Chapter Six - A Multilevel Analysis of Civil liberties, Socioeconomic Entitlements and Maternal Health Utilisation in sub-Saharan Africa

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0.1 Introduction

The rights-based approach to health and health care has been the subject of much scholarship since the 1948 Universal Declaration of Human Rights (UDHR). Article 25 of the UDHR which bestows on everyone with "the right to a standard of living adequate for them to enjoy good health and well-being including food, clothing, housing, medical care, social services and the right to security in the event of circumstances beyond their control such as unemployment, disability, sickness, widowhood, old age or any other lack of livelihood" (Assembly, 1948). However, there has been considerable emphasis on the rights-based approach by scholars and practitioners alike post 2015 MDGs especially in relation to maternal health care(Das, 2018). This is due to the sub-optimal progress gained in reducing maternal mortality in the past few decades particularly in developing countries. The MDG number 5, was a commitment to improving maternal health by the United Nations (UN) member states, to be measured by a three quarters reduction in maternal mortality. Although there was a decline of 44 percent in maternal mortality between 1990 and 2015, it was by far less than the total reduction needed to achieve the three-quarters reduction target for MDG number 5.

The insufficient progress was mainly attributed to weak and underdeveloped health systems and lack of political commitment to improving women's health due to their secondary status in society (Maclean, 2010; Hunt and Bueno de Mesquita, 2010; Das, 2018). It has long been established that access and utilisation of maternal health care services such as antenatal care, skilled birth attendance and emergency obstetric care for all are essential in the prevention of maternal mortality (Yamin, 2013). These point to public policy and politics rather than

medical science as the main source of inadequacies in the prevention of maternal mortality. Because it is within the realm of politics and public policy that national resources are distributed including health expenditure. This is where the human rights-based approach becomes attractive because it is rooted in the strength of the human rights framework to create political and social benchmarks to assess the process and outcomes of development and to underscore the power hierarchies that will lead to social and economic injustices (Yamin and Maine, 1999).

Three aspects of the human rights approach necessary to shaping a human rights approach to health and health care are worthy exploring. They include the indivisibility of political and civil rights and the socio-economic rights 2) active agency by those vulnerable to human rights violation; and 3) the powerful normative role of human rights in establishing accountability for protections and freedoms (London, 2008).

There has been concerns by scholars that the international community has prioritised civil and political rights which has led to their considerable achievements at the expense of socioeconomic rights or entitlements (Farmer, 2005). The importance of recognizing the indivisibility of civil and political rights and socio-economic rights therefore means that health policy-makers can spend as much time considering and developing health policies in terms of obligations to fulfill the right to health, as they do in developing elaborate and potentially impressive commitments to eradicating discrimination or violations of dignity. However, some scholars have argued that in fact civil liberties and political rights are indivisible not as way of pushing the recognition of socioeconomic rights but as way of achieving them (Lockwood, 1996). Because where civil and political rights thrive, so do socioeconomic rights. Socioeconomic rights may depart from passive freedoms of protection from, to require the active provision of facilities and services by the state of which health care in one as Steiner et al. (1996) posits, but their success requires an environment which guarantees civil and political rights. National governments designates deserving and undeserving claimants of rights and this distinction depends on the extent to which governments are accountable to the population (London and Schneider, 2012). Accountability is possible only with a vigorous and well organised civil society which is also only possible in a society that respects civil and political rights (London, 2008)

The rights-based approach is not only confined to the link between civil and political rights and socioeconomic entitlements, agency is another critical element in the rights-based approach. The right to health and health care for example, cannot be left to governments alone to address, a human rights approach seeks to give voice to those who are vulnerable and enable them change their conditions for better outcomes. In this framework, rights are not only

universal standards that should be followed by states, but a medium through which the suffering of people by the state, individuals acting in response to the social structure or the social structure itself, is ameliorated. This formulation recognises the fact that the government is not the only one capable of inflicting suffering on vulnerable populations, individuals and the social system also are. Thus, individuals, groups, and communities whose rights have been or are likely to be violated should have choices and capabilities enabling them to claim their rights to better conditions (London, 2008; Cornwall, 2002; Allison, 2002; Stuttaford, 2004). This is where the rights-based approach is complemented by the capability approach as highlighted by many proponents of both the rights-based and the capability approach (Birdsall, 2014; Vizard et al., 2011; Sen, 2005; @ Nussbaum, 2003; Marks, 2005). The capability and the human rights approach have a common motivation of fostering the dignity and freedoms of the individual. The capability approach highlights the the critical importance of substantive freedoms and opportunities of individuals and groups while the human rights approach highlights the importance of values such as freedom, dignity and respect, equality and none discrimination, participation and autonomy and the arrangements that are needed to protect and promote these (Vizard et al., 2011). In practical terms, what people can positively achieve is influenced by economic opportunities, political liberties, social powers and the enabling conditions of good health, basic education and encouragement and cultivation of initiatives. The institutional arrangements for these opportunities are also influenced by the exercise of peoples freedoms through the liberty to participate (Sen, 1999a). This is what links human rights and freedoms to good social, economic and health outcomes.

The capability approach is also relevant in the last element of the rights-based approach. Although the relevance of accountability in the rights-based approach has already been seen. It is important to note that the rights-based approach provides powerfully normative set of criteria by which to judge right and wrong (Group et al., 2002). Defining who is a rights holder, who is a duty bearer, and what the nature of the obligation is, allows a much clearer opportunity to establish accountability (typically of government) for the realization of rights and creates a range of mechanisms to hold governments accountable(London, 2008). However, we have established that people's rights are not violated by the government. In cases where violation is the health or social system outside the sphere of government, the capability approach provides a competent complement. People who are empowered by capability functionings may be better able to confront the conditions of their suffering and claim their rights.

We have seen that according to the rights-based approach, the link between civil rights and socioeconomic entitlements, the concept of agency and government accountability are

important elements in achieving certain entitlements such as health care and good health outcomes. There are still debates in literature whether in fact civil liberties contribute to attainment of socioeconomic entitlements such as health and health care (Morris, 2006). Additionally, we have seen that the social system though community agency, as well as individual agency is important in ameliorating the suffering of individual persons. Finally accountability has been seen to be essential in countering the human rights violations of governments and the social system as a whole. There are no studies which considers which deal with these issues especially in low resource societies like sub-Saharan Africa. This fills the gap in literature by answering these questions in relation to maternal health care utilisation.

