Women's Empowerment and Spousal Violence in Relation to Health Outcomes in Nepal

Further Analysis of the 2011 Nepal Demographic and Health Survey

Kathmandu, Nepal

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This report is part of the MEASURE DHS program, which is designed to collect, analyze, and disseminate data on fertility, family planning, maternal and child health, nutrition, and HIV/AIDS. Additional information about the 2011 NDHS may be obtained from the Population Division, Ministry of Health and Population, Government of Nepal, Ramshahpath, Kathmandu, Nepal; telephone: (977-1) 4262987; and from New ERA, P.O. Box 722, Kathmandu, Nepal; telephone: (977-1) 4423176/4413603; fax: (977-1) 4419562; e-mail: info@newera.com.np. Information about the DHS program may be obtained from MEASURE DHS, ICF International, 11785 Beltsville Drive, Suite 300, Calverton, MD 20705, USA; telephone: 301-572-0200; fax: 301-572-0999; e-mail: reports@measuredhs.com; Internet: http://www.measuredhs.com.

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FOREWORD

The 2011 Nepal Demographic and Health Survey is the fourth nationally representative comprehensive survey conducted as part of the worldwide Demographic and Health Surveys (DHS) project in the country. The survey was implemented by New ERA under the aegis of the Population Division, Ministry of Health and Population (MoHP). Technical support for this survey was provided by ICF International with financial support from the United States Agency for International Development (USAID) through its mission in Nepal.

The standard format of the main report includes only a descriptive presentation of findings and trends, without using analytical statistical methods to ascertain the significance of change and causative association between variables. Though largely sufficient, the standard report is limited, hence, particularly in providing answers to 'why', which are very essential in re-shaping important policies and programs. Hence, following the dissemination of the NDHS 2011, MoHP and partners have convened and agreed on key areas that are very important to assess progress and gaps, and ascertain determinants, in high priority public health programs that MoHP is implementing. In this context, further analyses has been carried out by relevant technical professionals from MoHP and partners who are directly working on the given areas, with technical support and facilitation from research agencies.

The primary objective of the further analysis of 2011 NDHS is to provide more in depth knowledge and insights into key issues that emerged based on the data of 2011 NDHS, and this provides guidance in planning, implementing, re-focusing, monitoring, and evaluating health programs related to these issues in Nepal. The long term objective of the further analysis is to strengthen the technical capacity of the local institutions and individuals to analyze and use data from complex national population and health surveys to better understand specific issues per country need and situation. The further analysis includes topics on 'Maternal and Child Health in Nepal: The Effects of Caste, Ethnicity, and Regional Identity'; 'Trends and Determinants of Neonatal Mortality in Nepal'; 'Women's Empowerment and Spousal Violence in Relation to Health Outcomes in Nepal'; 'Sexual and Reproductive Health of Adolescents and Youth in Nepal: Trends and Determinants'; and 'Impact of Male Migration on Contraceptive Use, Unmet Need, and Fertility in Nepal'.

The further analysis of 2011 NDHS is the concerted effort of various individuals and institutions, and it is with great pleasure that I acknowledge the work that has gone into producing this useful document. The participation and cooperation that was extended by the members of the Technical Advisory Committee in the different phases of the survey is highly regarded.

I would like to extend my appreciation to USAID/Nepal, UK Department for International Development (DFID) and United Nations Population Fund (UNFPA) for providing financial support for the further analyses. I would also like to acknowledge ICF International Inc. for its technical assistance at all stages. Similarly, my sincere thanks go to the New ERA team for the overall management and coordination of the whole process. I also would like to thank the Population Division of the Ministry of Health and Population for its effort and dedication in the completion of this further analysis of 2011 NDHS.

Praveen Mishra
Secretary
Ministry of Health and Population

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The further analysis of 2011 Nepal Demographic and Health Survey (NDHS) was conducted under the aegis of the Population Division, Ministry of Health and Population of the Government of Nepal. The United States Agency for International Development (USAID), UK Department of International Development (DFID) and United Nations Population Fund (UNFPA) provided financial support and technical assistance was provided by ICF International through MEASURE DHS Project. Overall coordination, facilitation, administrative and logistic support was provided by New ERA, a local research firm with extensive experience in conducting such studies in the past.

I express my deep sense of appreciation to the technical experts in the different fields of population and health for their valuable input in the various phases of the study and providing valuable inputs towards finalizing the report. My sincere gratitude goes to all the members of Technical Advisory Committee for their time, support and valuable input. I would like to extend my sincere gratitude to Dr. Praveen Mishra, Secretary, Ministry of Health and Population for his guidance.

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ABBREVIATION AND ACRONYMS

ANC	Antenatal Care
BCG	Bacillus Calmette Gurein
CEDAW	Convention for Elimination of All Forms of Violence Against Women
CI	Confidence Interval
DFID	Department for International Development
DHS	Demographic and Health Survey
DPT	Diptheria Pertusis Tetanus
GBV	Gender-Based Violence
GSEA	Gender and Social Exclusion Assessment
HIV	Human Immunodeficiency Virus
ICPD	International Conference on Population and Development
MDG	Millennium Development Goal
MOHP	Ministry of Health and Population
NDHS	Nepal Demographic and Health Survey
No.	Number
OR	Odds Ratio
SBA	Skilled Birth Attendant
SES	Socioeconomic Status
UN	United Nations
UNDP	United Nations Development Program
UNFPA	United Nations Population Fund
WB	World Bank
WEI	Women's Empowerment Index
WHO	World Health Organization

ABSTRACT

Empowering women and addressing gender-based discrimination are key elements of the development agenda of the Nepal government and integral to achieving the Millennium Development Goals (MDGs). Spousal violence is one of the forms of gender-based violence prevalent in Nepal. The objective of this study is to understand women's empowerment and spousal violence in relation to health outcomes of women and their children. The study analyzed data on 3,084 currently married women age 15-49 from the 2011 Nepal Demographic and Health Survey (NDHS). A composite Women's Empowerment Index (WEI) was developed that included five variables: i) household decision-making, ii) ownership of land or house, iii) membership in community group, iv) proportion earning cash, and v) women's education. The WEI classified women into three empowerment levels, whereby 17, 48, and 35 percent of married women were in high, moderate, and low empowerment levels, respectively. Variations in women's empowerment were distinct by age, caste/ethnicity, and wealth quintile.

The WEI is used to analyze spousal violence separately and jointly in relation to health outcomes. Twenty eight percent of women reported having experienced spousal physical and/or sexual violence at least once during their lifetime. In the bivariate analysis, women's empowerment was inversely associated with greater odds of having experienced spousal violence. After controlling for age, wealth, caste/ethnicity, and ecological zone, however, women's empowerment was not significantly related to the odds of spousal violence. This finding may suggest the extent to which violence is a multi-faceted problem affected by a wide variety of contextual and situational factors.

Utilization of four or more antenatal care visits, the recommended international standard, was significantly greater for highly empowered women, even after controlling for spousal violence and socio-demographic characteristics. Less empowered women and women who had experienced spousal violence were also more likely to have anemic children. Children of women who had experienced spousal violence had lower odds of being immunized, even after adjusting for related factors.

These findings suggest that women's empowerment and spousal violence appear to have important implications for the health of women and their children. It is recommended that a holistic approach to improving the health of women and children in Nepal incorporate multi-sectoral programming to promote women's empowerment and reduce gender-based violence.

Keywords: women's empowerment, spousal violence, maternal health, child health, gender equality, social inclusion Nepal

1 INTRODUCTION

1.1 CURRENT STATUS OF WOMEN IN NEPAL

Women's access to literacy, education, and decision-making is less than men's in Nepal, which is confirmed by the lower score for the Gender-related Development Index (0.499) compared with the Human Development Index (0.509) (UNDP, 2009). However, over the past few decades, significant progress has been made in the health and education sectors. The life expectancy of women has slightly increased and is now higher than men's (60.7 years versus 60.1), while prior to 2001 it was always lower than men's (Central Bureau of Statistics, 2003). Similarly, the maternal mortality ratio decreased significantly between 1996 and 2006, from 539 to 281 deaths per 100,000 live births (MOHP, New ERA, and Macro International Inc., 2007). In the last two decades, access to maternal health services increased and service utilization improved remarkably. Between 1996 and 2011, the proportion of mothers receiving antenatal care (ANC) from a skilled provider increased by 35 percentage points, and the proportion of women receiving skilled assistance for delivery increased from 9 percent to 36 percent. However, two-fifths of pregnant women still are not receiving ANC services from skilled providers, and two-thirds are not getting skilled attendance for delivery (MOHP, New ERA, and ICF International Inc., 2012). There has been some improvement in the nutritional status of women. In the 2006 Nepal Demographic and Health Survey (NDHS), 24 percent of women were underweight compared with 18 percent of women in 2011. The proportion of anemic women stayed constant at above one-third between 2006 and 2011 NDHS.

Child survival rates have also improved and are almost the same for boys and girls. Fertility decreased from a total fertility rate (TFR) of 4.6 births per woman in 1996 to 2.6 births per woman in 2011 (MOHP, New ERA, and ICF International Inc., 2012). Between 1996 and 2006, the contraceptive prevalence rate (CPR) increased from 26 percent to 44 percent but has stagnated since. Median age at first marriage for women has also increased considerably over the past 15 years, from 14.6 in 1996 to 17.8 in 2011.

Significant progress has been noted in the education status of women in Nepal. The female literacy rate rose from 55 percent in 2006 to 67 percent in 2011, still much lower than for men (87 percent). There is greater parity in literacy among younger cohorts, with 83 percent of women age 15-19 being literate compared with 94 percent of men (MOHP, New ERA, and ICF International Inc., 2012). Place of residence also has a strong association with women's literacy. Eighty-three percent of women residing in urban areas are literate compared with 64 percent in rural areas. Similarly, there remains a substantial difference between men's and women's secondary or higher level of education (66 percent for men versus 43 percent for women).

Women's earnings are determined by their type of work. The majority of married women who are employed are engaged in regular household chores and agriculture work, which is unpaid. Agriculture work is part of the subsistence farming that their households engage in, and thus women's economic contribution through household and agriculture work is not recognized. Women's employment opportunities and ability to access such opportunities are influenced by their overall social status. Restriction in women's mobility limits their

ability to leave home for work. The overall analysis of the 2011 NDHS (MOHP, New ERA and ICF International Inc., 2012) points out that only 24 percent of married working women are actually paid in cash compared with 66 percent of married working men. The rest are paid a mixture of cash and kind (7 percent) or only in-kind (9 percent), while 61 percent are not paid at all (compared with 12 percent of men). According to the 2011 NDHS, three-quarters of cash-earning women earn less than their husbands. Data on women's control over the cash they earn show that 53 percent of women themselves decide on spending their earnings, while 40 percent decide jointly with their husband and for 7 percent the decision is made by the husbands alone or by others rather than the women themselves.

1.2 WOMEN'S EMPOWERMENT AND GENDER EQUALITY POLICY ENVIRONMENT IN NEPAL

The Women in Development (WID) approach was introduced internationally in the 1980s to promote women's participation in the development process. The UN General Assembly in 1985, during the third World Conference on Women held in Nairobi, for the first time passed a resolution on violence against women. The Government of Nepal has made global commitments by signing a number of international conventions: the Convention on Elimination of all Forms of Discrimination Against Women (CEDAW), the Beijing Platform for Action, the International Conference on Population and Development (ICPD) and ICPD +10, and the Millennium Development Goals (MDGs) (United Nations Population Fund, 2007).

Women's empowerment and gender equality have been integrated since the Sixth Five-Year Plan of the Government of Nepal (1981-1985), which highlighted women's role in national development. The 'rights-based' approach was introduced in the Tenth Plan (2002-2007). The Interim Constitution of Nepal (2007) gives explicit recognition to gender equality and provisions for no discrimination against women of all social groups. It promotes women's empowerment and gender equality. The Three-Year Interim Plan (2007/08-2009/10) emphasized gender mainstreaming and building a just and equitable society.

With improved discourse, the policy documents also located women's empowerment within the existing social structures of caste/ethncity/location and income, as these dimensions of social inclusion have a strong impact on women of different social groups. The National Development Strategy paper (2009) and the Three-year Development Plan (2010–2013) also have specific recognition of gender equality. The Local Self Governance Act 1999 introduced mandatory representation of women in local government. The Civil Service Act 2007 has been amended whereby 45 percent of seats of open competition are reserved for quota representation, 33 percent of which are for women. Amendments of the Police Regulation 2007 and Armed Police Regulation 2007 reserve 20 percent of seats for women. The Gender Equality Bill of 2006 granted equal inheritance rights to ancestral property to both sons and daughters. In 2002, the Government of Nepal legalized abortion (Thapa, 2004). Other provisions to assist women include: a 25 percent rebate on land registration fees for women, continuing scholarships for girls, allowance for single and elderly women, and a 10 percent rebate on income tax for women entrepreneurs.

The Government of Nepal also introduced Gender Responsive Budgeting in 2002 with the purpose of ensuring that all government policies, activities, and processes do not impact adversely on women, take into account

women's interests, involve women in planning and implementation of budgets, and ensure adequate resources for ensuring gender-equality goals.

In 2008, the Parliament passed the Domestic Violence (Crime and Punishment) Act, which criminalized domestic violence for the first time. The Act provides for immediate relief to the victims of violence, including medical treatment and temporary safe space of residence. The Government of Nepal also developed the National Gender-Based Violence Plan of Action in 2010 and declared 2010 as the Year to combat gender-based violence (GBV). Multiple government Ministries, including Ministry of Women, Children and Social Welfare, National Women Commission, Office of Prime Minister, and Council of Ministers, among others, have a policy mandate to design, implement, monitor, and coordinate GBV-prevention awareness and response activities.

The participation of women in politics has seen great changes in Nepal. Women's representation in the Constituent Assembly of Nepal 2008-2012 was 33 percent. In 2000, women's representation in the parliament was just 8 percent (Acharya, 2003), and women's rights had not yet been incorporated into the political agenda.

Despite a relatively favorable policy environment, there is a gap in understanding, knowledge, and attitudes concerning women's issues across all levels of stakeholders, including policy-makers and implementers. The lack of awareness among women about laws that protect their rights is high. For example, 61 percent of women are found to be unaware of the law that addresses GBV (Office of Prime Minister and Council of Ministers, 2012).

