribution of such work within households does not appear to be influenced by investments in public services alone. Oxfam's approach to unpaid care and domestic work is based on recognizing, reducing and redistributing care, and representing carers to get their voice heard. So, while public spending to reduce the time spent on care work is welcome, attention to how to redistribute the work within households is also necessary. This is particularly important as our results from the Zimbabwe sample show that where unpaid care and domestic work is shared more equitably, women have a stronger sense of decision making and influencing. As such, more research is needed into the impact of social norms on the gendered distribution of care work and the kinds of interventions

around shifting social norms that are most effective for promoting equal sharing of care work and responsibility between men and women.

**Our fourth recommendation calls for more research on social norms interventions as well as for governments to take responsibility for gendered inequality in the household and in the economy and to invest in public communications to promote progressive social norms for equal sharing of responsibility for care.**

Fiscal policies to enable equitable and sustainable development need to be embedded within a gender-equitable macroeconomic framework. They must be targeted to expenditures that promote gender equality in the context of achieving a human economy that works for all. However, much of the analysis of the impact of policies on women's empowerment has been limited to their formal labour force participation and other outcome areas such as health. Very little data and evidence are available on what policies are transformative for women, particularly on a significant part of their work and life – namely unpaid care and domestic work. Therefore, there is a need for more research on which policies and factors influence and address the heaviness and inequality of unpaid care and domestic work that is shouldered by women in sub-Saharan Africa and across the world.

**Our final recommendation is for national bureaus of statistics, governments and research institutes in the sub-Saharan African region to invest in measuring time use and unpaid care and domestic work and to ensure fiscal policies are informed by this evidence:**

1. Integrate time-use surveys (including supervision hours) and evaluate factors that influence unpaid care and domestic work consistently in regular national surveys;
2. Ensure that economic data and evidence account for all work, paid and unpaid, to inform transformative and gender-equitable fiscal and economic policies; and
3. Ensure that budget processes for fiscal policies implement thorough and comprehensive gender budgeting.



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## APPENDICES

**Table A1: List of variables**

	Description	Type
<b>Dependent variables [Y]</b>		
anycare	Number of hours respondents spent on care work as either a primary or a secondary or a supervision activity	Continuous
primary_care	Number of hours respondents spent on care work as a primary activity	Continuous
paid_work	Number of hours spent on paid work as primary activity	Continuous
leisure	Number of hours spent on leisure, doing nothing, personal care or eating as primary activity	Continuous
sleep	Number of hours spent on sleep as primary activity	Continuous
ratio_anycare	Men to women ratio of time devoted to any care in hours	Continuous
studying	Number of hours spent studying as primary activity	Continuous
school	Number of hours spent in school as primary activity	Continuous
dependant_left_alone	Respondent has left dependents alone in the previous week (children or adults)	Binary
multitask	Number of hours respondents spent on doing at least two care activities at the same time (primary, secondary or supervision).	Continuous
<b>Independent variables [Z]</b>		
Improved water	Household uses an improved water source (not a natural source like a river, spring)	Binary
Access to electricity	Household uses electricity	Binary
Use health	Family uses health facilities when household members are ill	Binary
Use childcare	Family uses childcare for at least one child	Binary
Use childcare (all children)	All children of the household under 7 use childcare facilities	Binary
<b>Control variables</b>		
Married	Respondent is married	Binary
Age	Age of respondent	Continuous
Education	Highest level of education received	Categorical
Proportion female	Proportion of females in the household	Continuous
Household size	Number of members living in the households	Continuous
Wealth index	Household wealth quintiles ( asset based approach)	Continuous
Women's income	Total income earned by women in the last three months from different sources (log)	Continuous
County2	County2 is KCCA, for Uganda and Caledonia for Zimbabwe	Binary
County3	County3 is Kabale Municipality for Uganda and Bubi for Zimbabwe	Binary
County 4	County4 is Ndoorwa for Uganda and Gutu for Zimbabwe	Binary
County5	County5 is Rikuga for Uganda and Masvingo for Zimbabwe	Binary