Inequalities in maternal health care in SSA are a manifestation of limited freedoms because societal gender division of labour assigns responsibilities of pregnancy and childbirth to women, whom at the same time occupy subordinate positions and have limited access to resources. Beyond cultural norms and social power relations, it is also established that women die during childbirth because of specific governmental failures (Yamin, 2013). Rights and freedom approaches to maternal health care offer strategies and tools to address root causes of maternal morbidity and mortality (MMM) within and beyond health systems as well as the other violations of women's sexual and reproductive health and rights across their lives including formative gender inequalities and structural violence against women (Yamin, 2013). Many researchers call for further studies linking civil and political rights to specific outcomes (Birdsall, 2014). I use multilevel models in order to not only delineate the effects of country and community level factors but also to control for individual level. I will also establish the amount of variance in maternal health care explained by each of the three levels.

0.2 Human rights and freedom

As indicated in the theoretical framework chapter, very few works have been as influential as the works of Nobel prize winner Amartya Sen is shifting attention from material indicators of well-being to more freedom oriented perspective. Sen roots his freedom approach to development in his support of the market system of economics and their capability to expand income, wealth and economic development in contrast to market restrictions which restrains people's freedom to make transactions and exchange and thus hamper development prospects (Sen, 1999b). The freedom-based approach gives citizens the liberty to participate in any activity (economic or otherwise) of their choice without interference from national or international "guardians" neither by political rulers, religious authorities nor cultural experts (Sen, 1999b). He argues that freedom can hardly be realised without explicit valuations,

that it should be open to public scrutiny and criticisms. It is this point that makes political freedom even more important because it provides an opportunity for "citizens to discuss and debate and to participate in the selection values in the choice of priorities" (Sen, 1999b). Media freedom, freedom of communication, freedom of assembly and freedom to choose and leave an employer are all encompassed in here.

Sen goes on to argue that freedom to participate in activities of concern requires knowledge and this is how freedom feeds into other sectors such as education "since participation requires knowledge and basic educational skills, denying the opportunity of schooling to any group say female children-is immediately contrary to the basic conditions of participatory freedom" (p.32). He also posits that political and civil liberties also help to prevent economic distastes. A governing group in multiparty democracy with free and fair elections and free media has added incentives to prevent famines because not doing so would entail serious political consequences. Without freedom guarantees and uncensored public criticisms, governments do not suffer any negative consequences for their failure to provide for their citizenry. Thus, according to Sen, freedom is invaluable as it has enormous potential to bolster well-being.

Sen's views on freedoms and rights as he would also admit[1] are not completely new and yet the concept of "rights" seem to permeate the social, political and intellectual agenda only in the late twentieth century which Bobbio (1995) considers as the 'age of rights'. The reasons for this have been varied with some viewing human rights as a potential multinational platform from which to confront the negative effects of neoliberal globalisation, raising questions about the social obligations of international corporations (Freeman, 2002). Others see human rights as means to bring people together in a fragmented society (Klug, 2003) while some see in freedom and human rights the promise of an illusive concept of universalism (Taylor, 1995). But whatever the motivation may be there is an increased optimism in the capacity of freedom-based approaches to foster peace, security, economic development and general well-being (Burroway, 2011). No wonder the past few decades has seen an upsurge of interest in several academic disciplines including sociology, political science, public health, economics and law among others. The overarching theme throughout much of this body of knowledge is that human rights improve health and well-being.

Anthropologist and physician Paul Farmer however, holds that the basic problem is human rights discourse is the presupposition of equality in society which according to him, does not exist. "Local and global inequalities mean that the fruits of medical and scientific advances

[1]He traces freedom overtones in the works of early Greek philosopher Aristotle and his focus on "flourishing" and "capacity" and also in the Scottish enlightenment economist Adam Smith with his analysis of "necessities" and conditions of living.

are stockpiled for some and denied to others" (Farmer, 2005). It is in this regard that further contextual investigations to analyse the pathways of inequalities are merited. This chapter offers this analysis from a sociological perspective which is one of the importance field well-positioned to unpack both human rights abuses and the discourses they generate. It allows us to situate human rights abuses within broader analyses of power structures and power relation. I do this here by leveraging international data infrastructure on both rights and health in order to study not only the effects of civil liberties and freedom on use of maternal health care but also the interactions between them and socioeconomic status which Sen argues is very important to ensure a holistic view of freedom.

0.3 The Sociology and Human rights

The link between sociology and human rights is traced in T.H Marshall's 1950 work on *citizenship and social class* in which he defined citizenship as "a status bestowed upon those who are full members of the community. All who posses the status are equal with respect to the rights and duties with which the status is endowed". The modern nation state was central to Marshall's conceptualisation of citizenship because it is charged with the responsibility of providing civil, political and social rights to the populations (Hynes et al., 2010). Marshall mainly focused on the role played by social rights in moderating the tension between capital and citizenship, and the possibility that equality of status (via citizenship) may override the material inequalities of social class (Morris, 2006). The concept of citizenship however, was critised because of its failure to articulate the position of non-citizens, indicating a stack difference between human rights and citizenship. It was also critised for the implicit understanding of liberal capitalism. But the biggest hurdle for the sociology of human rights was negotiating universalism, an issue seen as being beyond the scope of national sociologies in which the boundaries of the national state were assumed to correspond to society (Hynes et al., 2010).

Marshall notes the importance of civil rights in the battle for social rights. The intensely individual nature of civil rights was turned to address collective interests (Marshall et al., 1950) in the development of economic and social rights. The interdependence of different rights is also an issue that emanates from Marshall's work. Turner makes a great contribution as he was preoccupied with the evasion of questions about a universal ontology. He argues that citizenship should take into account the globalisation of social relations and the differentiation that is increasingly becoming common place in the social system (Turner, 1990, 1993; Morris, 2006). He thus promoted both the universalism and particularism of rights. The Universal

aspects of rights is further linked to modern institutional developments which are said to transcend the level of national state and have a globalising scope whereby different social context and regions becaome networked accross the globe (Giddens, 1990). He argues that foundational grounding for the sociology of human rights should be in the universality of embodied vulnerability. human rights is an institution that is specific to cultural and historical context just like any other. The other problem Turner engaged with is Sociology's neglect of normative theory, which he argued should be endorsing human rights while studying them.