Among all civil service employees of Nepal in 2011, only 13 percent were women, which in itself is an improvement from only 8 percent in 2005 (Ministry of General Administration, 2011). According to the 2011 NDHS, only 10 percent of women own land, either alone or jointly, compared with 25 percent of men.

1.3 WOMEN'S EMPOWERMENT: DESCRIPTION AND ANALYSIS

Empowerment in general refers to enabling people to take charge of their own lives. For women, empowerment emphasizes the importance of increasing their power and control over decisions and issues that shape their lives. Achieving control is an essential element of women's empowerment, which includes the ability to direct or to influence events to protect one's own interests. Control makes it possible for women to ensure that resources and benefits are distributed such that men and women get equal shares (United Nations, 2009).

As a process, women's empowerment is described as a woman's strengthened agency that enables her as an individual and/or member of a group to access services, utilize resources, and make informed decisions. It also builds women's confidence in questioning and standing up against gender norms and structures that are discriminatory, and holding service providers accountable to provide gender-responsive services. As an outcome, women's empowerment results in greater access to and control over social, economic, political, and cultural capital. It further enhances the ability to understand and analyze the terms and conditions of gender discrimination (Martinez, 2006).

Empowering women and addressing gender inequality are premised on the understanding that meaningful and sustainable development will occur only when women (of all social groups) strengthen their agency to improve

their livelihoods (i.e. health, education, income, and employment aspects), and improve their ability to claim rights and influence decisions (i.e. their voice). In addition, rules that control the distribution of assets, opportunities, and voice to women of different social groups have to be made more equitable (WB and DFID, 2006).

This further analysis of the 2011 NDHS considers women's empowerment as a process, where women have the capacity to make decisions, have control over household resources, and can engage with the community at large, resulting in improved development outcomes.

1.4 WOMEN'S EMPOWERMENT AND SPOUSAL VIOLENCE

The association between women's empowerment and spousal violence is complex. It is difficult to establish the causal pathway between women's empowerment and health outcomes, whether women's empowerment adversely impacts health outcomes through spousal violence or women's empowerment itself is related to health outcomes in the absence of spousal violence. Spousal violence resulting from gender-based discrimination is extensively reported to be a social phenomenon, predominantly in South Asia, with its roots largely in the patriarchal control of women by men.

Spousal violence is manifested in various forms of physical, sexual, and emotional violence. Wife beating is the most common form of spousal violence. In many developing countries there is widespread acceptance of wife beating, both among men and women, because of the commonly held norms about gender roles. Such attitudes and social norms have resulted in a high prevalence of wife beating and in the social and economic subordination of women (Hindin, 2003; Kishor and Subaiya, 2008). The subordinate role of women in the family, as well as cultural and social factors, contributes to spousal violence against women. The home, which is expected to be the most secure place, is often where women experience violence, while the husbands and partners who are considered to be the protectors of their wives and partners are their primary abusers (Hindin et al., 2008).

An important but a rare study of men's attitudes and practices including gender roles and violent behaviors based on data collected using the International Men and Gender Equality Survey (IMAGES) 2010 in six countries—Brazil, Chile, Croatia, India, Mexico, and Rwanda—found that rigid gender attitudes are highly correlated with men's perpetration of intimate partner violence (Barker et al., 2011). A study conducted in India in 2005-2006 found that 40 percent of women were beaten by their husbands at some point, while 51 percent of men said that nothing was wrong with assaulting their wives (Hindin et al., 2008). Studies also show that many women approve of wife beating under some conditions. The 2006 NDHS reported that 23 percent of women and 21 percent of men believe that a husband is justified in hitting or beating his wife for at least one of five specified reasons, such as burning food, arguing with him, going out without his permission, neglecting children, and refusing to have sex with him. Another study conducted by the Government of Nepal in 2012 reported that over one-half of women approved of wife beating if the wife had been unfaithful. However, the vast majority disapproved of wife beating if the grounds were dissatisfaction with household work, refusal to have sex, enquiring if the husband has other girlfriends, or disobeying the husband (Office of the Prime Minister and Council of Ministers, 2012).

1.5 WOMEN'S EMPOWERMENT AND SPOUSAL VIOLENCE IN RELATION TO HEALTH OUTCOMES

According to the World Health Organization (WHO), violence against women, which is manifested in multiple forms, is increasingly seen as a major public health concern, although the consequences largely remain hidden in society, often unnoticed and disregarded. A strong relationship exists between violence and adverse health consequences related to physical, reproductive, sexual, emotional, and mental health (Mukherjee and Parasurman, 2012).

The prevalence of spousal violence in many Asian countries is high, and the consequences are often severe. In China, one-third of women age 20-64 who were surveyed reported being hit by their spouse during their current relationship. For 12 percent of these women, the consequences were bleeding, bruises, severe pain, or injuries; severe hitting was a significant risk factor for self-reported adverse general and sexual health outcomes, including sexual dysfunction, sexual dissatisfaction, and unwanted sex (Parish et al., 2004). A hospital-based study in Pakistan, where 373 ever-married women age 16-49 were interviewed, found that about three-quarters of the women had experienced severe psychological violence, and 30-35 percent had experienced physical and sexual violence at least once in their marital life. Lower family income, lower level of education, and having been married without their consent were associated with reported spousal violence (Zakar et al., 2010).

Studies have found high rates of mental health problems, emotional distress, and suicidal behavior among women who have suffered partner violence (Krug et al., 2002). Women abused by intimate partners physically, sexually, or both had significantly higher levels of emotional distress than non-abused women. Women who had been abused by their partners were more likely than non-abused women to have ever thought of suicide and to have attempted it. This is consistent with other research in developing and industrialized nations. In Nepal, suicide has been reported to be the leading cause of death among women of reproductive age, and the third-leading cause of death among pregnant women (Pradhan et al., 2010; Pradhan et al., 2011). In another study conducted in Nepal, 69 percent of women who experienced spousal violence reported psychological problems (fear, depression, and tension) and 6 percent had attempted suicide—a rate 10 times higher than that reported by women who had not suffered violence (Office of Prime Minister and Council of Ministers, 2012).

Research in developing countries has also consistently shown that intimate partner violence, both physical and sexual, against women is strongly associated with a variety of other health outcomes for women. Studies have found associations between spousal violence and women's increased risk of HIV, sexually transmitted infections, unwanted pregnancies, and still births, among other adverse health outcomes (Kishor and Johnson, 2004; Garcia et al., 2006; Kishor, 2012; Hindin, 2008; Maman et al., 2002).

The adverse effect of spousal violence is also seen in the health of children whose mothers have experienced violence. A study carried out in Ghana and Uganda showed that women's experience of violence is associated with poor health outcomes both for themselves and their children (Kishor et al., 2012). Research from around the world shows that intimate partner violence against women results in adverse health consequences for women and their children (United Nations, 2006; Watts and Zimmerman, 2002; Campbell, 2002).

A number of studies have examined associations of women's empowerment and intimate partner violence with the use of maternal health services and with child immunization. A study conducted in Kenya investigated whether the experience of intimate partner violence affected skilled attendance at delivery. Of 975 ever-married women studied, 46 percent reported having experienced any type of intimate partner violence (physical violence 39 percent, emotional violence 21 percent, and sexual violence 13 percent). After adjusting for women's demographic characteristics and number of antenatal visits, multivariate regression analysis showed that lifetime experience of emotional violence decreased the odds of skilled attendance at delivery by 40 percent, while lifetime experience of physical violence reduced the odds by 29 percent (Goo et al., 2011). A study conducted in Nigeria using the 2008 DHS examined the association of women's autonomy and societal gender attitudes with full immunization of children. Results showed that household decision-making and attitudes related to wife beating were significantly associated with a child being fully immunized, after controlling for socioeconomic variables (Singh et al., 2012). Another study conducted in Ethiopia that examined the net effect of women's autonomy on their health seeking showed that women's autonomy was significantly positively associated with use of maternal health services, even after adjusting for other individual and household variables (Woldemicael and Tenkorang 2010).

1.6 GENDER-BASED VIOLENCE IN NEPAL

As suggested above, in Nepal as in many Asian countries the prevalence of violence against women is high and its consequences severe. The Maternal Mortality and Morbidity Study, 2008/2009 (Pradhan et al., 2011), which reported that suicide is now the third most common cause of death in pregnancy, also indicated that the causes of suicide were highly complex and inter-related. Suicide among married women with children, for example, was found to be common and associated with alcohol and violence. Recognizing the complexity and severity of the issue, the 2011 NDHS studied women's experience of gender-based violence at the national level for the first time in Nepal. The NDHS showed that, among women age 15-49, 22 percent had experienced physical violence and 12 percent had experienced sexual violence at least once since age 15. Among married women, one-third had experienced emotional, physical, or sexual violence from their spouse in their marital relationship, and 17 percent had experienced it within the last 12 months. Among those women who had ever experienced physical and sexual violence in their marriage, 37 percent had cuts, bruises, or aches, eye injuries, sprains, dislocations or burns, deep wounds, broken bones, broken teeth, and other serious injuries. Another study in Nepal reported that nearly one-half of Nepalese women have experienced violence at some point in their lives, and three-quarters of the perpetrators were intimate partners, including husbands. The study also found that over 16 percent of women have experienced sexual violence from their intimate partners, predominantly being forced to have sex against their will (Office of Prime Minister and Council of Ministers, 2012).

According to the 2011 NDHS, spousal violence in Nepal varies a cross age groups, employment status, number of living children, marital status and duration, ecological zone, education, and wealth status. Older women reported more experience of spousal violence than younger women. Women who were employed for cash (37 percent) experienced more spousal violence than women who were employed but not for cash (30 percent) or who were not employed (30 percent). Women with more children experienced more violence than women with fewer children, and the majority of the violence started within a year of marriage. Spousal violence was reported

more in Terai than in Hill and Mountain zones and more among uneducated women and women in the lowest wealth quintile. Fewer wives experienced spousal violence if their husbands were educated, but if both were uneducated the likelihood of violence was greatest. If the husband was an alcoholic, the chances of spousal violence were greater. The NDHS found no difference in experience of spousal violence by women's participation in household decision-making. Women's decision-making is a very strong indicator to measure empowerment among women, but the NDHS findings indicate that women's decision-making power on its own is not sufficient to safeguard them from spousal violence.

1.7 RATIONALE OF THE STUDY

The 2011 NDHS for the first time included a module on domestic violence to measure the prevalence of gender-based violence experienced by women of reproductive age in Nepal at the national level. The survey presented the prevalence of gender-based violence and spousal violence by background characteristics of the women, frequency of violence, onset of marital violence, and injuries to women due to spousal violence, help-seeking to stop violence, and sources where women sought help. However, the 2011 NDHS report did not offer a detailed assessment on how the empowerment levels of women influence gender-based violence and ultimately health outcomes. Studies carried out in India and African countries have established relationships between women's empowerment, gender-based violence, and health outcomes. But because women's empowerment is contextual and multidimensional in nature, the association between women's empowerment, experience of violence, and health outcomes might or might not follow the same patterns in the various countries studied. Hence, it is important to study these relationships in the Nepalese context. This further analysis of data from the 2011 NDHS therefore examines the relationship between women's empowerment, spousal violence, and selected health outcomes of women and their children, in Nepal.

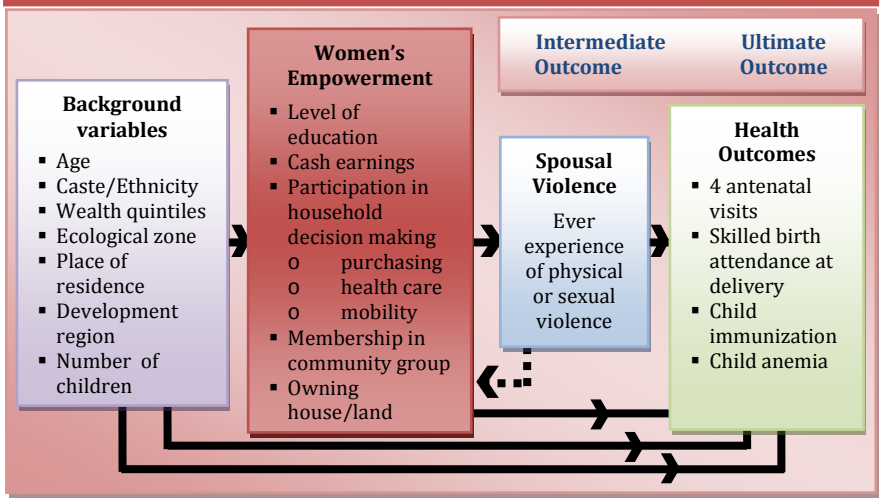
1.8 CONCEPTUAL FRAMEWORK OF THE STUDY

Women's empowerment is multidimensional and context-specific. It is multidimensional because there are varieties of individual, family, and community factors that determine empowerment. It is contextual because the definition and measures of women's empowerment differ from one society to another. Spousal violence committed by husbands/partners is common around the world. The examination of how spousal violence interacts with the phenomenon of women's empowerment and determines family health outcomes is necessary but challenging. The literature on women's empowerment and gender-based violence helped guide the development of a framework with which to visualize women's empowerment and its relation to spousal violence and health outcomes of women and their children in Nepal (Figure 1.1).

Women's level of empowerment can be both a cause and an effect of spousal violence, but for the purpose of this study, empowerment has been considered as a cause that may either increase or inhibit the experience of spousal violence.