## A2: Impact of care-related services and infrastructure on women and men's time use<sup>1</sup>

	Uganda										Zimbabwe									
	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men
VARIABLES	any_care	any_care	primary_care	primary_care	paid_work	paid_work	time_leisure_primary	time_leisure_primary	primary_sleep	primary_sleep	any_care	any_care	primary_care	primary_care	paid_work	paid_work	time_leisure_primary	time_leisure_primary	primary_sleep	primary_sleep
hh_improved_water	-2.017*** (0.616)	-1.698** (0.719)	-0.318 (0.234)	-0.019 (0.168)	0.019 (0.316)	0.535 (0.455)	0.810*** (0.162)	0.618** (0.276)	0.040 (0.165)	-0.013 (0.244)	-4.275*** (0.934)	-1.155 (0.708)	-0.331 (0.377)	0.016 (0.227)	-0.489 (0.439)	1.023 (0.620)	0.411** (0.175)	0.494 (0.343)	-0.180 (0.273)	0.057 (0.377)
hh_electric	-0.258 (0.796)	-0.721 (0.772)	0.025 (0.397)	0.601* (0.347)	0.044 (0.537)	1.492* (0.762)	0.256 (0.311)	-0.042 (0.440)	0.617** (0.219)	-0.169 (0.356)	0.682 (1.216)	0.699 (0.963)	0.730 (0.570)	0.057 (0.352)	0.536 (0.540)	1.111 (0.957)	0.108 (0.274)	-0.407 (0.412)	-0.193 (0.324)	-0.732 (0.524)
hh_health	1.246 (1.015)	1.650 (1.449)	-0.208 (0.459)	0.336** (0.153)	0.985 (0.736)	2.116** (0.832)	0.218 (0.356)	1.155** (0.466)	0.954* (0.446)	0.705 (0.492)	0.325 (2.607)	0.504 (1.754)	0.499 (0.999)	0.030 (0.496)	2.002 (1.390)	0.293 (1.730)	0.337 (0.288)	1.560*** (0.406)	1.187* (0.518)	0.881 (0.543)
hh_day_care_yes	1.705** (0.783)	0.400 (0.747)	0.252 (0.337)	0.089 (0.323)	0.420 (0.467)	0.102 (0.718)	-0.165 (0.248)	0.132 (0.418)	0.009 (0.196)	0.058 (0.275)	2.326** (1.031)	0.171 (0.842)	0.259 (0.456)	0.224 (0.315)	0.398 (0.504)	1.177 (0.796)	-0.041 (0.219)	0.155 (0.425)	-0.398 (0.297)	-0.897* (0.493)
married	0.749 (0.681)	1.330 (3.319)	0.485* (0.267)	0.220 (0.146)	0.529 (0.384)	5.662*** (1.223)	-0.011 (0.240)	2.165** (0.973)	-0.221 (0.210)	-2.628 (2.920)	0.831 (1.057)		0.198 (0.459)		0.314 (0.587)		0.280 (0.249)		0.260 (0.309)	
age_adult	-0.099*** (0.021)	-0.016 (0.018)	-0.026*** (0.008)	0.003 (0.004)	-0.020* (0.010)	-0.067*** (0.015)	0.019*** (0.007)	0.026*** (0.009)	0.005 (0.007)	0.014 (0.009)	-0.108*** (0.033)	-0.061*** (0.020)	-0.026* (0.015)	-0.025*** (0.008)	0.006 (0.017)	0.030 (0.021)	0.003 (0.007)	-0.006 (0.010)	0.014 (0.010)	0.013 (0.014)
educatio	0.36	0.53	0.048	0.043	-	-	0.109	0.053	-	-0.074	-	-	0.071	-	0.20	-	-0.145*	0.162	-0.027	0.419*

<sup>1</sup> In the Zimbabwean data, the variable for marital status was omitted because of collinearity.





[illegible]

**A3: Impact of care-related services and infrastructure on women and men's time use with additional day care variable (whether all children under 7 are in day care)**

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)
VARIABLES	any _care	any _care	primary _care	primary _care	paid _work	paid _work	time_leisure _primary	time_leisure _primary	primary _sleep	primary _sleep	any _care	any _care	primary _care	primary _care	paid _work	paid _work	time_leisure _primary	time_leisure _primary	primary _sleep	primary _sleep
hh_improved_water	- 2.063*** (0.614)	- 1.693** (0.717)	- 0.322 (0.234)	- 0.020 (0.167)	0.010 (0.317)	0.534 (0.454)	0.812*** (0.163)	0.616** (0.275)	0.038 (0.165)	-0.014 (0.244)	4.295*** (0.943)	1.153 (0.704)	- 0.331 (0.376)	0.016 (0.227)	0.482 (0.439)	1.016 (0.621)	0.410** (0.174)	0.496 (0.344)	-0.178 (0.274)	0.066 (0.376)
hh_electric	- 0.213 (0.803)	- 0.711 (0.770)	- 0.021 (0.397)	0.612* (0.350)	0.046 (0.540)	1.489* (0.761)	0.264 (0.312)	-0.037 (0.442)	0.608** (0.219)	-0.174 (0.355)	0.607 (1.182)	0.714 (0.968)	0.705 (0.572)	0.059 (0.351)	0.564 (0.539)	1.110 (0.937)	0.121 (0.273)	-0.394 (0.412)	-0.174 (0.328)	-0.716 (0.533)
hh_health	1.293 (1.015)	1.650 (1.445)	- 0.203 (0.459)	0.348** (0.151)	0.976 (0.736)	2.115** (0.829)	0.215 (0.357)	1.157** (0.470)	0.956* (0.447)	0.697 (0.494)	0.696 (2.585)	0.518 (1.758)	0.557 (0.996)	- 0.033 (0.495)	2.024 (1.381)	0.291 (1.694)	0.319 (0.285)	1.549*** (0.399)	1.117* (0.516)	0.870* (0.516)
hh_day_care_all	0.991 (1.250)	0.174 (0.813)	0.298 (0.461)	0.383 (0.299)	0.427 (0.680)	0.003 (1.047)	-0.274 (0.338)	-0.034 (0.672)	-0.115 (0.218)	0.296 (0.324)	1.301 (1.367)	0.379 (0.814)	- 0.093 (0.564)	0.280 (0.289)	0.807 (0.633)	1.330 (0.945)	0.149 (0.296)	0.330 (0.600)	-0.134 (0.351)	-0.817 (0.648)
married	0.715 (0.682)	1.333 (3.316)	0.484* (0.267)	0.202 (0.149)	0.532 (0.385)	5.661*** (1.224)	-0.012 (0.241)	2.162** (0.975)	-0.224 (0.210)	-2.615 (2.920)	0.770 (1.064)		0.203 (0.463)		0.273 (0.592)		0.272 (0.250)		0.266 (0.305)	
age_adult	- 0.102*** (0.021)	- 0.016 (0.018)	- 0.027*** (0.008)	- 0.003 (0.004)	- 0.020** (0.010)	- 0.067*** (0.015)	0.019*** (0.007)	0.026*** (0.009)	0.005 (0.007)	0.014 (0.009)	0.114*** (0.033)	0.062** (0.019)	- 0.026* (0.015)	- 0.026*** (0.008)	0.008 (0.017)	0.024 (0.021)	0.003 (0.008)	-0.007 (0.010)	0.015 (0.010)	0.016 (0.014)
education_adult	0.406* (0.222)	0.520** (0.256)	0.051 (0.094)	0.053 (0.063)	0.206 (0.132)	0.419*** (0.150)	0.107 (0.075)	0.058 (0.099)	0.185* (0.077)	-0.076 (0.077)	0.086 (0.425)	0.435* (0.237)	0.076 (0.166)	- 0.158 (0.111)	0.226 (0.177)	0.097 (0.314)	-0.149* (0.078)	0.154 (0.179)	-0.027 (0.132)	0.427* (0.183)
W_income	- 0.215 (0.222)	- 0.433* (0.256)	0.113 (0.094)	0.122** (0.063)	0.373** (0.132)	0.442*** (0.150)	-0.132** (0.075)	-0.025 (0.099)	0.147* (0.077)	-0.092 (0.077)	0.114 (0.425)	0.160 (0.237)	- 0.174 (0.166)	0.053 (0.111)	0.075 (0.177)	0.082 (0.314)	0.027 (0.078)	-0.005 (0.179)	-0.036 (0.132)	0.004 (0.183)

