Gendered Experience of Interpersonal Violence in Urban and Rural Spaces: The Case of Ghana

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Abstract

This paper exploits unique quantitative data from Ghana to investigate gendered experiences of inter-personal domestic and non-domestic violence in urban and rural areas. Urban areas are characterised by lower levels of domestic violence against women but higher levels of non-domestic violence against men than rural areas. We conduct Oaxaca-Blinder decomposition analyses to identify the sources of these differences. Urban areas reduce violence through higher welfare, education and employment outcomes, and lower alcohol consumption and polygamy prevalence than in rural areas. But more people living alone and wider insecurity in urban environments have the opposite effect on domestic and non-domestic violence.

Keywords: inter-personal violence, domestic violence, violence against women, violence against men, urban, rural, Ghana

1 Introduction

Between 1950 and 2014, the proportion of the world population living in urban areas has risen from 30 to 54 per cent; and it is projected to further increase to 66 per cent by 2050 (UN-DESA, 2014). Most of the shift is the result of net migration from rural to urban areas (Tacoli et al., 2015). In Ghana, which is the focus of this paper, the share of the urban population has more than doubled between 1960 and 2010, from 23 to 51 per cent. Cities enable greater economic efficiency thanks to economies of scale in production. 600 cities in the world concentrated half of global GDP in 2007 (Dobbs et al., 2011). However, in the developing world, and contrary to the assumption that urban migration is driven by the expansion of the modern sector in cities (Lewis, 1955), urbanisation has largely occurred without industrialisation (Beall and Fox, 2009). An important proportion of urban migrants actually end up working in the informal sector, a phenomenon already examined by Todaro (1969). Urban migrants and vulnerable city dwellers in the global South experience marginalisation, exclusion from formal labour and housing markets, poor access to key services and amenities, and widespread legal insecurity (Rakodi, 2008; Kruijt and Koonings, 2009; UN-Habitat, 2010; Rodgers et al., 2011). These inequalities and exclusion are also a reflection of explicit policies that attempt to curb urban migration (Chant, 2013; Chant and McIlwaine, 2016).

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In this context, it is not surprising that urbanisation has often been linked with violence and crime. Violence in cities is multifaceted and routinely encompasses gang and youth violence, crime, violent protests, and armed conflict.[1] More often that not, these dimensions interact, as Gupte et al. (2014) show in urban Maharashtra. One intellectual tradition sees competition for scare resources as the primary driver of violence (Homer-Dixon, 1994). Rapid urbanisation, by straining the capacity of cities to offer opportunities and amenities to everyone, is thus conducive to violence (Urdal, 2006; Muggah, 2012). Bates (2000) famously argued that competition for jobs and other resources in cities caused individuals to rely on ethnic networks, reinforcing the risk of ethnic-based violent conflicts. There is also a wide literature on inequalities, with a strong consensus that inequalities across and within cities are correlated with rates of violence (Muggah, 2012). The juxtaposition of the rich and the poor and the close proximity of centres of powers also explain why cities can become loci of violence (Beall et al., 2013). Inability to access decent jobs, housing and difficult access to services - especially in informal settlements - are also likely to fuel relative deprivation feelings, which can foster violence (Gurr, 1970). Finally, the lack of jobs can push (young) individuals into crime and the illegal sector in their quest for securing a livelihood (Collier, 1998; World Bank, 2010a).

While it is well known that the spatial distribution of violence in cities is very unequal, with a few neighbourhoods concentrating most of the violence, it is also clear that experiences of violence are significantly gendered (Moser and McIlwaine, 2001). Recent research in the field of urban development has explicitly started to analyse the gendered experiences of violence in urban areas and the impact of urbanisation on individuals' experiences of violence. On the one hand, men have been shown to be more likely to die as a result of urban violence. This is due to the higher involvement of men in gangs and the ensuing exposure to violence in the streets (e.g. Kruijt and Koonings, 2009), and not because men are targeted for their gender (McIlwaine and Moser, 2000; Moser and McIlwaine, 2004; Jones and Rodgers, 2009). On the other hand, women are more vulnerable to gender-based violence, particularly when going out alone; be it to collect water, use communal sanitation facilities or just travelling alone. This especially affects women who "transgress" gender norms by living alone with or without children. To that effect, evidence from Bangladesh, India and Kenya has shown that some women even prefer staying in abusive relationships with "real" or "make-do" husbands" over taking any risks (Joshi et al., 2011). Furthermore, women are particularly vulnerable to break-ins, theft and rape in homes in unsecured areas with poor home security. Taking into account these urban insecurities to women and the fact that one out of three women worldwide are estimated to experience domestic violence, women are thought to suffer twice as often from violence in urban areas than men (UN-Habitat, 2006).

Yet, uncertainty as to the reality of the gendered experiences of inter-personal violence in urban and rural areas remains high. For instance, the link between urbanisation and domestic violence is not clear. WHO (2005) found that women were more at risk of intimate partner violence in rural than urban areas in Peru, Thailand, Bangladesh and Brazil but Kishor and Johnson (2004) found the reverse in Colombia, Dominican Republic, Haiti, Nicaragua, Peru and Zambia.

The reasons for this uncertainty are threefold. First, risk factors of interpersonal violence are not uniformly higher in urban than rural areas, or vice-versa. In fact, while some risk factors are more

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[1]It is also worth noting that fatalities due to violence in non-war settings outweigh war-related deaths (World Bank, 2010b; UNODC, 2014), and that much of this violence is located in cities.

pronounced in cities (competition for resources, for instance), others are less so (economic dependency of women, for instance). Second, the reality of urban lives can be quite different from the imagined realities. Third, high quality victimisation data allowing researchers to systematically compare rates of violence across genders and types of residence are remarkably rare. Studies looking at GBV or domestic violence, for instance, are often restricted to intimate partner violence, and almost always ignores men as potential victims.

In this paper, we contribute to tackling this gap by exploiting a unique household and individual survey dataset collected in Ghana in 2015 by IDS et al. (2016).[2] This dataset contains information that allows us to overcome frequent limitations in the literature. In particular, it includes a very detailed set of victimisation modules that were administered to *both* female and male respondents, and which distinguish violence by the nature of the acts (physical, sexual, psychological, economic) and by perpetrators (household members, family members, friends, acquaintances or strangers).

We are thus able to provide data on the extent of interpersonal violence against women and girls and interpersonal violence against men and boys aged 15 to 60. We can identify how much of this violence is domestic (i.e. committed by someone in a domestic relationship with the respondent) and non-domestic (i.e. committed by friends, acquaintances and strangers). And we can characterise violence by nature, enabling us to look at very precise categories of violence such as domestic physical violence against women and girls, for instance.

We rely on the ecological model to integrate theories of interpersonal violence to identify the most important risk factors. Interpersonal violence is generally defined by acts falling within the domestic sphere (family and intimate partner violence, often referred to as domestic violence) and violent acts between unrelated individuals which may or may not know each other. Dahlberg and Krug (2002) discuss various types of interpersonal violence, showing that those various types often "share a number of risk factors" (p.14), such as cultural norms, poverty, isolation, alcohol or substance abuse. Therefore, at-risk populations often experience multiple types of violence that are linked.[3] Most evidence on factors related to experience and perpetration of interpersonal violence at the different levels of the ecological model come from studies on violence against women and girls. We therefore draw from this extensive literature for our framework. In section 2 we discuss how risk factors are expected to vary in importance in urban and rural settings.

We then show how interpersonal violence rates differ across women and men, and across urban and rural residence. Furthermore, we explore whether different prevalence rates of violence in urban and rural contexts can be explained by different levels of the risk factors. To do that, we conduct a series of Oaxaca-Blinder decomposition analyses. We find that overall differences in prevalence rates of violence against women and girls are relatively modest between urban and rural areas while the differences are larger for men and boys. Women are more likely to suffer from any type of domestic violence in rural areas (25 per cent) than in urban areas (21 per cent), mostly because of reduced economic violence. In contrast, men are more exposed to domestic controlling behaviours and domestic sexual violence in urban

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[2]We have participated in the design of this study and the data collection.

[3]The ecological model aims to understand and lay out causes of violence at the individual, relational, community and structural levels, and their interconnections. Being developed in the late 1970s as an ecological model of human development (Bronfenbrenner, 1994), it has been applied to understand several types of inter-personal violence, such as child abuse, youth violence, gang violence and intimate partner violence (e.g. Garbarino and Crouter, 1978; Fraser, 1996; Moon et al., 2010; Moser and Van Bronkhorst, 1999; Heise, 1998, , amongst others).

areas than in rural areas (10 per cent and 2.2 per cent in the former against 7.9 per cent and 2.2 per cent in the latter, respectively). Men are less likely to suffer from domestic physical violence in urban areas (1.7 per cent) than in rural areas (3.4 per cent), however. Finally, urban men are significantly more exposed to controlling behaviours (prevalence rate of 13 per cent), any form of violence (41 per cent), and sexual violence (13 per cent) committed by friends, acquaintances and strangers than rural men (for whom the corresponding prevalence rates are 8.8 per cent, 34 per cent and 5.7 per cent).

Oaxaca-Blinder decomposition suggest that a consistent set of factors tend to contain interpersonal violence in urban areas: lower prevalence of polygamy, less alcohol consumption, higher socio-economic status, higher access to primary education and less tolerance to wife beating. In contrast, urban areas tend to specifically produce interpersonal violence due to higher rates of insecurity (mostly thefts) than in rural areas. Women and men with high levels of education, who work as employees, and who are involved in community life tend to be more exposed to non-domestic violence in urban contexts, presumably because they travel more outside their homes and neighbourhoods. Overall, though, the two sets of forces tend to counteract each other (especially so for violence against women).

The remainder of the paper is organised as follows. Section 2 outlines the conceptual framework and the discussion of risk factors of inter-personal violence in urban and rural areas. Section 3 presents the data and section 9 describes the urban-rural gaps in inter-personal violence and risk factors that we find in our sample. Section 4 presents the empirical strategy and the regression results. Section 5 discusses the empirical findings and section 6 concludes.

2   Risk factors of inter-personal violence in urban and rural areas

To systematically assess how the urban and rural settings affect gendered experience of violence, we rely on the widely used ecological model, as suggested by the World Health Organisation (Dahlberg and Krug, 2002). This model posits that several factors at the personal, interpersonal, community and structural level combine to affect individual experiences of violence.

The individual level refers to personal circumstances that affect risks of being exposed to violence, such as personal history, personality traits or socio-economic status. The interpersonal relationships examine the role of the close social circle (peers, partners, family) in the exposure to violence. The community level explores the role of the settings in which social relations occur (such as schools, workplaces or the built environment). Finally, the structural level looks at the broad societal and political factors that shape, amongst others, views and attitudes on violence, (gender) inequalities, access to work, or level of development.

Most of the evidence on risk factors of interpersonal violence comes from studies on domestic violence, especially intimate partner violence (see e.g. Capaldi et al., 2012), and on gender-based violence or (sexual) violence against women and girls more generally (Dahlberg and Krug, 2002; Butchart and Mikton, 2014). Comparatively little evidence exists on interpersonal violence committed by friends, acquaintances and strangers outside the domestic framework; and on violence against men and boys. One exception looking at both kinds of interpersonal violence on a population basis is the 2015 Crime Survey for England and Wales that covers different aspects of violent crime (ONS, 2016). According to findings in this survey, between April 2014 and March 2015, 43 per cent of offences were perpetrated by strangers, 36 per cent by

acquaintances, and around 20 per cent were categorised as domestic. Whereas the majority of domestic violence happens in homes, violence by acquaintances and strangers can happen in different places, mostly at work, in pubs, clubs or other locations. Over 20 per cent of violence committed by acquaintances also takes place in or around homes. Men were found to be more likely to become victims of violent crime - often committed by strangers - and women to be more likely to be affected by domestic violence. This pattern has been found in many other settings Dahlberg and Krug (2002); Butchart and Mikton (2014). Other characteristics associated with victimisation from violent crimes in this study are age (adults aged 16-24 are most at risk), marital status (separated adults are most likely to have experienced violent crime and domestic violence whereas violence by strangers tends to be targeted at singles), and socio-economic status (adults in low income households are more likely to experience violence in general than people in higher income households) (ONS, 2016).

In what follows, we summarise the key risk factors found in the literature at each of the four levels of the ecological framework and then discuss how these can differ in urban and rural contexts.

2.1 Main risk factors of inter-personal violence

Key risk factors of *domestic violence* identified in the literature as well as in the Ghana-specific study by IDS et al. (2016) are: age and intergenerational effects, violence during childhood, marital status, socio-economic status, employment and education levels, intra-household gender dynamics, patriarchal norms, masculinities, substance use, and exposure to other forms of violence. As discussed above, various types of interpersonal violence share common risk factors. For example, many of the key variables discussed by WHO (2005), Chant (2013) and McIllwaine (2013) in their analyses of sexual and gender-based violence in cities (such as e.g. norms and women's labour force participation) are similar to those used by scholars investigating violence against women and girls (e.g. Heise, 1998). Therefore, we use the same list of potential explanatory variables for *non-domestic violence*, to which we add social capital, and access to (as well as trust in) key institutions, as they have been suggested by these authors as being important risk factors of GBV. In what follows, we provide a brief overview of the role of these risk factors, trying to distinguish between domestic and non-domestic violence, and between violence against women and violence against men. We will also discuss what differences one might expect across rural and urban spaces.