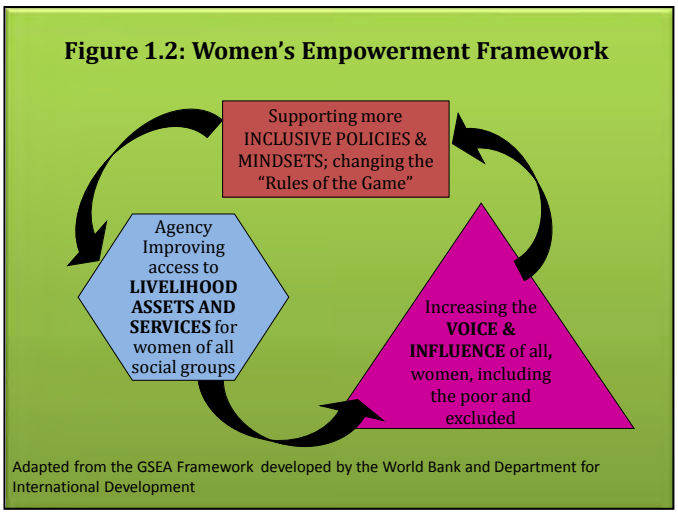
Measuring women's empowerment is difficult because it is a multidimensional process and its concept operates at various levels (Alsop et al., 2006). For this reason different studies have used different indicators and developed models to measure women's empowerment. None of these can be considered as a universal model. This study therefore developed a new composite index to measure women's empowerment that is more realistic in the Nepalese context. The Women's Empowerment Index, for the purpose of this study, includes five indicators: the level of education of women; cash earnings by women; ownership of house and/or land; membership in community groups; and household decisions made by women. These indicators were selected from the available indicators in the 2011 NDHS. They have been used by various other studies to measure women's empowerment. For example, a paper on measuring women's empowerment among the Indian Tribes has used women's education and participation in paid work as indicators to measure women's empowerment levels (Ghosh and Mukhopadhyay, 2007).

Figure 1.1: Conceptual framework of the study



These five indicators are spread across the three domains of change illustrated in the Women's Empowerment Framework (Figure 1.2), adapted from the Gender and Social Exclusion Assessment Framework developed by the United Kingdom Department of International Development (DFID) and the World Bank (WB and DFID, 2006) under the guidance of the National Planning Commission of Nepal. The level of education of women, whether or not they earn cash, and ownership of household assets such as house and/or land falls under the Asset and Services domain, whereas the membership of women in community groups strengthens women's ability to voice their rights and falls under the Voice and Influence domain. Household decision-making by women falls under Inclusive Policies and Mindsets, whereby power relations are changed because of women's ability to make and influence decisions. As the Women's Empowerment Index encompasses all the major domains of women's empowerment, it is believed that it will measure the empowerment of Nepalese women comprehensively.

Figure 1.2: Women's Empowerment Framework



The Women's Empowerment Framework recognizes that both formal institutions (the legal framework, the policies of government, or the specific procedures and components of formal program documents) and informal

institutions (the traditional norms of behavior for women overall and for women of different social groups) can present barriers to women's empowerment. Recent discourse in Nepal has recognized that to address gender inequality, development efforts need to empower women of all social groups, covering both livelihoods and voice empowerment, and also need to change institutional rules (as manifested in informal and formal policies, behavior, social practices from household to state levels, and changes in attitudes of men and family decision-makers) for effective change in people's lives and for gender equality (WB and DFID, 2006).

Gender-based violence is widespread in Nepal, and this study focuses on the currently married women's lifetime experience of physical or sexual violence committed by their husbands. The 2011 NDHS measures different types of spousal violence, namely, physical, sexual, and emotional violence. While measures of physical and sexual forms of spousal violence are relatively well defined and precise, measures of emotional violence are subject to debate and are usually not precise. Therefore, this study examines only the physical and sexual forms of spousal violence. The association between women's empowerment and spousal violence might be in either direction. However, this study will focus only on how women's empowerment appears to affect spousal violence and will not examine the reverse association.

An array of literature has demonstrated the adverse effects of spousal violence on the health of women and their children but such a relationship is yet to be examined in the Nepalese context. Therefore, this study also examines the interaction of women's empowerment and spousal violence with health outcomes, measured in terms of maternal service utilization, child immunization, and presence of anemia among children. All the associations between women's empowerment, spousal violence, and health outcomes that this study examines could also be influenced directly or indirectly by other background characteristics of women, particularly age, caste/ethnicity, wealth quintile, place of residence, ecological zone and development region, and number of living children. Therefore, this study considers these variables in its examination of the relation between women's empowerment, spousal violence, and health outcomes.

This study has used the conceptual framework presented in Figure 1.1 as a guideline in answering the following research questions.

- What is the relationship between women's empowerment and spousal violence?
- How is the health of women and their children affected by women's empowerment levels and by women's experience of spousal violence?

1.9 OBJECTIVES OF THE STUDY

The objectives of the study are:

- To measure the empowerment level of currently married women age 15-49 in Nepal.
- To examine the relationships between women's empowerment and the experience of spousal violence.
- To examine the relationships between women's empowerment, spousal violence, and selected health outcomes.

2 STUDY METHODS

This section describes the methods used to meet the objectives of the study.

2.1 STUDY POPULATION AND SAMPLE

This study used information from the domestic violence module of the 2011 NDHS, in which a total of 10,826 households were surveyed, where 12,674 women age 15-49 were interviewed. Men age 15-49 were interviewed in every second household. The domestic violence module was implemented only in the sub-sample of households selected for the men's survey. Further, in keeping with ethical requirements only one woman per household was selected for the module. This resulted in successful interviews with 4,197 women. This study used data on only those women who were currently in union because the study focused on spousal violence committed by husbands. This comprised a total of 3,084 currently married women age 15-49.

2.2 OUTCOME VARIABLES OF THE STUDY

This study used the lifetime experience of spousal violence among currently married women age 15-49 both as an outcome of women's empowerment, and as a mediating factor between empowerment and health outcomes. Lifetime experience of spousal violence was examined as a categorical variable with the following four categories:

- Physical violence only
- Sexual violence only
- Both physical and sexual violence, and
- Neither of the two types of violence

This study also uses a binary summary measure to capture the experience of spousal violence, comparing women who ever experienced either physical or sexual violence to women who have not experienced either. The 2011 NDHS measured spousal physical violence by asking women whether their husband ever, and in the last 12 months, pushed, shook, or threw something at her; slapped; twisted her arm or pulled her hair; punched to hurt her; kicked, dragged, beat her; tried to choke or burn her on purpose; or threatened or attacked her with a knife, gun or any other weapon. Sexual violence was measured by asking women whether the husband/partner physically forced her to have sex without her consent; or forced her to perform any other sexual acts without her consent.

The second set of outcome variables relates to service utilization and health outcomes, which include the following indicators:

- Making four or more antenatal care (ANC) visits during her last pregnancy
- Seeking assistance of a skilled birth attendant (SBA) during her last delivery
- Full immunization of children age 12-23 months
- Anemia among children age 6-59 months

ANC and SBA service utilization are two important indicators that are often used as a proxy for maternal health outcomes. Nepal's government recommends at least four antenatal check-ups during pregnancy, in the fourth, sixth, eighth, and ninth months. The 2011 NDHS shows that in Nepal only one-half of pregnant women received at least four ANC check-ups and these check-ups did not necessarily occur in the recommended months of pregnancy. At the time of delivery, women should be attended to by a skilled birth attendant (SBA), which is defined as a doctor, a nurse or a midwife.

This analysis explores whether women's empowerment and experience of spousal violence have any effect upon children's health. Immunization and the prevalence of anemia in children are two important measures of child health that are analyzed in this study. The study examined complete immunization among children age 12-23 months and prevalence of anemia among children age 6-59 months. Universal immunization of children against six preventable childhood diseases—tuberculosis, diphtheria, whooping cough, tetanus, polio, and measles—is crucial to reducing infant and child mortality. If a child receives a dose of BCG, three doses each of DPT and polio, and a dose of measles vaccine, then the child becomes fully immunized and can be protected from those diseases. Anemia among children is a major public health problem in Nepal and is characterized by a low level of hemoglobin in the blood. The 2011 NDHS used HemoCue rapid testing methodology to determine anemia levels among children age 6-59 months. The results are based on children who stayed in the household the night before the interview. The cut-off points used in the study are mild anemia, if the hemoglobin level is 10.0-10.9 g/dl, moderate anemia if the hemoglobin level is 7.0-9.9 g/dl, and severe anemia if the hemoglobin level is <7.0g/dl.

All variables used in the assessment of women's empowerment, spousal violence, and health outcomes were based on the women's questionnaire of the 2011 NDHS.

2.3 DEVELOPMENT OF THE WOMEN'S EMPOWERMENT INDEX

For meeting the study objectives, the development of the Women's Empowerment Index (WEI) was key. The 2011 NDHS analyzed women's empowerment using two indices: (i) women's participation in three household-level decisions (access to health care, household purchasing, and freedom to visit relatives), and (ii) women's positive attitudes on negotiating safer sex with the husband. Having a say in household decision-making reflects the interplay of various factors related to empowerment and, therefore, is a strong measure of empowerment. Various studies have shown that women's education and women's employment are also important measures of empowerment (MEASURE Evaluation PRH, 2012; Do and Kurimoto, 2012; Ghoshand Mukhopadhya, 2007). This study attempted to develop a broad measure of women's empowerment that is suitable in the Nepalese context.

In developing a composite index of women's empowerment, this study considered five variables based upon the literature that indicated or confirmed their possible association with women's autonomy and empowerment. Other variables indicating women's empowerment, such as possession of a citizenship document and bank account, were not available in the 2011 NDHS data set and so could not be included in the index. Emphasis was also put on selecting those variables that are directly related to women as individuals rather than as part of a household.

Following is the definition and scoring of the five indicators used in the development of the WEI:

i) **Woman's involvement in household decision-making**. This indicator was given greater weight than other factors in the WEI in determining women's level of empowerment and included three decisions: access to health care, household purchasing, and freedom to visit relatives. The responses were coded into three categories. If a woman participated in all three decisions, she received a "2" score; if she participated in one or two decisions, she received a "1" score; and if she did not participate in any decisions, she received a "0" score.

ii) **Woman's membership in community groups**. If a woman was a member of any community groups, such as a mothers' group (*aamasamuha),* saving group *(bachat samuha),* women's group *(mahila samuha)* and others, she was scored as "1" and if she was not involved in any groups she was scored as "0".

iii) **Woman's cash earnings**. If a woman earned cash only or both cash and in-kind, she was given a score of "1" and if she did not earn cash at all, she was given score of "0".

iv) **Woman's ownership of house/land**. If a woman owned a house, land, or both alone or jointly with husband, she received a score of "1" and if she did not own a house, land or both, she received a score of "0".

v) **Woman's education**. If a woman attained secondary or higher education, her score was "2". If a woman attained primary level education, her score was "1" and if she did not attend school at all, her score was "0".

Table 2.1 Women's empowerment index

Levels of empowerment	Total scores	Number of women (weighted)	Percent
Low	0, 1, 2	1,063	34.5
Moderate	3, 4	1,489	48.3
High	5, 6, 7	532	17.2
Total	**-**	**3,084**	**100**

Based on the above scores, new recode variables were created in the women's data file of the 2011 NDHS. Then, using SPSS software, 72 combinations of the five variables were obtained. Women falling in each of these combinations received total scores ranging from 0 to 7. These scores were the basis for the categorization of women by empowerment levels. Women who received 0, 1, or 2 scores in aggregate were grouped in the low empowerment level. Women whose total scores were 3 or 4 were categorized as moderately empowered, and women whose scores were 5, 6, or 7 were categorized as highly empowered. Table 2.1 presents the frequency distribution of the 3,084 women by their level of empowerment. About one-third of women (35 percent) were considered to have a low level of empowerment, almost one-half (48 percent) to have a moderate level, and 17 percent to have a high level.

2.4 DATA ANALYSIS

SPSS software, version 13, was used to analyze 2011 NDHS data on women and children. Univariate, bivariate, and multivariate analysis were used to meet the study objectives. Univariate analysis was carried out to understand the frequency distribution, while bivariate analysis examined the relationship between background

and outcomes variables. Chi-square tests were carried out where necessary. Multivariate logistic regression methods were applied to establish significance of the association between WEI and spousal violence, WEI and the selected health outcomes, and spousal violence and the selected health outcomes, while adjusting for the effects of other background variables of the study population. Sample weights (namely, the domestic violence module weights) were applied in all analyses, and all regression analyses also used the SPSS complex sampling package to account for the DHS complex sample design (i.e. clustering and stratification).

2.5 LIMITATIONS OF THE STUDY

The 2011 NDHS was the only data source used in this study. The composite Women's Empowerment Index would have been stronger if data were available on other variables, such as women's possession of citizenship certificates or bank accounts, but, as mentioned, this information was not available in the NDHS. In addition, in-depth analysis of different relationships was not possible, as many variables on spousal violence were not available in the 2011 NDHS. Another limitation is that the study is based on a cross-sectional survey conducted at only one point in time and thus does not allow trend analysis. An additional limitation is that this study is confined to women currently in union at the time of the survey but excludes the spousal violence experience of ever-married women not currently in union, and thus the results cannot be generalized to ever-married women. Furthermore, the analysis does not include emotional violence perpetrated by husbands/partners, but instead focuses only on physical and sexual violence.

3 WOMEN'S EMPOWERMENT

This section presents socio-demographic and other characteristics of the study women and their empowerment status. Similarly, the section presents women's empowerment status by their background variables. The study population is currently married women ages 15-49 who were interviewed in the domestic violence module of the 2011 NDHS. This includes a total of 3,084 women.

3.1 BACKGROUND CHARACTERISTICS OF WOMEN IN THE STUDY POPULATION

The background characteristics of the study population of currently married women age 15-49 who were selected for the domestic violence module are given in Table 3.1. The table shows that about two-fifths of the women were age 20-29 and less than 10 percent of the women were either below age 20 or were age 45 and above. Brahman/Chhetris and Janajatis were the dominant caste/ethnicity groups in this study. The categorization of the caste/ethnicity groups has been done based upon the six classifications used by the Ministry of Health and Population (MOHP). However, two groups, the disadvantaged Janajatis and the relatively advantaged Janajatis, have been combined and presented as one group of Janajatis in this study, as the proportion of relatively advantaged Janajatis was small.

All of the women studied were fairly evenly distributed across the wealth quintiles. The largest share of women had 1-2 children (42 percent). Eleven percent of women did not have any children, while 5 percent had 7-11 living children.