	(0.2 36)	(0.2 36)	(0.08 1)	(0.05 8)	(0.1 46)	(0.1 61)	(0.064)	(0.099)	(0.074 )	(0.073 )	(0.2 87)	(0.1 66)	(0.12 7)	(0.05 5)	(0.1 42)	(0.1 96)	(0.058)	(0.119)	(0.088 )	(0.118 )
hh_propf em	- 2.53 9**	- 4.27 2**	- 0.095	0.821 **	0.32 4	0.69 4	0.614	0.749	0.286	0.531	3.13 1	2.4 26	- 0.819	- 0.995	1.95 0**	1.03 5	0.040	-0.088	0.145	-0.686
	(1.2 04)	(1.9 19)	(0.49 7)	(0.38 5)	(0.6 98)	(1.1 71)	(0.400)	(0.745)	(0.371 )	(0.552 )	(1.9 86)	(1.7 14)	(0.87 1)	(0.60 8)	(0.9 50)	(1.6 08)	(0.384)	(0.939)	(0.618 )	(0.892 )
hh_hhnu mber	0.06 5	0.04 6	- 0.067	- 0.063 *	0.13 9**	0.04 4	-0.023	0.004	-0.051	-0.026	0.23 5	0.0 10	0.044	- 0.001	0.01 2	0.02 9	0.017	0.109	-0.073	0.119
	(0.1 20)	(0.1 38)	(0.04 6)	(0.03 3)	(0.0 64)	(0.1 03)	(0.037)	(0.063)	(0.038 )	(0.048 )	(0.1 82)	(0.1 22)	(0.09 5)	(0.04 0)	(0.0 90)	(0.1 37)	(0.037)	(0.072)	(0.057 )	(0.076 )
hh_wealt h	0.24 8	0.12 6	- 0.096	- 0.085	0.04 2	0.62 2***	0.031	-0.219**	-0.095	0.358* **	0.12 3	0.0 25	0.009	0.073	0.31 8*	0.47 1**	0.084	0.000	-0.042	-0.146
	(0.2 28)	(0.2 49)	(0.09 3)	(0.06 7)	(0.1 21)	(0.1 65)	(0.062)	(0.102)	(0.070 )	(0.093 )	(0.3 34)	(0.2 23)	(0.13 7)	(0.10 5)	(0.1 62)	(0.2 28)	(0.068)	(0.133)	(0.106 )	(0.140 )
county2	3.55 5***	2.23 7**	- 1.197 **	- 0.461	0.74 5	0.82 0	1.345***	0.457	-0.017	0.938* **	0.16 8	2.0 59**	- 0.251	0.559	0.74 4	0.02 0	-0.284	-1.037*	1.023* *	0.298
	(1.0 21)	(0.9 97)	(0.47 5)	(0.38 4)	(0.6 21)	(0.8 81)	(0.346)	(0.572)	(0.288 )	(0.428 )	(1.3 12)	(0.9 87)	(0.47 8)	(0.37 9)	(0.6 28)	(0.9 54)	(0.259)	(0.543)	(0.398 )	(0.654 )
county3	4.58 2***	1.79 8	- 1.153 **	0.659	0.24 7	1.99 0*	0.631*	0.364	0.080	1.254* *	0.71 2	0.9 11	- 0.325	0.043	1.57 0**	0.58 8	-0.455	0.276	-0.404	0.692
	(1.1 69)	(1.2 11)	(0.53 3)	(0.65 6)	(0.7 29)	(1.1 85)	(0.366)	(0.649)	(0.293 )	(0.576 )	(1.6 95)	(0.6 59)	(0.65 8)	(0.26 3)	(0.7 57)	(0.9 74)	(0.343)	(0.649)	(0.391 )	(0.576 )
county4	4.89 3***	2.63 6***	- 2.107 ***	- 0.135	1.18 3***	0.41 8	0.289	0.351	0.667* **	0.620* *	5.77 1***	0.0 56	1.569 ***	0.232	2.76 2***	1.24 3	-0.355	-0.763	-0.194	-0.077
	(0.8 06)	(0.7 71)	(0.29 1)	(0.19 1)	(0.4 37)	(0.5 52)	(0.255)	(0.327)	(0.255 )	(0.259 )	(1.2 11)	(0.6 21)	(0.57 7)	(0.25 1)	(0.7 36)	(1.0 32)	(0.299)	(0.555)	(0.364 )	(0.574 )
county5	5.31 3***	3.44 3***	- 0.845 **	- 0.288	0.01 8	0.73 2	-0.035	0.342	0.363	0.768* **	2.18 1**	1.0 58	0.353	0.640 **	0.07 7	0.77 2	-0.689**	-0.454	-0.243	-0.001
	(0.8 71)	(0.8 24)	(0.37 9)	(0.18 7)	(0.5 40)	(0.6 81)	(0.264)	(0.447)	(0.286 )	(0.277 )	(1.0 88)	(0.6 77)	(0.44 9)	(0.30 6)	(0.5 53)	(0.7 90)	(0.267)	(0.466)	(0.337 )	(0.500 )
o.marrie d												-		-		-		-		-
Constant	19.1 18** *	12.3 30** *	5.284 ***	1.368 **	2.08 3	0.75 9	0.948	-1.318	10.75 1***	12.57 2***	19.3 16** *	7.9 10** *	6.342 ***	2.291 ***	2.67 3	6.43 9**	0.421	0.174	7.821* **	5.855* **
	(2.9 65)	(4.4 34)	(0.97 7)	(0.65 1)	(1.9 07)	(2.2 24)	(0.814)	(1.480)	(0.921 )	(3.053 )	(3.8 83)	(2.5 81)	(1.64 9)	(0.83 0)	(1.7 38)	(2.5 27)	(0.672)	(1.146)	(1.005 )	(1.341 )

