

# Chapter 6

## Gender-Based Inequities in Health in India

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**Abstract** The research synthesised in the present chapter shows that public health research in India has yet to integrate gender as central to the analysis of health inequities. Studies fall into two categories: those that have examined sex as one of the many risk factors for the health outcome being studied; and women-only studies of reproductive health that refer to the gendered nature of the risk factors. Studies show that there was greater mortality and morbidity among girl children as compared to boys, and that women experienced higher prevalence of morbidity and had generally lower utilisation of health care as compared to men. However, for the most part, not all girls or women were disadvantaged, but only those who simultaneously experienced other disadvantages such as lower caste or socio-economic position. Further, gender norms governing women's role in household decision-making, their freedom of movement and freedom to earn and spend money were significant factors affecting the health of women and their children, and especially their utilisation of maternal and child health care services. Very few studies examined the processes through which health inequities have been created and sustained. Further, studies mainly concentrated on proximate and intermediary factors with limited focus on upstream, macro-factors. Overall, the evidence merely confirms what we already know. Crucial areas of study remain unexplored and innovative methodological approaches are rarely adopted that can help generate the evidence necessary for identifying policy entry points or social action.

**Keywords** Gender inequities in health • Sex differentials in mortality  
Women's autonomy • Women's decision-making

### 6.1 Introduction

Gender as a relatively new entrant in the realm of health equity research emerged in the 1970s, following the second-wave feminist movement's critique of the scanty attention to women in health research except in relation to maternity. Attention to

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gender in health research originated as women-inclusive and women-centric health research. One of the first steps taken was to produce sex disaggregated data, which made it possible to observe male/female differences in health outcomes. The concepts of gender as introduced by social scientists featured explicitly in health equity research only after the 1990s (Greaves, 2001).

The formation in 1993 of the National Institute of Health's Office of Research on Women's Health led to the investment of substantive resources in women-centric health research and influencing health research not only within the USA but globally. The launching of an Institute of Gender and Health in 2000 as part of the Canadian Institutes of Health Research contributed to the development of conceptual frameworks and methodological approaches to examine how and in what ways both sex and gender influenced the health of women as well as men. The World Health Organization (WHO) brought out a gender policy in 2002, following which substantive work on gender-evidence-building has been carried out by WHO (World Health Organization [WHO], 2001, 2002, 2003).

Over the past decade or so, developments in the conceptualisation of gender have advanced in two major directions. One, the conceptualisation of gender has gone beyond the binary of male and female to acknowledge the existence of a gender continuum, and the many ways in which one's biologically assigned sex at birth may be at variance from the way one identifies oneself. And two, the treatment of women and men as homogenous groups has given way to the consideration of divisions by other axes of stratification within the groups of women and men.

Despite these conceptual developments, there is limited research from low- and middle-income countries which examine how gender, as an axis of social stratification or as a marker of social position, contributes to health inequities.

### ***6.1.1 Sex, Gender and Health***

*Gender* is used to denote the socially constructed norms, behaviours, activities, relationships and attributes that a given society considers appropriate for men and women whereas *sex* refers to the biological characteristics of a person, usually categorised as male and female based on internal reproductive organs, external genitalia, chromosomal and gonadal differences. Characteristics defining male and female genders vary from culture to culture and are contextual (WHO, 2002, 2015). Gender is also about the power relations between and among women, men, boys and girls (Muralidharan et al., 2015). Gender acts not only at the individual and household level but also at the level of social institutions such as the family, the school and health facilities. Currently, sex and gender are seen as entangled concepts with each acting independently or synergistically to affect health (Springer, Mager Stellman, & Jordan-Young, 2012).

### 6.1.1.1 Pathways Through Which Sex and Gender Influence Health

Biological differences between women and men result in differences in health risks, conditions and needs. There are conditions specific to women and to men; there are differences by sex in presenting symptoms, severity and prognosis of other health problems and conditions.

In addition to biological differences, there are gender-based differences. Concepts often used to unpack the pathways through which a person's gender may impact his or her health include: gender roles and norms; access to and control over resources and power; status and power; decision-making; agency and autonomy. These are not mutually exclusive concepts and there are considerable overlaps between some of them.

*Gender roles* are the tasks and activities that are socially assumed to be *men's work* and *women's work*. These gender-specific roles are reflected both in the types of employment available to women and men, and in the roles they play in the household. Gender roles may expose women and men to different sets of risk factors, for example women being more at risk of indoor air pollution from biofuels while men may be at risk of air pollution outdoors or in work-sites.

*Gender norms* refer to the social and cultural assumptions about the relative value of women and men in society, about what constitutes masculinity and femininity, about women and men's accepted roles and behaviour, their relative power and their rights. Such norms manifest not only in individual and community values and behaviour but in the way that institutions are structured, reflecting the social assumptions about the position and value of men and women in society. Gender norms affect vulnerability of women and men to ill-health and their health-seeking behaviour. Women's restricted mobility or men's reluctance to seek care are examples of gender norms and values that affect health-seeking behaviour.

*Access to and control over resources*: In most societies, women have lower access to and control over resources as compared to men. Resources are defined broadly to include information, decision-making, power, educational opportunities, time, income and other economic resources (such as land, the capacity to inherit, or credit), as well as internal resources (such as self-esteem and confidence). Access is having a resource at hand, while control is the ability to define and make binding decisions about the use of a resource. Women's lack of access to and control over resources affects their ability to remain healthy and to seek health care when they need it. More important than material resources is perhaps men's power to control key decisions affecting women's lives.

Although conceptually we separate out the health impact of sex differences from those of gender differences, most often the effects of *sex* and *gender* are intertwined and together contribute to avoidable morbidity and mortality on a large scale. For example, women's higher risk of depression is influenced by genetics and hormones, but gender plays a major role in magnifying the relative risk (World Health Organization [WHO], 2000). Similarly, women's longer life expectancy, a biological

factor, may underlie the higher burden of chronic and degenerative diseases among women, but women's lack of resources to care for themselves as they grow older contributes to the severity and poorer outcomes.

## **6.1.2 Recent Conceptual Advances**

### **6.1.2.1 Gender Identity and Gender Expressions**

In recent times, the term *gender* is more often used to refer to gender identity than to maleness and femaleness. Gender identity refers to "one's sense of oneself as male, female or transgender" (American Psychological Association [APA], 2011). A person usually identifies oneself as transgender or queer if his/her biological sex and gender identity are at variance. Those with atypical combinations of biological male and female features are identified as *intersex* persons. *Gender Expression* is about how people choose to express their gender identity in terms of what they wear, how they behave and other forms of presentation. Gender identity and gender expression are not the same. A person may identify as female and express herself in what is socially understood as expression of maleness.

Maleness and femaleness and masculinity and femininity are a continuum with individuals in a population located all along the continuum. Further, the congruence between biological sex and gender identity is no longer taken for granted, nor is it considered to remain static during one's life course. The work of Dvorsky on post-genderism takes the concept of gender even further. Gender will soon be seen as a dynamic and fluid characteristic with persons being able to assume different genders at different points in time with the help of technology bypassing biological, psychological and social gendering (Dvorsky & Hughes, 2008).

Individuals whose biological sex, gender identity and gender expression are not aligned encounter stigma and discrimination because they do not fit into the characteristics that they are assigned by society. Discrimination may assume forms which compromise their physical and mental health, and they also face barriers to healthcare services because of discrimination, provider antipathy and insensitivity and strict binary male and female segregation within programmes (Substance Abuse and Mental Health Services Administration [SAMHSA], 2012).

### **6.1.2.2 Intersectionality**

Intersectionality is another direction in which conceptual development in gender has advanced. Although the literature on gender almost always acknowledges that women and men are not homogenous groups and that the diversity among them needs attention, in practice the problems and concerns of marginalised groups of women gets subsumed within those of the dominant groups of women. Passing mentions are made of women from low-income and marginalised groups being

especially vulnerable, framing women as victims without agency and without any further attention to groups at a greater disadvantage.

The concept of *intersectionality* addresses this limitation of gender analysis tools. It starts from the premise that people have multiple identities and seeks to understand the ways in which patriarchy, class oppression, racism and other systems of discrimination create inequalities among women and men, placing some at a relative advantage or position of power as compared to the others (Association for Women's Rights in Development [AWID], 2004).

Using the intersectionality approach in health research cautions against assuming within-group homogeneity and failing to examine inequalities among women and men in health research. It also implies not assuming that power relations between men and women always favours men, and recognising that there may be situations where a subgroup of men (e.g. migrant, person with disability) are less privileged and powerless as compared to a different subgroup of women (e.g. local resident, able-bodied).

The next section summarises key findings from articles published during 2000–2014, which have examined sex or gender as a determinant of health.