Tables 1 and 2 give an overview on risk factors that could make experiences of interpersonal violence (domestic or non-domestic) more or less likely. Factors that could decrease the risk of domestic and non-domestic violence include older age, education, the loosening of patriarchal restrictions, increased employment opportunities that could enable women to leave violent relationships or 'negotiate' better relationships, functional supportive social networks and formal institutional support.

Perpetrators of non-domestic violence are predominantly young (World Bank, 2007), and so too are victims (see e.g. Perkins, 1997). In terms of domestic violence, a host of studies found that women (Aizer, 2011) and men (IDS et al., 2016; ONS, 2016) tend to be less exposed with age. In Ghana, the population in urban areas is slightly older than in rural areas. In its Census 2010, GSS (2012) showed that the mean age of the urban population was 25 (with a median of 22), and that of that of the rural population was 24 (with a median of 18). This would suggest that interpersonal violence could be lower in urban areas.

Another factor is marital status. Separated and divorced women and men tend to report higher

incidence of violence than those who are married (García-Moreno et al., 2005; ONS, 2016). Men and women living alone are more likely to suffer from social isolation and from weaker protection from outside attacks (Joshi et al., 2011). In terms of non-domestic violence, Chant (2013) also notes that women living alone are more at risk of break-ins, theft and rape. Female-headed households are more prevalent in urban areas (Chant, 2013); and women and men tend to marry later in urban environments. In Ghana, men and women delay marriage by about three years and a half. For less educated and poorer women this difference is smaller (DHS, 2014). Furthermore, 29 per cent of households in urban areas are single-person households (compared to 22 per cent in rural) - most likely because young people move into urban areas for education or employment purposes, before they marry. We could therefore expect higher prevalence rates of non-domestic violence in urban areas.

Socio-economic status and education levels also matter for interpersonal violence (García-Moreno et al., 2005; Garbarino and Crouter, 1978). The common assumption is that poverty is one of the key stressors that can lead to domestic violence. Bobonis et al. (2013) indeed found domestic violence to be more prevalent at low income levels in Mexico, and Adinkrah (2014) showed that homicides and suicides are more frequent among individuals of low socio-economic backgrounds in Ghana. Schneider et al. (2016) show that the great recession in the US caused higher levels of domestic violence and controlling behaviours. Yet, in other settings gender-based violence has also been shown to occur at all levels of socio-economic status (Morrison et al., 2007; Amoakohene, 2004). In Ghana, IDS et al. (2016) only finds a limited role of socio-economic status on domestic violence. Violence committed by friends, acquaintances and strangers tends to be correlated with poverty Butchart and Mikton (2014). With around 71 per cent of the urban population and only 10 per cent of the rural population falling into the two highest wealth quantiles (and 36 per cent and 4 per cent in the lowest quantile, respectively), wealth is highly unequally distributed between urban and rural areas in Ghana (DHS, 2014).[4] We thus expect higher violence levels in rural areas.

The differing poverty levels across rural and urban areas reflect stark differences in terms of education and access to employment, both of which also likely to impact risk levels of violence. Education is believed to have a protective effect against violence (Jewkes, 2002). Empirically, there is a strong link between domestic violence and low levels of education in many settings (García-Moreno et al., 2005; Aizer, 2011; ONS, 2016). However, in Rwanda (La Mattina, 2013) and Ghana (IDS et al., 2016), it was found that women with intermediate levels of education were at higher risk than those with primary or with higher levels of education. Furthermore, lower levels of education have been related to higher levels of youth violence, which is one type of non-domestic violence. In Ghana, both men and women in urban areas are much more likely to be educated, particularly with respect to secondary or higher education, than their counterparts in rural areas (DHS, 2014). The share of women with some secondary or higher education in urban areas (54 per cent) is not only markedly higher than that of women in rural areas (30 per cent), but also than that of men in urban areas (23 per cent). For women, these educational differences are reflected in employment status.

Employment affects risks of violence through its effects on empowerment, norms and intra-household gender dynamics. For instance, women's participation in the labour force is widely thought to be a pro-

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[4]Of all regions, Greater Accra is the richest: 52 per cent of its population is in the highest wealth quantile. This is in contrast to the Northern and Upper East regions, for example, where just 2 per cent of the population belong to this wealth bracket.

tective factor for women, by reducing their level of economic dependency and increasing their bargaining power (Aizer, 2010; Moser, 2016). At the same time, in cities, women's work often takes place in the informal sector, and offers little security. Commuting to and from work could also make women more vulnerable to violence by strangers (Peters, 2001; Fernando and Porter, 2002; ActionAid, 2011; Chant, 2013). Furthermore, increased time poverty due to higher engagement levels in the job market on top of unpaid care activities could put stress on relationships, which in turn could increase risks of domestic violence. Regarding men, in England and Wales domestic violence against men is twice as likely amongst unemployed than against working men (ONS, 2016).

In general, urban areas are thought to provide more opportunities for employment than rural areas, and not only for women (Chant, 2013). In Ghana, we observe that employment rates in urban and rural areas strongly depend on gender. The employment rate of women does not vary by place of residence or by wealth, but it decreases with education levels.[5] The employment rate of men, however, is markedly different in urban and rural areas. The male employment rate in Ghana is highest in rural areas, among men with no education, and among men of the lower wealth quantiles (DHS, 2014).

Patriarchal gender norms and beliefs supporting the use of violence have been linked with high prevalence of domestic violence (e.g. Martin, 1976; Dobash and Dobash, 1979; Yllo and Strauss, 1990; Eswaran and Malthotra, 2011; Tenkorang et al., 2013). However, by de-legitimising women's use of public spaces, these norms are also likely to expose women and girls to violence committed by strangers while they are outside (Chant, 2013). Changes in female employment patterns can cause a drastic change in gender roles and masculine identities (Tanchen et al., 1991; Menon and Johnson, 2007; Heath, 2014). Such changes can happen more quickly and more visibly in urban areas (Evans, 2014). As described above, women are more likely to be educated in urban areas in Ghana, and thus more likely to be engaged in the labour market (DHS, 2014). We would therefore expect lower levels of interpersonal violence against women in urban spaces. Regarding men, the opposite may hold. Young men are especially prone to experience youth violence, and this form of violence is more often observed in urban than rural areas (Dahlberg and Krug, 2002). In addition, peer pressure to proving one's masculinity through violent behaviour - which is socially accepted in many cultures (Bozkurt et al., 2015) - could also contribute to expose men to interpersonal violence in urban areas.

Women are vulnerable to gender-based violence when they need to go outside for water collection or to access sanitation, especially at night (Chant, 2013). Access to water and sanitation in Ghana is better in urban areas. The majority of households (about 70 per cent) in both urban and rural spaces can access drinking water in less than 30 minutes, however 25 per cent of rural households need 30 minutes or more compared to 7 per cent in urban areas (the rest - about 21.7 per cent in urban and 6.1 per cent in rural areas - have water on their premises). Slightly more than half of urban households and 27 per cent of rural households have toilet facilities in their dwelling or their immediate proximity (yard or plot), and 18 per cent of urban versus 9 per cent of rural households have access to improved, non-shared toilet facilities (DHS, 2014). We would thus expect violence against women to be more prevalent in rural areas. However, urban households tend to live in very small dwellings, possibly causing tensions within family members. The proportion of households with overcrowded dwellings is larger in urban than in rural areas: 65 per cent of urban households have only one room for sleeping, compared to 57 per cent of rural households.

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[5]Women who are involved in work as employees or self-employed, tend to do so in sales and services.

Risk factors also include the access to social support networks. Social support has been shown to play a protective role against experiences of inter-personal violence, particularly intimate partner violence, in different settings (Heise et al., 2002). Furthermore, Ofei-aboagye (1994), among others, found that women without family support were more likely to stay in abusive relationships. Frequently changing communities, which is mots likely in some urban areas, detract from social cohesion and trust building. In those environments, inter-personal violence has been observed more frequently (e.g. Garbarino and Crouter, 1978; Dahlberg and Krug, 2002).

Tables 1 and 2 summarise the above discussion.

Table 1: Risk factors of interpersonal violence

Characteristic	What do we know about relationship with domestic and non-domestic violence	Expected differences between urban and rural areas
age	perpetrators and victims of interpersonal violence are predominantly young	urban population in Ghana slightly older than the rural -> interpersonal violence could be lower in urban areas for women and men
marital status	separated, divorced and people living alone tend to report higher incidence of domestic and non-domestic violence	more women-headed households, non-married women, and delayed marriage amongst women and men in urban areas -> higher prevalence rates of both types of interpersonal violence expected in urban areas
socio-economic status	mixed evidence on poverty impacts on domestic violence against women; lower socio-economic status shown to be related to higher levels of non-domestic violence	poverty levels lower in urban areas -> expect lower levels of non-domestic violence
education	education believed to have protective effect on victimisation and allows individuals to make better choices, but it could have a non-linear relationship with DV	average education levels in urban areas -> expect cushioning effect; perhaps gender differences with respect to DV (linearity/non-linearity)
employment status	women's participation in the labour market can have contrasted effects, depending on the level of gender equality in general and type of work; commuting could be risk factor	DV uncertain; increased risk of non-domestic violence for women

Table 2: Risk factors of interpersonal violence ... *continued*

Characteristic	What do we know about relationship with domestic and non-domestic violence	Expected differences between urban and rural areas
gender roles and norms	patriarchal norms and beliefs support use of violence against women and girls	women's visible participation in public places, higher levels of economic independence and observation of more "liberal" views in urban areas -> should expect protective effect for both DV and non-DV for women
access to key services	collection of water, fuel, etc. and use of communal sanitation facilities puts women at higher risk of violence by strangers; time poverty could lead to stress with household members and DV	access to water and sanitation better in urban areas -> expect lower levels of violence against women
social isolation	Social support from family and community has protective effect	'closer' families and less geographical mobility in rural areas -> expect higher levels of violence in urban areas
Access to, and trust in, institutions	Availability of institutions is a protective factor; access to support institutions is higher if trust is high	urban areas have a higher density of institutions (unclear about trust) -> expect higher access to formal support in urban areas
Violence during childhood	Violence is strongly intergenerational	unclear how urban or rural residence affects this variable

3   Data

The data that will be used in the empirical analysis comes from the Ghana Family Life Survey (GFLS 2015), a nationally representative household-level survey of 4,995 female and male respondents between 15 and 60 years of age that was carried out in 2015. This survey was a key feature of a study aimed to inform policies and programming against domestic violence, commissioned by the Ghana's Ministry of Gender, Children and Social Protection (MoGCSP) (IDS et al., 2016).

The GFLS survey measured prevalence rates of interpersonal violence through an individual questionnaire, which was administered to a single male or female respondent in each household. The individual questionnaire contained five modules on experience of inter-personal violence, both from a survivor and from a perpetrator perspective. Four modules covered physical, sexual, economic and psychological forms of violence. A fifth module was devoted to controlling behaviours. We make the distinction between

"control" and "violence" in order to be better able to capture some of the dynamics of domestic violence.[6]

The five categories of violence or controlling behaviours aggregate individuals' answers related to specific violent acts. Consistent with international best practices, questions were asked for each specific act and then the answers were grouped into categories. For example, physical violence includes questions on whether the respondent was slapped, kicked, pushed, hit, choked or strangled. In addition, men were asked whether their external genitalia had been kicked or pulled. In the case of sexual violence, we included acts such as inappropriate sexual touching, rape, imposition of sexual intercourse through fear or emotional blackmail, failure to communicate HIV status to sexual partners, the refusal of using protection during sexual intercourse, and inappropriate sexual comments. Psychological violence included insulting, belittling or humiliations, and the spread of false information and/or the distribution of photos or videos without permission. Refusal to give pocket money ("chop money"), taking money of someone else without consent, the destruction of or damage to property and the denial of food or other basic needs were counted as acts of economic violence. Finally, controlling behaviour included the restriction of personal mobility, stalking, controlling one's whereabouts, belongings, spending decisions and choice to participate in the labour market, threats of emotional or physical abandonment, attempts to threaten or scare someone with or without weapons, or forcing someone to have an abortion.

The list of acts includes all 'standard' acts used in DHS and WHO modules on interpersonal violence, as well as specific acts that were added after group discussions with key individuals and organisations working on domestic violence in Ghana, and after the first round of piloting. The categorization of acts into types of violence and controlling behaviour is informed by the work of Johnson (2006); Johnson and Ferraro (2000); Kelly and Johnson (2008), and have been used in the same context by IDS et al. (2016). Appendix A gives an overview on our categorization of distinct acts into controlling behaviour and the four types of violence.