Frameworks of thinking about rights in the broader context of structural inequality which entails protection from harm emanating from different sources. The tension between civil liberties and social rights has prevented sociological engagement. Woodiwiss (2005) argues that sociologists must acknowledge that the individual and the social or collective are in fact mutually constitutive of one another. He argues that rights are constructed through a relation between the individual and the structural, the human and the social rather then the individual being ontologically prior to the social. This construction brings back Mill's sociological imagination to the sociology of human rights whereby questions of values, well-being, change and uncertainty, which is foundationed in the relation between structure and biography. Human thus becomes pivotal to this analysis and it brings together the sociology of rights and the sociology of human rights

Equality is a part of human rights. Sociology puts emphaisis to the multiple and diverse character of the forms of social inequality exclusion and dimensions of power in society every sense focus on the concept of intersectionality as the central forecast for debate over how to see you raise sites multiple inequalities is welcome and has also been a focus in political theory social legal studies and interdisciplinary debates

0.4 Methods

0.4.1 Data

This analysis is based on the Demographic and Health Surveys (DHS) and several other international data sets. The DHS data and the World Development Indicators from the World Bank Data Bank have already been explained in chapter four. This chapter includes data on country freedom ratings from freedom house and governance effectiveness from the Word Governance Indicators of the World Bank.

Freedom House is a nongovernmental organisation that has been publishing a *freedom in the world* report on the state political rights and civil liberties of over 190 countries since

the early 1970s. The methodology mirrors the 1948 Universal Declaration of Human Rights (UDHR), premised on the universality of standards of civil and political across the world–that these standards apply to all countries and territories irrespective of geographical location, ethnic or religious composition or level of development. The freedom score is based on the events and activities happening in a particular country for the concerned time period. The score is arrived at by consensus and deliberated over a series of meetings involving of more than 130 analysts, advisers and staff with a global representation. They use a suite of data sources including newspapers, academic research, NGO reports, professional contact and on-the-ground research. An element of subjectivity may be unavoidable but the ratings process emphasise methodological consistency, intellectual rigour, balanced and unbiased judgement. The fact that it has been used in many studies also shows their trustworthiness among academic scholars

Freedom status ratings are derived from 25 questions representing political rights and civil liberties. The questions address electoral process, political pluralism and participation, functioning of government, freedom of expression and belief, rule of law, associational and organisational rights and personal autonomy and individual rights (Freedom House, 2019). The overall scores of both political rights and civil liberties add up 100 points[2]. This chapter uses these overall average ratings of 1 to 100. They are standardised in the analysis with the mean of 0 and standard deviation of 1 for easy comparability and interpretations as indicated above

The World Government Indicators (WGI) are research datasets summarising cross-country indicators of the quality of governance from 31 different sources capturing governance perceptions from non-governmental organisations, commercial business information providers, public sector organisations, surveys of households and firms worldwide. The WGI consist of six composite indicators of governance including voice and accountability, governance effectiveness, political stability, regulatory quality, rule of law and control of corruption (Kaufmann et al., 2011). They use unobserved components model statistical methodology to standardise the data from different sources to make it comparable and then aggregate weighted averages of the individual source variables to create composite indicators. Margins of errors are also construed to reflect the imprecision inevitable in governance measurements.

This chapter uses the voice and accountability (VA) dimension of the WGI. The VA captures people's perceptions of the extent to which the country's citizen are able and free to engage in

[2]Political rights accounts for 40 points from 10 questions while civil liberties account for 60 questions derived from 15 questions. Ratings are also constructed between the range of 1 and 7. 1 representing the greatest degree of freedom while 7 representing the smallest degree of freedom

the selection of their government, together with freedom of expression, freedom of association and media freedom. The WGI measures are reported in standardised normal distribution and in percentile rank terms. This chapter uses the standardised format ranging from -2.5 to 2.5 for better comparability with other variables from the WBI and also for easy interpretation. Data used used here is for the 2016 iteration in order to be as close to the the survey years of the DHS data as possible.
Statistical analysis

The Bayesian multilevel models to estimate were used to estimate parameters because of the nature of the data structure and the need to determine the relative influence of contextual factors on maternal health care utilisation indicators as articulated in chapter six. In this chapter, the interest was to isolate the effects of civil liberties, voice and accountability and female secondary school enrollment which are operationalised at the country-level, on antenatal care, institutional delivery and postnatal care. I was also interested in measuring community autonomy and community education measured at the community level. Marcov chain Monte Carlo (MCMC) methods are used in the estimation of parameters. Uninformative diffuse prior distribution were specified, running for 50,000 iterations with a burn-in period of 5,000. I specifically used the Metropolis-Hastings sampling methods, which is the default algorithm for non-normal models in`MLwiN`. A number of tests were done to measure convergence but I retained the Raftery-Lewis diagnostics. The Raftery-Lewis diagnostics are intended both to detect convergence to the stationary distribution and to provide a way of bounding the variance of estimates of quantiles of functions of parameters (Raftery and Lewis, 1991). The Raftery-Lewis test shows the minimum number of iterations that would be needed to obtain the desired precision of estimation if the samples were independent. I used the Raftery-Lewis diagnostics to determine the appropriate number of iterations needed for each variable. If the Raftery-Lewis diagnostics tests produced larger values than those specified in the model, the number of iterations were adjusted upwards accordingly.

I specify four models on each outcome indicator. The first model in each table will consists of an empty or null model. It is intended for comparisons with the subsequent models. The second model contains the country-level factors specified as country freedom status, voice and accountability and female secondary school enrollment. In the third model, I introduce the community-level factors: community education, community media exposure, distance and place of residence. The relevant individual-level control variables of maternal education, educational status and female decision-making autonomy.