## 6.2 Evidence on Sex and Gender-Based Health Inequities

We have organised the summary in terms of evidence on health status and on health-seeking behaviour, in turn categorised into mortality and morbidity; child and adult nutrition; and child and adult utilisation of preventive and curative health services.

### 6.2.1 *Sex/Gender and Health Status*

#### 6.2.1.1 Mortality

##### *Mortality in Children*

All-India data from the Sample Registration System has consistently reported higher female than male infant mortality rates and child death rates for several years since 2000. In 2013, the total, rural and urban female infant mortality rates were 42, 46 and 28 per 1000 live births respectively, as compared to male infant mortality rates of 39, 43 and 26 per 1000 live births (Registrar General of India [RGI], 2014). Sex differentials in child death rates are much wider in rural areas and disappear in the urban. The total, rural and urban death rates for children age 1–4 years for 2013 were 2.9, 3.5 and 0.6 for females and 1.9, 2.2 and 0.7 for males respectively (Registrar General of India [RGI], 2013).

These patterns from national data were also seen to hold from small-scale studies. A study using data from a Demographic and Health Surveillance System database in Haryana for the years 2002–05 found that death rates for boys (1–59 months) was 50.7 per 1000 as compared to 86.2 for girls. Cause-specific mortality rates of girls for prematurity, diarrhoea and malnutrition carried a relative risk of 1.52, 2.29 and 3.39, respectively compared to boys. Deaths from other infections were also higher among girls though not significantly. A greater proportion of deaths in girl children also tended to be unclassified. Causes of sex differentials in mortality were not studied (Krishnan, Ng, Kapoor, Pandav, & Byass, 2012). The only exception to these generally reported trends is from an analysis of NFHS 2 (1998–1999) data by Subramanian, which found that mortality risk was significantly higher among girl children only in the age group of 2–5 years and that there were no significant differences in the mortality risk among infants and older children (Subramanian et al., 2006).

### *Mortality in Adults*

The study by Subramanian using NFHS 2 data for 1998–99 had also considered age-wise mortality among adults. It showed significantly lower mortality risk among women of all age groups above 19 years as compared to men (Subramanian et al., 2006). Sex differentials in adult mortality were found among the more socially deprived groups and not among other groups, in a study using data from the Sixtieth Round of NSSO (2004). The average age at death was lower for Hindu *Dalit* and *Adivasi* women as compared to men from the same groups, by 4 and 6.5 years respectively. In contrast, the average age at death was higher for women as compared to men from the Muslim community and almost similar to men for women from Hindu OBC and other castes. Gaps in the average age at death within the group of women across caste groups were far wider. The average ages at death of *Dalit* and *Adivasi* women, at 39.5 and 40.0 years respectively, were nearly 15 years less than that for forward caste Hindu women (Borooah, Sabharwal, & Thorat, 2012).

Another study illustrates how gender roles may influence risk of mortality from specific causes. A study on deaths due to fire-related causes was based on data for 2001 from death registries—the medical certification of cause of death, survey of causes of death and the sample registration system. It was estimated that there were 1,63,000 fire-related deaths in 2001 of which 65% occurred in women and 57% of female deaths were in women between 15 and 34 years of age. Women in the 15–34 age groups were three times more likely to die of fire-related causes than men of the same age group, suggesting that women in this childbearing age group were particularly susceptible. The authors report that possible causes of fire-related deaths among them maybe kitchen accidents, self-immolation or homicide as a result of domestic violence (Sanghavi, Bhalla, & Das, 2009).

**Box 6.1 Summary of Differentials in Mortality**

- Female infant and child mortality was higher than male and has been consistently so since 2000.
- Female disadvantage in mortality disappears in older ages where male mortality exceeds that of female.
- This however is not true for all groups of women. The average age at death for Dalit and Adivasi women was lower than for their male counterparts, while the converse was true for other caste groups.
- Inequalities in mortality by caste among women were much wider than that between women and men.
- Young married women in the age group 15–34 years were at a much higher risk of deaths from burns as compared to men of the same age group, which may be the result of the disempowered status within their marital homes, of many young married women.

**6.2.1.2 Morbidity***Childhood Morbidity*

A study on childhood morbidity has documented sex differentials in prevalence of illnesses in children below 5 years of age. A survey carried out in rural West Bengal in 1998–99 found higher proportion of illness episodes in girls as compared to boys (0–5 years) overall and for several categories of illnesses. The study noted that of the 790 spells of illness recorded in a year, 380 (48.1%) occurred in boys and 410 (51.9%) in girls. Of diarrhoeal episodes, 188 (52.4%) and 171 (47.6%) occurred in boys and girls, respectively. Among these episodes, 52 (27.7%) in boys and 53 (31%) in girls resulted in dehydration. Of ARI episodes, 147 (46.4%) and 170 (53.6%) occurred in boys and girls, respectively. Among these, 14 (9.5%) and 16 (9.4%) episodes, respectively, in boys and girls were of pneumonia. A total of 114 fever episodes were recorded—45 (39.5%) in boys and 69 (60.5%) in girls (Pandey et al., 2002). The paper did not report on why these illnesses were greater among girl children.

*Adult Morbidity*

As in the case of child morbidity, studies examining sex differentials in adult morbidity are also sparse. A 2014 study compares morbidity data for men and women from the Sixtieth Round of National Sample Survey conducted in 2004. Morbidity is measured as the proportion of ailing persons (PAPs) per 1000 population in the 15 days before the survey. The PAP was higher for women (97 per 1000) than for men (86 per 1000). Higher female than male morbidity had also been

reported in the Fifty second Round of NSSO in 1995–96. All states of India except Gujarat, Orissa and Uttaranchal reported higher female than male morbidity in 2004 (Meenakshi, 2014).

A study using WHO Study on Global Ageing and Adult Health in India (SAGE study) of 2007 from six states in India showed that women were at significantly higher risk of reporting poor health as compared to men (RR 1.66, 95% CI 1.430–1.927) after adjusting for socio-economic and demographic characteristics. Prevalence of self-reported disability among women under 60 years of age was twice that among men (Bora & Saikia, 2015). Another study using the SAGE data base found a greater prevalence of hypertension (adults aged 18 and above) among women (26%) compared to men (23%). While urban men had a significantly higher prevalence as compared to rural men, there was no significant rural–urban difference in hypertension among women. For both sexes, hypertension prevalence was higher among the least poor as compared to the poor. About a half of hypertensive women and 70% of hypertensive men were undetected and it was shown that diagnosis was greater among women (Moser, Agrawal, Davey Smith, & Ebrahim, 2014). Higher female than male adult morbidity was also found in a study based on data from the India Human Development Surveys (IHDHS) of 2004–05 and 2011–12 (Saikia, Moradhvaj, & Bora, 2016).

Patterns seen in adult morbidity are also similar for the elderly. Roy and Chaudhury (2008) used NSSO data from 1996 to 1997 to examine sex and gender differences in self-rated health, functional limitations and the presence of disabling or chronic conditions in women and men aged 60 or above. A significantly greater proportion of older women reported worse self-rated health than older men (21.4% vs. 17.1%), functional limitations (11.3% vs. 9.8%), and symptomatic disabling conditions (41% vs. 36.9%). There were no sex differences in the reported presence of chronic conditions. Differentials in health status persisted even after controlling for socio-economic variables such as education and income. However, when other indicators such as property ownership and economic independence were considered, it was found that financially empowered older women may enjoy equal or better health than men in a similar situation (Roy & Chaudhuri, 2008).

Another study based on secondary data from 2006 to 2007 collected from Vadu, rural India, as part of the *INDEPTH-WHO SAGE* study, found that health scores based on self-reported health was better for men age 50 and above than for women of the same age group. Decomposition analysis showed that around 64% of the difference in scores could not be explained by age, education level, marital status, living arrangement and household wealth quintile. According to the authors, gender discrimination may be among factors accounting for the remaining gap (Ng et al., 2010).

The only exception to the consistent pattern of higher female morbidity is from a study (2011–12) among rural elderly (age 60 years and above) in Odisha. This study reported that the odds of prevalence of multi-morbidity were 40–60% higher for males than for females, but the difference was not statistically significant (Banjare & Pradhan, 2014).



## ***6.2.2 Gender as a Risk Factor for Women's Sexual and Reproductive Health Conditions***

Many studies illustrate the role of gender in rendering women vulnerable to sexual and reproductive health problems. These range from lack of information and a sense of shame over their bodies, to male control over women's sexuality and reproduction, and intimate partner violence against women.

Women's socialisation to be ashamed of their bodies and their lack of information about even its basic functions such as menstruation is demonstrated by a qualitative study among young women from a Delhi slum. There was a veil of silence around discussing menstruation. Young girls were not taught about menstruation and were expected to figure it out for themselves. They were not aware of its significance to fertility thereby making them ill-equipped to handle unwanted pregnancy and predisposing them to infections because of inability to maintain good hygiene. Indian girls showed later sexual maturation but were married off early and were pushed into early sexual activity and fertility. Space constraints and taboos surrounding menstruation also made menstrual hygiene difficult to practice and exposed women to adverse health impacts (Garg, Sharma, & Sahay, 2001).