We follow IDS et al. (2016) and consider an act of violence to be domestic if the perpetrator and the victim share a domestic link, i.e. if they belong to the same family and/or live under the same roof.[7] Non-domestic violence is defined in a residual way and corresponds to violence committed by friends, acquaintances and strangers. To retrieve this information, we asked each individual respondents whether they were the victims of specific acts of violence. If the answer was yes, we asked whether this happened during the last 12 months. If the respondent reported being victim of a specific act of violence (or controlling behaviour) over the last 12 months, we then asked a series of follow-up questions, including on who the perpetrator was. We first asked whether the perpetrator and the respondent shared the same roof and meals. If the response was positive, we asked the respondent to identify the perpetrator by name and cross-referenced this information with the household roster. When the perpetrator was identified as living outside the household, respondents were asked about their relationship with the perpetrator. Answer categories allowed for (former) partners, extended family members living within or outside the same community, and non-related community members, teachers, colleagues, friends, etc. This information allowed us to identify domestic and non-domestic violence. More information on the study, its methodology and a comprehensive overview of the main findings can be found in IDS et al. (2016).

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[6]For instance, it has been shown that control in combination with violent acts is a crucial factor determining the severity of intimate partner violence (see e.g. Johnson and Ferraro, 2000; Johnson and Leone, 2005; Kelly and Johnson, 2008)

[7]This definition of domestic violence conforms to the definition within Ghanaian legislation, the 2007 DV Act.

The GFLS survey also contains information on a wide range of risk factors of interpersonal violence. It describes individual attitudes towards violence, gender equality, and women autonomy (based on modules used by the Demographic and Health surveys, and on original questions). The survey also includes information on respondents' decision-making power within the household, participation in community groups, alcohol consumption, trust in a range of institutions, and education and employment statuses, among others. Finally, the survey informs us on household-level characteristics, such as demographic breakdown of households, migration status, socio-economic status (e.g. ownership of assets, land ownership, food insecurity), access and distance to key amenities and insecurity in the community.

4 Empirical assessment of urban-rural differences in interpersonal violence

4.1 Empirical strategy: Oaxaca-Blinder group decomposition techniques

To formally assess whether experiences of interpersonal violence differ between urban and rural spaces, we use the counterfactual Oaxaca-Blinder decomposition techniques (Blinder, 1973; Oaxaca, 1973). These methods decompose the source of differences in mean outcomes between two groups into an 'explained' component and an 'unexplained' component. The explained component refers to the differences in mean outcomes that stem from the difference in the level of predictors between the groups (which we just discussed in subsection 9.2 above). In other words, it corresponds to the differences in experience of violence between urban and rural areas that are due to the prevalence of risk factors being different in these areas. The unexplained component corresponds to the urban-rural differences in violence that are not explained by the differentiated levels of risk factors across urban and rural areas. It can arise because a given risk factor does not exert the same effect in both contexts or because there exist unobserved factors that are different in both contexts.

The gap in the mean level of violence in urban areas $\bar{Y}_U$ and rural areas $\bar{Y}_R$ can be written as

$$\bar{Y}_U - \bar{Y}_R = [E(X_U) - E(X_R)]'\beta^* + [E(X_U)'(\beta_U - \beta^*) + E(X_R)'(\beta_R - \beta^*)] \tag{1}$$

Where $E(X_U)$ and $E(X_R)$ are the expected values of the predictors of violence in urban and rural areas, respectively; and β^*, β_U and β_R refer to the vectors of coefficients. β_U is the vector of estimated coefficients for urban areas, β_R the vector of estimated coefficients for rural areas and β^* is the vector of coefficients which is obtained from the estimation of the violence equation when we pool data from urban and rural areas together.

The first term in the right-hand-side of equation 1 measures the difference in mean outcomes that is due to observed differences in predictors. If we find that rural-urban differences in violence come primarily from the first term, this would signify that if rural areas were to exhibit the same level of predictors than urban areas (or reciprocally), the differences in experiences of violence would disappear. It is in that sense that we refer to the first term as the 'explained' component of the difference.

The second term refers to the gap in mean outcomes that is due to the difference in the estimated parameters across the pooled and the group-specific equations. That is the 'unexplained' component.[8] If

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[8]The unexplained component will also collect the effect of any unobserved predictors.

we find that rural-urban differences in violence stem for a significant part to the 'unexplained' component, this would mean that even if rural and urban areas were to exhibit similar level of the predictors; gaps in experiences of violence would still persist. This comes from differing effects of each predictor across the two settings and would point to an 'urban' or 'rural' specificity.

It is important to stress that some right-hand side variables that will be used to predict mean rates of violence can be influenced by violence itself. For instance, individuals who have been victim to domestic violence are more likely to learn about the Domestic Violence (DV) Act or to know where the nearest victims support unit is than other individuals, simply because of their victimisation status. Unfortunately, with only a cross-section at our disposal, there is not much we can do to remedy the issue. We decided not to include variables most likely to have been directly influenced by experiences of violence, such as awareness of the DV act and of the closest support victims units.

Tables 3-6 present the results of the Oaxaca-Blinder decompositions. Each table focuses on domestic or non-domestic violence, and on violence against women or violence against men. The tables follow the same format. The upper panel displays the predicted means of violence in urban and rural areas, the urban-rural difference in means (and whether it is statistically significant), and its decomposition into the explained and unexplained components. The lower panel of each table presents the contribution of each individual variables to the "explained" component of the difference.

4.2   Violence against women

The upper panel of table 3 presents the summary results of the group decomposition for domestic violence against women. The first two rows display the predicted prevalence of violence in rural and urban areas given the values of all risk factors. The multivariate regressions yield the same result as the earlier bivariate associations: urban-rural differences in domestic violence against women are statistically significant for economic violence, which is markedly less common in the urban sample (9.3 per cent) than in the rural one (14 per cent), and for overall domestic violence (21 per cent in urban areas and 25 per cent in rural areas). The last two rows present the contribution of the 'explained' and 'unexplained' components to these differences. We can see that the differences in risk factors can explain 63 per cent of the gap in overall domestic violence against women (column (2): 2.4 percentage points out of an absolute gap of 3.8), and 29 per cent of the gap in economic domestic violence (column (6): 1.4 percentage points out of an absolute gap of 4.9).

The lower panel of table 3 displays the estimated contributions of each risk factor to the "explained" urban-rural difference in domestic violence against women. When a coefficient is significantly positive (negative), it indicates that the difference in the level of the associated risk factor contributes to a higher (lower) prevalence of domestic violence against women in rural areas.

The regression results of table 3 suggests that a number of key features of the urban environment contribute to reduce the odds of domestic violence against women across all types of violence. The lower proportion of women in polygamous relationships in urban areas contributes to significantly lower prevalence rates of overall domestic violence as well as of physical, sexual and economic domestic violence against women. The lower share of women who have witnessed domestic violence as a child in urban areas contributes to reduce the odds of controlling behaviours and all forms of domestic violence against women (except sexual violence). In addition, the higher proportion of women with primary education in urban

areas contributes to decrease the odds of overall domestic violence and physical domestic violence. Higher levels of welfare of urban households compared to rural households also contribute to lower the prevalence of domestic violence against women: high score of assets index is associated with lower prevalence of overall domestic violence and psychological violence; and lower incidence of food insecurity lowers overall domestic violence, and physical and economic domestic violence. Finally, proximity to police stations in urban areas contribute to reduce physical and sexual domestic violence against women. Some features of urban areas have a protective effect on women only for some types of violence. The lower tolerance to wife-beating in urban areas is associated with less overall domestic violence (but not for individual types of violence), and the higher proportion of migrant households in urban areas protect women from economic domestic violence only.

However, there are also some key features of the urban environment that contribute to expose women to controlling behaviours and domestic violence. The higher proportion of women who are not working contributes to increased controlling behaviours in the urban space. The higher incidence of insecurity in urban communities compared to rural communities strongly contributes to heightened odds of controlling behaviours and all forms of domestic violence against women. Surprisingly, better access to sanitation is associated with more controlling behaviours and psychological violence, and heightened participation in social groups expose women to economic domestic violence in urban areas.

Finally, some hypothesised variables do not contribute to a rural-urban gap in domestic violence. These are: age, social norms of violence, employment status (for the most part), decision power of women in households, alcohol consumption and trust in institutions.

Overall, these results suggest that the urban environment promotes lesser domestic violence through a variety of mechanisms. However, for most forms of domestic violence and controlling behaviours these effects are negated by the deleterious impact of insecurity in the community that characterise urban areas. This indicates that successful strategies of urban violence reduction would have a wider impact than previously thought by also reducing the prevalence of domestic violence against women.

Table 3: Decomposition of urban-rural differences in domestic violence against women

	(1) Domestic Controlling Behaviours	(2) Any Domestic Violence	(3) Domestic Physical Violence	(4) Domestic Sexual Violence	(5) Domestic Psychological Violence	(6) Domestic Economic Violence
Mean predicted rates of domestic violence against women:						
In urban areas	0.13***	0.21***	0.063***	0.028***	0.11***	0.093***
$(\bar{Y}_U)$	(0.0084)	(0.012)	(0.0066)	(0.0047)	(0.0081)	(0.0082)
In rural areas	0.13***	0.25***	0.069***	0.023***	0.12***	0.14***
$(\bar{Y}_R)$	(0.0099)	(0.014)	(0.0077)	(0.0043)	(0.0098)	(0.011)
Mean predicted differences between urban and rural areas:						

Total difference	0.0049	-0.038**	-0.0059	0.0049	-0.016	-0.049***
$(\bar{Y}_U - \bar{Y}_R)$	(0.013)	(0.018)	(0.010)	(0.0063)	(0.013)	(0.014)
"Explained"	0.015	-0.024	0.00025	0.0053	-0.011	-0.014
difference	(0.011)	(0.015)	(0.0077)	(0.0054)	(0.011)	(0.011)
"Unexplained"	-0.010	-0.015	-0.0062	-0.00037	-0.0051	-0.035**
difference	(0.015)	(0.020)	(0.012)	(0.0075)	(0.015)	(0.017)

Contribution of individual risk factors to the mean total difference $(\bar{Y}_U - \bar{Y}_R)$:

Age	0.0033	0.0038	0.0019	0.00099	0.0017	0.0022
	(0.0027)	(0.0032)	(0.0016)	(0.00083)	(0.0014)	(0.0019)
In a monogamous	-0.0012	0.00012	0.00019	0.0014*	-0.0020	0.0014
relationship	(0.0014)	(0.0014)	(0.00093)	(0.00073)	(0.0015)	(0.0012)
In a polygamous	-0.0042	-0.0099***	-0.0043**	-0.0036***	-0.0012	-0.0093***
relationship	(0.0026)	(0.0034)	(0.0021)	(0.0012)	(0.0023)	(0.0028)
Divorced/separated/	0.00015	0.00032	0.00030	0.00047	-0.00015	0.00040
widowed	(0.00045)	(0.00061)	(0.00049)	(0.00061)	(0.00044)	(0.00060)
Employed	0.0030	-0.0033	-0.00069	0.00018	-0.0030	-0.0027
	(0.0027)	(0.0028)	(0.0019)	(0.0013)	(0.0021)	(0.0021)
Not working	0.0051***	0.0012	0.0014	-0.00038	0.00040	0.00097
	(0.0018)	(0.0017)	(0.0012)	(0.00061)	(0.0013)	(0.0013)
Primary educ.	-0.0012	-0.0052**	-0.0018*	0.000078	-0.0020	-0.0021
	(0.0013)	(0.0021)	(0.0011)	(0.00059)	(0.0015)	(0.0014)
Middle educ.	0.00062	0.0021	0.00034	0.00018	0.00078	0.0013
	(0.00077)	(0.0015)	(0.00054)	(0.00034)	(0.00081)	(0.0010)
Secondary educ.	0.0048	0.0066*	0.0016	0.0021	0.0026	0.0024
	(0.0031)	(0.0040)	(0.0024)	(0.0017)	(0.0029)	(0.0030)
Higher educ.	-0.0033	0.00049	0.000034	-0.0019	-0.0013	-0.00012
	(0.0032)	(0.0040)	(0.0025)	(0.0014)	(0.0030)	(0.0029)
Patriarchal	-0.000100	-0.00046	0.00015	0.000075	-0.00019	0.00017
gender norms	(0.00057)	(0.00075)	(0.00046)	(0.00028)	(0.00058)	(0.00052)
Tolerance to	-0.0035	-0.0081**	-0.0026	0.0012	-0.0025	-0.0023