[illegible]

**Table A4: Impact of care-related services and infrastructure on women's and men's multi-tasking (carrying out two or more care activities at once)**

	Uganda		Zimbabwe	
	Women	Men	Women	Men
VARIABLES	multitask	multitask	multitask	multitask
hh_improved_water	-0.923*	-0.442	-2.416***	0.218
	(0.478)	(0.455)	(0.764)	(0.286)
hh_electric	0.352	0.534	0.118	-0.029
	(0.562)	(0.354)	(0.855)	(0.459)
hh_health	1.376***	1.195***	-2.421	0.173
	(0.462)	(0.358)	(2.486)	(0.559)
hh_day_care_yes	1.488***	0.301	1.750*	-0.020
	(0.569)	(0.389)	(0.915)	(0.406)
married	0.029	1.094**	0.141	
	(0.494)	(0.458)	(0.897)	
age_adult	-0.032**	0.002	-0.049*	-0.032**
	(0.016)	(0.011)	(0.027)	(0.015)
education_adult	0.325**	-0.021	0.038	-0.102
	(0.145)	(0.134)	(0.295)	(0.139)
w_income	-0.481***	-0.301*	0.180	0.006
	(0.158)	(0.159)	(0.248)	(0.073)
hh_propfem	-2.582***	-1.944	-0.976	-0.581
	(0.919)	(1.415)	(1.668)	(0.728)
hh_hhnumber	0.116	0.059	0.200	0.042
	(0.086)	(0.087)	(0.149)	(0.069)
hh_wealth	0.116	-0.190	-0.098	0.244
	(0.168)	(0.126)	(0.283)	(0.172)
county2	-2.382***	-0.200	-1.774	0.968**
	(0.712)	(0.430)	(1.104)	(0.380)
county3	-1.932**	0.548	-0.436	-0.015
	(0.784)	(0.709)	(1.255)	(0.218)
county4	-2.881***	-0.631*	-3.023***	0.139
	(0.521)	(0.348)	(0.928)	(0.193)
county5	-3.152***	-0.807**	-1.209	1.212***
	(0.568)	(0.368)	(0.960)	(0.430)
o.married				-
Constant	11.524***	3.534*	11.196***	1.103
	(1.970)	(1.884)	(3.445)	(0.964)
Observations	801	500	327	237
R-squared	0.123	0.059	0.128	0.091
-2LL	-2348	-1322	-1006	-518.5
df	15	15	15	14

Robust standard errors in parentheses			
*** p<0.01, ** p<0.05, * p<0.10			

**Table A5: Impact of care-related infrastructure and services on the distribution of all care between men and women: male-to-female ratio of care**