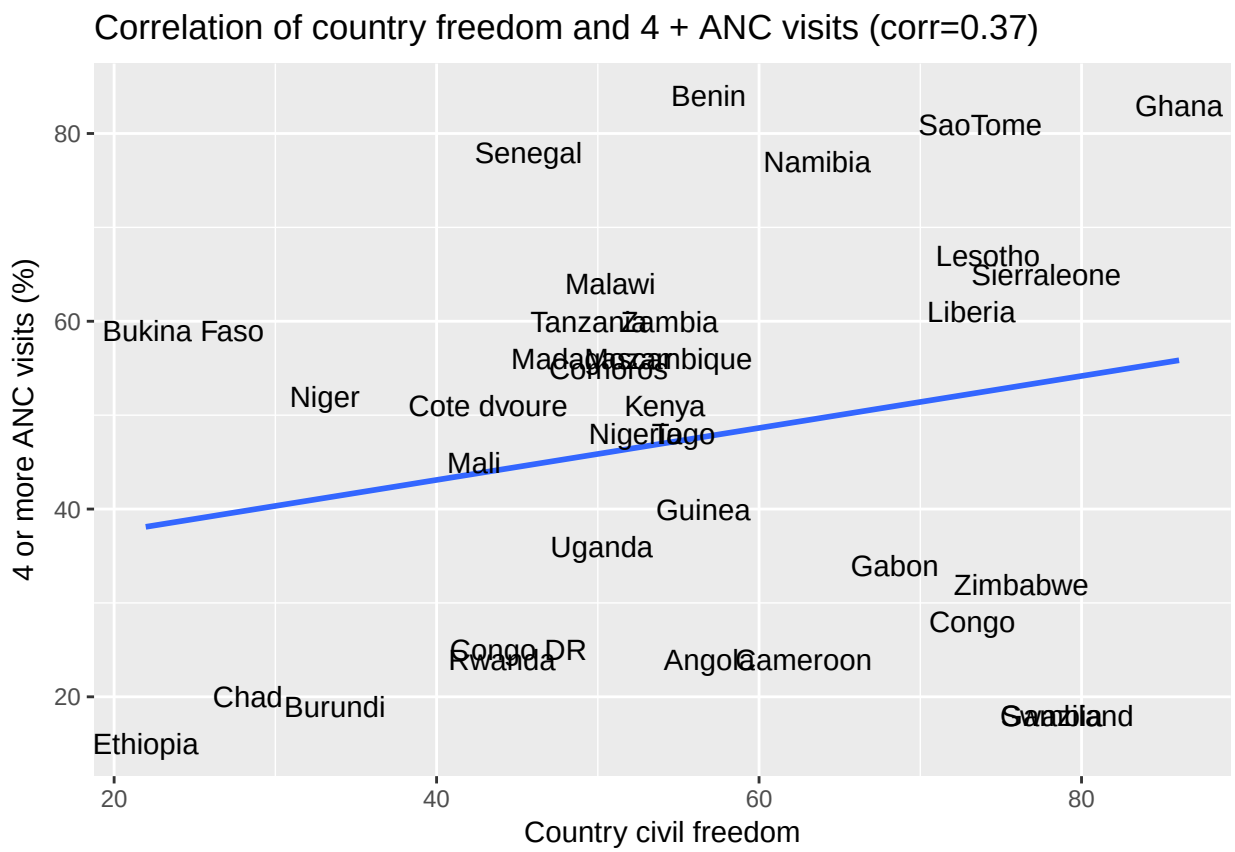

Figure 1: Country freedom and ANC visits

0.5 Results

0.5.1 Background Characteristics of Participants

The distribution of the dependent variables across selected sub-Saharan countries appears in the fourth chapter. Figs 1-2 plot non-parametric associations between the main independent variable, country freedom status and each of the indicators of maternal health care. The results show that country freedom status is moderately and positively correlated with all the indicators of maternal health utilisation. The correlations are all statistically significant. The highest correlation is reported to be between country freedom status and postnatal care (r =.37)