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wife beating	(0.0031)	(0.0037)	(0.0025)	(0.0012)	(0.0029)	(0.0027)
Tolerance to women sexual autonomy	0.00024	0.00034	0.00018	0.000029	0.000065	0.00027
	(0.00061)	(0.00088)	(0.00045)	(0.000090)	(0.00020)	(0.00069)
Decision power in household	-0.00045	-0.00012	-0.00011	0.000042	-0.000098	-0.0000029
	(0.00088)	(0.00029)	(0.00024)	(0.00011)	(0.00023)	(0.00014)
Consumes alcohol	-0.00067	-0.0011	-0.00064	-0.00025	0.0000078	-0.00076
	(0.00065)	(0.00093)	(0.00055)	(0.00031)	(0.00051)	(0.00070)
Insecure community	0.0077***	0.0063***	0.0023*	0.0031***	0.0045**	0.0043**
	(0.0024)	(0.0024)	(0.0013)	(0.0011)	(0.0018)	(0.0019)
Witnessed domestic violence as a child	-0.0039**	-0.0065**	-0.00077	-0.0021**	-0.0038**	-0.0049**
	(0.0018)	(0.0027)	(0.00085)	(0.00097)	(0.0017)	(0.0021)
Migrant	0.0023	-0.0044	-0.00085	0.00075	-0.0015	-0.0039**
	(0.0020)	(0.0028)	(0.0015)	(0.00088)	(0.0021)	(0.0019)
Trust in institutions	0.00018	-0.0013	-0.00022	0.00048	-0.0013	-0.00077
	(0.00075)	(0.0012)	(0.00062)	(0.00048)	(0.0010)	(0.00083)
Social capital	0.00054	0.0022	0.00043	0.00065	0.00047	0.0018*
	(0.00083)	(0.0014)	(0.00067)	(0.00045)	(0.00082)	(0.0011)
Private toilet	0.0050**	0.0028	-0.0016	0.00099	0.0051**	0.00083
	(0.0024)	(0.0028)	(0.0015)	(0.0013)	(0.0024)	(0.0020)
Assets Index	-0.0076	-0.027**	-0.0078	0.0026	-0.020**	-0.013
	(0.0083)	(0.011)	(0.0066)	(0.0040)	(0.0084)	(0.0082)
Head of hh is unemployed	0.000045	0.00068	-0.00015	0.00015	0.00022	0.00036
	(0.00029)	(0.00076)	(0.00024)	(0.00021)	(0.00034)	(0.00046)
Access to water	0.0019	-0.0042	0.00023	-0.00071	-0.0034	-0.00068
	(0.0022)	(0.0028)	(0.0016)	(0.0011)	(0.0022)	(0.0020)
Distance to police station	-0.0042	0.0023	0.0060**	-0.0054*	-0.0030	0.0044
	(0.0049)	(0.0075)	(0.0026)	(0.0033)	(0.0070)	(0.0037)
Food insecurity	-0.0013	-0.0064***	-0.0024*	-0.00036	-0.00060	-0.0064***
	(0.0015)	(0.0024)	(0.0014)	(0.00086)	(0.0015)	(0.0021)
Obs.	2875	2875	2875	2875	2875	2875

Continued on next page

[i] Data source: Ghana Family Life Survey (GFLS) 2015. Standard errors in parentheses. *$p < 0.1$, **$p < 0.05$, ***$p < 0.01$. All regressions include regional dummies. Reference categories are as follows. For marital status: "has never been in a relationship"; for employment: "self-employed"; for education attainment: "no education".

[ii] The "explained" difference corresponds to the predicted mean total difference that is is due to differences in risk factors. The "unexplained" component corresponds to the mean total difference that is due to differentiated impact of risk factors and to unobserved factors.

Table 4 presents the results of a similar analysis for violence committed by friends, acquaintances and strangers. The only form of violence against women which is significantly affected by the type of residence is physical violence, which is more common in urban areas (7.5 per cent) than in rural areas (5.7 per cent). The Oaxaca-Blinder decomposition show that 61 per cent of this gap can be explained by differences in the levels of risk factors.

Table 4: Decomposition of rural-urban differences in violence against women committed by friends, acquaintances or strangers (non-domestic violence)

	(1) Controlling Behaviours	(2) All Violence	(3) Physical Violence	(4) Sexual Violence	(5) Psychological Violence	(6) Economic Violence
Mean predicted rates of non-domestic violence against women:						
In urban areas	0.093***	0.35***	0.057***	0.11***	0.26***	0.068***
($\bar{Y}_U$)	(0.0080)	(0.014)	(0.0058)	(0.0085)	(0.013)	(0.0072)
In rural areas	0.082***	0.35***	0.075***	0.087***	0.26***	0.084***
($\bar{Y}_R$)	(0.0081)	(0.015)	(0.0073)	(0.0085)	(0.014)	(0.0081)
Mean predicted differences between urban and rural areas:						
Total difference	0.011	0.0025	-0.018*	0.020	-0.00072	-0.016
($\bar{Y}_U - \bar{Y}_R$)	(0.011)	(0.021)	(0.0092)	(0.012)	(0.019)	(0.011)
"Explained"	0.016*	-0.0027	-0.011	0.019*	-0.0059	-0.011
difference	(0.0090)	(0.018)	(0.0077)	(0.010)	(0.015)	(0.0091)
"Unexplained"	-0.0056	0.0052	-0.0070	0.00081	0.0052	-0.0050
difference	(0.013)	(0.021)	(0.012)	(0.014)	(0.020)	(0.013)
Contribution of individual risk factors to the mean total difference ($\bar{Y}_U - \bar{Y}_R$):						
Age	0.0029	0.0058	0.0021	0.0031	0.0036	0.0021
	(0.0024)	(0.0048)	(0.0018)	(0.0026)	(0.0030)	(0.0018)
In an monogamous	0.0021*	-0.00074	-0.0021	0.00035	0.00083	0.0010

relationship	(0.0013)	(0.0017)	(0.0014)	(0.0010)	(0.0015)	(0.00088)
In a polygamous relationship	-0.0078***	-0.0066*	0.00069	-0.0023	-0.0060*	-0.0053***
	(0.0022)	(0.0034)	(0.0021)	(0.0021)	(0.0031)	(0.0019)
Divorced/separated/ widowed	0.0015	0.0010	0.000086	0.00085	0.00099	0.00079
	(0.0018)	(0.0014)	(0.00037)	(0.0011)	(0.0013)	(0.0010)
Employed	0.0030	0.0019	-0.0025	0.0061**	0.0011	-0.0028
	(0.0025)	(0.0034)	(0.0017)	(0.0025)	(0.0034)	(0.0019)
Not working	0.0015	0.00098	0.0020*	0.0017	0.00025	0.00094
	(0.0012)	(0.0017)	(0.0011)	(0.0012)	(0.0016)	(0.0010)
Primary educ.	0.00079	-0.0033	-0.0015	-0.0010	-0.00080	-0.0022*
	(0.0010)	(0.0021)	(0.00095)	(0.0010)	(0.0019)	(0.0012)
Middle educ.	0.00077	0.0038*	0.0015	0.0018	0.0016	0.0017
	(0.00070)	(0.0023)	(0.00093)	(0.0011)	(0.0013)	(0.0011)
Secondary educ.	0.0086***	0.0086*	0.0043*	0.0063**	-0.00023	0.0051**
	(0.0028)	(0.0046)	(0.0024)	(0.0027)	(0.0041)	(0.0026)
Higher educ.	-0.000089	0.0053	0.0017	0.0058**	-0.0012	0.0028
	(0.0027)	(0.0044)	(0.0022)	(0.0027)	(0.0040)	(0.0024)
Patriarchal gender norms	0.000072	0.0011	0.00038	0.00043	0.00051	0.00050
	(0.00049)	(0.00099)	(0.00049)	(0.00058)	(0.00079)	(0.00053)
Tolerance to wife beating	-0.00061	-0.011***	-0.0019	-0.0040	-0.011***	-0.0030
	(0.0026)	(0.0041)	(0.0022)	(0.0025)	(0.0040)	(0.0023)
Tolerance to women sexual autonomy	0.00019	0.000034	0.000067	-0.00012	0.000036	0.00017
	(0.00049)	(0.00019)	(0.00020)	(0.00033)	(0.00018)	(0.00043)
Decision power in household	0.00027	0.00049	-0.000010	0.000060	0.00029	0.00052
	(0.00053)	(0.00095)	(0.00011)	(0.00017)	(0.00060)	(0.0010)
Consumes alcohol	-0.0014	-0.0015	-0.00072	-0.0019	-0.00090	-0.00072
	(0.00093)	(0.0011)	(0.00059)	(0.0012)	(0.00092)	(0.00065)
Insecure community	0.0052***	0.0097***	0.0026**	0.0081***	0.0086***	0.0025*
	(0.0017)	(0.0032)	(0.0013)	(0.0025)	(0.0028)	(0.0014)

Witnessed domestic violence as a child	-0.0043**	-0.0067**	-0.0015	-0.0028*	-0.0058**	-0.0032**
	(0.0019)	(0.0029)	(0.0010)	(0.0015)	(0.0025)	(0.0015)
Migrant	0.0024	-0.00088	-0.0011	0.00028	0.0018	-0.0025
	(0.0018)	(0.0029)	(0.0015)	(0.0018)	(0.0028)	(0.0016)
Trust in institutions	0.00016	-0.0034	-0.00047	-0.00045	-0.0024	-0.0013
	(0.00063)	(0.0022)	(0.00068)	(0.00076)	(0.0017)	(0.00090)
Social capital	0.00050	0.0039**	0.00048	0.0016*	0.0033*	0.00087
	(0.00073)	(0.0019)	(0.00066)	(0.00091)	(0.0017)	(0.00071)
Private toilet	0.0031	0.0015	0.0033**	0.00083	-0.00027	0.000039
	(0.0020)	(0.0033)	(0.0016)	(0.0020)	(0.0030)	(0.0017)
Assets Index	-0.015**	-0.043***	-0.020***	-0.026***	-0.031***	-0.014*
	(0.0073)	(0.011)	(0.0065)	(0.0078)	(0.010)	(0.0073)
Head of hh is unemployed	0.00040	0.00010	-0.00034	0.00034	-0.00015	0.00043
	(0.00048)	(0.00035)	(0.00038)	(0.00044)	(0.00036)	(0.00050)
Access to water	0.0031	-0.0063*	-0.0012	-0.0024	-0.0042	-0.0011
	(0.0019)	(0.0032)	(0.0015)	(0.0020)	(0.0028)	(0.0017)
Distance to police station	0.0028	0.0074	0.0044*	-0.0021	0.0039	0.0018
	(0.0032)	(0.0075)	(0.0026)	(0.0042)	(0.0054)	(0.0034)
Food insecurity	-0.0011	-0.0044**	-0.0028*	0.00032	-0.0011	-0.0047***
	(0.0014)	(0.0022)	(0.0015)	(0.0014)	(0.0020)	(0.0017)
Observations	2875	2875	2875	2875	2875	2875

[i] Data source: Ghana Family Life Survey (GFLS) 2015. Standard errors in parentheses. $*p < 0.1$, $**p < 0.05$, $***p < 0.01$. All regressions include regional dummies. Reference categories are as follows. For marital status: "has never been in a relationship"; for employment: "self-employed"; for education attainment: "no education".

[ii] The "explained" difference corresponds to the predicted mean total difference that is is due to differences in risk factors. The "unexplained" component corresponds to the mean total difference that is due to differentiated impact of risk factors and to unobserved factors.

The lower panel of table 4 indicates that the urban environment affects non-domestic violence against women in a broadly similar way as domestic violence. Specifically, it is protective through the lower prevalence of polygamy (significant for all forms of violence except physical and sexual), lower tolerance to wife-beating (significant for overall violence and psychological violence), lower proportion of respondents who witnessed domestic violence as children (significant in all columns), and higher socio-economic status (the assets index is negatively associated with all forms of violence; access to water is negatively associated with overall violence, and food insecurity is negatively associated with overall violence, physical violence

and economic violence).

Conversely, higher rates of reported insecurity in the community make women more prone to non-domestic violence in urban areas. Surprisingly, higher social capital is also a factor reinforcing vulnerability of urban women to overall violence as well as to sexual, psychological and economic violence. One reason for that could be that women who are involved in social life are also more likely to travel outside and thus to be at risk of being in contact with potential assailants. Some other variables are found to explain higher rates of violence in urban areas, but without a consistent pattern across types of violence. For instance, the lower distance to police stations in urban areas is associated with more physical violence, the higher access to private toilet is associated with more physical violence, the higher proportion of respondents with higher (middle) education is associated with more sexual (overall) violence, and the higher proportion of employed women is associated with more sexual violence.

These results suggest a double-edged nature of urban living on violence committed by friends, acquaintances and strangers. On the one hand, urban areas are characterised by protective structural factors through better norms, education, and socio-economic status. On the other hand, urban environments expose women more to potentially violent encounters. This explains why employed women and women with more social capital - who are more likely to travel within the cities - are especially exposed to non-domestic violence. And like for domestic violence, greater rates of insecurity in urban areas are a strong contributor to non-domestic violence against women.