Table 3.1 Background characteristics of the study women

Percent distribution of currently married women age 15-49 by selected background characteristics, Nepal 2011

Background characteristics	Percentage of women	Number of women
Age in years		
15-19	8.4	259
20-24	20.2	622
25-29	19.2	592
30-34	16.0	493
35-39	14.3	441
40-44	12.1	374
45-49	9.9	304
Caste/ethnicity		
Brahman/Chhetri	39.7	1,224
Janajatis	34.8	1,074
Dalits	15.9	492
Other TeraiCastes	6.4	198
Muslim	3.2	97
Ecological zone		
Mountain	10.3	319
Hill	47.0	1,449
Terai	42.7	1,316
Development region		
Eastern	22.3	688
Central	33.4	1,030
Western	10.4	320
Mid-western	16.2	500
Far-western	17.7	547
Place of residence		
Urban	24.2	747
Rural	75.8	2,338
Wealth quintile		
Lowest	20.7	638
Second	17.4	538
Middle	19.2	592
Fourth	21.0	646
Highest	21.7	670
Number of living children		
0	10.7	331
1-2	41.9	1,293
3-4	31.6	974
5-6	11.1	342
7-11	4.7	144
Total women	**100.0**	**3,084**

3.2 WOMEN'S EMPOWERMENT STATUS

Table 3.2 presents the distribution of the study women by the variables used as measures of empowerment in this study. These variables are women's education, cash earnings, ownership of land, house or both, owned alone or jointly with husband, membership in community groups such as mothers' groups and saving and credit

groups, and involvement in household decision-making (access to health care, household purchases, and visits to relatives). Nearly one-half of the total study women

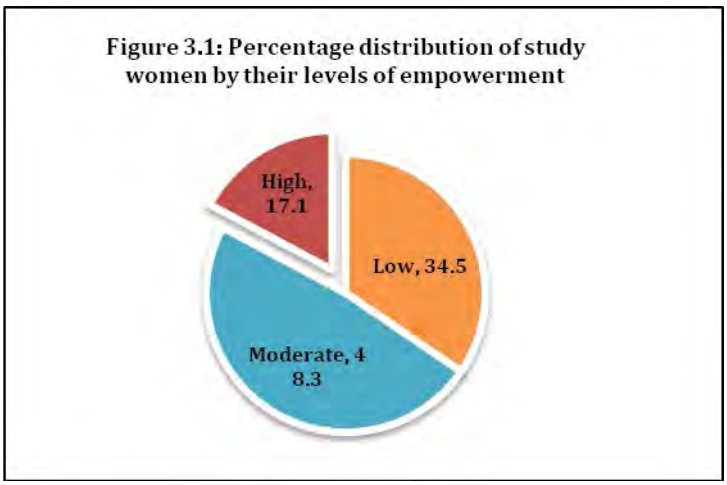
were not educated, one-third attained secondary or higher education, and the rest of the women attained primary education. The study women were lagging behind in earning cash and owning physical assets compared with the other remaining four measures of women's empowerment. Less than one-quarter of the women were earning cash or both cash and kind, while 77 percent were earning nothing. Only 16 percent owned land, house or both. Nevertheless, the women were better off in other aspects of empowerment, as 47 percent were members of community groups, and the women frequently participated in household decision-making, as three-quarters were involved in at least one kind of household decision-making, while 44 percent participated in all three types of decisions. Still, one quarter were not involved in any household decision-making.

Table 3.2 Empowerment-related characteristics of the study women

Percent distribution of currently married women age 15-49 by empowerment-related characteristics, Nepal 2011

Background characteristics	Percentage of women	Number of women
Education		
No education	48.0	1,481
Primary	18.3	564
Secondary and above	33.7	1,040
Cash earnings		
Yes	23.0	709
No	77.0	2,376
Ownership of house or land		
Yes	15.9	492
No	84.1	2,593
Membership in community group		
Yes	46.9	1,446
No	53.1	1,638
Involvement in household decision making		
3 decisions	44.1	1,360
1-2 decisions	30.9	952
None	25.0	772
Total women	**100.0**	**3,084**

The Women's Empowerment Index was developed using five indicators (education, owning house or land, membership of a community group, earning cash and household decision making). This study categorized the study women into three categories by their empowerment levels, as high, moderate and low. Figure 3.1 shows that 48 percent of women were at the moderate empowerment level, followed by 35 percent at the low empowerment level, and 17 percent at the high empowerment level.



3.3 WOMEN'S EMPOWERMENT BY BACKGROUND CHARACTERISTICS OF THE STUDY WOMEN

There was a distinct variation in women's empowerment levels by age. Fewer younger women compared with women of middle age or older age were at the high empowerment level. About two-thirds of women below age 20 were at the low empowerment level. For all the age groups above 25 years, between 44 and 56 percent of the women were at the moderate empowerment level. Brahman/Chhetri women were most likely to be at the high empowerment level, while Muslim women were least empowered (Table 3.3).

A greater proportion of women living in Terai (19 percent) and Hill zones (17 percent) were in the high empowerment category compared with women in the Mountain zone (11 percent).

Variations in empowerment levels were also observed by development region. About half (51 percent) of women in the Far Western Region were in the least empowered group, twice the percentage in the Western Region, where one fourth of women were in the least empowered group (25 percent). Urban women were about twice as likely as rural women to be highly empowered (27 percent versus 14 percent).

Asset ownership and earnings comprise part of the Women's Empowerment Index. Empowerment levels appear to be strongly related to wealth. Forty-one percent of women in the highest wealth quintile were in the high empowerment category compared with 4 percent of women in the lowest wealth quintile. In the lowest wealth quintile one-half of women were in the low empowerment category. Women with 1-2 living children were most empowered, compared with women who either did not have any living children or had more than 2 (Table 3.3).

Table 3.3 Women's Empowerment Index by background characteristics

Percent distribution of currently married women 15-49 years by their level of empowerment, according to selected background characteristics, Nepal 2011

Background characteristics	Level of empowerment				Number of women
	Low	Moderate	High	Total	
Age in years					
15-19	67.0	27.8	5.2	100.0	259
20-24	44.3	47.0	8.7	100.0	622
25-29	26.6	50.3	23.1	100.0	592
30-34	28.0	44.0	28.0	100.0	493
35-39	24.3	56.0	19.7	100.0	441
40-44	30.7	52.7	16.5	100.0	374
45-49	31.8	54.5	13.7	100.0	304
Caste/ethnicity					
Brahman/Chhetri	31.8	43.8	24.3	100.0	1,224
Janajati	29.2	54.7	16.1	100.0	1,074
Dalit	40.9	51.6	7.5	100.0	492
Other Terai Castes	50.1	37.7	12.2	100.0	198
Muslims	61.1	37.6	1.3	100.0	97
Ecological zone					
Mountain	40.6	48.2	11.2	100.0	319
Hill	32.9	50.1	17.0	100.0	1,449
Terai	34.7	46.3	19.0	100.0	1,316
Development region					
Eastern	27.1	47.9	25.0	100.0	688
Central	32.1	50.9	17.0	100.0	1,030
Western	25.3	52.1	22.6	100.0	320
Mid-western	36.8	50.9	12.4	100.0	500
Far-western	51.4	39.2	9.4	100.0	547
Place of residence					
Urban	22.7	50.2	27.0	100.0	747
Rural	38.2	47.6	14.2	100.0	2,338
Wealth quintile					
Lowest	51.2	44.9	3.9	100.0	638
Second	42.5	52.6	4.9	100.0	538
Middle	37.9	51.4	10.7	100.0	592
Fourth	27.5	50.5	21.9	100.0	646
Highest	15.7	42.9	41.3	100.0	670
Number of living children					
0	52.5	39.6	8.2	100.0	331
1-2	30.0	44.3	25.7	100.0	1,293
3-4	33.0	51.2	15.8	100.0	974
5-6	38.8	55.9	5.3	100.0	342
7-11	34.2	65.8	0.0	100.0	144
Total women	**34.5**	**48.3**	**17.2**	**100.0**	**3,084**

3.4 WOMEN'S EMPOWERMENT INDEX VARIABLES BY BACKGROUND CHARACTERISTICS OF THE STUDY WOMEN

The following section presents the distribution of the study population in each of the five indicators of empowerment (education, cash earnings, house or land ownership, community group membership, and participation in household decision-making) according to selected background variables of the women: age, caste/ethnicity, ecological zone, development region, place of residence, wealth quintile, and number of living children.

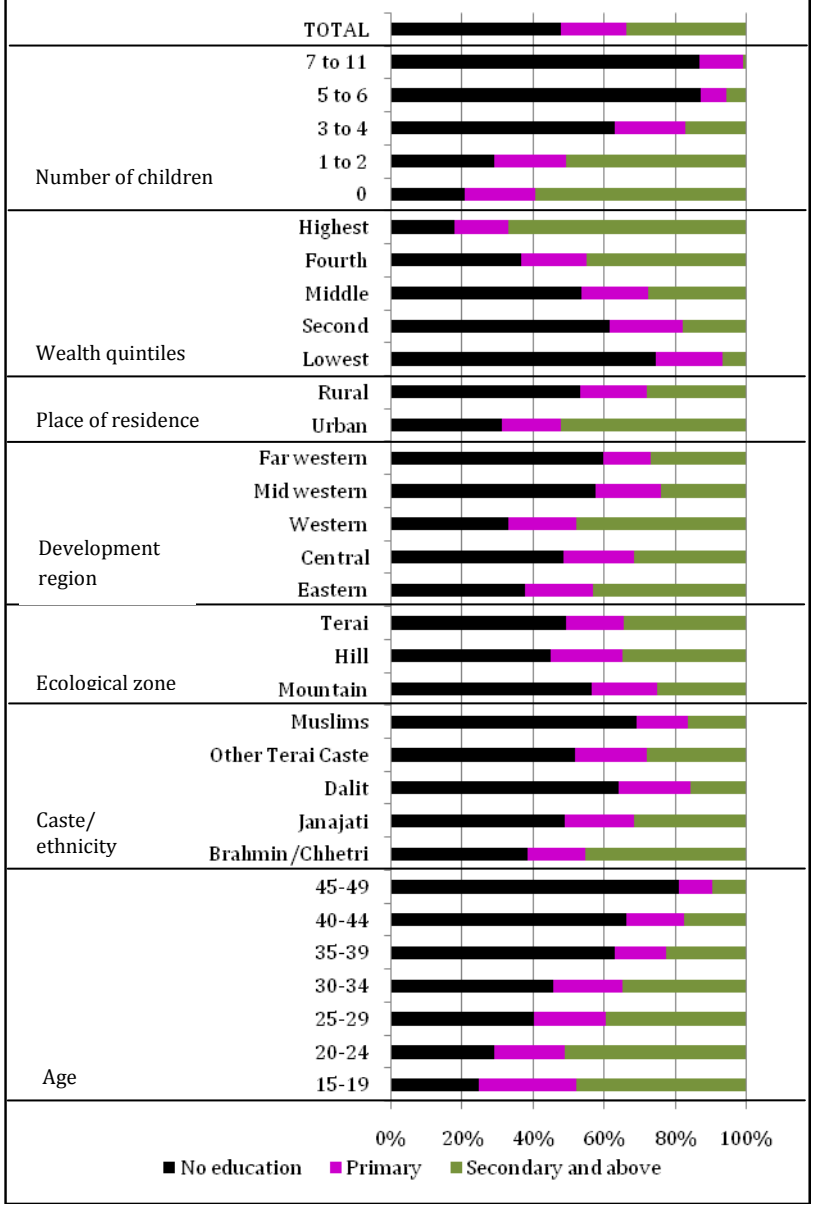
3.4.1 Education

Overall, 48 percent of the study women had no education, 34 percent had attained secondary level education or above, and the remaining 18 percent had attained primary level education.

Figure 3.2 displays the disparity in women's education attainment by background characteristics. Among women with more than five children and among women age 45-49, more than four fifths had no education. Among women with no children and among those in the highest wealth quintile, on the other hand, over 80 percent had at least a primary level of education.

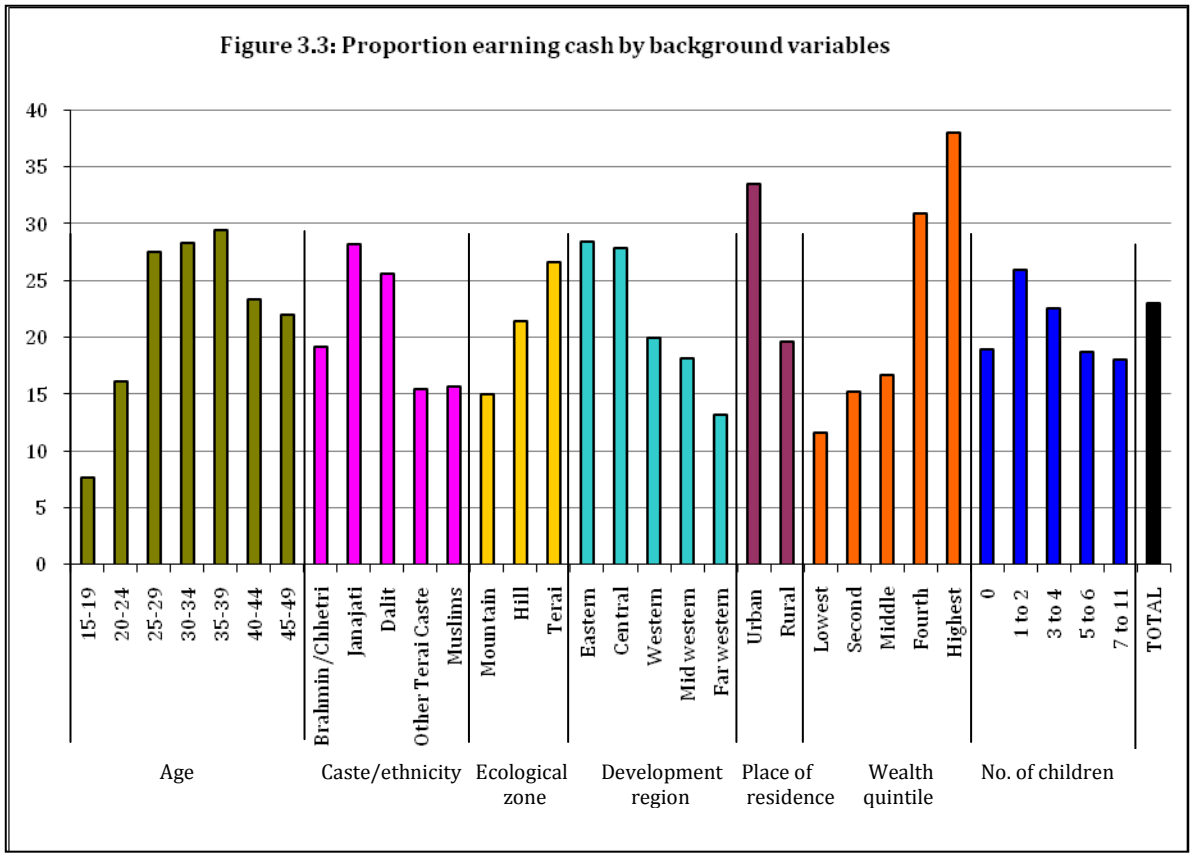
As Figure 3.2 shows, women's educational attainment increases with the level of household wealth. By contrast, the proportion of women with no education increases uniformly from the youngest age group to the oldest.