	<b>Uganda</b>	<b>Zimbabwe</b>
	<b>Women</b>	<b>Men</b>
VARIABLES	ratio_anycare	ratio_anycare
hh_improved_water	-0.050*	0.016
	(0.030)	(0.039)
hh_electric	0.040	0.008
	(0.041)	(0.057)
hh_health	0.016	0.022
	(0.043)	(0.067)
hh_day_care_yes	0.001	-0.011
	(0.036)	(0.047)
married	0.175***	0.173***
	(0.025)	(0.035)
age_adult	0.001*	-0.001
	(0.001)	(0.002)
education_adult	0.009	-0.009
	(0.010)	(0.036)
w_income	0.002	0.009
	(0.011)	(0.012)
hh_propfem	-0.065	-0.125
	(0.057)	(0.086)
hh_hhnumber	-0.008	-0.006
	(0.006)	(0.008)
hh_wealth	0.003	0.015
	(0.011)	(0.018)
county2	-0.092**	0.020
	(0.046)	(0.059)
county3	-0.003	-0.146*
	(0.083)	(0.076)
county4	-0.076**	0.014
	(0.034)	(0.073)
county5	-0.109***	-0.011
	(0.036)	(0.064)
Constant	0.031	0.057
	(0.128)	(0.191)
Observations	777	317
R-squared	0.061	0.068
-2LL	-199.5	-105.3
df	15	15

Robust standard errors in parentheses	
*** p<0.01, ** p<0.05, * p<0.10	

**Table A6: Impact of care-related services and infrastructure on leaving dependants alone**

	<b>Uganda</b>	<b>Zimbabwe</b>
VARIABLES	dependant_left_alone	dependant_left_alone
hh_improved_water	-0.024 (0.033)	0.001 (0.033)
hh_electric	-0.026 (0.052)	0.041 (0.061)
hh_health	-0.041 (0.069)	-0.074 (0.112)
hh_day_care_yes	0.128** (0.056)	-0.047 (0.036)
married	-0.005 (0.035)	-0.045 (0.047)
age_adult	-0.001 (0.001)	-0.002 (0.001)
education_adult	0.007 (0.013)	-0.009 (0.017)
w_income	0.007 (0.011)	0.001 (0.010)
hh_propfem	-0.015 (0.064)	-0.116 (0.077)
hh_hhnumber	-0.002 (0.006)	0.007 (0.007)
hh_wealth	0.010 (0.013)	0.009 (0.013)
county2	-0.107* (0.058)	-0.013 (0.042)
county3	-0.135** (0.061)	-0.031 (0.060)
county4	-0.064 (0.049)	-0.017 (0.047)
county5	-0.125** (0.050)	0.042 (0.044)
Constant	0.206 (0.134)	0.275 (0.168)
Observations	801	327
R-squared	0.027	0.034
-2LL	-294.6	-30.80
df	15	15

Robust standard errors in parentheses	
*** p<0.01, ** p<0.05, * p<0.10	

**Table A7: Impact of kerosene lamp in the household on men's any care responsibilities (Uganda)**

Uganda	
	Men
VARIABLES	any_care
hh_equipment_ker_lamp	0.170*
	(0.502)
hh_improved_water	-1.682**
	(0.722)
hh_electric	0.716
	(0.770)
hh_health	1.652
	(1.450)
hh_day_care_yes	-0.406
	(0.749)
married	-1.330
	(3.318)
age_adult	-0.017
	(0.018)
education_adult	0.527**
	(0.261)
w_income	-0.439*
	(0.237)
hh_propfem	-4.311**
	(1.935)
hh_hhnumber	-0.046
	(0.137)
hh_wealth	-0.126
	(0.257)
county2	-2.283**
	(0.987)
county3	-1.881
	(1.212)
county4	-2.683***
	(0.777)
county5	-3.508***
	(0.819)
o.married	
Constant	12.467***
	(4.481)
Observations	503



R-squared	0.098
-2LL	-1578
df	16
Robust standard errors in parentheses	
*** p<0.01, ** p<0.05, * p<0.10	