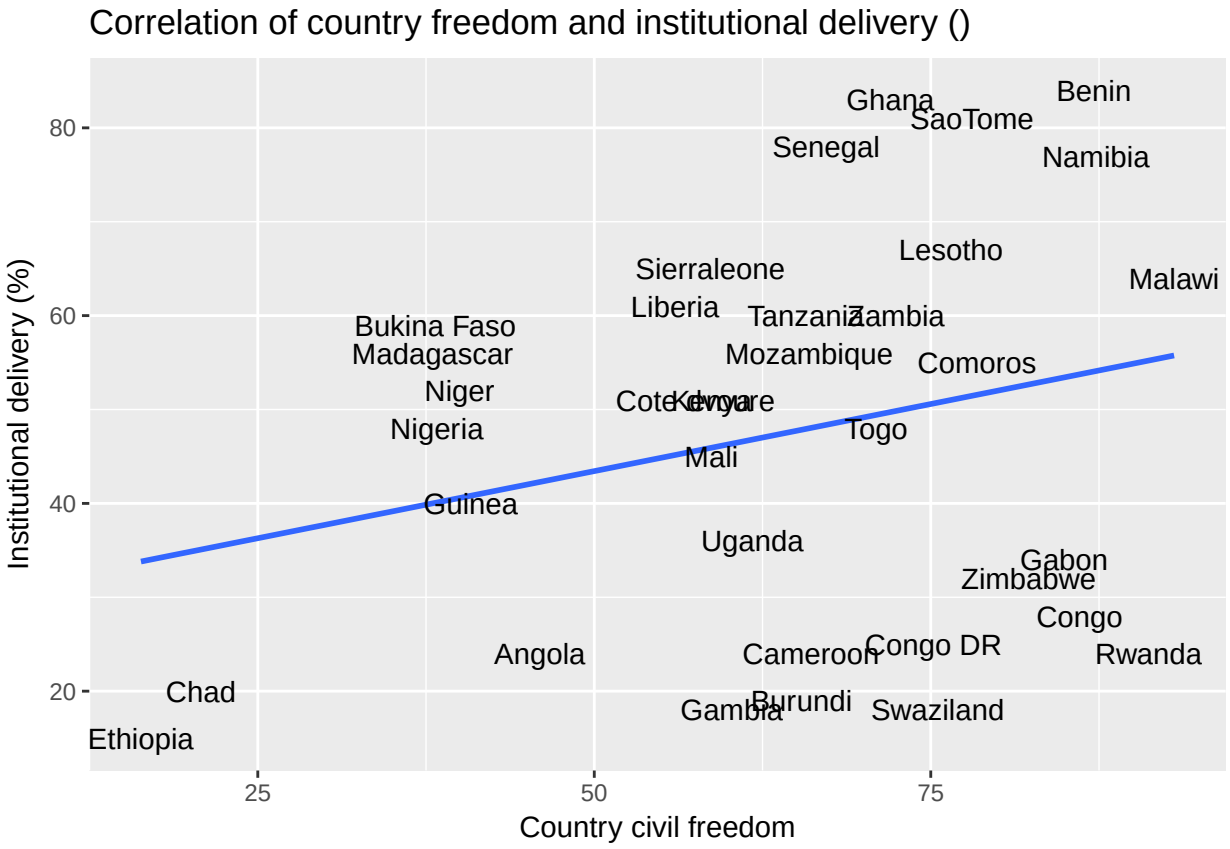

Figure 2: Country freedom and institutional delivery

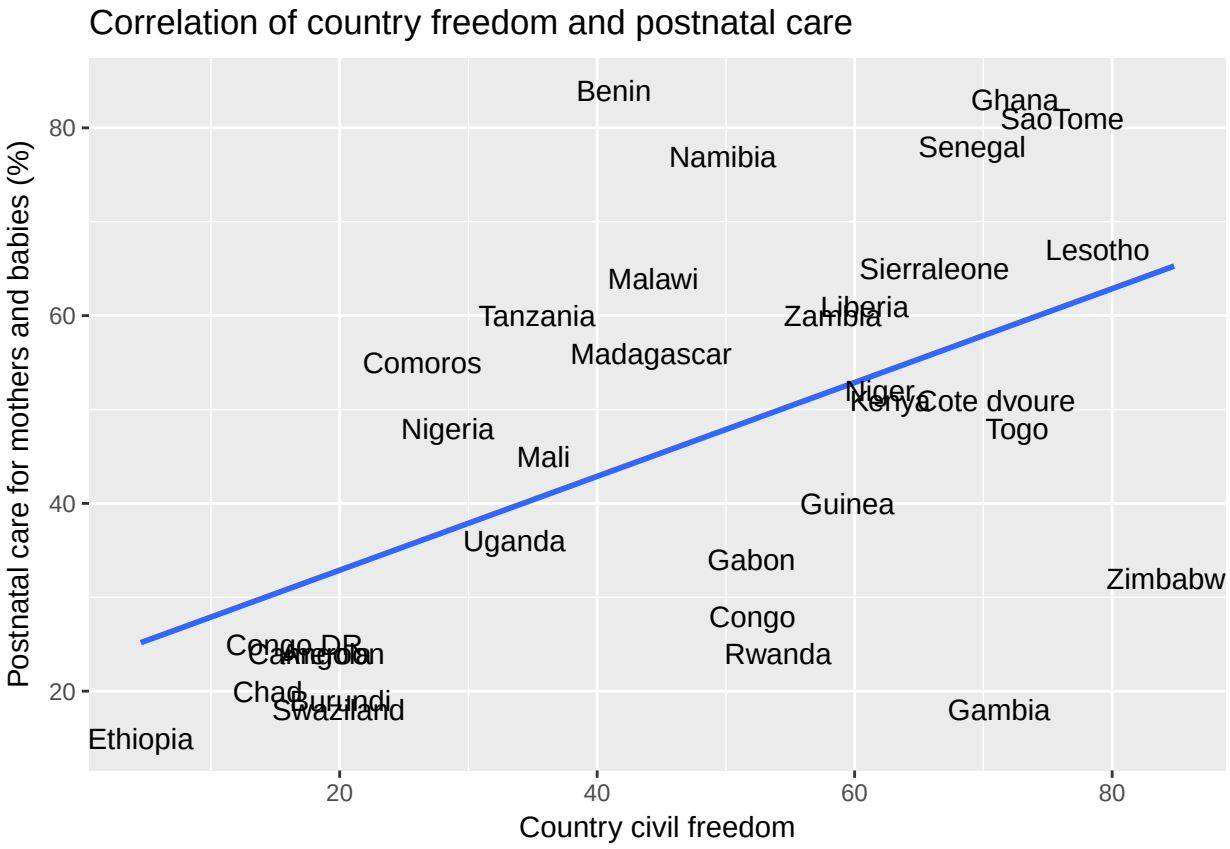

Figure 3: Country freedom and postnatal care

0.5.2 The relationship between country freedom and maternal health care

0.5.3 Multilevel analysis

0.5.3.1 Freedom status, socioeconomic entitlements and antental care

A pooled Bayesian multilevel analysis was applied to understand the relationship between country freedom status and maternal health care utilisation in sub-Saharan Africa. Four models were specified for each of the outcome variables. Table 1. reports the results of the influence of country freedom status, voice and accountability, secondary school enrollment for females and antenatal care visits. Human development indicator is included as a country-level control variable. Freedom status is found to be significantly associated with antenatal care through out the four models. For one standard deviation increase in the country freedom status, the odds of having four or more antenatal care visits increases by a factor of 1.01-1.30 after relevant factors are controlled for. The presence of civil liberties therefore has proved to be essential in encouraging use of maternal health care in sub-Saharan Africa.

Girl child education is another factor of great importance to antenatal care. It was found that living in countries with higher secondary school female enrollment increased the propensity of antenatal care by a factor of 1.31-1.72. This is after the relevant variables are taken into consideration. Education has always been an important predictor of antenatal care at the community level (Ononokpono et al., 2013). This finding introduces an important finding because education is measured at the country-level. Voice and accountability seem to only be significantly associated with antenatal after community and individual level variables are controlled. The cause for this could be cross-level interactions whereby the relationship between voice and accountability is being moderated by some community and individual-level factors included in the analysis.

In terms of control variables, education, distance to health facilities and decision-making authority and place of residence are significantly associated with antenatal care at the community level. So do the same variables when operationalised at the individual level. Human development index was only found to be associated with antenatal care after other relevant factors were taken into consideration.

The analysis also considered the relative importance of different levels of variable operation and their impact on antenatal care. VPCs and MORs were calculated for all models for this purpose. Individual-level factors seem to share a bigger burden in determining antenatal care compared to contextual factors–community and country-level. The results indicate that 15.2% and 19.0% of variance in antenatal care is explained by country and community-level

factors respectively. The VPCs are significantly large which indicates the important of community and country-level factors in explaining the cross-country variations antenatal care in sub-Saharan Africa. MORs also buttress the importance of contextual factors because they are way above 1 in all the models indicating the large influence of higher-level factors in antenatal care. It is interesting to note the significance drop in the VPC values when country and community-level factors are introduced. This phenomena indicates that community factors and country level factors are important predictors of antenatal care.