Figure 3.2: Education by background variables



3.4.2 Cash Earnings

Figure 3.3 shows the proportion of women who were employed and earned cash by background variables. A total of 23 percent of women earned cash but the percentage varied across all the background variables. As expected, the percent of women with cash earnings was higher (more than 30 percent) for women in the fourth and highest wealth quintiles, and for women living in urban areas. The proportion who earned cash was lowest (less than 15 percent) among women age 15-19 and among women living in the Far western development region. Across the three ecological zones, the percentage of employed women who earned cash was highest in the Terai region. Women with 1-2 children were somewhat more likely to earn cash than women with more than 2 children or women with no children. Janajati women were the most likely to earn cash, while Muslim women and those in Other Terai Castes were the least likely to earn cash (Figure 3.3).



3.4.3 Ownership of Land or House Alone or Jointly with Husband

Table 3.4 shows that 16 percent of the study women owned a house, land or both, alone or jointly with their husbands. Disparity in house/land ownership was observed across all background variables of women. A greater proportion of older women, women living in Terai zone, women in urban areas, and women in the Eastern and Western development regions owned land/house. A smaller percentage of Muslim and Dalit women compared with women of other caste/ethnicity owned land/house. As would be expected, asset ownership increased as women's wealth status increased. Women with 3-4 children were most likely to own land/house.

3.4.4 Membership in a Community Group

Table 3.4 also shows that, overall, 47 percent of the study women were members of community groups, while there was distinct variation in the proportion of women belonging to community groups by age, caste/ethnicity, and number of living children. Only 15 percent of women age 15-19 belonged to a community group, a much lower percentage than among older women. Fewer women of Muslim and Other Terai Castes were members of community groups compared with women of other caste/ethnicity groups. Only 20 percent of women who did not have children were members of community groups, a much lower percentage compared with women who had children.

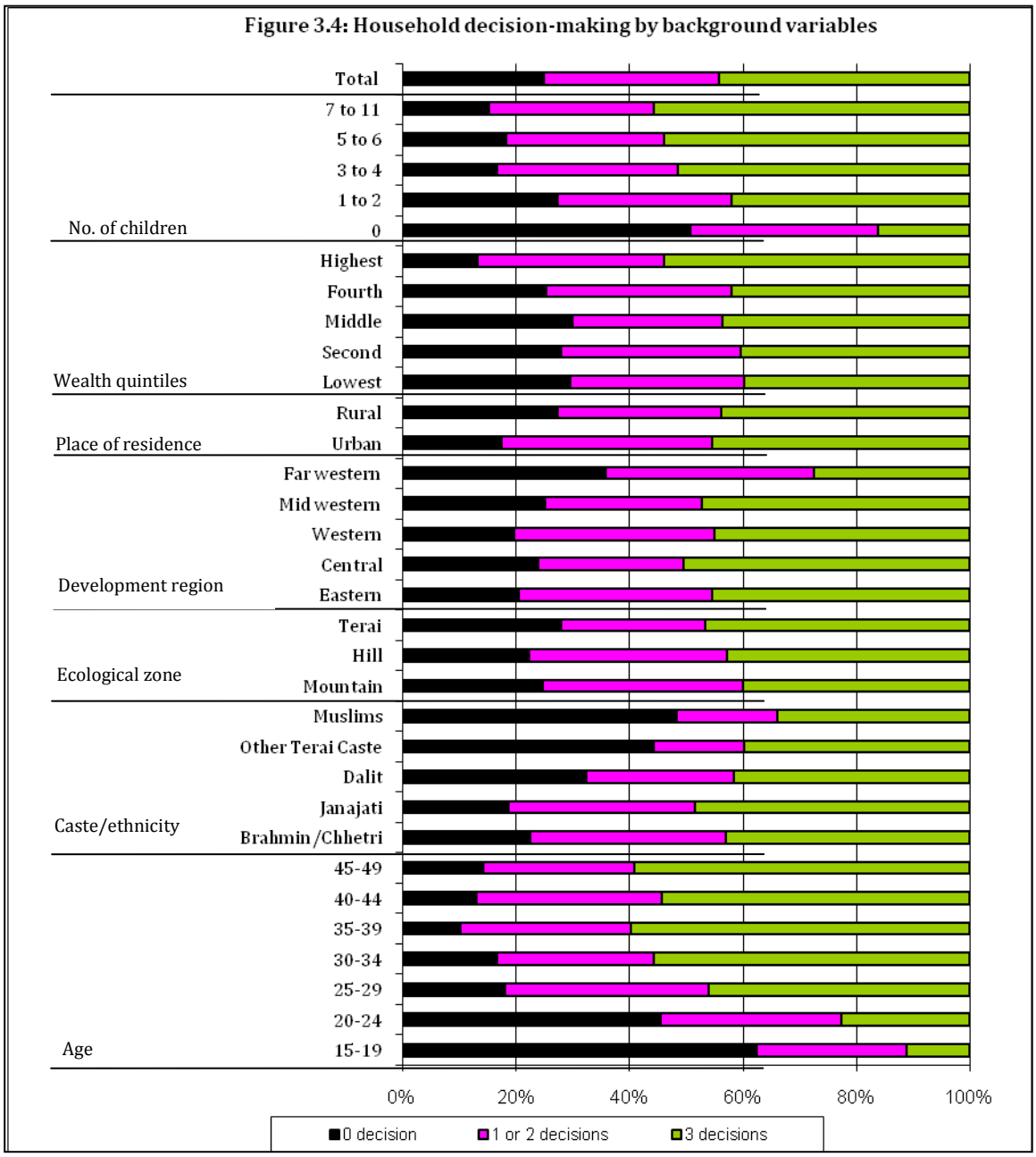
Table 3.4 Land/house ownership and belonging to group by background characteristics of the study women

Percentage of currently married women age 15-49 who own land/house, and the percentage who belong to a group, according to selected background characteristics, Nepal 2011

Background variables	Owns land/ house	Belongs to group	Number of women
Age in years			
15-19	1.7	15.0	259
20-24	3.8	37.1	622
25-29	12.2	48.1	592
30-34	22.5	54.9	493
35-39	21.3	57.0	441
40-44	23.3	55.7	374
45-49	32.6	53.1	304
Caste/Ethnicity			
Brahman/Chhetri	19.0	49.4	1,224
Janajati	16.0	53.1	1,074
Dalit	9.2	43.3	491
Other Terai Castes	17.6	20.9	198
Muslims	8.5	17.7	97
Ecological zone			
Mountain	11.6	48.4	319
Hill	13.9	48.5	1,449
Terai	19.1	44.8	1,316
Development region			
Eastern	23.7	49.3	688
Central	15.3	46.5	1,030
Western	22.8	48.4	320
Mid-western	11.4	43.1	500
Far-western	7.5	47.3	547
Place of residence			
Urban	21.6	45.9	747
Rural	14.2	47.2	2,338
Wealth quintile			
Lowest	5.3	41.2	638
Second	9.3	46.1	538
Middle	15.0	47.7	592
Fourth	16.3	55.9	646
Highest	31.9	43.6	670
Number of living children			
0	3.9	19.9	331
1-2	16.3	47.3	1,293
3-4	20.0	53.6	974
5-6	15.2	51.2	342
7-11	13.9	49.0	144
Total women	**15.9**	**46.9**	**3,084**

3.4.5 Participation in Household Decision-Making

Figure 3.4 shows that while one-quarter of the women in this study did not participate in any household decisions, there was a distinct disparity in women's participation in household decision-making by age, development regions, place of residence, wealth quintiles, and number of living children. Younger women, women with no living children, and women in Muslim and Other Terai Castes were usually not involved in household decision-making. Women over age 35, women in the highest wealth quintiles, and women with three or more children were most likely to make all three types of household decisions. However, there was only slight variation in household decision-making among women by urban-rural residence.



Overall, women's educational attainment, earning cash for work, owning land or house, and household decision-making varied substantially by the background characteristics. In contrast, there was little variation in membership in community groups by background characteristics. Educational attainment was lowest among older women, Muslims, the poorest women, and women with five or more living children. The youngest women and women in the lowest wealth quintile were least likely to earn cash. Similarly, land or house ownership was least common among the youngest and poorest women, and among women who did not have children. Also, the youngest women, Muslim women, and women who did not have children were least likely to be involved in household decision-making. These results suggest that certain characteristics of women, such as age, caste/ethnicity, wealth quintile, and number of living children, strongly influence their educational attainment, employment for cash earnings, property ownership, and decision-making participation.

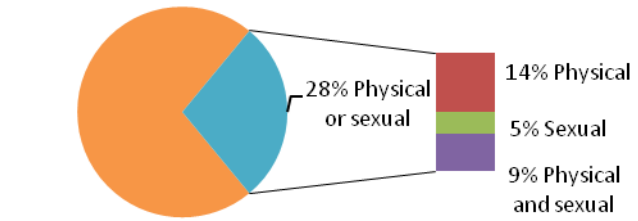
4 SPOUSAL VIOLENCE AND WOMEN'S EMPOWERMENT

This section presents study results on the prevalence of women's experience of spousal violence and its association with women's empowerment.

4.1 LIFETIME EXPERIENCE OF SPOUSAL VIOLENCE

This study examined the lifetime experience of physical and sexual violence among currently married women committed by their spouses. Figure 4.1 shows that 28 percent of the currently married women studied had experienced physical or sexual violence perpetuated by their spouses during their lifetime. Among these women, 14 percent experienced only physical violence, 5 percent experienced only sexual violence, and 9 percent experienced both physical and sexual violence in their lifetime.

Figure 4.1: Type of spousal violence experienced by the study women in their lifetime



4.2 SPOUSAL VIOLENCE BY BACKGROUND CHARACTERISTICS OF WOMEN

As Table 4.1 shows, the experience of spousal violence—physical violence, sexual violence, both physical and sexual violence, and either physical or sexual violence—differs by women's age, caste/ethnicity, wealth status, ecological zone, development region, and number of living children. The lifetime experience of physical violence only, and of either physical or sexual spousal violence, was greater for older women than younger women. 35 percent of women age 45-49 had experienced physical or sexual violence in their lifetime, compared with just 21 percent of women age 15-19. Women in the Brahman/Chhetri caste/ethnicity group experienced the least spousal violence (20 percent), while Muslim women had the highest level of spousal violence (55 percent). Experience of either physical or sexual violence was greatest among women in the middle wealth quintile (36 percent). Women living in the Terai areas were most likely to have experienced spousal violence (35 percent), and those living in Hill areas were least likely (22 percent). Three in every ten women residing in the Eastern and Mid-western development regions experienced any one form of violence, which is the highest proportion of the five regions. Women with more than four children were more likely to have faced either sexual or physical violence than women with three or fewer living children or with no children at all.

Table 4.1 Spousal violence by background characteristics

Percent distribution of currently married women age 15-49 by ever-experience of spousal violence according to women's background characteristics, Nepal 2011

Background Characteristics	Physical	Sexual	Both	Physical or sexual	Number of women
Age in years					
15-19	9.7	5.2	6.5	21.4	259
20-24	12.5	4.7	7.5	24.8	622
25-29	14.0	4.6	8.1	26.7	592
30-34	13.8	6.0	10.2	30.0	493
35-39	13.6	3.9	11.0	28.5	441
40-44	15.9	5.0	10.5	31.4	374
45-49	19.2	6.7	9.0	34.9	304
Caste/ethnicity					
Brahman/Chhetri	9.5	6.1	4.3	19.9	1,224
Janajati	14.9	4.3	9.3	28.5	1,074
Dalit	19.8	3.7	12.7	36.1	492
Other Terai Castes	14.9	8.3	19.0	42.2	198
Muslims	29.8	0.3	24.7	54.7	97
Wealth quintile					
Lowest	16.4	7.1	7.8	31.2	638
Second	14.1	4.3	12.5	31.0	538
Middle	20.0	4.8	10.9	35.7	592
Fourth	14.8	4.3	9.0	28.1	646
Highest	5.6	4.6	5.5	15.7	670
Place of residence					
Urban	13.4	4.8	7.2	25.4	746
Rural	14.2	5.1	9.5	28.9	2,338
Ecological zone					
Mountain	12.1	8.9	5.1	26.2	319
Hill	11.2	4.4	6.3	21.9	1,449
Terai	17.6	4.8	12.9	35.2	1,316
Development region					
Eastern	15.9	7.9	8.9	32.7	688
Central	13.0	3.4	12.1	28.4	1,030
Western	12.4	1.4	4.8	18.6	320
Mid-western	17.0	6.5	7.8	31.3	500
Far-western	11.8	5.5	6.7	23.9	547
Number of children					
0	6.7	3.4	6.7	16.8	331
1-2	11.7	4.7	6.6	23.0	1,293
3-4	16.5	5.7	9.5	31.7	974
5-6	22.4	6.3	12.3	41.1	342
7-11	15.0	4.0	23.3	42.3	144
Total	**14.0**	**5.0**	**9.0**	**28.0**	**3,084**

4.3 EXPERIENCE OF SPOUSAL VIOLENCE BY WOMEN'S EMPOWERMENT INDEX

Table 4.2 shows that lifetime experience of any one of the two forms of spousal violence studied was highest (32 percent) for women at the low empowerment level compared with women at the moderate or high empowerment levels. These findings indicate a possible association between women's empowerment and the experience of spousal violence. The chi-square test carried out to examine the association between women's empowerment and women's experience of spousal violence confirmed the association.