### **6.2.2.1 HIV**

Several studies have shown that for many women, being married to a man with multiple partners was an important risk factor for HIV (Srikanth et al., 1997; Jacob, John, George, Rao, & Babu, 1995). A Chennai-based study by Thomas et al. (2009) found that more than 50% of 100 women in the study had been married before they were 18 years of age and 65% of them (as compared to only 10% of the men in the study) were tested because their spouses tested positive. Of the women (54%) who had refused to have sex with their husbands, a majority (60%) met with violence from their husbands (Thomas, Chandra, Selvi, Suriyanarayanan, & Swaminathan, 2009).

Sexual violence by spouses as a potential route to HIV infection among women is suggested by the above study. Two other studies reiterate the same possibility. A study analysing a sub-sample of 28,139 women covered by the National Family Health Survey-3 (2005–06) reported that prevalence of HIV was much higher among married Indian women experiencing physical as well as sexual violence (0.73%) as compared to women who did not experience any violence (0.19%) (Silverman, Decker, Saggurti, Balaiah, & Raj, 2008). HIV-positive women in a study from Pune were twice as likely as women who were HIV negative to have ever experienced any violence (OR 2.55, 95% CI 1.25–5.22,  $p = 0.05$ ), and more than five times as likely to have ever experienced sexual violence by their intimate partner (OR = 5.61, 95% CI 1.66–20.85,  $p = 0.001$ ) (Patrikar, Verma, Bhatti, & Shatabdi, 2012).

Sexual violence is also implicated in HIV infection among female sex workers who had been trafficked. In a study of HIV-positive female sex workers, Silverman et al. (2011) found that more than 40% had been trafficked and coerced into sex

work. In their first month of initiation into sex work, trafficked female sex workers had experienced much higher levels of sexual violence, higher numbers of clients per day and non-use of condoms (Silverman et al., 2011).

### **6.2.2.2 Unwanted Pregnancy**

Non-consensual sex, ranging from compulsion to outright sexual violence, was found to be one of the main reasons for unwanted pregnancy among women, according to two studies from rural Tamil Nadu. Both the studies covered the same geographical area at two points in time over a decade apart, and observed that not much had changed in the role of gender-power inequalities within marriage in causing an unwanted pregnancy. Both studies showed that lack of male responsibility for contraception, husbands' interference with their wives' contraceptive use, and women's routine experience of non-consensual sexual intercourse within marriage underlay many induced abortions. Women undergoing induced abortion were not usually asserting their reproductive rights. They were merely finding a way out of an impossible situation that resulted from their lack of sexual rights within marriage (Sri & Ravindran, 2015).

### **6.2.2.3 Reproductive/Genito-Urinary Tract Infections**

In a study from Kerala using NFHS-2 (1998–99) data, women who had experienced physical or sexual abuse by the partner and women who justified intimate partner violence on any pretext were respectively 1.9 times and 1.2 times more likely to report symptoms of a reproductive tract infection (Sudha, Morrison, & Zhu, 2007).

Lack of health information because of being female was compounded by other axes of deprivation such as belonging to a socially and economically under-developed state and/or to a socially marginalised indigenous community to render women more susceptible to infections of the genito-urinary tract. In Jharkhand, a study based on NFHS-2 data found that prevalence of urinary tract infections was 28% among indigenous or tribal women as compared to only 17% among non-indigenous women. Indigenous as well as non-indigenous women had not heard of HIV/AIDS and also lacked access to any kind of media, cutting them off from information and rendering them more susceptible to sexually transmitted infections (Agrawal & Agrawal, 2010).

A study by Jose and Navaneetham pointed out that not having access to toilet facilities predisposed women to undernutrition (Jose & Navaneetham, 2010). However, it may also be that lack of toilet facilities led women to wait till late in the evening to relieve themselves, and made them prone to many resultant health problems like urinary tract infections, which become a unique problem of women.

A cohort study from Goa illustrates complex interaction between mental health and reproductive morbidity in women, both of which were related to gender-based inequalities. The study showed that 6.6% of women suffered from common mental

disorders (CMD). Anxiety-depressive disorder was found to be commonest followed by mild depression and moderate and severe depression. Women who had relatively less education and income or were migrants or in debt or experienced hunger had increased odds of CMD. The risk for CMDs was significantly higher among those who had experienced gender-based disadvantages like relationship issues with husband or in-laws, being married as an adolescent, divorced or separated and having low social support from family and community. Various gynaecological complaints and menstrual complaints were significantly associated with CMDs but reproductive tract infections as diagnosed through laboratory investigations was not significantly associated with CMD. The authors therefore propose that non-specific gynaecological symptoms maybe somatic manifestations of CMD. The hypothesis that CMDs may manifest as non-specific gynaecological symptoms needs to be examined through further studies, though it runs the risk of women's gynaecological symptoms being trivialised as psychosomatic (Patel et al., 2006).

These studies illustrate that limited autonomy and lack of access to resources and to decision-making influences women's sexual and reproductive health. Paradoxically, *empowered* women may also suffer from greater morbidity in some circumstances. A study of women from low-income settlements in Mumbai found that non-pregnant *empowered* women who had greater mobility, control over resources and increased information about services had higher odds of reporting more general health problems. In contrast, empowered women who were pregnant reported lower prevalence of morbidity. The authors explain this paradox as being the consequence of the high value placed on children in Indian society which confers greater power on women in ways that will ensure good birth outcome (Davis et al., 2014).

### **Box 6.2 Summary of Differentials in Morbidity**

- Girl children under 5 years of age suffer from a higher prevalence of morbidity than boys of the same age group.
- Adult and elderly women suffer from higher prevalence of morbidity than men of the same age groups. The reasons for these differentials have not been explored.
- Gender mediates women's health in many ways. Underlying many common sexual and reproductive health problems is women's gender role socialisation to be embarrassed about their bodies and to not seek information about reproduction and sexuality.
- Gender-power inequalities in marriage play a critical role in women's vulnerability to HIV infection and to unwanted pregnancy, and other reproductive health conditions.
- At times, women's feeling of helplessness within their marital homes places them at risk of Common Mental Disorders.

#### 6.2.2.4 Nutrition

##### *Child Nutritional Status*

Child nutrition was assessed in terms of anthropometric indicators—weight for age, height for age and weight for height to indicate acute, chronic and combined acute and chronic malnutrition. The intake of nutritious meals by children and duration of breastfeeding were used to assess discrimination, if any, in food intake.

Gender-power equality within the household, manifested as the extent of autonomy enjoyed by the mother, was found to be a significant determinant of infant-feeding practices and nutritional status of children, as per a micro-study carried out in Andhra Pradesh (Shroff et al., 2011). In other words, nutritional status of children of mothers who enjoyed greater autonomy was likely to be better than children of other mothers.

The lower prevalence of exclusive breastfeeding of female infants as compared to male has been reported from all three rounds of the National Family Health Surveys, 1992–93, 1998–99 and 2005–06. Based on a detailed econometric analysis, Jayachandran and Kuziemko (2015) argue that the reason for this observed sex-differential may not be explicit discrimination. A woman who has borne a female child may be keen on getting pregnant again to try for a male off-spring and may discontinue breastfeeding in order to be able to conceive. The study shows that at any birth order, a male child was more likely to be breastfed than a female child and that girl children with female siblings were likely to be breastfed for a much shorter duration than others.

We now turn to gender gaps in child nutritional status. Evidence from national surveys suggests that the gender gap in nutritional status to the disadvantage of the girl child was significant in the 1980s. Between the early 1990s and 2005–06, the gap slightly widened and then narrowed again or even disappeared. Smaller scale studies covering the period before mid 1990s have noted the presence of significant sex differentials disadvantaging the female child. For example, Desai's (1994) extensive review of literature had found a higher prevalence of undernutrition among girls as compared to boys in the under-five age group. Another study based on NCAER data (1993–1994) of 4000 children across all states reported neglect of female children in terms of nutritional value of food intake by children under 5 (Borooah, 2004), while another, based on NFHS-1 in 1992–93 reported a slight advantage in nutritional status in favour of girls. The study also found that during the period of rapid and sustained economic growth in India between NFHS-1 and NFHS-2 (1992–93 and 1997–98), nutritional status of children under 5 improved substantially, but the improvement was faster for boys than for girls (Tarozzi & Mahajan, 2005). In 2005–06, no significant sex differentials in child nutritional status (0–5 years) were found in studies based on the National Family Health Survey-3 data for 2005–06 (Mazumdar, 2010; Tiwari, 2013; Mukherjee, 2014).