Comparing these results with those on domestic violence, it is interesting to note the contrasting effects of employment and education statuses. Urban areas expose women to controlling behaviours because they are more likely to be inactive there than in rural areas. Conversely, urban areas expose women to non-domestic violence because their odds of working as employees are much higher there than in rural areas.[9] Regarding education, urban areas protect women from domestic violence through higher levels of primary education but urban areas expose women to non-domestic violence through higher levels of secondary education. These contrasting effects point out to two roles for education and employment. The first one is an empowering role within the household, which protects women from domestic violence. The second role is an exposure one: educated and employed women simply have more chances to get out and to suffer from violence committed by friends, acquaintances and strangers.

Apart from education and employment, there is a high level of consistency across tables 3 and 4. The overall message that urban areas protect women from violence through a variety of channels but expose women mostly through their higher levels of insecurity holds in both cases. It is also striking to see that variables specifically related to domestic violence (as witnessing domestic violence as a child or norms on wife-beating) exert a similar impact on violence committed by friends, acquaintances or strangers.

4.3 Violence against men

The upper panel of table 5 shows the estimated prevalence rates of violence against men given the value of risk factors. We can see that men are more likely to report suffering from controlling behaviours in urban areas (10 per cent) than in rural areas (7.9 per cent), with the difference being statistically significant at 10 per cent. Men are also more likely to report suffering from domestic sexual violence in urban areas (2.2 per cent) than in rural areas (1.1 per cent), a difference significant at 10 per cent. In contrast, men

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[9]Recall that women are much less likely to be self-employed in urban than in rural areas.

are less likely to be exposed to domestic physical violence in the urban context (1.7 per cent) than in the rural one (3.4 per cent), a difference significant at the 1 per cent level.

The urban-rural gap in rates of controlling behaviours is more than fully explained by the differences in levels of predictors in both areas. This means that based on the urban and rural distributions of risk factors, we would expect the rate of prevalence of controlling behaviours to be 4.1 percentage point higher in urban areas that in rural areas. The fact that the actual gap is only of 2.5 percentage point is due to the countervailing influence of unexplained factors. In contrast, the urban-rural gap in rates of domestic sexual violence is almost entirely explained (at 91 per cent) by the differences in risk factors. Finally, the negative urban-rural gap on domestic physical violence is almost entirely unexplained.

Table 5: Decomposition of rural-urban differences in domestic violence against men

	(1) Controlling Behaviours	(2) Any Violence	(3) Physical Violence	(4) Sexual Violence	(5) Psychological Violence	(6) Economic Violence
Mean predicted rates of domestic violence against men:						
In urban areas	0.10***	0.16***	0.017***	0.022***	0.099***	0.060***
$(\bar{Y}_U)$	(0.011)	(0.013)	(0.0042)	(0.0048)	(0.010)	(0.0081)
In rural areas	0.079***	0.16***	0.034***	0.011***	0.091***	0.055***
$(\bar{Y}_R)$	(0.0092)	(0.013)	(0.0060)	(0.0036)	(0.010)	(0.0078)
Mean predicted differences between urban and rural areas:						
Total difference	0.025*	0.0042	-0.017**	0.011*	0.0075	0.0047
$(\bar{Y}_U - \bar{Y}_R)$	(0.014)	(0.018)	(0.0073)	(0.0060)	(0.014)	(0.011)
"Explained"	0.041***	0.034**	0.00056	0.010**	0.015	0.013
difference	(0.012)	(0.016)	(0.0054)	(0.0043)	(0.013)	(0.0088)
"Unexplained"	-0.016	-0.030	-0.018**	0.00091	-0.0079	-0.0082
difference	(0.016)	(0.021)	(0.0085)	(0.0071)	(0.018)	(0.013)
Contribution of individual risk factors to the mean total difference $(\bar{Y}_U - \bar{Y}_R)$:						
Age	0.0054***	0.0076***	0.0015*	0.0020***	0.0052***	0.0027**
	(0.0020)	(0.0027)	(0.00084)	(0.00077)	(0.0020)	(0.0013)
In a monogamous	-0.0011	-0.00091	0.00060	-0.00073	-0.00056	0.00017
relationship	(0.0011)	(0.0013)	(0.00065)	(0.00048)	(0.00085)	(0.00086)
In a polygamous	-0.0018	-0.0014	0.00066	-0.0013*	-0.00086	0.00061
relationship	(0.0014)	(0.0016)	(0.00062)	(0.00075)	(0.0012)	(0.00090)

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Divorced/separated/ widowed	-0.00029 (0.0011)	0.0028 (0.0019)	-0.0011 (0.00083)	0.0011* (0.00066)	0.0019 (0.0014)	0.00095 (0.0012)
Employed	-0.00053 (0.0033)	0.0072 (0.0044)	0.0017 (0.0020)	0.0026 (0.0022)	0.0032 (0.0035)	0.0055** (0.0028)
Not working	0.0020 (0.0035)	0.0065 (0.0042)	0.0028 (0.0019)	0.00049 (0.0017)	0.0033 (0.0032)	0.0074** (0.0030)
Primary educ.	-0.0015 (0.0017)	-0.0034* (0.0021)	-0.00074 (0.0011)	-0.00039 (0.00050)	-0.00095 (0.0016)	-0.00024 (0.0012)
Middle educ.	-0.00016 (0.00053)	-0.0011 (0.0012)	-0.00049 (0.00053)	-0.00030 (0.00033)	0.00023 (0.00061)	-0.00051 (0.00062)
Secondary educ.	0.0015 (0.0027)	0.0044 (0.0033)	0.0025 (0.0016)	0.0011 (0.0011)	-0.0020 (0.0027)	0.0026 (0.0021)
Higher educ.	0.0021 (0.0042)	-0.00043 (0.0052)	0.00058 (0.0019)	0.00052 (0.0020)	-0.0073* (0.0044)	0.00016 (0.0032)
Patriarchal	0.00025 (0.00078)	0.00097 (0.0011)	-0.00063 (0.00058)	0.00027 (0.00037)	0.0013 (0.0011)	-0.00025 (0.00056)
Tolerance to wife beating	-0.0023 (0.0017)	-0.0024 (0.0020)	-0.0013 (0.0011)	0.00029 (0.00061)	-0.0012 (0.0016)	-0.00057 (0.0014)
Tolerance to women sexual autonomy	0.0000020 (0.00011)	-0.000023 (0.00017)	-0.000052 (0.00017)	0.000048 (0.00015)	-0.00015 (0.00047)	0.000053 (0.00017)
Decision power in household	0.0032* (0.0018)	0.0025 (0.0017)	0.00042 (0.00056)	-0.00015 (0.00048)	-0.00042 (0.00098)	0.0014 (0.0010)
Consumes alcohol	-0.0030** (0.0015)	-0.0019 (0.0015)	-0.0000019 (0.00056)	-0.0010* (0.00061)	-0.0010 (0.0013)	-0.00047 (0.00088)
Insecure community	0.0066** (0.0027)	0.0083** (0.0033)	0.0014* (0.00082)	0.0014* (0.00078)	0.0052** (0.0022)	0.0039** (0.0017)
Witnessed domestic violence as a child	-0.00072 (0.0020)	-0.00092 (0.0025)	-0.000060 (0.00019)	-0.00017 (0.00047)	-0.00059 (0.0016)	-0.00040 (0.0011)
Migrant	-0.0021	-0.0018	-0.00022	-0.00077	0.00028	0.000071

	(0.0025)	(0.0030)	(0.0015)	(0.0010)	(0.0025)	(0.0019)
Trust in institutions	-0.000084 (0.00027)	-0.00038 (0.00093)	-0.000086 (0.00024)	0.00013 (0.00033)	-0.00051 (0.0012)	-0.00010 (0.00028)
Social capital	0.00045 (0.00067)	0.0020 (0.0013)	0.00027 (0.00039)	0.00060 (0.00040)	0.0013 (0.00096)	0.0010 (0.00079)
Private toilet	0.0047 (0.0031)	0.0061 (0.0038)	0.00031 (0.0014)	-0.00035 (0.0011)	0.0062** (0.0031)	0.0026 (0.0026)
Assets Index	0.0068 (0.0074)	-0.0075 (0.0089)	-0.0043 (0.0047)	0.0046* (0.0028)	0.0059 (0.0070)	-0.013** (0.0060)
Head of hh	0.00047 (0.0015)	0.0011 (0.0021)	-0.00063 (0.00076)	-0.00073 (0.00044)	0.0010 (0.0014)	-0.00038 (0.0014)
Access to water	-0.0032 (0.0028)	-0.0042 (0.0032)	-0.0016 (0.0013)	0.00098 (0.0012)	-0.0035 (0.0027)	-0.0022 (0.0019)
Distance to police station	0.0070 (0.0045)	-0.0026 (0.0071)	0.00076 (0.0029)	-0.0024 (0.0022)	-0.0069 (0.0065)	0.0014 (0.0033)
Food insecurity	-0.0032* (0.0018)	-0.0072** (0.0028)	-0.0025** (0.0012)	-0.00089 (0.00077)	-0.0017 (0.0015)	-0.0049** (0.0020)
Obs.	1945	1945	1945	1945	1945	1945

[i] Data source: Ghana Family Life Survey (GFLS) 2015. Standard errors in parentheses. *$p < 0.1$, **$p < 0.05$, ***$p < 0.01$. All regressions include regional dummies. Reference categories are as follows. For marital status: "has never been in a relationship"; for employment: "self-employed"; for education attainment: "no education".

[ii] The "explained" difference corresponds to the predicted mean total difference that is is due to differences in risk factors. The "unexplained" component corresponds to the mean total difference that is due to differentiated impact of risk factors and to unobserved factors.

The lower panel of table 5 shows the contribution of individual risk factors to the urban-rural gap in prevalence of domestic violence. The effect of most predictors is indistinguishable from 0, indicating that the distinct distribution of risk factors in urban and rural areas does not have an influence on domestic violence against men. Nevertheless, urban-rural differences in three risk factors contribute to the urban-rural gap in prevalence rates in a significant manner. First, men in urban areas are more exposed than rural men to controlling behaviours and all forms of domestic violence because the former are younger on average (and young age is a significant risk factor). Second, controlling behaviours and domestic violence against men in all its forms tend to be more prevalent in urban areas than in rural areas due to the influence of wider insecurity in the former. Third, the lower levels of food insecurity in urban areas contribute to reduce the likelihood that urban men report suffering from controlling behaviours as well as to overall, physical, and economic domestic violence.

Apart from these consistent patterns, some variables have an impact on specific forms of violence. Polygamy, which is less common in urban areas, is associated with sexual violence against men: men, thus, tend to be less likely to report sexual violence in urban areas. In contrast, men living alone because they are separated, divorced or widowed are more vulnerable to sexual violence. As urban areas host a higher proportion of lone men than rural areas, the former are associated with heightened rates of sexual violence. Urban areas are also associated with more domestic economic violence against men due to the higher proportion of employed and non-working men there, with respect to self-employed, compared to rural areas. Education is mostly unrelated to urban-rural gaps in domestic violence. Yet, the higher proportion of men with primary education in urban areas is associated with lower rates of overall domestic violence; and the higher proportion of men with higher education in urban areas is associated with lower rates of psychological violence. Men enjoy far less control over the household decisions in urban areas. This translates into heightened risk for them to suffer from controlling behaviours. The lower rates of alcohol consumption in urban areas is also associated with lower risks of controlling behaviours and sexual violence against men in urban areas. Surprisingly, access to a private toilet (higher in urban areas) is associated with more psychological violence against men in urban areas.

Table 6 replicates the above analysis for violence against men committed by friends, acquaintances and strangers. The upper panel confirms that non-domestic violence against men tends to be more common in urban areas. Prevalence rates of controlling behaviours, overall violence, sexual violence and psychological violence are all statistically significant higher in urban areas, often at the 1 per cent level. The estimations also show that the differences in the levels of risk factors can fully account for most of these prevalence gaps. In fact, the differences in risk factors alone predict an even higher urban-rural prevalence gap for controlling behaviours, overall violence, psychological and economic violence than the ones that are observed. The only exception concerns sexual violence for which the differences in risk factors only explain half the urban-rural gap.