Table 4.2 Prevalence of spousal violence by women's empowerment levels

Percentage of currently married women age 15-49 who have experienced either physical or sexual spousal violence, according to their empowerment level, Nepal 2011

Level of empowerment	Physical or sexual	Number of women
Low	32.2	1,181
Moderate	27.3	1,371
High	21.4	532
Total	**28.0****	**3,084**

Note: **p<0.01

4.4 MULTIVARIATE LOGISTIC REGRESSIONS

Multivariate logistic regression models were carried out to examine the association between women's experience of physical or sexual spousal violence and women's level of empowerment, and the results are shown in Table 4.3. When only women's empowerment was put in an unadjusted regression model, the odds of having experienced any spousal physical or sexual violence were 74 and 38 percent higher, respectively, for low and moderately empowered women than for women at the high empowerment level. In the full multivariate regression model, when the effects of age, caste/ethnicity, wealth quintile and ecological zone were adjusted for, the Women's Empowerment Index did not retain its significance. Each of the other factors in the model: age, caste/ethnicity, wealth quintile, and ecological zone were significantly associated with women's experience of physical and sexual spousal violence. Among these factors, wealth quintile had the strongest association with experience of physical or sexual violence. This result demonstrates the multidimensional nature of spousal violence and its strong association with women's socioeconomic characteristics.

Table 4.3 Unadjusted and adjusted odds ratio and 95 percent confidence interval for the association of WEI with experience of spousal physical or sexual violence

	Unadjusted		Adjusted	
	OR	**95% CI**	**OR**	**95% CI**
Women's Empowerment Index				
Low	1.743**	1.288-2.358	1.138	0.811-1.599
Moderate	1.379**	1.035-1.837	0.920	0.657-1.287
High	1.000	-	1.000	-
Age in years				
15-19			0.335**	0.205-0.546
20-24			0.578**	0.379-0.881
25-29			0.694*	0.460-1.048
30-34			0.906	0.604-1.359
35-39			0.811	0.504-1.305
40-44			1.152	0.706-1.881
45-49			1.000	1.00
Caste/ethnicity				
Brahman/Chhetri			0.273*	0.098-0.759
Janajati			0.403	0.145-1.123
Dalit			0.525	0.187-1.471
Other Terai Castes			0.679	0.251-1.837
Muslims			1.000	-
Wealth quintile				
Lowest			3.012**	1.754-5.173
Second			2.695**	1.703-4.266
Middle			2.712**	1.742-4.221
Fourth			2.069**	1.386-3.089
Highest			1.000	-
Ecological zone				
Mountain			0.625*	0.424-0.920
Hill			0.531**	0.389-0.725
Terai			1.000	-
Total women		**3,084**		

Note: * p<0.05, **p<0.01

5 WOMEN'S EMPOWERMENT, SPOUSAL VIOLENCE AND HEALTH OUTCOMES

This section presents the study's findings on the relationship of women's empowerment and spousal violence with selected health outcomes of mothers and their children. The health outcomes that were studied were utilization of four or more ANC services, assistance of an SBA during delivery, full immunization among children age 12-23 months, and prevalence of anemia among children age 6 months to 5 years. These outcomes were selected based upon their relevance to women's empowerment and spousal violence, as indicated by studies done in Ethiopia, India, and Nigeria and by the availability of these variables in the 2011 NDHS data sets. This chapter presents descriptive results, as well as results from multivariate regression models.

5.1 HEALTH OUTCOMES BY BACKGROUND CHARACTERISTICS OF WOMEN

5.1.1 ANC Visits and SBA Delivery

Out of the 3,084 women in the study, 1,353 (44 percent) had a live birth in the last five years before the survey. These women were asked about the number of ANC visits they made during their most recent pregnancy, and whether or not each birth in the last five years was attended to by a SBA. We use the international standard of at least four ANC visits to measure use of ANC services.

Overall, about one-half (49 percent) of the women in this sample with a live birth in the last five years made at least four ANC visits during their most recent pregnancy. Women age 20-24 were most likely to make four or more ANC visits, while women age 35-49 were least likely. A greater proportion of the Brahman/Chhetri women made four or more ANC visits, while Other

Table 5.1 ANC and SBA delivery utilization by background characteristics

Among currently married women age 15-49 with a live birth in the last five years, the percentage who had at least four ANC visits during the last pregnancy, and the percentage that received assistance from an SBA during the most recent delivery, by selected background characteristics, Nepal 2011

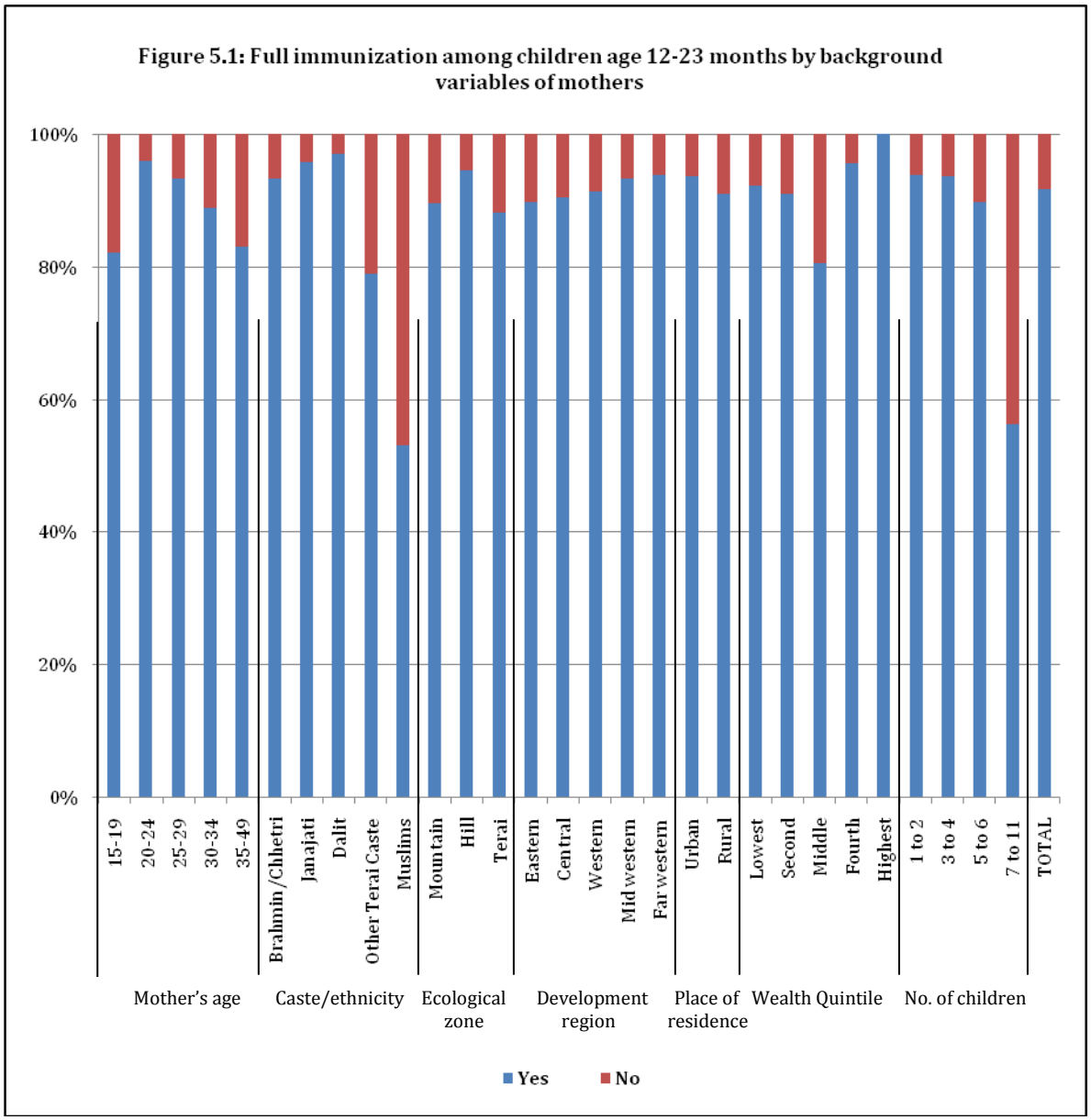
Background characteristics	≥4 ANC visits	SBA delivery	Number of women
Age in years			
15-19	50.4	66.1	105
20-24	55.3	42.4	479
25-29	51.8	42.5	417
30-34	48.4	31.8	202
35-49	23.8	13.1	151
Caste/ethnicity			
Brahman/Chhetri	58.9	44.2	479
Janajati	43.0	36.0	442
Dalit	50.6	32.7	263
Other Terai Castes	33.7	49.9	102
Muslims	37.8	38.2	68
Ecological zone			
Mountain	46.8	21.3	154
Hill	52.3	40.0	690
Terai	45.5	44.0	509
Development region			
Eastern	52.8	47.7	329
Central	45.4	36.9	374
Western	51.7	53.0	123
Mid-western	42.4	34.2	248
Far-western	54.7	31.6	278
Place of residence			
Urban	70.1	68.1	296
Rural	43.2	31.3	1,057
Wealth quintile			
Lowest	31.6	14.6	395
Second	37.7	23.6	242
Middle	43.0	38.4	267
Fourth	69.8	61.3	237
Highest	79.3	80.2	212
No. of living children			
1-2	59.6	52.8	815
3-4	40.4	24.5	373
5-6	20.5	8.7	106
7-11	11.3	3.9	59
Total	**49.2**	**39.4**	**1,353**

Terai Caste women, followed by Muslim women, were least likely to do so. Women living in the Hill zone, women in the Far western development region, and women in urban areas were more likely to make four ANC visits compared with women in Mountain and Terai zones, women in other development regions, and women in the rural areas. A distinct variation in ANC use by wealth quintiles was observed. The proportion of women making four or more ANC visits ranged from 32 percent in the lowest wealth quintile to 79 percent in the highest wealth quintile. Also, women who had fewer than five children were more likely to make four ANC visits than women having five or more children.

Seeking SBA assistance for delivery was less common (39 percent) than making four or more ANC visits among the eligible study women. Younger women used an SBA in delivery more often than older women. An SBA was used by one-half of women in the Other Terai Castes, the highest percentage among all the caste groups. This finding is in contrast to the pattern with use of ANC services, where Other Terai Caste women were the least likely of all the caste groups to make four or more ANC visits. Only 21 percent of women in the Mountain zone received SBA assistance for delivery, half the percentage among women in the Hill and Terai zones. SBA-assisted delivery was highest in the Western development region, and was more than twice as high in urban areas than rural areas (68 percent versus 31 percent). As was the case with four ANC visits, use of an SBA for delivery increased as women's wealth status increased, and was inversely related to the number of living children.

5.1.2 Full Immunization among Children Age 12-23 Months

Of the 323 children age 12-23 months born by the study women, 92 percent were fully immunized. Fully immunized children are those who received a dose of BCG, three doses each of DPT and polio, and a dose of measles vaccines. While overall immunization coverage was quite high, there were variations in children's immunization by mother's background characteristics. Most prominent among these, immunization coverage was under 60 percent among children in the Muslim caste group and among children whose mothers had more than seven children (Figure 5.1).



5.1.3 Anemia among Children by Background Characteristics of Women

Among the 3,084 study women, 1,101 of their children underwent hemoglobin tests. In the 2011 NDHS, hemoglobin levels were tested for children age 6-59 months. Overall, 51 percent were not anemic, while the rest were mildly or moderately anemic.

There was distinct variation in childhood anemia by all of the background variables of the study women. Prevalence of anemia was above 60 percent among children whose mothers were age 15-19 and mothers who were from Other Terai, Muslim, and Dalit caste groups. One notable finding was the high prevalence of severe anemia (2 percent) among children who had seven or more siblings, and children who were from Other Terai Castes (Figure 5.2).

5.2 Maternal Service Utilization in Relation to Spousal Violence and Women's Empowerment

Among women with a live birth in the five years prior to the survey, making at least four ANC visits was more common than receiving assistance from a skilled birth attendant (SBA) during delivery (49 percent versus 39 percent). The likelihood of using these maternal services varied by women's experience of spousal violence and by their level of empowerment.