# **A8: Impact of care-related services and infrastructure on children and adolescents' time use**

	Uganda										Zimbabwe									
	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)
VARIABLES	hours_car e	hours_car e	hours_leisur e	hours_leisur e	hours_ paidwor k	hours_ paidwor k	hrs_st udyin g	hrs_st udyin g	hrs_ slee p	hrs_ slee p	hours_ s_car e	hours_ s_car e	hours_ leisur e	hours_ leisur e	hours_ paidwor k	hours_ paidwor k	hrs_st udyin g	hrs_st udyin g	hrs_ slee p	hrs_ slee p
hh_impro ved_wate r	0.45 4	0.41 2	0.311	0.593* *	-0.015	0.042	-0.141	0.163	0.52 5**	0.30 7	0.03 3	0.63 2	2.059* **	2.324* **	-0.016	-0.354	0.567 **	-0.147	0.43 2	0.13 7
	(0.37 8)	(0.44 2)	(0.264 )	(0.299 )	(0.108)	(0.169)	(0.11 8)	(0.10 0)	(0.2 28)	(0.2 20)	(0.74 6)	(0.75 5)	(0.578 )	(0.545 )	(0.104)	(0.330)	(0.24 0)	(0.30 4)	(0.3 62)	(0.3 79)
hh_electri c	1.05 6	1.12 1**	0.797	-0.104	-0.130	0.523	-0.007	0.690 **	0.04 1	0.11 4	1.00 3	0.51 6	1.169	0.489	-0.126	-0.525	-0.213	1.013	0.05 8	0.74 0
	(0.71 5)	(0.57 0)	(0.546 )	(0.610 )	(0.083)	(0.504)	(0.19 3)	(0.32 9)	(0.3 83)	(0.3 80)	(0.63 3)	(0.78 6)	(0.793 )	(0.861 )	(0.101)	(0.330)	(0.42 0)	(0.74 7)	(0.5 58)	(0.7 05)
hh_healt h	0.63 3	2.13 9***	0.173	0.162	0.109	-0.119	0.218	0.188	0.14 3	0.88 3*	0.23 8	1.94 0	-0.356	1.197	-0.099	-0.892	-1.330	0.226	0.60 1	3.27 3***
	(0.62 3)	(0.79 9)	(0.521 )	(0.593 )	(0.109)	(0.249)	(0.18 3)	(0.26 4)	(0.3 62)	(0.4 83)	(1.26 5)	(2.33 5)	(0.711 )	(2.296 )	(0.151)	(0.559)	(1.39 7)	(0.52 4)	(1.0 57)	(0.7 61)
hh_day_c are_yes	0.84 2	0.64 1	-0.413	0.173	-0.138**	0.543** *	0.218	0.003	0.80 6	0.18 5	0.01 1	0.56 5	0.442	0.027	0.056	0.032	0.041	0.344	0.02 5	0.50 0
	(0.60 4)	(0.64 1)	(0.380 )	(0.505 )	(0.068)	(0.164)	(0.19 7)	(0.24 1)	(0.5 24)	(0.4 34)	(0.87 6)	(0.66 8)	(0.602 )	(0.596 )	(0.175)	(0.305)	(0.30 1)	(0.28 2)	(0.5 30)	(0.4 59)
child_age	0.01 9	0.03 3	0.143* **	0.171* **	0.022	0.121** *	-0.011	0.005	0.09 6***	0.11 3***	0.13 3	0.32 5***	0.239* **	-0.154	0.025	0.067	-0.017	0.016	0.05 3	0.10 2*
	(0.04 4)	(0.05 1)	(0.030 )	(0.041 )	(0.017)	(0.027)	(0.01 3)	(0.01 5)	(0.0 26)	(0.0 31)	(0.08 9)	(0.10 7)	(0.083 )	(0.094 )	(0.022)	(0.051)	(0.04 2)	(0.04 8)	(0.0 53)	(0.0 54)
hh_In_inc ome	0.07 9	0.66 8***	-0.117	0.318* **	0.045	-0.072	0.134 ***	0.093 *	0.24 8***	0.26 6***	0.18 8	0.27 8	-0.223	-0.246	0.106	-0.011	-0.059	0.213	0.12 8	0.29 2**
	(0.12 5)	(0.15 4)	(0.101 )	(0.115 )	(0.056)	(0.075)	(0.03 7)	(0.04 8)	(0.0 91)	(0.0 82)	(0.26 0)	(0.21 0)	(0.186 )	(0.167 )	(0.067)	(0.080)	(0.10 3)	(0.14 0)	(0.1 34)	(0.1 21)
hh_propf em	0.37 4	2.08 6**	0.362	0.895	-0.040	0.304	0.092	0.333	0.09 3	0.54 4	0.98 4	0.54 9	0.514	0.978	-0.102	-0.547	-0.148	0.914	0.28 5	0.54 1
	(0.96 8)	(1.03 )	(0.729 )	(0.821 )	(0.358)	(0.511)	(0.32 4)	(0.31 3)	(0.5 77)	(0.4 97)	(1.69 9)	(1.84 5)	(1.212 )	(1.565 )	(0.213)	(0.908)	(0.67 2)	(1.18 9)	(0.9 40)	(1.1 31)
hh_hhnu mber	-0.11	-0.02	0.076	-0.004	0.011	-0.022	0.049 *	0.033	-0.02	-0.01	0.12 0	-0.01	-0.055	-0.150	-0.014	0.168	-0.054	0.073	0.10	0.00 3