Table 6: Decomposition of rural-urban gap differences in violence against men committed by friends, acquaintances and strangers (non-domestic violence)

	(1) Controlling Behaviours	(2) Any Violence	(3) Physical Violence	(4) Sexual Violence	(5) Psychological Violence	(6) Economic Violence
Mean predicted rates of non-domestic violence against men:						
In urban areas	0.13***	0.41***	0.089***	0.13***	0.31***	0.075***
($\bar{Y}_U$)	(0.012)	(0.019)	(0.0095)	(0.012)	(0.017)	(0.0096)
In rural areas	0.088***	0.34***	0.094***	0.057***	0.27***	0.067***
($\bar{Y}_R$)	(0.010)	(0.018)	(0.0098)	(0.0072)	(0.017)	(0.0090)
Mean predicted differences between urban and rural areas:						
Total difference	0.046***	0.065**	-0.0050	0.070***	0.043*	0.0074

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$(\bar{Y}_U - \bar{Y}_R)$	(0.016)	(0.026)	(0.014)	(0.014)	(0.024)	(0.013)
"Explained" difference	0.057***	0.072***	0.020*	0.039***	0.043**	0.024**
	(0.014)	(0.023)	(0.011)	(0.011)	(0.021)	(0.011)
"Unexplained" difference	-0.010	-0.0073	-0.025	0.031**	0.00033	-0.016
	(0.019)	(0.025)	(0.017)	(0.014)	(0.025)	(0.015)

Contribution of individual risk factors to the mean total difference $(\bar{Y}_U - \bar{Y}_R)$:

Age	0.0075***	0.016***	0.0065***	0.0090***	0.012***	0.0038**
	(0.0025)	(0.0048)	(0.0022)	(0.0027)	(0.0039)	(0.0015)
In a monogamous relationship	-0.0018	-0.0040	-0.00051	-0.00066	-0.0049	0.0011
	(0.0015)	(0.0026)	(0.0010)	(0.00096)	(0.0030)	(0.0011)
In a polygamous relationship	-0.0025	-0.0051**	-0.00088	-0.0035**	-0.0050**	0.0017
	(0.0015)	(0.0024)	(0.0011)	(0.0017)	(0.0024)	(0.0011)
Divorced/separated/ widowed	0.0032*	0.0070**	0.00064	0.0029*	0.0075**	0.00056
	(0.0018)	(0.0034)	(0.0012)	(0.0017)	(0.0035)	(0.0011)
Employed	0.0074*	0.015***	0.0068*	0.0083**	0.0100*	0.0028
	(0.0042)	(0.0057)	(0.0036)	(0.0037)	(0.0055)	(0.0031)
Not working	0.0049	0.017***	0.014***	0.0065**	0.013**	0.0038
	(0.0037)	(0.0060)	(0.0038)	(0.0033)	(0.0057)	(0.0033)
Primary educ.	-0.0016	-0.0058**	-0.00054	-0.0038**	-0.0026	-0.0011
	(0.0016)	(0.0030)	(0.0015)	(0.0016)	(0.0027)	(0.0011)
Middle educ.	-0.00065	-0.0017	-0.00085	-0.00058	-0.000013	-0.00052
	(0.00078)	(0.0018)	(0.00093)	(0.00066)	(0.00092)	(0.00064)
Secondary educ.	0.0070**	0.014**	0.0069**	0.0048*	0.0075	0.0041*
	(0.0029)	(0.0054)	(0.0029)	(0.0026)	(0.0048)	(0.0024)
Higher educ.	0.0088*	0.00055	-0.0023	0.0021	-0.0024	-0.0014
	(0.0047)	(0.0073)	(0.0039)	(0.0045)	(0.0071)	(0.0039)
Patriarchal gender norms	-0.00070	0.0022	-0.00023	0.000038	0.0033	0.00046
	(0.00091)	(0.0017)	(0.00073)	(0.00068)	(0.0021)	(0.00072)
Tolerance to	-0.0024	-0.0044*	-0.00025	0.00044	-0.0025	-0.0025

wife beating	(0.0018)	(0.0027)	(0.0016)	(0.0014)	(0.0024)	(0.0017)
Tolerance to women sexual autonomy	0.00022 (0.00066)	-0.00015 (0.00049)	-0.000067 (0.00023)	-0.000039 (0.00016)	-0.00016 (0.00050)	0.00016 (0.00049)
Decision power in household	0.00070 (0.0011)	-0.0013 (0.0015)	0.0012 (0.0011)	-0.0014 (0.0011)	-0.0021 (0.0016)	-0.00033 (0.00082)
Consumes alcohol	-0.0024* (0.0013)	-0.0047** (0.0024)	-0.0033** (0.0015)	-0.0012 (0.0012)	-0.0037* (0.0022)	-0.0024* (0.0013)
Insecure community	0.0078** (0.0031)	0.014*** (0.0054)	0.0045** (0.0020)	0.0061** (0.0025)	0.011** (0.0041)	0.0037** (0.0017)
Witnessed domestic violence as a child	-0.00091 (0.0025)	-0.0013 (0.0036)	0.0000068 (0.00017)	-0.00048 (0.0013)	-0.0011 (0.0031)	-0.00028 (0.00078)
Migrant	0.0014 (0.0026)	0.0038 (0.0038)	-0.0029 (0.0026)	-0.000065 (0.0025)	0.0034 (0.0037)	0.0031 (0.0021)
Trust in institutions	-0.00032 (0.00080)	-0.00060 (0.0015)	-0.00024 (0.00060)	0.000065 (0.00023)	-0.00064 (0.0016)	-0.00030 (0.00074)
Social capital	0.0017 (0.0012)	0.0025 (0.0017)	0.0010 (0.00083)	0.0019 (0.0012)	0.0014 (0.0012)	0.0016 (0.0010)
Private toilet	0.0059* (0.0035)	0.0048 (0.0046)	0.0013 (0.0026)	0.0035 (0.0028)	0.0035 (0.0042)	0.0038 (0.0025)
Assets Index	0.00017 (0.0076)	0.0039 (0.011)	-0.0083 (0.0076)	0.0072 (0.0074)	0.0034 (0.011)	-0.00071 (0.0069)
Head of hh	0.0014 (0.0018)	-0.0022 (0.0022)	-0.0033** (0.0015)	-0.0016 (0.0015)	-0.0018 (0.0021)	0.00084 (0.0018)
Access to water	-0.0079** (0.0032)	-0.012*** (0.0044)	-0.0028 (0.0024)	-0.0021 (0.0026)	-0.011** (0.0042)	-0.0028 (0.0023)
Distance to police station	0.0052 (0.0041)	-0.0019 (0.0085)	-0.000020 (0.0041)	-0.0072* (0.0039)	-0.0048 (0.0079)	0.0015 (0.0040)
Food insecurity	-0.0043** (0.0020)	-0.0075** (0.0030)	-0.0044** (0.0020)	-0.0037** (0.0018)	-0.0043* (0.0024)	-0.0055** (0.0022)
Obs.	1945	1945	1945	1945	1945	1945

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The lower panel of table 6 shows the contributions of individual risk factors to the urban-rural prevalence gaps. The results are quite similar to those on domestic violence. Urban areas expose men to higher rates of non-domestic violence than rural areas due to the effect of the following variables: age (urban men are younger), isolation (urban men are more likely to live alone), employment (urban men are more likely to be employed or non-working than to be self-employed), education (urban men are more likely to have been to secondary school), and wider insecurity in the community (which is higher in urban areas). All of these variables are statistically significant for most forms of violence and controlling behaviours. Some other risk factors contribute to the urban-rural gap for specific dependent variables. Surprisingly, men with higher education (who more likely to be urban) and men with access to private toilet (also more likely in urban areas) are more exposed to controlling behaviours. These two effects are only significant at the 10 per cent level, however.

In contrast, the urban environment protects men from non-domestic violence through higher rates of primary education (but the effect is only significant for overall violence and sexual violence), lesser alcohol consumption (significant on all forms of violence but sexual violence), better access to water (significant for controlling behaviours, overall violence and psychological violence), and lower levels of food insecurity (significant for all controlling behaviours and violence). Nevertheless, on balance, these protective effects of urban areas are largely dominated by the effects described above that expose men to higher rates of non-domestic violence.

5 Discussion

The results confirm and challenge a number of hypothesis encountered in the literature. Some authors advance that women in urban areas ought to be less exposed to violence than in rural areas thanks to higher levels of economic autonomy, education and exposure to norms more compatible with gender equality and rejection of violence. Others contend that changes in intra-household dynamics brought by female employment or education attainments could, on the contrary, produce a backlash in the form of domestic violence. The higher presence of women in the public spaces could also expose them to risks of violence from friends, acquaintances and strangers. Our analysis of the GFLS dataset confirms that women in urban areas are indeed more likely to be engaged in the labour force as employees, to be better educated and to more commonly hold values of gender equality and rejection of violence. Yet, these do not consistently translate into lower or higher rates of interpersonal violence against women.

Although domestic violence exists in all social strata, it is widely believed that poverty and violence (domestic or not) are positively associated. Cities are sites of enhanced material prosperity compared to rural areas in most developing countries. Ghana is no exception, and in our sample too, urban areas

are characterised by higher rates of assets ownership, lower levels of food insecurity, and better access to sanitation, water, and key public amenities. These higher levels of welfare contribute to reduce domestic and non-domestic violence against both women and men. However, the higher density and proximity of public institutions in urban areas is not a key factor of urban-rural differences in prevalence of violence.

A number of channels contribute to lower rates of domestic and non-domestic violence against women in urban areas. These are essentially related to marital status (lower rates of polygamy), education (higher rates of primary education), inter-generational dynamics (lower rates of domestic violence witnessed as a child), and socio-economic status (higher rates of assets ownership and lower food insecurity).

However, these positive influences of the urban sector are largely offset by the negative impact on non-domestic violence of increased insecurity, and of the higher proportions of women with secondary education and with significant involvement in community life. We interpret these latter two results as being driven by the fact that highly educated and socially involved women are more likely to travel outside of their homes and neighbourhoods on a regular basis, and thus of encountering assailants in public spaces. This would also explain why employed women face increase risk levels of sexual non-domestic violence (although this violence could of course also be perpetrated at the workplace).

On balance, violence against women committed by friends, acquaintances and strangers is then equally prevalent in urban and rural areas; and domestic violence is reduced mainly by a reduction of one specific type: economic domestic violence.

Men are significantly more exposed to domestic controlling behaviours and domestic sexual violence; and half as likely to be exposed to domestic physical violence in urban areas compared to rural areas. Furthermore, they encounter higher levels of non-domestic violence, particularly sexual non-domestic violence and controlling behaviours. These gaps are well accounted for by differences in the levels of risk factors across the two geographical contexts. The main factors contributing to a positive urban-rural gap are the younger age of men and wider presence of insecurity. Employed men are also more likely to be victim of non-domestic violence. The main factors contributing to a reduction of this gap are - similarly to what we uncovered for women - primary education and better socio-economic status.

In addition, a number of relational and societal factors contribute to a reduced prevalence of domestic and non-domestic violence, in accordance with our expectations. The lower consumption of alcohol in urban areas protects men from domestic controlling behaviours, domestic sexual violence and almost all forms of non-domestic violence.[10] Lesser tolerance to wife-beating in urban areas is also associated with lower risk of overall domestic and non-domestic violence against women, non-domestic psychological violence against women, and non-domestic violence against men. However, decision power within households and norms of gender equality and female autonomy are for the most part unrelated to urban-rural gap in violence.

The analysis also showed that the most consistently robust factor of production of inter-personal violence in urban areas is the high level of insecurity. Sampled individuals are more likely to have witnessed community violence or disorder in urban areas (especially women), and we found a very robust association between insecurity and all forms of violence against both women and men. Other studies has also found a positive link between community disorder or violence and domestic violence in different

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[10]When we restrict the analysis to individuals currently in a relationship, urban women are strongly protected from domestic violence through lower consumption of alcohol of their partner/husband. Results are available upon request.

contexts (e.g. Raghavan et al., 2006; Kiss et al., 2015). For its part, the link between community insecurity and non-domestic violence might seem quite tautological. Yet, it is important to stress that insecurity in our sample is primarily driven by the witnessing of thefts, and that it is far from obvious that the non-domestic violence we attempt to explain is directly linked to thefts. Violent events like robbery, mugging or public fights are considerably less common; and when we use a variable of insecurity that excludes these forms of violence, the link between insecurity and non-domestic violence remains.

Although the primary mechanism impending rates of interpersonal violence to be significantly lower in urban areas compared to rural areas is insecurity, the magnitude of this effect is still relatively modest. Higher presence of insecurity contributes to increase the rates of domestic violence and domestic controlling behaviours against women in urban areas compared to rural areas by 0.8 and 0.6 percentage point, respectively (table 3). The corresponding figures are 0.5 and 1 percentage point for non-domestic violence against women ; 0.7 and 0.8 percentage point for domestic violence against men; and 0.8 and 1.4 percentage point for non-domestic violence against men.

6   Concluding remarks

As the world is rapidly urbanising, policymakers, the general public, and scholars are increasingly concerned about the safety of individuals in cities, especially those living in low income countries and settlements. Cities are widely believed to foster violence, through e.g. increased competition for resources, anonymity or spatial inequality. Yet, insofar as cities are also sites concentrating educational and employment opportunities - spurring economic growth in the process - we should observe a reduction of interpersonal violence. Cities are also sites where social norms and ideas supporting equal gender relations, among others, are believed to develop first. It is thus unclear whether urbanisation should be accompanied with rising or declining rates of interpersonal violence. There exist few rigorous studies systematically comparing experiences of violence across urban and rural contexts, using the same data. In this article, we contribute to the literature by providing such an analysis in the Ghana context.