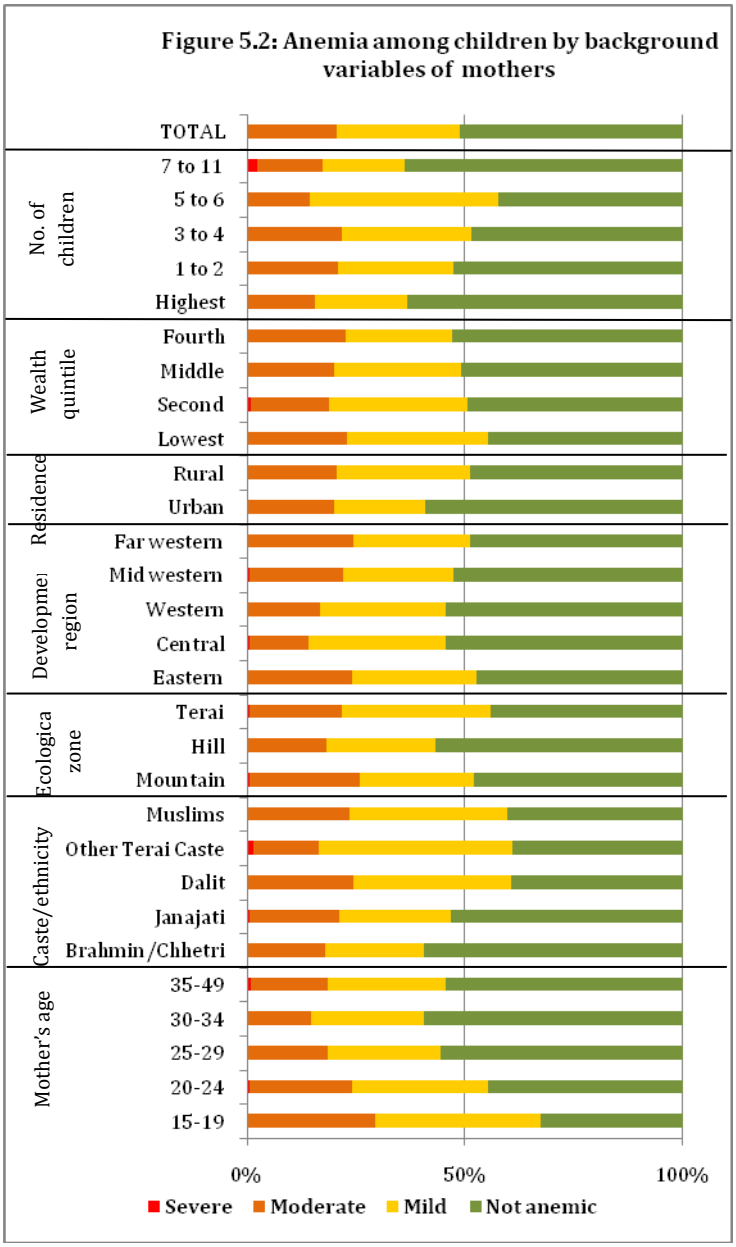


Figure 5.2: Anemia among children by background variables of mothers

As Table 5.2 shows, more than one-half (53 percent) of the women who experienced physical or sexual spousal violence made at least four ANC visits during their last pregnancy, which is 13 percentage points higher than among women who had not experienced any spousal violence. Likewise, 42 percent of women who experienced either sexual or physical violence from their spouses had SBA assistance at their most recent delivery, which was 10 percentage points higher than among women who did not experience such violence. The chi-square test carried out to examine the relationship between spousal violence and the two measures of maternal health service utilization showed that these relationships are significant.

Among women at the high empowerment level, 82 percent made at least four ANC visits, which is much higher than among women at moderate (51 percent) and low (36 percent) empowerment levels. Similarly, a much greater proportion of women at the high empowerment level received the assistance of an SBA at delivery compared with women at the other empowerment levels. These results show positive associations between women's empowerment and maternal service utilization, and the chi-square tests confirmed their significance.

Table 5.2 Utilization of maternal health services by experience of spousal violence and women's empowerment index

Among currently married women age 15-49 with a live birth in the last five years, the percentage who had at least four ANC visits during the last pregnancy, and the percentage who received assistance from a skilled birth attendant (SBA) during the most recent delivery, by women's experience of spousal violence and level of empowerment, Nepal 2011

Type of violence	4 ANC visits	SBA delivery	Number of women
	percent	percent	
Physical or sexual spousal violence	**	*	
Yes	39.8	32.0	392
No	53.1	42.4	961
Women's Empowerment Index	**	**	
Low	36.2	29.9	532
Moderate	50.6	39.1	639
High	81.7	68.1	182
Total women	**49.2**	**39.4**	**1,353**

Note: * p<0.05, **p<0.01

5.3 COMPLETE CHILD IMMUNIZATION IN RELATION TO SPOUSAL VIOLENCE AND WOMEN'S EMPOWERMENT

While 92 percent of children age 12-23 months were fully immunized, there were differences by mothers' experience of spousal violence. A greater percentage of children whose mothers did not experience physical or sexual spousal violence were fully immunized than among children whose mothers experienced spousal violence (96 percent versus 84 percent) (Table 5.3). The chi-square tests carried out between the experience of spousal violence and full immunization confirmed a significant association between the two variables.

The percentage of children receiving full immunization increased as the empowerment level of their mothers increased. Full immunization was 98 percent among children whose mothers were at the high empowerment level compared with 89 percent among children whose mothers were at the low empowerment level (Table 5.3).

Table 5.3 Utilization of full immunization by experience of spousal violence and women's empowerment index

Percentage of children age 12-23 months receiving full immunization, by mother's ever-experience of spousal violence and level of empowerment, Nepal 2011

	Weighted percent	Number of children
Physical or sexual spousal violence	**	
Yes	83.7	110
No	95.6	213
Women's Empowerment Index		
Low	89.2	158
Moderate	92.8	129
High	97.8	36
Total	**91.6**	**323**

Note: * p<0.05, **p<0.01

5.4 ANEMIA AMONG CHILDREN BY SPOUSAL VIOLENCE AND WOMEN'S EMPOWERMENT

Among the children who underwent an anemia test in the 2011 NDHS, the prevalence of any form of anemia (mild, moderate, or severe) was greater for children whose mothers had ever experienced physical or spousal violence than for children whose mothers had not experienced such violence (Table 5.4). The chi-square test results demonstrated that there is a significant association between anemia among children and experience of spousal violence by mothers.

The prevalence of anemia among children also varied according to their mothers' ranking in the Women's Empowerment Index. One-third of the tested children whose mothers were at the high empowerment level had

mild or moderate anemia, a lower percentage compared with children whose mothers were moderately empowered (47 percent) or were at a low level of empowerment (55 percent). Mothers who were at the high empowerment level did not have any severely anemic children compared with 1 percent among children of mothers who were at the low empowerment level. These findings indicate a possible association between women's empowerment and anemia among children, which was confirmed by the chi-square test.

Table 5.4 Anemia among children by mother's experience of spousal violence and women's empowerment index

Percent of children age 6-59 months classified as having anemia, by mother's experience of spousal violence and level of empowerment, Nepal 2011

Type of violence and WEI	No anemia	Mild	Moderate	Severe	Percent	Number of children
Physical or sexual spousal violence**						
Yes	40.9	36.8	21.6	0.7	100	334
No	55.5	24.9	19.4	0.2	100	766
Women's Empowerment Index**						
Low	41.9	33.5	23.8	0.9	100	421
Moderate	53.6	26.9	19.3	0.1	100	521
High	66.9	20.3	12.8	0.0	100	159
Total	**51.1**	**28.4**	**20.0**	**0.4**	**100.0**	**1,101**

Note: * p<0.05, **p<0.01

5.5 MULTIVARIATE LOGISTIC REGRESSIONS

Multivariate logistic regression models were carried out for only two of the four health outcomes studied: four or more ANC visits by women and anemia among children. This is because the assessment of a single maternal health outcome and a single child health outcome was sufficient to measure the relationships between the possible influencing factors and the outcome variables.

5.5.1 Women's Empowerment, Spousal Violence with Four ANC Visits

The regressions examined the relationship between WEI, spousal violence, and utilization of four or more ANC visits. The outcome variable (four or more ANC visits) was binary; therefore, binary logistic regression was used. Initially, unadjusted odds were obtained through bivariate logistic regressions of WEI and spousal violence with the outcome variable. In the adjusted models, in the first model WEI was excluded to see the effect of spousal violence on women's odds of having four or more ANC visits, while adjusting for the effects of age, caste/ethnicity, wealth quintile, and ecological zone. In the next model, spousal violence was excluded to see the effect of WEI on women's odds of having four or more ANC visits, while adjusting for the effects of age, caste/ethnicity, wealth quintile, and ecological zone. In the final regression model all the variables were included to see the combined effect.

Experience of spousal violence was significantly associated with utilization of four or more ANC visits before adjusting for the effects of other confounders. Among women who had not experienced spousal violence, the odds of making four ANC visits were 70 percent higher than for women who had experienced violence. Experience of spousal violence did not maintain its significance with four or more ANC visits, however, when all the factors except WEI were included in a regression model.

Women's empowerment was also significantly associated with making four or more ANC visits. In the unadjusted model, the odds of making four or more ANC visits for women at the low and moderate

empowerment levels were 87 and 77 percent lower, respectively, than the odds for women at the high empowerment level. When spousal violence was not included and the remaining variables were included in regression model, WEI retained its significant association with four or more ANC visits. In this model, the odds of making four or more ANC visits for women with low and moderate levels of empowerment, respectively, were 76 and 61 percent lower than the odds for women at the high empowerment level.

In the full regression model, when spousal violence, women's empowerment, and the other variables were combined, WEI retained its significant association with four or more ANC visits, while spousal violence was not significant.

Table 5.5 Unadjusted and adjusted OR and 95 percent CI for the effect of physical or sexual spousal violence and women's empowerment on utilization of four or more ANC visits

	Unadjusted		Adjusted model without WEI		Adjusted model without spousal violence		Full model	
	OR	95% CI	OR	95% CI	OR	95% CI	OR	95% CI
Sexual or physical violence								
No	1.698**	1.215-2.373	1.114	0.778-1.596			1.091	0.770-1.545
Yes	1.000	-	1.000	-			1.000	-
Women's empowerment								
Low	0.127**	0.075-0.215			0.235**	0.128-0.431	0.236**	0.129-0.433
Moderate	0.230**	0.144-0.369			0.393**	0.218-0.708	0.394**	0.219-0.709
High	1.000	-			1.000	-	1.000	-
Age in years								
15-19			3.035*	1.258-7.324	3.597**	1.490-8.685	3.586**	1.487-8.647
20-24			2.793**	1.467-5.316	3.218**	1.722-6.014	3.204**	1.718-5.975
25-29			2.331*	1.207-4.504	2.278*	1.204-4.311	2.272*	1.202-4.296
30-34			2.014*	1.046-3.878	1.906*	1.004-3.622	1.914*	1.009-3.630
35-49			1.000	-	1.000	-	1.000	-
Caste/ethnicity								
Brahman/Chhetri			1.306	0.557-3.061	1.046	0.464-2.359	1.021	0.455-2.292
Janajati			0.796	0.348-1.821	0.641	0.295-1.395	0.628	0.288-1.366
Dalit			1.650	0.684-3.982	1.423	0.628-3.224	1.403	0.623-3.162
Other Terai Castes			0.505*	0.259-0.985	0.525*	0.290-0.951	0.517*	0.283-0.943
Muslims			1.000	-	1.000	-	1.000	-
Socioeconomic status								
Lowest			0.084**	0.043-0.165	0.126**	0.063-0.255	0.130**	0.065-0.259
Second			0.136**	0.074-0.248	0.178**	0.097-0.329	0.182**	0.100-0.334
Middle			0.199**	0.113-0.348	0.246**	0.139-0.436	0.251**	0.141-0.445
Fourth			0.562*	0.317-0.994	0.648	0.358-1.173	0.659	0.367-1.184
Highest			1.000	-	1.000	-	1.000	-
Ecological zone								
Mountain			1.947*	1.129-3.358	1.872*	1.067-3.283	1.839*	1.052-3.215
Hill			1.894*	1.157-3.100	1.850*	1.137-3.010	1.821*	1.118-2.967
Terai			1.000	-	1.000	-	1.000	-
Total women	**1,353**							

Note: *<0.05, **<0.01

5.5.2 Women's Empowerment, Spousal Violence with Anemia among Children

In the unadjusted model, spousal violence was significantly associated with anemia among children. Children whose mothers had never experienced spousal violence had 45 percent lower odds of being anemic compared with children whose mothers had experienced spousal violence. When the effect of the age of the mother, caste/ethnicity, wealth, and ecological zone were adjusted for, the odds remained 34 percent lower for children whose mothers had never experienced spousal violence, and this was statistically significant.

Women's empowerment was strongly associated inversely with children's anemia, such that women with lower levels of empowerment were more likely to have anemic children. Before adjusting for the effects of confounders, women at the low and moderate empowerment levels had, respectively, 2.8 and 1.7 times greater odds of having anemic children compared with women at the high empowerment level. The association between WEI and child anemia remained significant when all other factors except spousal violence were included in the regression model. Women at the low empowerment level had 1.8 times greater adjusted odds of having children with anemia than women at the high empowerment level.

In the full regression model, both the experience of spousal violence and women's level of empowerment remained significantly associated with the odds of childhood anemia. Women who had not experienced spousal violence had 34 percent lower odds of having anemic children compared with women who had experienced spousal violence. Similarly, women with low empowerment had 75 percent higher odds of having anemic children compared with highly empowered women.

Table 5.6 Unadjusted and adjusted OR and 95 percent CI for the effect of physical or sexual spousal violence and women's empowerment on childhood anemia

	Unadjusted		Adjusted model without WEI		Adjusted model without spousal violence		Full model	
	OR	95% CI	OR	95% CI	OR	95% CI	OR	95% CI
Sexual or physical violence								
No	0.555**	0.398-0.775	0.658*	0.462-0.936			0.657*	0.459-0.940
Yes	1.000	-	1.000	-			1.000	-
Women's empowerment								
Low	2.807**	1.833-4.298			1.753*	1.084-2.836	1.751*	1.080-2.841
Moderate	1.749**	1.154-2.652			1.367	0.872-2.144	1.357	0.862-2.139
High	1.000	-			1.000	-	1.000	-
Age in years								
15-19			2.666*	1.215-5.850	2.439*	1.108-5.367	2.513*	1.172-5.390
20-24			1.777*	1.097-2.926	1.634*	1.010-2.643	1.693*	1.042-2.753
25-29			1.156	10.739-1.810	1.142	0.728-1.792	1.164	0.744-1.819
30-34			0.960	0.960-0.594	0.989	0.612-1.597	0.968	0.602-1.559
35-49			1.000	-	1.000	-	1.000	-
Caste/ethnicity								
Brahman/Chhetri			0.613	0.213-1.763	0.607	0.210-1.749	0.667	0.241-1.848
Janajati			0.747	0.261-2.138	0.745	0.259-2.143	0.809	0.294-2.223
Dalit			1.002	0.321-3.121	1.010	0.322-3.174	1.056	0.354-3.146
Other Terai Caste			1.067	0.362-3.148	0.993	0.323-3.060	1.044	0.365-2.996
Muslims			1.000	-	1.000	-	1.000	-
Wealth quintile								
Lowest			1.949*	1.123-3.384	1.755*	1.007-3.058	1.575	0.888-2.794
Second			1.327	0.751-2.347	1.291	0.735-2.266	1.137	0.637-2.029
Middle			1.082	0.634-1.844	1.060	0.630-1.784	0.947	0.550-1.630
Fourth			1.087	0.584-2.023	1.107	0.607-2.021	1.014	0.547-1.880
Highest			1.000	-	1.000	-	1.000	-
Ecological zone								
Mountain			0.927*	0.554-1.551	0.890	0.533-1.485	0.974	0.575-1.649
Hill			0.643*	0.429-0.964	0.618*	0.420-0.911	0.664*	0.447-0.986
Terai			1.000	-	1.000	-	1.000	-
Total children	**1,101**							

Note: *<0.05, **<0.01

6 DISCUSSION AND CONCLUSIONS

The issue of gender-based violence has been raised in most development discourse in Nepal. The 2011 NDHS, for the first time, examined at the national level gender-based violence experienced by women. This section summarizes the major findings of the study and explicitly points to the association of women's empowerment and spousal physical and sexual violence with selected health outcomes. In addition, it draws conclusions and makes recommendations for policies and programs.