	0	5							6	1		8						6		
	(0.07 6)	(0.09 2)	(0.059 )	(0.071 )	(0.024)	(0.044)	(0.02 8)	(0.02 7)	(0.0 47)	(0.0 42)	(0.14 9)	(0.17 8)	(0.100 )	(0.119 )	(0.015)	(0.161)	(0.04 5)	(0.07 3)	(0.0 92)	(0.0 82)
hh_wealt h	0.02 4	0.58 6***	-0.005	0.266* *	-0.027	0.084	- 0.035	0.080 *	0.09 4	0.07 5	0.25 9	0.63 9**	-0.200 (0.195 )	-0.343 (0.235 )	-0.088	0.003	0.174 **	- 0.115	0.07 5	0.02 5
	(0.14 0)	(0.16 8)	(0.083 )	(0.132 )	(0.038)	(0.059)	(0.04 1)	(0.04 3)	(0.0 74)	(0.0 78)	(0.26 5)	(0.25 9)	(0.195 )	(0.235 )	(0.069)	(0.119)	(0.08 3)	(0.13 9)	(0.1 53)	(0.1 34)
county2	- 2.65 6***	1.07 2	2.062* **	1.740* **	0.113	-0.128	1.056 ***	0.283	0.59 6	0.24 8	1.38 7	0.80 7	-0.084	0.029 (0.834 )	-0.085	-0.025	- 0.159	- 0.077	0.42 1	0.10 9
	(0.77 3)	(0.66 5)	(0.592 )	(0.664 )	(0.119)	(0.437)	(0.21 9)	(0.34 2)	(0.4 05)	(0.3 83)	(0.89 9)	(0.89 1)	(0.784 )	(0.834 )	(0.245)	(0.416)	(0.32 8)	(0.47 2)	(0.5 10)	(0.5 45)
county3	- 2.27 6**	- 0.93 7			- 0.251**	0.176	0.896 ***	0.473	0.76 4*	0.83 6*	2.25 6**	0.30 3	2.492* **	-0.989	0.058	0.301	1.515 **	- 0.283	0.68 7	0.03 2
	(0.88 2)	(0.75 2)	(0.705 )	(0.542 )	(0.118)	(0.527)	(0.32 7)	(0.38 3)	(0.4 37)	(0.4 80)	(0.95 2)	(0.77 7)	(0.839 )	(0.994 )	(0.147)	(0.357)	(0.66 6)	(0.45 6)	(0.7 93)	(0.5 92)
county4	- 3.01 1***	0.05 8	1.308* **		-0.096	0.398	0.426 **	0.007	1.05 1***	0.42 4	0.68 6	0.32 9	2.880* **	4.560* **	-0.223	0.028		- 0.212	0.36 4	0.96 0
	(0.49 8)	(0.55 4)	(0.391 )	(0.445 )	(0.183)	(0.284)	(0.20 6)	(0.14 9)	(0.3 35)	(0.3 10)	(1.09 9)	(0.94 7)	(0.849 )	(0.773 )	(0.172)	(0.265)	(0.42 6)	(0.49 3)	(0.6 72)	(0.6 42)
county5	- 2.69 6***	0.25 5			- 0.237**	0.061	0.233	0.220	0.93 2***	0.22 3	1.39 8	0.31 2	2.157* **	-0.543	-0.097	-0.095	- 0.745 ***	- 0.814 **	0.57 3	0.25 8
	(0.56 6)	(0.55 1)	(0.397 )	(0.509 )	(0.096)	(0.310)	(0.15 8)	(0.21 3)	(0.3 18)	(0.2 94)	(0.91 1)	(0.86 0)	(0.628 )	(0.697 )	(0.181)	(0.255)	(0.25 6)	(0.39 3)	(0.4 65)	(0.4 73)
Constant	9.41 1***	3.16 1*	4.196* **	7.604* **	-0.547	-0.630	- 1.508 ***	- 1.033 *	13.3 55** *	13.1 66** *	3.37 4	3.90 6	7.960* **	6.427* *	-0.076	-0.163			9.89 6***	9.18 5***
	(1.74 8)	(1.89 3)	(1.310 )	(1.433 )	(0.888)	(0.790)	(0.46 6)	(0.55 2)	(1.1 30)	(0.9 47)	(2.81 8)	(3.14 7)	(1.551 )	(2.515 )	(0.296)	(0.769)	(1.57 5)	(0.98 0)	(1.7 55)	(1.3 26)
Observati ons	401	351	401	351	401	351	400	351	400	351	109	101	109	101	109	101	109	100	109	100
R- squared	0.23 8	0.11 6	0.241	0.155	0.027	0.111	0.223	0.268	0.10 6	0.11 2	0.11 6	0.15 1	0.365	0.372	0.101	0.131	0.343	0.183	0.09 6	0.19 8
-2LL	-998	-895. 9	-850.2	-792.2	-519.5	-624.5	- 552.7	- 471.7	- 784. 4	- 673. 6	- 271. 2	- 250. 6	-249.5	-231.2	-91.69	-159.3	- 168.8	- 164.4	- 214. 6	- 186. 8
df	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13
Robust standard errors in parentheses																				
*** p<0.01, **																				
p<0.05, * p<0.10																				

**Table A9: Physical and mental harm from unpaid care and domestic work reported by women**

	Uganda		Zimbabwe	
	N	%	N	%
<b>In the last 12 months, have you suffered any injury, illness, disability or other physical or mental harm from your unpaid domestic work or caring for people?</b>				
No	701	65,45	249	61,03
Yes	351	32,77	155	37,99
Refuses to say	19	1,77	3	0,74
NR			1	0,25
Total	1071	100	408	100
<b>What <u>effect</u> did this injury, illness or other harm have on you?</b>				
No long-term effect	147	41,88	72	46,45
A long-term effect that prevents me from working at all	13	3,7	14	9,03
A long-term effect so I can't continue to perform the same work	52	14,81	22	14,19
long-term effect but can still do same work as before	76	21,65	46	29,68
A long-term effect, can still do same work but not as before	48	13,68		
Refuses to say	15	4,27	1	0,65
Total	351	100	155	100
<b>What <u>harm</u> did you experience as a result of your unpaid domestic work or caring for people?</b>				
headaches		0,20		0,28
Backache		0,57		0,61
burn		0,25		0,12
Respiratory		0,10		0,19
Stress		0,10		0,10
fatigue		0,13		0,09
Digestive		0,02		0,02

other_injury		0,06		0,05
<b>Are you concerned that your unpaid domestic work or caring for people will cause you physical or mental harm in the future?</b>				
Not concerned at all	63	5,86	33	8,09
Not very concerned	73	6,78	26	6,37
Somewhat concerned	107	9,94	42	10,29
Very concerned	108	10,04	61	14,95
NR	725	67,38	246	60,29
Total	1076	100	408	100