Findings from micro-studies in the 2000s are however, equivocal. Some have found significant differences by sex, with underweight, stunting and wasting more common among girls than boys in the age group 0–59 months (Dey & Chaudhuri, 2008), while others have reported a slight advantage for girls in stunting (Biswas, Bose, & Koziel, 2011). Yet another micro-study of school-age children (6–16 years) found a greater proportion of boys than girls to be underweight and stunted (Sen & Mondal 2012).

While the averages may not show sex differentials, many studies confirm that specific sub-groups of girls are significantly more likely to be undernourished as compared to boys. For example, girls of higher birth orders were at a disadvantage as compared to their male counterparts. A higher proportion of 1–5-year girls than boys were underweight when the older sibling was a girl, in a study using NFHS-3 data in eight Indian states that have reached replacement level fertility. In other words, the second girl child in the family was potentially more likely to face discrimination. The second boy child in the family also faced a higher risk of being underweight, but not to the same extent as girls. The author explains that with decline in fertility and sustained son preference, inequity is intensified, and may be called the *intensification effect* (Mukherjee, 2014).

Other studies have reported that not only girls of higher birth order, but those from households with low per capita income; those belonging to disadvantaged caste groups or with parents of low educational status were more likely to be undernourished than boys (Dey & Chaudhuri, 2008).

Substantial regional differences within India in the nature and extent of sex differentials in child nutritional status have been reported from other studies. Borooah (2004) reported based on data for 1993–94 that gender differentials co-existed with regional differences, and children from Central and Eastern parts of India were the most disadvantaged (Borooah, 2004). During the period of rapid and sustained economic growth in India between NFHS-1 and NFHS-2 (1992–93 and 1997–98), improvement in nutritional status was faster for boys than for girls especially in the rural areas of Northern and Eastern states of India. In the Southern states and in urban areas the improvements were more gender equal (Tarozzi and Mahajan, 2005). Regional differences appear to have persisted over time, and while NFHS-3 (2005–06) did not find gender differentials in child nutritional status overall, a significant disadvantage by gender was observed in the states of Uttar Pradesh, Madhya Pradesh, Orissa, Bihar and Andhra Pradesh (Tiwari, 2013).

Gender often acted in conjunction with other disadvantages to influence child nutritional status (Barooah, 2004; Mukhopadhyay, 2015), and the relationship persisted over time. Borooah (2004) showed for 1993–94 that only 2% of the inequalities in child nutrition may be explained by gender-based differences while the remaining 98% was accounted for by differences in maternal literacy, caste/religion and region. This was confirmed by a study using NFHS-3 data for 2005–06, which found that economic advantage had a significantly greater impact

on child nutritional status than the combined disadvantages of caste and gender. In other words, non-poor children enjoyed better nutritional status than the poor, irrespective of caste and gender. With increasing poverty, girls began to be disadvantaged (Mukhopadhyay, 2015).

### *Adult Nutritional Status*

Gender differentials in adult nutritional status have been assessed using proportion of women and men below the normal Body Mass Index (BMI), and comparing food consumption patterns of women and men. Most studies have focused exclusively on women, and sought to find associations between women's nutritional status and their autonomy or decision-making power. A few studies have assessed the impact of interventions to address some of the gender-related barriers to adequate food consumption and better nutrition among women.

According to a study based on NFHS-3 data for 2005–06, gender-based differentials in adult nutritional status was found only in a small number of states (Tiwari, 2013). Interestingly, the northern states of Punjab, Rajasthan and UP along with Kerala in the South showed better nutrition among women than men. However, better nutrition was not accompanied by equality in consumption of food of higher nutritional value, and there were significant disparities favouring men in the consumption of milk, pulses, fruits, eggs, fish and meat in the same states (UP, Punjab and Rajasthan).

Inequalities in nutritional status within the group of women based on their access to social infrastructure have been observed by a study based on NFHS-3 data. Women from households with the combined presence of sanitation facilities and use of clean fuel were 53% more likely to be of *normal* nutritional status as compared to those who did not have access to these. The authors' explanations of these findings is that use of biofuels and fetching water from long distances reinforces traditional gender roles and predisposes women to chronic energy deficiency (Jose & Navaneetham, 2010). The type of family in which a woman lived—nuclear, joint with or without in-laws—may make a difference to the autonomy a woman may have for decision-making. However, no association was found between women's BMI and the type of family in which they lived, in a study using NFHS-2 data for 1998–99 (Saikia & Bhat, 2008).

Micro-nutrient deficiencies such as anaemia affected a large proportion of women, and were associated with women's status indicators. UNICEF in 1990 had noted 50–70 and 40–50% anaemia among women in rural and urban India, respectively (Desai, 1994). A study, which examined national data sets from the NSSO, found that the proportion of literate women in a population was negatively associated with the prevalence of anaemia, suggesting a link between women's social position and their nutritional status (Tarique & Samreen, 2014).

A small number of studies have explored the nature of gender biases within households and communities that impact women's food intake and nutritional status. Baseline data collected following community reflection meetings of a nutritional intervention project in Uttar Pradesh showed that in many households, women ate last, ate whatever was left over after the others had eaten and did not eat at all if there was no more food remaining. The take-home rations given to pregnant women from the Integrated Child Development Services (ICDS) centres were shared by all members of the family. Labour force participation of women was not valued and was regarded as light work or as no work at all. This resulted in less allocation of food resources for the woman. On delivering a girl child, women were often deprived of nutritious food. Pregnant women were given limited food also because of cultural beliefs that for an easy delivery, the woman must do hard physical work during pregnancy and eat less (Neogy, 2010).

In an intervention studying the effects of the work of community health workers in Chhattisgarh, three levels of impediment to accessing nutrition by women for themselves and their children was noticed—flaws in the programme, community practices and norms and household level restrictions. The *Mitanins* (community health workers) were able to address these issues through advocacy, monitoring the implementation of programmes and challenging traditional food practices by acquiring adequate information for themselves (Nandi, 2012).

### **Box 6.3 Summary of Differentials in Nutritional Status**

- Sex differentials in childhood (0–5 years) nutritional status were not generalised but restricted to specific groups of children with multiple disadvantages such as being of higher birth order and a second female child in the family, belonging to low-income or the SC/ST communities. Disparities by sex narrowed or disappeared with improved economic status of households. There is some indication that.
- Adult women did not fare worse than their male counterparts in terms of Body Mass Index. Despite the absence of evidence on female disadvantage in nutritional status, qualitative studies have documented overwork and discrimination in allocation of food to women within the household, especially to women who enjoyed a lower level of autonomy.
- Access to social infrastructure (water supply and sanitation, clean fuel) and educational status contributed to within-group inequalities among women in nutritional status.

## 6.2.3 Sex/Gender and Healthcare Utilisation

### 6.2.3.1 Utilisation of Preventive Health Care

#### *Immunisation in Children*

Studies that have looked into preventive healthcare utilisation and gender disparities have all been in terms of child immunisation alone as this is the major service offered by the health system as a means to reduce childhood mortality.

Lower rates of immunisation for girls as compared to boys are reported from numerous studies analysing data from three National Family Health Surveys carried out in 2005–06, 1998–99 and 1992–93 (Corsi et al., 2009; Mathew, 2012; Mukherjee, 2014; Singh, 2012; Mahapatro, 2012; Pande & Yazbeck, 2003; Gaudin & Yazbeck, 2006). Corsi et al. (2009) trace the trends in immunisation and inequalities from NFHS 1 to 3, i.e. 1992 to 2006. Over the years, although coverage by vaccination had increased for all vaccines for boys and girls, sex differentials to the disadvantage of girls persisted at all three time periods. However, the differentials had not increased over time. The gap was greater for DPT and Measles vaccination than OPV, perhaps because of the intensive programme efforts towards universal coverage with OPV, and especially the active outreach (Corsi et al., 2009). A systematic review, which included other large-scale surveys such as UNICEF (2009–10 and 2005), MoHFW survey in 2001–02 and ICMR survey in 1999, confirm the female disadvantage in immunisation (Mathew, 2012).

A smaller scale study carried out almost 10 years after NFHS-3 showed that the gaps in immunisation still exist. The study conducted in rural UP in 2013–14 found that the percentage of fully immunised children was significantly higher among boys (54.4%) as compared to girls (44.8%), while the percentage of partially immunised was higher among girls (21.3%) than boys (19.5%) (Ahuja, Rajpurohit, & Ahuja, 2014).

Borooah (2004) reported, based on data from a national survey (1993–94), that gender gaps in immunisation were compounded by disadvantages by maternal literacy status, region of residence and caste status of the household. Decomposition analysis revealed that 83% of the gap in immunisation was due to the fact that boys and girls were treated differently (Borooah, 2004). Birth order of the child was also an axis of disadvantage. Girls of higher birth order had the least immunisation coverage in 2005–06 (Corsi et al., 2009). Even in states with replacement level of fertility, second-order girls born after a boy or a girl were more disadvantaged than second-order boys (Mukherjee, 2014).