6.1 WOMEN'S EMPOWERMENT

The 2011 NDHS measured women's empowerment by their participation in three household decisions (household purchasing, access to health care, and freedom to visit relatives). Among the survey respondents, 46 percent of women participated in all three activities, 30 percent in one or two, and 24 percent in none. For the purpose of this study, a composite Women's Empowerment Index (WEI) was developed, comprising five variables: i) household decision-making, ii) cash earnings, iii) land or house owning, iv) membership in community groups, and v) education. Analysis using these measures resulted in a different distribution of empowerment levels than in the NDHS.

The analysis revealed that about one-third of Nepalese women are not empowered or are empowered at a low level, about half are moderately empowered, and two in every ten are highly empowered. The proportion of women who are highly empowered is highest among women between the ages of 25 and 34, among women who have one or two children among women who live in urban areas, and among women in the Eastern and Western development regions. At the other extreme, women who are under age 20, women from Other Terai Castes groups, and women from the lowest wealth quintile have the lowest levels of empowerment.

The median age at first marriage for women in Nepal is about 18 years. Age 15-19 is the period when women are likely to be adjusting to their husband's family, involved mostly in household chores, with less engagement in earning cash, and not commonly affiliated with community groups. The fact that women age 35 and older and women with more children are less likely to be highly empowered than their counterparts ages 25-34 indicates their lower access to education, and less participation in decision-making. The fact that women with no children or with more than five children are much less likely to be highly empowered than women with 1-4 children suggests a strong correlation with age and with women's reproductive role in the Nepalese context, where they are expected to be mothers. If married women have no children, they are socially ostracized.

Muslims, the religious minority in Nepal, have the lowest level of women's empowerment, followed by the Other Terai caste group. The traditional culture of Muslims and conservative social norms of the Other Terai caste group could possibly restrict women's empowerment.

This analysis found that Brahman and Chhetri women, followed by Janajati women, are more likely to be highly empowered compared with other caste/ethnicity groups. Janajati women are more likely than Brahman/Chhetri

women to participate in household decision-making, however. This suggests that participation in decision-making cannot in itself measure women's empowerment levels and further confirms the multi-dimensional nature of women's empowerment. Terai women are more likely to report having a voice about decision-making in three or more arenas compared to women in Mountain and Hill areas. The proportion of women earning cash is highest among Janajati women, followed by Dalit women, probably reflecting the decision-making status of Janajati women, and in the case of Dalit women the need to meet household minimum expenses, which requires that women engage in cash-earning activities. To confirm these associations, further disaggregation of data would be important. The lowest levels of working for cash were found among the Other Terai caste and Muslim women, possibly due to restrictions imposed on women to engage in cash-earning activities, regardless of their economic status.

Overall, ownership of land or houses is low among women of all groups, but lowest among Dalit and Muslim women. Similarly, compared with other caste/ethnicity groups, fewer Dalit and Muslim women are members of community groups. This, again, could be linked with the finding that Dalit women are more likely to have cash-earning employment and thus may have less time to participate in community groups. For Muslim women, social restrictions could be a reason for less participation in community groups.

6.2 WOMEN'S EMPOWERMENT AND SPOUSAL VIOLENCE

This study showed that the prevalence of women's lifetime experience of physical and/or sexual spousal violence is 28 percent among currently married women; 14 percent experienced physical violence, 5 percent sexual violence, and 9 percent experienced both forms of spousal violence.

The further analysis examined the relationships between women's empowerment level and their experience of spousal violence. This focus was important in view of the commitment made by the Government of Nepal in achieving the MDGs. The Domestic Violence Act 2008 for the first time criminalized domestic violence, as it was noted to be one of the barriers to improving the overall status of women. In this regard, generating evidence on prevalence of gender-based violence, including domestic violence, was relevant and necessary. In this study, the prevalence of overall gender-based violence and the prevalence of spousal violence, which is one form of gender-based violence, were found to be similar among currently married women. The study focused on spousal violence in relation to health outcomes because the availability of the NDHS data set allowed an in-depth analysis of the topic.

Women residing in Eastern region demonstrate the highest level of empowerment, followed by women in Western region, while experience of spousal violence is highest in Eastern region and lowest in Western region. This pattern is difficult to interpret and further emphasizes the contextual nature of women's empowerment and experience of violence. A high level of empowerment along with a high prevalence of spousal violence could be explained by increased confidence of women to challenge social structures, and to refuse to follow gender norms in the family and society, thus making them more vulnerable to spousal violence in a society that condones it.

The study revealed that the youngest women (age15-19) are the least likely to report having ever experienced spousal violence compared with older women, despite their lower level of empowerment. A likely explanation is that their duration of exposure to the risk of spousal violence is less than that of older women. The highest incidence of spousal violence is among women age 45-49, possibly because of their longer duration of exposure to the risk of spousal violence. Further more, women in this age group tend to be less educated, have more children, and score lower in the Women's Empowerment Index than their slightly younger counterparts, factors associated with higher levels of spousal violence. Older women are more likely to have experienced spousal violence during their lifetime, despite having the highest prevalence of ownership of house or land and the highest participation in community groups. Most rural women of this age group become mother-in-law in their families and seem to be high on the ladder of family hierarchy, and yet in the power relationship with their husbands they continue to be inferior. The reason for this is most likely the social structure of Nepali society, where women commonly are considered subordinate to men.

It is also important to note that there are significant biological and hormonal changes in women as they grow older. Reproductive health problems such as uterine prolapse may affect their sexual relationships. The analysis further points out that the greater the number of living children, the lower the women's empowerment level and the higher the prevalence of spousal violence. These findings pose several questions for further examinations, such as the relationship between spousal violence and the sex of the children, number of wives, and differences in caste/ethnicity, education level and age between husbands and wives. There is a need to generate more evidence to understand such relationships, and thus to better design and implement programs that can address the barriers to women's empowerment and gender equality.

Spousal violence is greater in Terai region and in the Other Terai Castes group and Muslim communities. These findings potentially indicate that programs should address the domestic violence issues that are so pertinent in Terai and in Muslim groups, where traditions and customs restrict women from being empowered.

In the bivariate analysis the level of women's empowerment increases as experience of spousal violence decreases. However, when the effect of such factors as age, caste, socioeconomic status, and ecological zone are controlled in the multivariate regression model, women's empowerment is not significantly associated with the experience of spousal violence. In the adjusted model, women's age, wealth, and ecological zone are factors associated with women's experience of spousal violence. Therefore, programs aiming to empower women and reduce gender-based violence, spousal violence in particular, need to design and implement interventions that are specific to age, region, and socioeconomic status. They also need to engage men and all social groups to empower women and reduce gender-based violence. Moreover, while promoting women's empowerment, it should not be assumed that more empowerment alone results in less spousal violence.

6.3 WOMEN'S EMPOWERMENT AND SPOUSAL VIOLENCE IN RELATION TO HEALTH OUTCOMES

This study also examined the linear and triangular relationships among women's empowerment, spousal violence, and selected health outcomes. The use of maternal health services is increasing in Nepal. For example, the percentage of women receiving ANC services from SBAs increased from 44 percent to 58 percent between 2006 and 2011. Similarly, women making four or more ANC visits increased from 29 percent to 50

percent over the same period. About 50 percent of women in the study made the recommended four or more ANC visits, and 39 percent had SBA-assisted deliveries, percentages comparable to the national figures. Various studies attempting to understand the associations between maternal service utilization and spousal violence have found mixed results. A study carried out in Uttar Pradesh, India, found that women who experienced physical violence during pregnancy were significantly less likely to seek ANC (Stephenson, et al., 2008). Analysis of data from the 1995 Egypt DHS found that women who experienced physical spousal violence were significantly less likely to have visited a skilled ANC provider; nevertheless, among women who did receive antenatal care, those who experienced physical spousal violence were significantly more likely to have made four or more ANC visits during their most recent pregnancy (Diop, 2006). A Kenyan study found that women's experience of emotional and physical violence from an intimate partner resulted in a decrease in seeking SBA assistance for delivery (Emenike et al., 2008). The current study found that Nepalese women who experience spousal violence are less likely to make at least four ANC visits and to seek SBA assistance for delivery; however, after adjusting for socio-demographic characteristics, the association between spousal violence and making at least four ANC visits did not retain its significance. This supports the context specificity of spousal violence.

In order to better understand the associations between spousal violence and maternal service utilization, it is necessary to assess the reasons that encourage women experiencing physical or sexual violence to go for antenatal check-ups and to seek SBA assistance for delivery. It may be that women who experience spousal violence fear the health risks to the unborn baby and therefore are more likely to seek health services. The current study found that making four or more ANC visits was strongly related to women's age. Women under 30 were more likely to use ANC services than their older counterparts. Likely explanations are that younger women are more educated, have had fewer pregnancies, and perhaps have more information on health services.

An important finding in this study is that women's level of empowerment has a direct positive relationship with the use of maternal services. The likelihood of making at least four ANC visits and giving birth with SBA assistance increases with women's level of empowerment even after adjusting for other factors. A similar association between women's empowerment and health-seeking behavior was found in a study conducted in Ethiopia, where health-seeking behavior was more frequent among empowered women (Woldemicael and Tenkorang, 2010).

All five variables used in this analysis of NDHS data for analyzing empowerment—caste/ethnicity, place of residence, geographic area, wealth status, and number of living children—are relevant to the use of maternal health services. The effects of social stigma and untouchability, traditional practice of delivery, little access to health facilities or health workers, high number of living children, and low socioeconomic status may be observed among the groups of women who are less likely to give birth with SBA assistance.

Access to services in Terai is greater than in the other two ecological zones. The results show little difference in maternal service utilization by ecological zone, indicating the presence of other stronger factors in determining the use of maternal care. However, there is a great difference in use of maternal services by rural-urban residence. Rural women are less likely to use maternal services than urban women. Service utilization also is affected by women's empowerment level. Among women at moderate and low levels of empowerment, use of maternal services slow compared with highly empowered women.

The effect of violence can also be observed in the use of child health services. In Nepal, children born to women who have not experienced spousal violence are more likely to receive full immunization (more than the country target of 90 percent) compared with children born to women who have experienced spousal violence. This finding supports the results of two comparative studies, one which found that in six of nine countries women who had experienced spousal violence were less likely to have their children fully immunized (Kishor and Johnson, 2004), the other which found the same pattern in eight countries (Hindin et al., 2008). The latter study also found that in two countries, after controlling for background characteristics, children of women who had never experienced spousal violence had significantly higher odds of being fully immunized than children of women who had experienced spousal violence.

Only a handful of studies have examined the relationship of mother's experience of spousal violence with children's nutritional status. Studies carried out in India and in Latin American countries have found significant associations between women's experience of physical spousal violence and children's poor anthropometric status (Ackerson and Subramanian, 2008; Heaton and Forste, 2008). Additionally, the Hindin et al. study (2008) found that in eight of ten countries, women who had ever experienced spousal violence were more likely to have at least one child under five years of age who is stunted. The current study found that women who have not experienced spousal violence are less likely to have anemic children than women who have experienced violence. In addition, women's empowerment has positive health consequences for children, who are less likely to be anemic.

6.4 CONCLUSION

This study has succeeded in examining the relationship of women's empowerment and spousal violence to health outcomes. Women's empowerment and spousal violence are interrelated with service utilization and health outcomes. All of these variables are affected substantially by women's age, place of residence, region, number of living children, socioeconomic status, caste/ethnicity, and cultural practices. After controlling for these factors, an increase in the level of empowerment, however, does not necessarily lower the odds that a woman experienced spousal violence. The relation of women's empowerment to decreased or increased prevalence of spousal violence is context specific.

The study has not been able to establish whether women's empowerment is a cause or consequence of spousal violence, or whether the relationship works in both directions. This likely reflects a main limitation of cross-sectional surveys such as DHS, where the temporal sequence of these indicators cannot be established. Further studies are therefore recommended to generate evidence on women's empowerment, spousal violence, and their relation to health outcomes. Longitudinal social and anthropological studies, both qualitative and quantitative, are needed. Due consideration to the sensitivity of the issue is important while conducting such studies and implementing programs aimed to reduce violence against women and girls.

Despite its limitations, the study makes clear that both women's empowerment and spousal violence have important implications for women's health outcomes and service utilization. The study found that even after controlling for background characteristics, the odds of making four or more antenatal care visits, the recommended international standard, were significantly greater for highly empowered women. In addition, less

empowered women and women who had ever experienced spousal violence were more likely to have anemic children. Among children of women who had not experienced violence, the level of full child immunization was significantly higher than among women who had experienced spousal violence.

Linking women to community groups, such as mothers groups saving and credit groups, and further expanding their support base to women's and community networks are essential to amplify the voices of women, which can influence policy decisions in their favor. Programs that empower women must also work toward addressing the structural barriers such that the 'rules of the game' are changed. Specific interventions must reach women who are least empowered—that is, women with no education, women who are not members of any group, women who are in the religious minority, women in the Other Terai caste group ,and so forth. Strategically engaging men and boys in the process of women's empowerment to help reduce the incidence of gender-based violence, including spousal violence, is crucial for attaining gender equality. Overall, we find that positive health outcomes are associated with high levels of empowerment and the absence of spousal violence. Hence, a range of interventions that strengthen women's agency and ensure that women have access to livelihoods and assets are important not only for gender equality, but also likely to have substantially beneficial implications for the health of women and children in Nepal.

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