Table 1: Posterior odds ratios for multilevel logistic regression for Civil liberties, Freedom and Antenatal care in sub-Saharan Africa with 95% credible intervals

Variable	Model 1	Model 2	Model 3	Model 4
Country-level variables				
Intercept	1.45(1.30,1.62)	0.71(0.63,0.80)	0.90(0.71,1.06)	0.47(0.43,0.52)
Freedom status		1.12(0.97,1.23)	1.23(1.10,1.33)	1.19(1.01,1.30)
Female sch enrollment		1.43(1.29,1.56)	1.60(1.37,2.05)	1.54(1.31,1.72)
voice and accountability		0.49(0.43,0.56)	1.00(0.82,1.21)	1.09(0.92,1.41)
Human development		1.31(1.15,1.51)	0.79(0.72,0.93)	0.92(0.70,1.06)
Community controls				
Community education				
Low			1.00	1.00
Medium			2.10(1.99,2.21)	1.60(1.52,1.67)
High			3.35(3.08,3.44)	1.84(1.73,1.98)
Community distance problem				
Less problems			1.00	1.00
More problems			0.78(0.75,0.81)	0.88(0.85,0.93)
Community autonomy				
Low			1.00	1.00
High			1.23(1.19,1.28)	1.17(1.14,1.19)
Residence				
Urban			1.00	1.00
Rural			0.63(0.61,0.66)	0.86(0.82,0.90)
Individual controls				
Maternal age				
<20				1.00
20-34				1.13(1.10,1.17)
35-49				1.11(1.07,1.15)
Educational status				
No education				1.00
Primary				1.35(1.31,1.38)
Secondary/higher				1.87(1.81,1.95)
Distance				
Less problems				1.00
More problems				0.87(0.85,0.90)
Autonomy				
No				1.00
Yes				1.17(1.14,1.19)
Random effects				
Country-level				
Variance(SE)	0.76(0.19)	0.44(0.12)	0.42(0.12)	0.43(0.12)

Table 1 – continued from previous page

Variable	Model 1	Model 2	Model 3	Model 4
VPC(%)	15.20	9.32	9.61	9.91
MOR	2.30	1.88	1.86	1.87
Community-level				
Variance(SE)	0.95(0.057)	0.99(0.02)	0.66(0.01)	0.62(0.01)
VPC(%)	19.00	20.97	15.10	14.2
MOR	2.53	2.58	2.17	2.12
DIC	288,168.99	270,625.48	269,179.56	229,089.90

0.5.3.2 Freedom status, socioeconomic entitlements and institutional delivery in SSA

The effects of country freedom status and socioeconomic entitlements on institutional delivery was estimated using multilevel models reported in table 2. Country freedom status is again showing to be an important predictor of maternal health care utilisation. Country freedom status is associated with institutional delivery in the sense that women living in countries with higher freedom scores are more likely to deliver in health facilities. For a one standard deviation increase in the country's freedom status, the odds of delivering in a health facility are expected to increase by a factor of 1.17-1.53 after other variables are considered.

Education and voice and accountability are significantly associated with institutional delivery only in model 2 but loses significance when control factors at both community and individual levels are introduced. As indicated above, this could be a sign of cross-level interactions or multicollinearity where there is a shared explanatory power among predictor variables.

Community autonomy is found to be significant here in the sense that women who live in communities in which women have higher decision-making autonomy have higher propensity of delivering in institutions compared to those who don't. It is a logical finding because it is expected that women who have higher decision-making authority have a bigger say in ways that resources are distributed within the household. They are most likely to priorities their health and opt to deliver in health facilities where they and their babies have a higher chance of survival because they will be attended to by skilled personnel. Community education is also an important predictor of institutional delivery. Women who live in communities with more women who are educated up to primary and secondary or higher have better odds of delivering in health facilities than those who don't

Control variables are human development index at the country level, distance to health facilities, place of residence at the community level. At the individual level, there are maternal age, educational status, female autonomy and distance. All of them were found to be significantly associated with institutional delivery.

Just like in the antenatal care case, the VPC and MOR were calculated to estimate the relative magnitude of variation explained by country and community-level factors and it was discovered that the combined explanatory power of contextual factors was larger than individual level factors. The results show that 22.68% and 38.66% of cross-national variation in institutional delivery is accounted for by country and community level factors respectively. These values remain higher throughout the modelling process even after community and individual level variables are introduced. The MOR also shows values that are considerably larger than 1 indicating the importance of contextual factors in explaining cross-national variations in institutional delivery.

Civil liberties at the country-level and socioeconomic entitlements at the community level still remain signifcant predictors of facility delivery. It is interesting that country level secondary school female enrollment is no longer a signifcant predictor when the outcome variable is institutional delivery. It could be because the two variables are not uniformly distributed. Some countries have higher secondary school female enrollment and at the same time have very lower proportions of institutional delivery. This could explain the inconsistencies in the nature of the relationship between secondary female enrollment and use of maternal health care.

Table 2: Posterior odds ratios for multilevel logistic regression for Civil liberties, Freedom and Institutional delivery in sub-Saharan Africa with 95% credible intervals

Variable	Model 1	Model 2	Model 3	Model 4
Country-level variables				
Intercept	2.41(2.09,3.03)	1.89(1.60,2.34)	3.21(2.66,3.91)	1.83(1.60,2.15)
Freedom status		1.38(0.19,1.52)	1.29(1.11,1.41)	1.33(1.17,1.53)
Female sch enrollment		1.57(1.238,1.79)	1.22(0.99,1.41)	1.19(0.90,1.62)
Voice and accountability		0.73(0.58,0.95)	1.27(0.98,1.49)	1.72(1.40,2.08)
Human development		1.33(1.13,1.57)	0.83(0.75,0.92)	0.81(0.66,1.15)
Community controls				
Community education				
Low			1.00	1.00
Medium			3.87(3.64,4.09)	2.45(2.30,2.67)
High			10.29(9.62,11.01)	3.88(3.56,4.23)
Community distance problem				
Less problems			1.00	1.00
More problems			0.48(0.46,0.51)	0.81(0.78,0.84)
Community autonomy				
Low			1.00	1.00
High			1.22(1.15,1.29)	1.10(1.07,1.13)
Residence				
Urban			1.00	1.00
Rural			0.28(0.26,0.30)	0.50(0.47,0.53)
Individual controls				
Maternal age				
<20				1.00
20-34				0.82(0.79,0.85)
35-49				0.75(0.72,0.78)
Educational status				
No education				1.00
Primary				1.46(1.41,1.56)
Secondary/higher				2.75(2.63,2.87)
Distance				
Less problems				1.00
More problems				0.81(0.79,0.84)
Autonomy				
No				1.00
Yes				1.10(1.07,1.13)
Random effects				
Country-level				
Variance(SE)	1.93(0.49)	1.41(0.37)	1.05(0.28)	1.22(0.33)