Policy interventions that are intended to improve the status of the girl child may not in themselves be able to bridge the gaps in immunisation coverage. A study from Haryana reported that schemes such as the *Apni Beti Apna Dhan* (ABAD) and *Ladli* scheme did not result in steeper improvements in the immunisation of girls as compared to boys to bridge the gap (Krishnan, Amarchand, Byass, Pandav, & Ng, 2014). An earlier study based on national data reported that the presence of an



*anganwadi* or a midwife in the village only improved immunisation status of boys but not that of girls (Borooah, 2004).

Studies have observed a positive relationship between women's autonomy and their use of preventive and curative care for their children (Mahapatro, 2012; Shroff et al., 2011). Whether daughters of empowered women would be less likely to face disadvantages in receiving immunisation is not explored.

### *Preventive Healthcare Utilisation in Women*

Evidence on utilisation of preventive health care is focused exclusively on women, and pertains to contraceptive services and maternal healthcare services including antenatal, delivery and postnatal care. In this section, we have synthesised studies that illustrate how gender-power relations within the household and community influence women's access to and utilisation of contraceptive and maternal healthcare services.

### *Contraceptive Services*

Utilisation of contraceptive services has been one of the more exhaustively studied domains in preventive healthcare utilisation by women. Although male use of contraception could have been studied as a comparison to contraceptive use by women, the literature focuses exclusively on women. This is probably the result of policies that have combined maternal and child health care with family planning or contraceptive services, and targeting women alone.

All studies confirm the association between women's status and use of contraception. Women who enjoyed a better status within the household and the community were more likely to use a modern method of contraception. The likelihood of contraceptive use increased with age, duration of marriage, years of schooling, remunerated work and exposure to mass media (Kumar, Fuloria, & Taunk, 2012; Chacko, 2001; Dwivedi & Sogarwal, 2008; Saikia & Singh, 2009). In addition to these individual characteristics, caste and ethnicity played a role in contraceptive prevalence, and women belonging to Scheduled Caste and to Scheduled Tribe<sup>1</sup> communities had lower contraceptive prevalence as compared to their non-tribal counterparts (Agrawal & Agrawal, 2010; Kumar, Fuloria, & Taunk, 2012).

Women with greater autonomy as measured by the power they enjoyed for making decisions within the household were also more likely to use a modern method of contraception. The level of autonomy is often assessed based on questions asked in the National Family Health Survey on women's decision-making on everyday household matters; about their own health care; about major expenditures and women's ability to move around as they wished without having to ask for permission from the husband or members of the marital family. A study based on

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<sup>1</sup>A note on terminologies is in order here. While we would prefer to use the terms Dalit and Adivasi, and have done so when we are referring to these population groups, where we cite data from published sources, we have maintained the terminologies used by the authors of the study. Thus in almost all places where studies are cited, the terms SC and ST, or as is often the case, SC/ST is used.

national data from NFHS-2 (1998–99) found that financial and physical autonomy was a predictor of modern contraceptive use, but household decision-making autonomy was not (Dwivedi & Sogarwal, 2008). The crucial role of women's autonomy is illustrated by an intervention study in two blocks of Jharkhand. The intervention aimed to increase women's autonomy through, among other things, outreach visits that addressed gender-power dynamics within the household. The intervention led to an increase in women's decision-making regarding use of earning and mobility and also an increase in their met need for contraception (Leon, Lundgren, Sinai, Sinha, & Jennigs, 2014).

Contraceptive use was influenced by whether the settings in which women lived enhanced or restricted autonomy. Saikia and Singh (2009) found, in their analysis of NFHS-2 data that women who lived in nuclear families were more likely to report use of modern contraception as compared to those who lived in joint families, with or without their in-laws. A small-scale study from rural Madhya Pradesh (2005) reveals a slight nuance. While mothers-in-law controlled decisions related to how many children a woman ought to have before she adopted sterilisation and also on the timing of sterilisation, decisions related to use of temporary methods were made by the couples themselves (Char, Saavala, & Kulmala, 2010).

Intimate partner violence is another major gendered determinant of women's use of modern contraception. A study based on data from NFHS 2 and its follow-up survey in 2002–03 in Bihar, Jharkhand, Maharashtra and Tamil Nadu reported that women who had experience of intimate partner violence had restrictions to access contraception and lacked sexual and reproductive health decision-making. Consequently they also reported a higher number of unwanted pregnancies (Stephenson, Koenig, Acharya, Roy, & Koenig, 2011). A qualitative study by Wilson-Williams revealed that women had restricted mobility, autonomy and their sexuality was controlled by husbands and mothers-in-law. When they were perceived to be breaking these roles, domestic violence ensued, which restricted contraceptive use and led to unwanted pregnancies, abortions, miscarriages, STI/HIV and other gynaecological morbidities. At times women resorted to covert use of contraception which triggered domestic violence and led to discontinuation of contraceptive use (Wilson-Williams, Stephenson, Juvekar, & Andes, 2008).

India is among countries known for its pervasive son preference across all sections of society. Studies have found that in India, strong preference for sons drives women's contraceptive practices. In a cross-sectional study in one village of rural West Bengal, women who had two sons opted for permanent sterilisation whereas women with one son tended to use temporary contraception. Women with only one or two daughters tended not to use any method of contraception (Dey Pal & Chaudhuri, 2009). More recent data from NFHS-3 also showed that women with more sons than daughters were more likely to use contraceptives (Dwivedi & Sogarwal, 2008). Son preference was inversely associated with women's educational status: women with greater than primary education had weaker son preference as compared to women with no education or education up to primary level (Pande & Astone, 2007).

Studies that report that use of contraception is associated with specific indicators of autonomy seem to suggest that contraceptive users are necessarily women with agency and decision-making power. However, Pande et al. (2011) point out that contraceptive use may not mean that a woman is empowered or has achieved her desired fertility status. A woman who is restricted from making sexual choices and communicating regarding her sexual needs is deprived of sexual agency and thereby is disempowered. Women without sexual agency may use contraceptives to prevent unwanted pregnancy, but this is not empowering for the woman as she is still at risk of coercive sex and STI/HIV transmission from her partner (Pande, Falle, Rathod, Edmeades, & Krishnan, 2011).

### *Maternal Healthcare (Antenatal, Delivery and Postnatal) Services*

The second most commonly studied aspect of healthcare utilisation by women is maternal health services—antenatal, delivery and postpartum/postnatal health services.

Utilisation of pregnancy-related services is also associated with women's status indicators such as education and wealth (Munuswamy, Nakamura, Seino, & Kizuk, 2014). Women who belonged to SC/ST communities were also less likely to be receiving antenatal care. For example, in Jharkhand, NFHS-2 data (1998–99) showed that no antenatal care was received by 73.7% of women from Scheduled Tribes as compared to 37.3% among non-tribal women. (Agrawal & Agrawal, 2010). From a national survey conducted in 1993–94 it was seen that the proportion of Scheduled Caste women in India who did not receive prenatal care was 26.2% compared to 14.7% in higher caste Hindu women, while women from Scheduled Tribes and *Other Backward Caste* Muslims had even higher proportion of women not receiving prenatal care. The proportion of SC, ST and Muslim women in India who did not receive postnatal care was 36.5, 43.7 and 36.4% respectively, while it was only 26.7% among higher caste Hindu women (Borooh et al., 2012).

Several studies illustrate the effect on utilisation of maternal health care of women's autonomy and decision-making power within a household, or the absence of these as indicated by indices of deprivation, gender-based inequalities or son preference. Mistry et al. (2009) use indicators of women's autonomy from the National Family Health Survey-2 (1998–99) and find that different dimensions of autonomy influenced different dimensions of maternal health care. Postnatal care seeking was most affected by women's autonomy, and was associated with all three dimensions of autonomy i.e. decision-making, mobility and finance. Delivery by trained professionals was solely influenced by financial autonomy and not the other domains of women's autonomy. The relationship between women's autonomy and utilisation of maternal health care was consistent in Southern states of India. Availability of and coverage by healthcare services also significantly enhanced utilisation of maternal health care (Mistry, Galal, & Lu, 2009).

Differential influence of different dimensions of autonomy with use of maternal health care was also found by a study using data from NFHS-3. This study found that mobility of the woman increased the likelihood of receiving prenatal care but had no effect on the probability of having an institutional delivery. Here again,

village level factors like its development indicated by income from non-agricultural sources and electrification of the village, increases overall maternal health care (Self & Grabowski, 2012).