**Table A10: Impact of gendered distribution of care work (male-to-female ratio of hours spent on total care work) on women's decision making and influence**

	<b>Uganda</b>	<b>Zimbabwe</b>
VARIABLES	agency_influence_1	agency_influence_1
ratio_anycare	2.590***	2.055
	(0.840)	(1.801)
married	5.901***	11.980***
	(1.224)	(1.997)
age_adult	-0.019	0.029
	(0.029)	(0.042)
education_adult	0.360	0.396
	(0.272)	(0.543)
hh_ln_income	0.801***	0.294
	(0.259)	(0.359)
hh_propfem	-1.834	-2.892
	(1.603)	(2.729)
hh_hhnumber	0.070	0.156
	(0.144)	(0.227)
hh_wealth	-0.552**	0.084
	(0.279)	(0.437)
county2	-0.149	1.094
	(1.071)	(1.770)
county3	0.491	1.828
	(1.535)	(2.043)
county4	1.048	-0.966
	(0.895)	(2.025)
county5	2.292**	-1.962
	(1.058)	(1.533)

Constant	1.897	1.939
	(3.133)	(4.388)
Observations	629	263
R-squared	0.103	0.135
-2LL	-2105	-916.1
df	12	12
Robust standard errors in parentheses		
*** p<0.01, ** p<0.05, * p<0.10		

**Table A11: Impact of women and men's approval of a more equitable division of care work on the ratio of care responsibilities**

	Uganda		Zimbabwe	
	Women	Men	Women	Men
VARIABLES	hh_ratio_anycare	hh_ratio_anycare	hh_ratio_anycare	hh_ratio_anycare
shared_approve	0.052**	0.121***	-0.021	-0.027
	(0.023)	(0.031)	(0.048)	(0.058)
hh_improved_water	-0.047	-0.066	0.015	0.041
	(0.030)	(0.043)	(0.039)	(0.051)
hh_electric	0.037	0.013	0.010	0.001
	(0.041)	(0.082)	(0.056)	(0.075)
hh_health	0.010	0.104	0.020	0.085
	(0.043)	(0.069)	(0.067)	(0.101)
hh_day_care_yes	0.008	-0.050	-0.012	-0.002
	(0.036)	(0.057)	(0.048)	(0.069)
married	0.171***	-0.260	0.172***	
	(0.025)	(0.334)	(0.035)	
age_adult	0.002*	0.000	-0.001	-0.003
	(0.001)	(0.001)	(0.003)	(0.002)
education_adult	0.008	0.028**	-0.008	-0.050
	(0.010)	(0.014)	(0.037)	(0.035)
hh_ln_income	0.004	0.001	0.011	0.028*
	(0.011)	(0.016)	(0.012)	(0.016)
hh_propfem	-0.069	-0.067	-0.126	-0.185
	(0.057)	(0.111)	(0.086)	(0.132)
hh_hhnumber	-0.008	-0.010	-0.006	-0.009
	(0.006)	(0.009)	(0.008)	(0.011)
hh_wealth	0.003	0.001	0.015	0.031
	(0.011)	(0.016)	(0.018)	(0.024)
county2	-0.091*	-0.051	0.016	0.046
	(0.046)	(0.089)	(0.058)	(0.087)
county3	-0.000	0.078	-0.146*	-0.181*
	(0.083)	(0.174)	(0.077)	(0.100)
county4	-0.072**	-0.122***	0.009	0.050
	(0.034)	(0.045)	(0.073)	(0.111)

county5	-0.105***	-0.148***	-0.015	0.021
	(0.036)	(0.049)	(0.061)	(0.093)
o.married				-
Constant	-0.024	0.380	0.071	0.379**
	(0.128)	(0.384)	(0.184)	(0.189)
Observations	777	487	317	230
R-squared	0.065	0.068	0.068	0.057
-2LL	-197.7	-212.1	-105.2	-106
df	16	16	16	15
Robust standard errors in parentheses				
*** p<0.01, ** p<0.05, * p<0.10				

## NOTES

- 1 For the purpose of this paper we understand use of childcare as a proxy indicator for access.
- 2 Henceforth we use the term 'care work' to encompass both unpaid care and domestic work and use the terms interchangeably
- 3 Oxfam has carried out three iterations of this survey, the first in 2014, the second in 2015 and the most recent in 2017.
- 4 We restrict our analysis to young people aged 8 to 19.
- 5 We are aware that measuring income accurately can be difficult. Some respondents might not want to reveal their income or they are unable to recall how much they earned (especially if they are illiterate). To improve accuracy, we asked respondents to report their income earned in the past three months from different sources (e.g. formal employment, agriculture, remittances and more).
- 6 We recognize that with access to certain services/infrastructure care hours can increase as it may enable men/women to carry out additional unpaid care and domestic work activities that they were unable to previously – to wash clothes more often, for example. People may do tasks more productively and less intensively by stretching out care work over extended hours. Hence we also include multi-tasking of care activities as an indicator of the intensity/heaviness of care work.
- 7 Not a natural source like a river, spring.
- 8 In the Zimbabwean data, the variable for marital status was omitted because of collinearity.
- 9 We will refer to both children and adolescents as boys and girls.

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