Table 2 – continued from previous page

Variable	Model 1	Model 2	Model 3	Model 4
VPC(%)	22.68	17.49	17.86	20.78
MOR	3.76	3.10	2.66	2.87
Community-level				
Variance(SE)	3.29(0.05)	3.36(0.06)	1.54(0.03)	1.36(0.03)
VPC(%)	38.66	41.69	26.19	23.17
MOR	5.64	5.75	3.27	3.04
DIC	210,315.11	198,551.46	196,751.45	163,466.40

0.5.3.3 Freedom status, socioeconomic entitlements and postnatal care in SSA

The last maternal health care indicator analysed was postnatal care. Country freedom status posits highest effect sizes on postnatal care in comparison with antenatal care and institutional delivery and the significant relationship is shown throughout the four models. Women living in countries with higher freedom status scores are more likely to receive postnatal check-ups for them and their newly born babies. A one standard deviation increase in country freedom score, increases the odds of postnatal care by a factor of 1.66-2.48. Postnatal care happens at the end of the pregnancy and child birth continuum, it is therefore surprising that it is more freedom status is positing higher effect sizes compared to the other indicators at the beginning and middle of the continuum. But it does make sense because at this stage the baby has been born and many people especially in rural Africa may no longer see the importance of visiting the hospital. It would therefore only be in countries which are more inclined to freedom that women would be encouraged to seek postnatal check-ups. Otherwise any civil or political hurdles would discourage women from postnatal care because the baby is already born.

Secondary school female enrollment was not significantly associated with institutional delivery but has a significantly positive effect on postnatal care. Women living in countries with higher secondary school enrollment have a higher propensity of postnatal care. In the sense that one standard deviation increase in secondary school female employment increases the odds of postnatal care by a factor of 1.28-1.52. School enrollment is consistent across the three models. This is logical because higher school enrollment means more women are education up to at least secondary school. Which means that they are not only likely to know the

importance of postnatal care but also to have control over resources, which ultimately makes them have power to make decisions. Several studies have shown that such women are more likely to have check-ups after birth compared to those who don't.

Voice and accountability is associated with postnatal care when all other variables are controlled for. It shows that women who live in countries where people have freedom of speech and higher governmental accountability are more likely to have postnatal care. This finding is rather strange because it is usually expected that a predictor variable would be significant before other variables are introduced and not the other way around. One explanation is that the association could be moderated by some other community or individual level variables. Higher voice and accountability scores means that national governments put the interest of the people and that people have a bigger say in what happens in their country. Such countries could be expected to prioritise certain important sectors like quality health care. In which health facilities would be accessible and well-equipped with adequate skilled personnel to undertake check-ups.

Community autonomy and educational status are other important factors that are found to positively influence postnatal care. Women who live in communities with more women with decision making authority and in communities with more educated women are more likely to receive postnatal care compared to those who don't. Decision-making for any positive action and even much so with maternal health care. When women have have the freedom to make decisions in households, it makes sense that their health and that of their babies will be prioritised. On the other hand when there are more educated women in the community, they are more likely to understand the importance of postnatal checks and share information with others that may indeed result in higher odds of postnatal care

Control variables where the same as the other maternal health utilisation indicators. Distance to health facilities and place or residence at the community level were found to be associated with postnatal care just like in other models. Maternal age, distance to health facilities, female autonomy and educational status measured at the individual level are also predictors of postnatal care.

Just like in other models, relative importance of factors at the three levels were measured using VPCs and MORs and indeed for postnatal care, cross-national variations are attributable to higher-level factors (community and country-levels) compared to individual-level factors. The VPC for country level factors is 27.4% which means that is the amount of cross-national variation in postnatal care attributable to country-level factors which that of community-level factors is 24.45%. The combined contextual level factors explain more than 50% of variations

in postnatal care. These values underscore the importance of contextual factors in maternal health care.

Table 3: Posterior odds ratios for multilevel logistic regression for Civil Liberties, Freedom and Institutional delivery in sub-Saharan Africa with 95% credible intervals

Variable	Model 1	Model 2	Model 3	Model 4
Country-level variables				
Intercept	0.82(0.74,1.04)	0.70(0.60,0.81)	0.48(0.42,0.54)	0.41(0.32,0.57)
Freedom status		1.33(1.10,1.52)	1.72(1.35,2.00)	1.89(1.66,2.48)
Female sch enrollment		1.23(1.00,1.34)	1.20(1.03,1.43)	1.41(1.28,1.53)
Voice and accountability		0.86(0.70,1.00)	0.88(0.69,1.11)	1.25(1.11,1.51)
Human development		0.78(0.68,1.00)	0.66(0.58,0.78)	0.80(0.67,0.98)
Community controls				
Community education				
Low			1.00	1.00
Medium			1.79(1.69,1.92)	1.45(1.35,1.58)
High			2.59(2.45,2.80)	1.77(1.60,1.92)
Community distance problem				
Less problems			1.00	1.00
More problems			0.74(0.70,0.78)	0.81(0.77,0.86)
Community autonomy				
Low			1.00	1.00
High			1.32(1.25,1.38)	1.13(1.10,1.16)
Residence				
Urban			1.00	1.00
Rural			0.84(0.79,0.90)	1.03(0.93,1.08)
Individual controls				
Maternal age				
<20				1.00
20-34				1.06(1.02,1.10)
35-49				1.05(1.00,1.10)
Educational status				
No education				1.00
Primary				1.24(1.19,1.28)
Secondary/higher				1.48(1.41,1.54)
Distance				
Less problems				1.00
More problems				0.86(0.83,0.88)
Autonomy				
No				1.00

Table 3 – continued from previous page

Variable	Model 1	Model 2	Model 3	Model 4
Yes				1.13(1.10,1.16)
Random effects				
Country-level				
Variance(SE)	1.87(0.50)	1.58(0.44)	1.29(0.36)	1.31(0.39)
VPC(%)	27.4	24.12	21.22	21.58
MOR	3.69	3.32	2.95	2.98
Community-level				
Variance(SE)	1.67(0.03)	1.68(0.03)	1.50(0.03)	1.47(0.03)
VPC(%)	24.45	25.65	24.67	24.22
MOR	3.43	3.44	3.22	1.18
DIC	205,651.72	189,817.10	189,523.38	174,088.32

0.6 Discussion and Conclusion

This chapter addressed the influence of civil liberties and socioeconomic entitlements on maternal health care in SSA. Civil liberties and socio-economic entitlements are important part of the guiding framework of the rights-based approach to health and health care. The goal of the rights-based approach to health is to support and sustain good outcomes by analysing and addressing the inequalities, discriminatory practices and unjust relations in line with the UDHR and other international human rights treaties, which are often at the heart of health problems. Measurements of civil and political rights are derived from Freedom House while socioeconomic entitlement at community level were aggregated from the DHS data.