Another study using data from NFHS-3 (2005–06) reported that women who have the authority to be sole decision-makers in their households were more likely to use maternal health services (Mahapatro, 2012). Women living in nuclear households were also more likely to utilise antenatal care in the first trimester of pregnancy and seek delivery care from an institution or from trained professionals. Women living in nuclear families are perhaps more able to be the sole decision-making authorities in their households, which may explain this relationship (Saikia & Singh, 2009).

According to a study from Madhya Pradesh, a woman had a higher chance of receiving antenatal care if she had a good quality relationship with in-laws and her husband, and a higher likelihood of institutional deliveries if her relationship with her husband was good. Most of the effect of the quality of marital relationship on use of maternal health care was the result of gains in women's agency or decision-making power. In other words, when a woman has good and amicable relationship with her in-laws and her husband, this enhances her position of power and decision-making within her household and influences positively her use of maternal healthcare services (Allendorf, 2010).

Son preference not only compromised women's reproductive choices and contraceptive use, but may also influence the household's investment on a woman's prenatal care. Self and Grabowski using data from NFHS-3 establish that having sons reduced the probability of a woman receiving antenatal care, while when she had only daughters, she was more likely to receive prenatal care (Self & Grabowski, 2012).

Gender-power inequalities within a household often results in lower educational investment on the girl child, resulting in low educational status of women and their limited capacity and skills for being employed and earning an income. Differential allocation of food within the household and an increased workload may contribute to nutritional deprivation and low BMI in women. Mohanty (2012) used NFHS-3 data to examine the result of economic deprivation, educational deprivation and health deprivation on the use of antenatal, delivery and postnatal services and found that women with multiple deprivations were less likely to receive any of these maternal health services as compared to those with fewer deprivations or none. State-wise analysis showed that the gap between women with multiple deprivations and no deprivation was highest in states where service coverage was low and lowest where service coverage was high. In other words, better availability of healthcare services could compensate for the material deprivations to some extent (Mohanty, 2012).

When faced with external threats like experience of physical violence during their pregnancy, women were less likely to receive any prenatal care, prenatal care from a health worker or receive it only in the third trimester (Koski, Stephenson, & Koenig, 2011). Violence from intimate partners is also associated with abuse from in-laws. Exposure to such abuse increases risk of complications and reduces receipt of maternal health care.

In contrast to observations from most studies, a study using NFHS-3 data found that having reduced education or income than her husband increased receipt of antenatal care by a woman (Namasivayam, Osuorah, Syed, Antai, & Diddy, 2012). The authors suggest that gender inequities within the household may have different manifestations and outcomes in different social settings and that further research is needed to capture these diversities.

#### **Box 6.4 Summary of Differentials in Utilisation of Preventive Health Care**

- Girls were less likely to receive complete immunisation as compared to boys and the gender gap in immunisation coverage has persisted at least since the 1990s.
- Women's use of contraceptive services is positively associated with their status and level of autonomy, and negatively associated with less decision-making ability; son preference and experience of intimate partner violence.
- Women's autonomy was most associated with receiving postnatal care and least associated with skilled attendance at delivery. Women's autonomy and their status acted in conjunction with availability of healthcare services and level of economic development of the setting to facilitate use of maternal healthcare services. While autonomy acted positively, son preference acted negatively. Women with a living son(s) were less likely to receive antenatal care than women with a living daughter(s). Women experiencing intimate partner violence were also less likely to use maternal health care, especially prenatal care.

### **6.2.3.2 Utilisation of Curative Healthcare**

#### *Children*

Sex differentials in healthcare seeking for childhood illness appear to be driven by son preference, reports an analysis based on NFHS-3 data (2005–06) for eight states of India with replacement level fertility. The study found that the odds of receiving medical treatment were lower for second-born girls as compared to only daughters, and even lower when second-born girls were compared with second-born boys (Mukherjee, 2014). In a survey conducted in rural West Bengal among 530 children under 5 years of age, boys with an illness were 2.6 times more likely than girls to receive qualified medical attention, 4.9 times more likely to be taken to a medical facility or professional within 12 h of onset of symptoms, 4.2 times more likely to have an amount greater than Rs. 30/- spent for medical attention. As the father's

income increased this differential treatment between boys and girls tended to decrease (Pandey et al., 2002). The presence of son preference perhaps directed the use of scarce resources towards the male child whereas when resources were plentiful, they were more equitably distributed.

Mothers were less likely to report incidence of illness among their newborn daughters as compared to sons, according to a prospective study of 255 mothers in rural Uttar Pradesh. Health care was sought for both sons and daughters, but newborn girls were taken to cheaper public health facilities while newborn boys were taken to private (including unqualified) healthcare providers who were perceived to provide better quality care. The household spent almost fourfold more on average for the newborn male child (Rs. 243.3 ± 537.2) compared to a newborn female child (Rs. 65.7 ± 100.7) ( $p = 0.07$ ) (Willis et al., 2009).

The consequences of differential investment by sex on health care could be fatal. Girls of age 1 day through 9 years were found to be 1.7% less likely than their male counterparts to die in a hospital. The study based on NSSO data for 1995–96 further showed that infant girls with female siblings were least likely to receive medical help before they died (Asfaw, Klasen, & Lamanna, 2007). Moreover, households were much more likely to use onerous financing strategies such as borrowing, sale of assets and help from friends and relatives for hospitalisation of boys than for hospitalisation of girls. These gender gaps were exacerbated as one moved from the richest to the poorest households (Asfaw, Lamanna, & Klasen, 2010).

### *Adults*

Sex differentials presumably driven by gender-power inequalities were reported in expenditure on health care for adult women and men according to a study based on panel data from two national surveys. While adult women experienced greater morbidity, they had significantly lower average healthcare expenditure than men. The gap in healthcare expenditure between women and men increased between 2004–05 and 2011–12, from INR 1298 to INR 4172. The female disadvantage in healthcare expenditure was found across all socio-economic categories, but was more pronounced in the lower wealth quintiles. Decomposition analysis showed that more than half the difference could not be explained by male–female differences in demographic, socio-economic and healthcare related factors. They existed because female health had not been considered as important as male health (Saikia et al., 2016).

Again, in a study among cancer patients in rural Odisha visiting a tertiary hospital for treatment, the difference in cumulative expenditure for male and female patients was Rs. 32,446 with Rs. 83,626 spent on females and Rs. 116,073 spent on males (Batra, Gupta, & Mukhopadhyay, 2014).

As in the case of children, gender acted alongside other axes of vulnerability. For example, discrimination against women in healthcare expenditure in rural Odisha tended to increase with increase in the age of women. While the difference in cumulative expenditure on health care between males and females was around Rs. 16,185 at the age of 40, the difference at the median age of 50 was Rs. 20,232. Women living in joint families too had less spent on them. Women who came to the

tertiary health centre were also more unhealthy than men when they first visited it. It is possible that elderly women had less control over money or savings and younger women were better tended to, since their good health was needed for looking after children (Batra et al., 2014). National data from NSSO 1999–2000 and 2007–08 confirm that healthcare expenditure on older women (age 60 and above) was significantly lower than that for older men. In 1999–2000, out of the total health expenditure on the elderly, 91.2% was spent on men and only 8.8% was spent on women. In 2007–08, women's share had increased by 6%, but the gap remained huge (Maharana & Ladusingh, 2014).

The combined influence of gender with class is illustrated more vividly in an interesting study conducted at Koppal in Karnataka. The study examined the intersections of class and gender in receiving health entitlements like beginning and continuing treatment. Different middle groups like poor men, non-poor women and poorest men were studied to see how different they were from the extreme groups. The study showed that the poorest, poor and non-poor men—all had statistically similar treatment likelihoods, proposing that men have ability to leverage their gender to compensate for poverty. For non-poor women, lack of acknowledgement of their illness prevented them from starting treatment, showing how internalised gender norms trumped economic advantages. For continuation of treatment, it was seen that among poor households, if heads were male they could leverage that to continue treatment but not female heads. If the non-poor woman was an income earner, she was more likely to discontinue treatment than a non-earner. In poorer households, there seemed to be no difference in treatment discontinuation rates among men and women. The amount spent each month on treatment was similar among women of non-poor households and men of poorer households. Women from non-poor households also did not have the means to mobilise resources externally to continue treatment and so ended up bearing other social burdens such as working for longer hours or cutting down on spending for food to be able to pay for treatment (Sen & Iyer, 2012).

### 6.2.3.3 Gender Factors Influencing Utilisation of Gynaecological Care

Women who justified intimate partner violence on any pretext were less likely than other women to seek treatment for reproductive tract infections (Sudha et al., 2007). A 77% increase in the prevalence of reported intimate partner violence was found between NFHS-2 in 1998–1999 and a follow-up study in 2002–2003. Women who justified violence perpetrated by their intimate partner was 49% (Bourey, Stephenson, & Hindin, 2013). As both studies are based on NFHS 2, it can be inferred that with such a large proportion of women experiencing intimate partner violence, their health care suffers not just by the injuries and trauma inflicted but by restrictions on accessing care for their symptoms of RTI.