We have constructed fine-grained variables of interpersonal violence, distinguishing between domestic and non-domestic perpetrators, women and men, and types of violence. We have also collected data on a wide array of known risk factors of interpersonal violence. This has allowed us to run Oaxaca-Blinder decomposition regressions to (i) establish whether there exists an urban-rural gap in violence prevalence, and (ii) to identify which risk factors are associated with such a gap.

We found relatively small differences in the overall prevalence of interpersonal violence between urban and rural areas. These differences are, however, heavily gendered. Women in urban areas are significantly less exposed to domestic violence than women in rural areas whereas men in urban areas are significantly more exposed to violence committed by friends, acquaintances and strangers than men in rural areas. Factors contributing to a lower prevalence of violence in urban areas are remarkably similar across types of violence and between women and men. Typically, urban areas reduce the production of violence thanks to lower rates of polygamy, more primary education, better socio-economic status, lower exposure to domestic violence in childhood, and lesser tolerance to wife beating. In contrast, urban areas tend to produce interpersonal violence because of their higher rates of insecurity. Women in urban areas with secondary or higher education, and with strong involvement in community life, are also specifically

affected by non-domestic violence.

Overall, these results warrant some optimism. Differences in interpersonal violence between urban and rural areas are relatively modest, so increasing urbanisation should not translate into an explosion of violence, as some fear. In fact, the range of factors contributing to reduce interpersonal violence in urban areas that we have described above suggests that the development process in cities should eventually translate into a trend of lower rates of interpersonal violence. Our results show that women who are engaged in the labour force, obtain more control on domestic resources, and have higher levels of education are not the victim of a backlash in the form of domestic violence. These changes either contribute to reduce domestic violence against women or are unrelated to it. Higher freedoms for women, allowed by the urban environment, are not, however, uniformly protecting. In particular, women with high levels of education and who are very involved in community life suffer from heightened risk of non-domestic violence, presumably because of their presence in the city. The same is true for men who are employees as opposed to self-employed or not working.

The findings thus call for further exploiting the potentialities of cities to expand development and freedom of individuals. By offering educational and employment opportunities, by encouraging more tolerance of gender equality, and by providing better access to services, cities also protect women and men from domestic violence. Yet, urban environments tend also to foster exposure to non-domestic violence, significantly so for men. Women and men must be better protected when they travel within cities and visible forms of insecurity must be tackled. Another way to look at it is that successful programmes to address community violence and insecurity would generate positive externalities in the form of reduced domestic violence.

The study has a number of limitations that can be addressed in future works. First, community-wide factors have not been introduced in the analysis. Factors such as norms, inequality, prevalence of substance use and community violence are only imperfectly measured through individual surveys. We did not aggregate individual answers at the community level because answers from men and women respondents can systematically differ, making the aggregation process noisy, and the sample size within each enumeration area was low. Collection of data allowing multi-level analysis of inter-personal violence would be welcome. Additionally, we were not able to relate characteristics of entire urban entities to rates of inter-personal violence, as the number of cities and towns in the sample was too small. We are therefore not able to analyse whether more inclusive forms of urbanisation is indeed better able to leverage cities' potentialities for violence reduction. Second, the data does not inform on the location of violence acts. Knowing where people are most likely to suffer from non-domestic violence would shed more light on the processes leading to violence.

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7 Appendix A: Classification of violent and controlling acts

1. Controlling behaviour

   - Kept you from seeing your friends or family of birth
   - Stopped you from leaving your house?
   - Insisted on knowing where you are at all times including by controlling/checking your phones/texts/emails?
   - Stalked you including by calling, messaging, watching or following you to a point where you felt uncomfortable?
   - Threatened to abandon you, ignored you or treated you indifferently
   - Done things to scare or intimidate you on purpose? (For example by breaking things in front of you)
   - Threatened to use a gun, knife or other weapon against you?
   - Threatened to hurt you or you care about with something other than a weapon? This includes threats to take away children or someone you care about.
   - Forced you to have an abortion?
   - Controlled your own belongings and/or your spending decisions?
   - Prohibited you from working or forced you to quit your work?
   - Forced you to work against your will?

2. Sexual violence

   - Made inappropriate sexual comments to you that made you feel uncomfortable?
   - Touched you in an inappropriate and sexual way that made you feel uncomfortable
   - Physically forced you to have sexual intercourse or perform a sexual act when you did not want to?
   - Otherwise forced you to have sexual intercourse or perform a sexual act when you did not want to? This could be by blackmailing, threatening or scaring you.
   - Had sexual intercourse or other sexual act without you being able to give your permission?
   - Not used protection even after you asked?
   - A sexual partner did not reveal to you that he/she had HIV (and they knew about it)?
   - Had sexual intercourse or performed a sexual act with someone because you felt like you did not have a choice or you were worried about the reaction?
   - Penetrated you with an object against your will?

3. Physical violence

   - Slapped you or thrown something at you that could hurt you?
   - Pushed you or shoved you?

- Hit you with his/her fist or with something else that could hurt you? -

- Kicked you, dragged you or beaten you up?

- Choked or strangled you on purpose?

- Burnt you on purpose?

- Used a gun, knife or other weapon against you?

- Poured hazardous chemicals or substances (e.g. acid) on you?

- FOR MEN ONLY: Kicked or pulled your external genitalia?

4. Emotional violence

- Insulted, belittled, or humiliated you in private or in front of other people

- Spread false information about you and/or distributed photos or videos of you without your permission?

5. Economic violence

- Refused to give you enough chop money even though you think he/she has enough money to spend on other things?

- Taken cash or withdrawn money from your bank account or other savings without permission?

- Destroyed or damaged property that you have material interest in?

- Refused to give you or denied you food or other basic needs?

8 Appendix B: Definition of selected composite drivers of violence

Patriarchal gender norms

This index was constructed based on the number of the following statements for which the respondent fully or somewhat agrees: "A good wife obeys her husband even if she disagrees with him", "Family problems should only be discussed with people in the family", "To bring up, raise or educate a child properly, the child sometimes needs to be physically punished", "If a women wears revealing clothes, it is her fault if she is raped" and "It is allowed for men to stare at women they don't know?". The index was standardised to have a mean of 0 and a standard deviation of 1.

Tolerance to wife beating

This index correspond to the number of the following cases for which the respondent agrees that a husband has a good reason to hit his wife: "she does not complete her household work to his satisfaction", "she disobeys him", "she refuses to have sex with him", "she asks him whether he has other girlfriends", "he suspects she has been unfaithful", "he finds out she has been unfaithful", "she contracts a sexually transmitted disease", "she goes out without telling him", "she neglects the children", "she argues with him" and "she burns the food". The index was standardised to have a mean of 0 and a standard deviation of 1.

Tolerance to women sexual autonomy

This index corresponds to the number of the following cases for which the respondent agrees that a married woman can refuse to have sex with her husband: "she does not want to", "he is drunk", "she is sick", "he mistreats her", "she is menstruating", "he does not want to use a condom/contraception" and "she finds out that he has other girlfriends". The index is standardised to have a mean of 0 and a standard deviation of 1.

Decision power in household

A composite indicator of who in the household decides how to spend money on food, education for children, healthcare for the children, healthcare for the respondent, clothing, daily household needs, and major household purchases. Respondents were asked for names of household members (which were linked to their roster ID's). 'None of us' and 'all of us' were also part of the answer possibilities.

Consumes alcohol

Respondent consumed alcohol in the last 7 days.

Insecurity in community

Measured using an index that included how many of the following types of violence the respondent had witnessed in their community: theft or robbery, vandalism, arson, kidnapping or abduction, extortion, bullying, political violence, highway attacks, harassment, rape, defilement and seduction. The sample mean for this variable is 0.56, and the median is 0. This indicates that violence tends to concentrate in a few areas. We, therefore, use a binary variable taking the value 1 if the index of violence exposure

is positive, and 0 otherwise. Similar results in the regression analysis were obtained when we used the continuous index.

Witnessed domestic violence as a child
Respondent witnessed any of economic, emotional, physical, sexual or social violence 'at home as a child'.

Migrant
Respondent was not born in current community (age > years of residence in community)

Trust in institutions
Sum of the number of institutions for which the respondent would have 'somewhat' or 'complete' trust to recommend to a friend 'who needed help after being physically assaulted in the home by their partner'. Institutions are: health centre/hospital/other health service provider; police; domestic Violence and Victim Support Unit; shelter; NGO, CSO or social worker; lawyer or member of the Court; legal aid group; Queen mother of your community; traditional leaders; religious leaders; religious group; and/or community group

Social capital
We create an index of social capital by summing up all the organisations the respondent is a member of. In the regressions, we use a binary variable that takes the value 1 if the respondent is member of at least one group.

Private toilet
Respondent has access to a private toilet (as opposed to shared, public or none)

Asset Index
The assets included were: radio, TV, mobile phone, bed, other furniture, cooking utensils, washing machine, fan, air conditioner, refrigerator, iron, sewing machine, kerosene stove, gas/LPG/biogas stove, electric stove, open stove, dish/cable TV, wall clock, landline telephone, digital camera, tablet, computer and mosquito net.

Head of hh is unemployed

Access to water
The respondent gets access to drinking water "piped into dwelling" or through "public tap"

Distance to police station
Number of minutes it takes the respondent to reach the nearest police station

Food insecurity
Whether the household respondent declared that member of the households went hungry to bed during the last lean season.

9 Appendix C: Descriptive statistics

9.1 Experience of interpersonal violence

We start by reporting interpersonal violence rates by gender and residence in tables 7 and 8. Non-domestic violence is more common than domestic violence, for both men and women, and irrespective of the type of residence. Whereas around 23 per cent of women experienced any form of domestic violence over the last 12 months, around 36 per cent of them were victim of violence committed by friends, acquaintances or strangers. The gap is even higher for men, with non-domestic violence twice as prevalent as domestic violence (38 per cent versus 16 per cent).

Rates of non-domestic psychological violence are more than twice as high as those of domestic psychological violence for both genders, and for both urban and rural areas. Similarly, non-domestic sexual violence is almost four times as likely as domestic sexual violence. Non-domestic physical violence against men is slightly more common than domestic physical violence while the corresponding difference is negligible among women. Finally, both controlling behaviours and economic violence against men are more commonly perpetrated by non-domestic relations whereas the opposite is true for women.

We can see from table 7 that women are more likely to report any types of domestic violence and controlling behaviours than men. Women's prevalence rates of physical, sexual and economic violence are around twice as high as men's. The gender gap for controlling behaviours and psychological violence is smaller, at roughly 25 per cent. For both genders, the most common forms of domestic violence are economic violence, psychological violence and controlling behaviours. Physical and sexual violence are more rare with a prevalence rate below 10 per cent in the sample. Men, in contrast, tend to be more exposed to non-domestic violence. This is especially true for controlling behaviours and physical violence, for which prevalence rates among men are 28 per cent and 55 per cent higher, respectively, than those among women.

From table 7, we can see that women in Ghana are less exposed to domestic violence in urban than in rural areas. 21 per cent of urban women reported having been exposed to any type of domestic violence in the last 12 months versus 26 per cent of rural women. The difference is significant at the 5 per cent level. This difference is mostly driven by economic violence, which is reported by 9.3 per cent of urban women compared to 15 per cent of rural women. This difference is highly statistically significant (at 1 per cent). None of the other types of violence as well as controlling behaviours are significantly different in urban and rural areas.

Table 8 presents the same information for violence committed by friends, acquaintances and strangers. Women's exposure to non-domestic violence is very pronounced (36 per cent), but is not significantly different in urban and rural areas. Men, on the other hand, are more exposed to non-domestic violence in urban than rural settings (42 per cent versus 37 per cent). The difference is significant at the 5 per cent level. Looking at the specific types of violence, we can see a contrasted picture. On the one hand, urban men are considerably less affected by controlling behaviours (by a factor of 50 per cent) and sexual violence (by a factor of two) than rural men. On the other hand, exposure to non-domestic physical violence is twice as high in urban areas than in rural areas. All of these differences are significant at 1 per cent. Psychological violence against men is also found to be slightly more common in urban areas, but the difference is only significant at 10 per cent.

Table 7: Gendered experience of domestic violence in rural and urban areas.

Mean prevalence:	Controlling behaviour	Physical violence	Sexual violence	Psychological violence	Economic violence	Any domestic violence
Sample: Women						
Rural areas	12.4	6.7	2.4	12.5	14.9	25.7
Urban areas	13.2	5.9	2.9	10.7	9.3	21.2
Difference in means						
p-value	0.97	0.50	0.40	0.16	0.00***	0.03**
Sample: Men						
Rural areas	7.9	3.5	1.3	9.8	6.6	17.3
Urban areas	10.6	1.8	1.8	9.7	6.1	16.1
Difference in means						
p-value	0.04**	0.02**	0.07*	0.59	0.64	0.75

Source: authors' calculations from GFLS (2015).