Consistent relationships were found between country-level freedom status and all indicators of maternal health care. Suggesting that countries which guarantee civil and political liberties to citizen are more likely to also have higher utilisation of maternal health care service and thus increasing chances of reducing maternal mortality. The relationship between civil liberties and maternal health care utilisation is straightforward. The success in implementing human rights obligations, including health care depends on the state's will power to build a health system based on the human rights approach. Accountability as articulated by London and Schneider (2012) is an important element in the state's willingness to prioritise human rights obligations. Civil and political liberties encourage strong parliamentary oversight on the executive branch of government in a manner that supports the poor and underprivileged

in society and in ways that increases leverage for the health and health care sectors. Civil liberties also support strong civil society mobilisation and reinforcing community agency to advance health rights to poor communities (London and Schneider, 2012; Cornwall, 2002; Allison, 2002).

Secondary school female enrollment was equally consistently associated with indicators of maternal health care except in the last model for institutional delivery. Education is an important part of the socioeconomic entitlements as well as the capability approach. Educated women are not only expected to understand the risks associated with failure to use maternal health care services but also are more likely to have the resources and decision making authority essential to access and utilise maternal health care in SSA (Simona et al., 2018; Stephenson et al., 2006; Ononokpono et al., 2013). In other words, education offers women the capability functionings to circumvent the conditions of vulnerability and claim their rights. In this case the right to maternal health care services.

Community agency is essential in both the rights-based and capability appraoch to maternal health care utilisation because on one hand it enables women in the community to fight elements of subjudication by the cultural and social system and on the other hand, it gives people and groupd the freedom and capabilities to make choices about their own health and health care (Vizard et al., 2011). In this study, community autonomy was analysed and it was found that it was associated with use of maternal health care utilisation. This finding gives credibility to the rights-based and capability approach integration because even though they are distinct, they have have often times regarded as complementary (Birdsall, 2014; Vizard et al., 2011). Amartya Sen, the foremost architect of the capabibility approach posited that the two concepts (capability and human rights) go well with each other as long as they are not combined within each other's territory (Sen, 2005). Martha Nussbaum, another prominent proponent of the capability approach also acknowledges the link between capabilities and human rights when she posits that "capabilites and closely related to rights but the language of capabilities gives important procession and supplementation to the language of rights"(Nussbaum, 2003). Indeed, supporters of the human rights-based approaches also conceptualise the relationship between human rights and capabilities in a similar fashion. Stephen Marks for example, sees capabilities as starting points of the human rights approach (Marks, 2005).

The relative importance of contextual factors (community and country level factors) have been validated in this chapter. In institutional delivery and postnatal care, the combined relative effect of community and country level factors were more than that of indivialual level factors. This was the case notwithstanding the fact that individual level factors always have

more explanatory power. This suggests that the paradigm shift in studying health and health care that emphasises the effects of broader "upstream" factors is in the right place (Phelan et al., 2004, 2010; Phelan and Link, 2005). Community clustering suggests that people living in the same community have more in common that differences. They share the same health facilities and more importantly similar cultural norms and values. The same applies to people of the same country, there are some characteristics that are inherent to them all and these will distingush them from people of different nationalities. It is indeed important to focus on such characteristics because they are likely to result into target specific politicies to bolster maternal health care utilisation which could have a much higher chance of success in reducing maternal mortality.

Sociologically, this chapter points to two things. Firstly, the application of a Bayesian multilevel logistic regression approach addresses the methodological challenges that have been associated with the sociological study of human rights especially quantitaive macro-comparative and cross-national research. Turner, Woodwiss and Giddens advocate for an integration of the individual and the collective to avert the universalism/particularism problem in sociological studies of human rights. However, doing so in conventional cross-national quantitative methods posses problems because some studies like this one do not regard selected countries as samples of a larger universe. Which means that statistical assumptions upon which quntitative analysis is built are violated as articulated in the methods. This study avoids that problem by applying of Bayesian multilevel modelling methods which are best suited to study such data structures because it they don't rely on conventional statistical assumptions (Jackman, 2009). Secondly, the chapter paints a familier picture about the structure vs. agency dichotomy vis-à-vis maternal health care utilisation. The choices individual women have to use maternal health care services are a function of community capabilities. In other ways the social structure outside their control determines the extent to which they will exercise their right to care during pregnancy and child birth. This raises the need to reemphasise the need for focussing on the broader social conditions in improving maternal health in SSA.

The limitations of this chapter are not different from any study of this nature and magnitude. Being cross-sectional in design, it uses regression methods which provides only relationships and associations between variables and not causality. However, cross-sectional data is the best there is especially in low resource countries like SSA and the fact that this study uses multilevel models which allows for relative distinction in the effects of independent variables makes it even more valuable. Recall bias is another weakness that is often discussed in analyses which use data collected through survey methods. This is the case in this study.

Recall bias is taken to mean the likely failure for research respondents to recall information properly due to the time lapse between relevant events and the interview. That respondents are more susceptible to reporting inaccurate information when there is longer time difference. This may be true for this study but it should be noted that the study deals with life changing events of pregnancy and child birth and therefore the possiblity of forgetting when such matters are involved is slim. Also, that the DHS is credible because it is conducted under the auspices of the ministries of health in DHS countries. It is the basis of many important prevalence statistics such as HIV/AIDS, TB, Malaria and immunisation coverage among others reported by international organisations, including the United Nations (UN). As such, they are conducted with ernomous rigour by well trained personnell.

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