Healthcare seeking for gynaecological problems was constrained by women's lack of access to financial resources and decision-making power, and by gender norms which result in socialisation of women to be embarrassed to speak about their reproductive organs. In a study of rural women of Tamil Nadu, it was found



that the average time between the first symptom of a prolapse and its reporting was 12.3 years. Most of the women developed the prolapse following early resumption of heavy labour after delivery and trauma caused by physical violence from husbands. This further inhibited them from doing hard work and made difficult sexual intercourse. These women had restrictions to seek healthcare due to reluctance to talk about such a symptom, cost and time associated with surgery and unwillingness of husband to send them for treatment (Ravindran, Savitri, & Bhavani, 1999).

#### **Box 6.5 Summary of Differentials in Utilisation of Curative Health Care**

- Gender-based differentials were found in treatment seeking for illness. Treatment was delayed, a closer source of health care was consulted and less money was spent on girls who were ill as compared to boys.
- The cumulative expenditure on medical care for women was found to be lower than that for men. Gender-based disadvantages played an important role in whether or not treatment was sought for gynaecological problems. The disadvantages included experience of intimate partner violence and embarrassment to articulate and seek help for reproductive health problems.
- Although poverty is an important determinant of health, gender may play a more deciding role in a person's ability to start and continue treatment for a health problem, with poor men being able to leverage their gender to compensate for poverty. Not looking at the intersection of class and caste with gender would result in assuming that all belonging to the poor or Dalit/Adivasi groups suffered the same disadvantages and also to ignoring the disadvantages experienced by some non-poor women.

## **6.3 A Critical Synthesis of Evidence**

### ***6.3.1 Pathways to Gender-Based Inequities in Health***

The review provides unequivocal evidence on the existence of sex differentials in child mortality, morbidity, nutritional status and utilisation of health care, disadvantaging girls and women across all age groups. Studies also show that gender norms governing women's role in household decision-making, their freedom of movement and freedom to earn and spend money are significant factors affecting the health of women and their children, and especially their utilisation of maternal and child healthcare services. Gender norms prevalent in society restrict young women's access to information on matters related to sexuality and reproduction.



Women internalise the constant social suggestions and reinforcements that they are less important than men. Due to this internalisation many women believe that it is alright for men to hit their wives in some circumstances (Bourey et al., 2013; Wilson-Williams et al., 2008) and everyday violence against women by their intimate partners gets normalised. Women's vulnerability to unwanted pregnancy because of sexual violence or restriction from contraceptive use; to reproductive tract infections and to HIV is rooted in these realities.

These findings are not new. They point to the persistence of long-standing sex differentials in health and the health impact of gender-based oppression of women into the twenty-first century.

What emerges as significant is the understanding that gender operates in conjunction with other forms of oppression or disadvantages. Sex differentials between girls and boys, women and men were found across the entire population only for some health indicators such as mortality and specific morbidities. For the most part, not all girls or women were disadvantaged, but only those who simultaneously experienced other disadvantages. These intersections were indicated in two studies that simultaneously examined more than one axis of disadvantage. For example, not all girls, but girls whose mothers were illiterate and who lived in economically less developed Indian states were more likely to be poorly fed and experience nutritional disadvantages (Borooh, 2004). In another example, although on average older women (above 60 years) had poorer self-rated health, higher prevalence of disabilities and lower utilisation of healthcare services as compared to older men, these disadvantages disappeared and even reversed among older women who owned property and were financially independent (Roy & Chaudhuri, 2008). Neither of these studies were, however, *intersectionality-informed* (vide Chap. 2), in that they did not set out to systematically examine social locations resulting from the intersection of multiple axes of oppression/privilege. Interesting insights are offered by the only two studies in this review which explicitly adopted an intersectionality lens.

In an examination of sex differentials in stunting by wealth status and caste across different states of India, Mukhopadhyay (2015) found that sex differentials in stunting disappeared among wealthier households, and among households of castes other than SC/ST. In other words, wealth and caste/ethnicity are more dominant axes of disadvantage than sex, based on all India data. On the other hand, Sen and Iyer's (2012) study showed gender to dominate over class in terms of access to health care. Their study on access to health care by poorest, poor and non-poor women and men found that gender-based advantages enjoyed by men made up for their class-based disadvantages, so that there was not a significant difference in initiating health care across different classes of men. Non-poor women, although doing better than poor and poorest women, were less likely to initiate treatment as compared to non-poor men, although their health conditions had persisted for a long period. Gender-role socialisation into believing oneself to be less-entitled may have contributed to such behaviour. Mukhopadhyay (2015) also reported variations between North and South Indian states in the case of severe stunting (as compared to any stunting). In the South, Gender < Wealth < Caste, while in the North, Gender < Caste < Wealth for severe stunting in children. What these two studies

indicate is the context-specific nature of the interactions across different axes of oppression, resulting in the dominance of a specific axis for a particular group in a particular situation at a given point in time.

From the literature reviewed, we discerned three main themes emerging: son preference, intimate partner violence and women's autonomy as the pathways through which gender-power inequalities impact on the health of women and children. We discuss each of these below.

### 6.3.1.1 Son Preference

Many studies have identified *son preference* as the pathway to sex differentials in health status and access to health care. Son preference refers to an attitude pervasive in patriarchal societies conferring more value on sons as compared to daughters. In India, sons are important sources of old-age support, and deemed necessary for the continuance of the family line and for performing death-related rituals for parents. Daughters may represent a drain on the family resources because of the dowry-system and social expectations that daughters should be provided for by parents and brothers even after marriage (Clark, 2000). Son preference is usually measured as the ratio of the ideal number of sons desired by women to the ideal number of children desired by them.

Son preference was deemed to be the underlying cause of lower levels of immunisation among girls as compared to boys in studies based on data from three rounds of National Family Health Surveys (Pande & Yazbeck, 2003; Corsi et al., 2009; Mukherjee, 2014). Son preference was also held responsible for the disproportionate improvements in nutritional status in favour of boys, during a period of significant economic growth (1992–93 to 1998–99) in the country (Tarozzi & Mahajan, 2005). While there was no longer an observable sex-differential in stunting by 2005–06, the effort of households in low-fertility states to limit the number of children and yet have at least one son resulted in the neglect of specific groups of girls: girls of higher birth order who had older female siblings were significantly more likely to be stunted than higher order boys with older male or female siblings (Mukherjee, 2014). Son preference also influenced contraceptive use. A woman with no sons or with an only son, was much less likely to use a modern method of contraception (Chacko, 2001; Dey Pal & Chaudhuri, 2009) and women who already had one or more sons were less likely to utilise prenatal care because the household would rather divert the resources to the care of living sons (Self & Grabowski, 2012). Studies have also found that South Indian states tended to have narrower gaps in nutritional and immunisation status as compared to North and East Indian states and have attributed it to weaker son preference in South India (Corsi et al., 2009; Tarozzi & Mahajan, 2005).

With one exception, none of the reviewed studies measured son preference but used proxies such as number of living sons, or sex composition of children, and inferred the presence of son preference based on observed outcomes such as significant gaps in immunisation in girls as compared to boys, or non-use of

contraception. Only one study (Mukherjee, 2014) addressed itself to whether son preference intensifies or weakens with fertility transition. The author suggests that the small family norm may be transforming son preference into daughter aversion, because of the need to balance the desire for small families with that for at least one son. It appears that specific categories of girls become *most unwanted* while specific categories of boys become *most wanted*, and this is reflected in their relative nutritional and immunisation status.

What would be the way out of son preference? A study in the early 2000s analysing NFHS data for 1992–93 showed that increasing wealth and economic development did not reduce son preference, but that improvements in women’s education at the individual as well as the community and state level significantly reduced son preference. Media exposure was also significantly associated with weaker son preference (Pande & Astone, 2007). Data for 2005–06 showed that son preference had persisted, and contributed to increased vulnerability of specific categories of *unwanted daughters*.

Is son preference one of the drivers of female excess mortality in infancy and childhood, a rare phenomenon observed only in a few countries across the globe? Many studies imply that this may be the case. The evidence we have is from quantitative studies which are at best able to confirm the association of son preference with negative health indicators for girls and women. We are unable to flesh out *son preference* in terms of observed everyday manifestations of preferential treatment severe enough to compromise the health and well-being of girls. Without such knowledge, it would be difficult to identify ways to intervene to prevent the potentially fatal consequences of son preference.