Table 8: Gendered experience of violence committed by friends, acquaintances and strangers in rural and urban areas.

Mean prevalence:	Controlling behaviour	Physical violence	Sexual violence	Psychological violence	Economic violence	All domestic violence
Sample: Women						
Rural areas	8.0	7.1	8.6	26.4	8.5	35.5
Urban areas	10.0	5.8	10.4	26.7	6.7	35.7
Difference in means						
p-value	0.31	0.10*	0.12	0.09*	0.11	0.90
Sample: Men						
Rural areas	10.0	10.0	6.3	29.0	6.9	37.1
Urban areas	15.0	9.6	12.7	31.6	7.3	41.9
Difference in means						
p-value	0.01***	0.71	0.00***	0.10*	0.55	0.02**

Source: authors' calculations from GFLS (2015).

9.2 Risk factors of interpersonal violence

Before turning to a formal analysis of the urban-rural differences in interpersonal violence, it is useful to summarise how risk factors of violence differ in the urban and rural settings of our sample. Tables 9-11 in display the mean of each risk factor in rural and urban contexts, the difference in means between the two and whether this difference is statistically significant. Table 9 presents the summary statistics for the sub-sample of women respondents, table 10 does the same for the sub-sample of men respondents, and table 11 is devoted to household-level variables.

At the individual and household level, the age structure of women is similar across urban and rural areas, but men tend to be younger in the urban strata than in the rural ones (by two years on average). Education levels are consistently higher in urban areas: women and men there are less likely to have either no education or a primary education, and they more likely to have a secondary, technical or higher education, than in rural areas. The raw differences in education achievements are very substantial: for

Table 9: Means of risk factors of interpersonal violence in urban and rural areas, women sample

variables	Mean (Standard deviation)		Ho: no difference in means [p-value]
	Rural	Urban	Urban-Rural
Age	35.5	34.6	−0.868 (0.11)
Migrant	0.547	0.714	0.167*** (0.000)
Never married	0.039	0.064	0.024*** (0.007)
In a monogamous relationship	0.596	0.626	0.030 (0.133)
In a polygamous relationship	0.158	0.090	−0.068*** (0.000)
Widowed/separated/divorced	0.207	0.221	0.014 (0.398)
Worked for pay over last 7 days	0.537	0.546	0.010 (0.673)
Average number of hours worked per day	7.166	8.229	1.063*** (0.000)
Self-employed	0.747	0.569	−0.178*** (0.000)
Employed	0.053	0.156	0.103*** (0.000)
Not working	0.200	0.275	0.075*** (0.000)
No formal education	0.329	0.140	−0.189*** (0.000)
Completed primary school	0.196	0.145	−0.051*** (0.001)
Completed middle/JSS/JHS school	0.374	0.406	0.032 (0.192)
Completed secondary school	0.068	0.169	0.101*** (0.000)
Completed technical school	0.014	0.037	0.023*** (0.001)
Higher education	0.020	0.104	0.084*** (0.000)
Patriarchal norms index	0.076	0.043	−0.033 (0.576)
Tolerance to wife beating index	0.298	-0.139	−0.437*** (0.000)
Acceptance of women sexual autonomy index	0.001	0.027	0.025 (0.631)
Control of household resources index	-0.103	-0.074	0.028 (0.555)
Consumed alcohol in last 7 days	0.120	0.096	−0.024 (0.131)
Witnessed insecurity in community	0.262	0.368	0.106*** (0.000)
Witnessed domestic violence as a child	0.198	0.138	−0.060*** (0.006)
Knows Ghana's law against domestic violence	0.697	0.845	0.148*** (0.000)
Knows where closest DOVVSU is	0.089	0.085	−0.005 (0.785)
Trust index (max=12)	8.753	8.915	0.162 (0.395)
Social capital	0.567	0.632	0.064*** (0.0003)

Source: authors' calculations from GFLS (2015).

Table 10: Means of risk factors of interpersonal violence in urban and rural areas, men sample

| variables | Mean (Standard deviation) | | Ho: no difference in means [*p*-value] |
	Rural	Urban	Urban-Rural
Age	34.8	32.7	−2.131***
			(0.002)
Migrant	0.469	0.623	0.153***
			(0.000)
Never married	0.156	0.188	0.032
			(0.121)
In a monogamous relationship	0.607	0.565	−0.042
			(0.155)
In a polygamous relationship	0.079	0.043	−0.036***
			(0.006)
Widowed/separated/divorced	0.159	0.205	0.046**
			(0.031)
Worked for pay over last 7 days	0.624	0.526	−0.098
			(0.026)
Average number of hours worked per day	7.925	8.754	0.828***
			(0.000)
Self-employed	0.681	0.351	−0.330***
			(0.000)
Employed	0.175	0.357	0.182***
			(0.000)
Not working	0.144	0.292	0.148***
			(0.000)
No formal education	0.216	0.057	−0.161***
			(0.000)
Completed primary school	0.161	0.085	−0.076***
			(0.000)
Completed middle/JSS/JHS school	0.368	0.339	0.030
			(0.318)
Completed secondary school	0.160	0.253	0.092***
			(0.000)
Completed technical school	0.021	0.046	0.025***
			(0.009)
Higher education	0.071	0.220	0.149***
			(0.000)
Patriarchal norms index	-0.023	-0.073	−0.050
			(0.474)
Tolerance to wife beating index	-0.063	-0.269	−0.204***
			(0.000)
Acceptance of women sexual autonomy index	0.075	0.079	0.003
			(0.961)
Control of household resources index	0.241	0.140	−0.102**
			(0.032)
Consumed alcohol in last 7 days	0.344	0.261	−0.084***
			(0.001)
Witnessed insecurity in community	0.324	0.391	0.067*
			(0.055)
Witnessed domestic violence as a child	0.201	0.173	−0.028
			(0.293)
Knows Ghana's law against domestic violence	0.777	0.871	0.094***
			(0.000)
Knows where closest DOVVSU is	0.118	0.122	0.004
			(0.894)
Trust index (max=12)	8.840	8.765	−0.074
			(0.683)
Social capital	0.573	0.613	0.04 *
			(0.0003)

Source: authors' calculations from GFLS (2015).

Table 11: Means of risk factors of interpersonal violence in urban and rural areas, household variables

variables	Mean (Standard deviation)		Ho: no difference in means [*p*-value]
	Rural	Urban	Urban-Rural
Head of household is unemployed	0.024	0.042	0.018** (0.013)
Unemployment rate of men>18 in household	0.024	0.058	0.035*** (0.000)
Unemployment rate of women>18 in household	0.060	0.097	0.037*** (0.000)
Assets index (max=21)	6.335	9.880	3.545*** (0.000)
Food insecurity	0.166	0.094	−0.071*** (0.000)
Distance to police station (min)	39.826	17.747	−22.079*** (0.000)
Private toilets	0.111	0.238	0.127*** (0.000)
Water in dwelling	0.255	0.366	0.111*** (0.002)

Source: authors' calculations from GFLS (2015).

instance, the proportion of women with secondary education is 10 percentage points higher in urban areas (or 147 per cent more than in rural areas, table 9) and the proportion of men with higher education is almost 15 percentage points higher in urban areas (or 210 per cent more than in rural areas, table 10). Looking at the family structure, the prevalence of polygamy is almost twice as low in urban areas than in rural ones (for both men and women respondents). Divorced, separated or widowed women are more common in urban than in rural areas, as are never married men.

Households in urban contexts enjoy a more enviable socio-economic status than those in rural areas, as evidenced by the assets index (about 50 per cent higher in the former) and the proportion of households in which members go hungry during the lean season (which stands at 17 per cent for rural households compared to 9.4 per cent for urban households). Households in urban areas are also twice as likely to have a private toilet and they are 50 per cent more likely to have running water in their homes than households in rural areas.

A common narrative is that cities offer women more opportunities to get engaged in the labour market than rural areas. The converse narrative is that the lack of job opportunities for men in cities force women to take on informal jobs, causing strain within the household, and potential threats to masculinity. As mentioned in section 2, urban areas in Ghana are not associated with higher employment rates for women, and the employment rate for men is lower in urban than in rural areas (DHS 2014). In our sample, about 54 per cent of women respondents have worked for pay over the last seven days, with no difference between urban and rural settings (table 9). In contrast, while 62 per cent of men have worked for pay in rural areas in the week preceding the survey, only 53 per cent did so in urban areas (table 10). One explanation for this gap is that unemployment is much more salient in Ghana's urban areas. And indeed, table 11 shows that heads of households are almost twice as likely to be unemployed in urban (4.2 per cent) than in rural areas (2.4 per cent). The unemployment rate of men aged 13 years and above is 5.8 per cent in urban areas against 2.4 per cent in rural areas. The unemployment rate of women is higher in absolute value but displays the same pattern (9.7 per cent in urban areas against 6 per cent in rural areas).[11]

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[11]To calculate the unemployment rate of men and women, we used the information on all individuals of working age (i.e.

The structure of employment also sharply differs across urban and rural areas: both working women and men are more likely to be employees (two times more for men, three times more for women) and less likely to be self-employed than in rural areas (half as likely for men, 25 per cent less likely for women). Active women and men report longer working hours in urban than in rural areas. Urban women work about one hour more per day than their counterparts in rural areas, whereas the corresponding figure for men is 50 minutes. Given the time needed for transportation in cities, and the hours worked doing chores, the longer working hours in the cities are likely to be a factor of stress and tiredness, which in turn could lead to disputes and potentially violent conflicts amongst family members.

With respect to decision-making reflecting gender dynamics in the household, women in urban areas are very slightly more in control of decision-making within the household than women in rural areas, but the difference is not statistically significant. The index of power in the household is however almost 60 per cent lower among urban men than rural men. The difference is significant at the 1 per cent level. This might be due to men being absent for longer from the household due to longer work hours, commuting and looking for work opportunities.

At the community level, both men and women report higher rates of insecurity (in the form of public fights, theft, crime etc) in urban than in rural areas. The difference is higher for women and, for men, it is only marginally significant at the 10 per cent level. This is suggestive that at least part of the higher reported rates of insecurity is due to women being more likely to be aware of violent events in cities than they are in villages, irrespective of the actual level of violence in both settings. It could also be related to women being aware of their higher vulnerability. Generally, women tend to express higher levels of fear of crime and violence across the world (Smith and Torstensson, 1997; Box et al., 1988).

The social-ecological framework of domestic violence emphasises the importance of norms and attitudes. The GFLS (2015) reveals that these norms may not differ as much between urban and rural areas as common wisdom would expect. The means of the indices of acceptance of women sexual autonomy and patriarchal norms are not significantly different across the two settings for neither women nor men. However, tolerance to wife-beating is much less common in cities than it is in rural areas for both men (by 0.2 standard deviations) and women (by 0.4 standard deviations). Partially related to this could be childhood experiences of domestic violence - identified as a one of the contributing factors of violence exposure or perpetration at a later age. Women (but not men) in urban areas of Ghana are significantly less likely to have been witness of domestic violence as a child.

With respect to the knowledge of and availability of support and services, women are more likely to be aware of the Ghana DV Act if they live in urban areas than in rural ones. 85 per cent of the former know the act, against 70 per cent of the latter, a difference significant at the 1 per cent level. The same is true for men, although the raw difference is a bit smaller (87 per cent of urban men know the act, against 78 per cent of rural men, a difference significant at the 1 per cent level). Neither women nor men are more likely to know where the closest victims support unit (DOVVSU) is in urban than in rural areas, and the proportion of individuals who do know is low in both settings (around 12 per cent for men and 9 per cent for women). Trust in the institutions is high across the board, and similar across sexes and urban/rural settings (individuals trust on average 8.5 institutions out of 12). Unsurprisingly, the time needed to reach the police station is more than twice as low in urban settings (almost 18 minutes on average) than un

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above 13) within each household.

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rural areas (almost 40 minutes on average).

Overall, it is difficult to assess which of the urban and rural contexts is most conducive to interpersonal violence. On the one hand, people in urban areas are more likely to be unemployed, and when they are not, to work long hours. This is likely to create financial and relational stress within families. For example, Schneider et al. (2016) found that intimate partner violence increased in the US during the great recession. One potential advantage of cities, i.e. women being financially independent due to increased work opportunities, does not fully manifest itself in Ghana. Cities are also more insecure in general. On the other hand, people in urban areas are better educated, better off economically, more food secure and have better access to key amenities. Women are less likely to be in polygamous relationships, and urban people are less tolerant of wife beating, more aware of the DV Act, and live in closer proximity to police stations. Urban respondents were also less likely to be in contact with domestic violence as children.