### **6.3.1.2 Intimate Partner Violence**

Intimate partner violence and especially sexual violence emerges as an important mediator for sexual and reproductive health problems in women. Women were prevented from using contraception under threat of violence, experienced unwanted pregnancy, were at a high risk of infections of the urinary-genital tract and HIV (Stephenson et al., 2011; Wilson-Williams et al., 2008; Sri & Ravindran, 2015; Thomas et al., 2009; Silverman et al., 2008, 2011; Patrikar et al., 2012). Several of these were qualitative studies which traced the links between intimate partner violence and the health outcome, rather than quantitative cross-sectional studies showing associations.

### **6.3.1.3 Women’s Autonomy and Empowerment**

A recurring theme in a large number of papers is the role of women’s autonomy and/or empowerment in determining health and access to health care of women and their children. Autonomy as the control women have over their own lives, in terms equal voice, control over material and other resources, access to knowledge and

information, the authority to make independent decisions and freedom from constraints on physical mobility (Jejeebhoy & Sathar, 2001) Autonomy appears to be a state of being, while empowerment is conceived as a process of removing the factors that cause situation of powerlessness. In the words of Kabeer (2001), empowerment is “the expansion in people’s ability to make strategic life choices in a context where this ability was previously denied to them.” However, in the studies reviewed, the terms autonomy and empowerment were often used interchangeably.

Evidence from the review shows that the absence of autonomy in one or more of the spheres of household decision-making, mobility and finance; or low level of empowerment restricted a woman’s access to antenatal care, institutional delivery, professional assistance at birth and postnatal care and could limit her access to contraception. The converse was true for women with autonomy or for empowered women (Mistry et al., 2009; Namasivayam et al., 2012; Mahapatro, 2012; Davis et al., 2014; Self & Grabowski, 2012; Chacko, 2001; Dey Pal & Chaudhuri, 2009; Leon et al., 2014; Dwivedi & Sogarwal, 2008). The positive influence of women’s autonomy extended to their off-spring. Women with greater autonomy were found to adopt better infant-feeding practices as compared to less autonomous women, and were also more likely to ensure immunisation of their children (Shroff et al., 2011; Mahapatro, 2012). Women living in nuclear households, and by implication, with greater decision-making power, had higher levels of utilisation of antenatal care and institutional delivery, and even enjoyed better nutritional status (Saikia & Singh, 2009).

The meaning of this body of evidence and its implications for effecting change on the ground is unclear for many reasons, some related to the measurement of autonomy and others, to its conceptualisation.

In terms of measurement of autonomy, almost all studies use one or more of three key dimensions taken in various combinations—(i) Decision-making within the household including economic decisions, (ii) Physical mobility, (iii) Economic independence. Within each dimension, there are different variables, and there are variations across studies in the set of variables chosen under each dimension. For example, decision-making autonomy is usually about buying everyday items for the household and decisions related to children including taking a sick child to a health centre, but some studies also include purchases for self and making decisions related to one’s own health. Economic or financial autonomy includes having cash on hand and being able to retain one’s own earnings, while some studies also enquire into decision-making regarding one’s own employment. So even when two studies arrive at the same conclusion about the influence of physical mobility or economic independence on a given health outcome, they may not mean the same things.

Second, each dimension of autonomy is measured as a simple sum of a series of dichotomous variables scored as 1 if the response is positive and 0 if negative. All variables within a dimension are given the same weightage, which may or may not be valid. None of the studies have accounted for the measurement errors within the variables used to measure different dimensions of autonomy (Agarwala & Lynch, 2006). These limitations can affect the strength of association between a health

outcome and a dimension of autonomy, and in effect, lead to erroneous conclusions on the role of financial or mobility autonomy on health.

In addition to these definitional and measurement issues, there are some conceptual issues as well. A major gap in the conceptualization of autonomy is that none of the studies included sexual and reproductive decision-making as a dimension of women's autonomy, even though it is well accepted that control over women's sexual and reproductive decision-making is at the heart of gender-based power inequalities. Sexual and reproductive autonomy is a separate and crucial dimension of women's autonomy, and women with financial autonomy may still not enjoy sexual or reproductive autonomy (Pande et al., 2011).

The use of a uniform set of indicators within each dimension of autonomy is problematic, because what represents autonomy may vary by social location of women even within the same community. For example, while freedom of movement may be the result of empowerment for middle class or middle caste women who are expected to be in *pardah* (veil), this may not be so for poorer women from Dalit and Adivasi communities who are compelled to work for other communities because of their caste and/or economic status.

It is assumed that increased autonomy and empowerment always predict positive health outcomes. This may not be so. In the words of Davis, et al. (2014), "where choice, voice, agency and income conflict with social and cultural norms of patriarchal societies" (p. 11), empowered and autonomous women may experience considerable stress, resulting in poor health outcomes. Contextual factors and policy measures that affect and influence women's autonomy are important to factor-in, but have not been explored in these studies. For example, gender-transformative policies could facilitate the process of leveraging resources and power by empowered women, through reservation of seats in local government, providing land and house deeds in women's names and so on. Although some studies identified regional differences in women's autonomy between the North and the South of India, they did not unpack the reasons for these differences in terms of differences across states in positive policy measures, economic development and differences in cultural and social norms.

### **6.3.2 What We Still Do Not Know**

Public health research in India has yet to integrate gender as central to the analysis of health inequities. *Most of the studies reviewed have examined sex and not gender*, as one of the many *risk factors* for the health outcome being studied. None go beyond the male/female binary to examine other gender identities and expressions, or even look at the spectrum of traditionally male or female roles adopted by individual women and men across the life cycle and under varying circumstances. Only a handful of studies adopt an intersectionality lens. Barring a few studies comparing women's vulnerability to HIV with that of men, studies that refer to the gendered nature of the risk factors, are women-only studies of women's

reproductive health. Reproductive health including contraception appears to have been conceived by researchers exclusively as a woman's issue, and men are conspicuous by their absence as study participants.

Studies reporting sex differentials in health status or health-seeking behaviour have seldom addressed the reasons for the observed differences. The lack of evidence on reasons underlying sex differentials in health is in some part related to the fact that most studies have used quantitative data, and have measured the extent of the gaps, the relative odds of illness, poor nutrition or healthcare seeking by sex and factors associated with the observed patterns in health status and healthcare seeking.

As a consequence, we do not yet have explanations for higher female than male adult morbidity; and higher female than male mortality in infancy and childhood. There is no specific policy focus on addressing these gaps, either. While there are many policy interventions to improve the health and well-being of the girl child, these do not seem to have reached girl children from economically and socially disadvantaged groups. We need more evidence on whether the reason is faulty design arising from an inadequate understanding of the root causes; or poor implementation of a well-designed policy; or a combination of the two.

There exist conceptual tools such as the gender analysis matrix (WHO, 2011) to examine the pathways through which female or male status translates into positive or negative health outcomes. For example, gender roles and norms; gender-based division of labour; lower access to and control over resources and decision-making; and lower power and voice—are some of the mechanisms which individually or in some combination influence women's health outcomes. The literature reviewed has not used these tools. It has focused on only one aspect—autonomy or decision-making, and used it in a rather mechanistic manner, through quantitative studies focused on measuring and establishing associations. There were only a handful of qualitative or mixed method studies documenting the processes through which health inequities are created. There is urgent need for studying the role of *power inequalities* in shaping the health experiences of boys and girls, men and women in various social locations (by gender, class, caste, age, geographic location, etc.).

Various factors at proximate, intermediate and distal levels are associated with gender-based differentials in health. However, the evidence mainly concentrates on proximate and intermediary factors with limited focus on upstream, macro-factors. For example, the presence of a robust health system would facilitate women's utilisation of health services. A small number of studies that have examined the gendered consequences of poorly designed, poorly functioning and poorly governed health systems are discussed in Chap. 8. Our observation is that literature on gendered aspects of health systems looks only at maternal health services, rendering invisible other healthcare needs through the life cycle. Studies on whether and how policies impact differentially on health by gender are also limited. State provisions for child care, food subsidies and maternity leave for employed women are all impacting factors on women's healthcare choices. The aggressive push for the two-child norm to achieve the national goal of Total Fertility Rate (TFR) of 2.1 may be resulting in intensified neglect of a higher birth-order girl child.

Macro-economic changes in India have resulted in spiralling food prices, insecure jobs, withdrawal from the labour market of women from the upper and middle economic groups and increase in the labour market participation of their poorer counterparts (vide Chap. 1). It is worth exploring whether the increased risk of domestic violence among employed women (Audinarayana, 1997; Chacko, 2001; Char, Saavala, & Kulmala, 2010; Dwivedi & Sogarwal, 2008; Mistry et al., 2009; Wilson-Williams et al., 2008) is related to these larger changes. What is the net result of the contradictory effects of remunerated employment (autonomy on the one hand and increased IPV on the other) on women's health?

To conclude, the evidence base merely confirms what we already know. Crucial areas of study remain unexplored and innovative methodological approaches are rarely adopted that can help generate the evidence necessary for identifying policy entry points or social action. It is time to break out of this impasse.

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