

Child marriage, adolescent pregnancy and school dropout in South Asia



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Contents

Acknowledgements	v
Foreword	1
Executive Summary	2
1. Introduction	8
2. Literature review	10
3. Goals and conceptual framework	20
4. Methods	22
5. Results	25
6. Conclusions and recommendations	47
References	51
Annexes	55

Figures and Tables

Figure 1. Conceptual framework representing the relationships between schooling, child marriage and pregnancy for adolescent girls in South Asia	21
Figure 2. Educational attainment by five-year age cohort (girls), Pakistan (2013) and Bangladesh (2014)	27
Figure 3. Child marriage by five-year age cohort (girls), Pakistan (2013) and Bangladesh (2014)	28
Figure 4. Adolescent pregnancy by five-year age cohort, Pakistan (2013) and Bangladesh (2014)	28
Figure 5. Child marriage and educational attainment for women aged 20–24 by child marriage status, Pakistan (2013) and Bangladesh (2014)	29
Figure 6. Educational attainment by five-year age cohort (girls), Pakistan (2013) and Afghanistan (2015)	30
Figure 7. Child marriage by five-year age cohort (girls), Pakistan (2013) and Afghanistan (2015)	30
Figure 8. Adolescent pregnancy by five-year age cohort, Pakistan (2013) and Afghanistan (2015)	31
Figure 9. Child marriage and educational attainment for women aged 20–24 by child marriage status, Pakistan (2013) and Afghanistan (2015)	31
Figure 10. Educational attainment by five-year age cohort (girls), Nepal (2016) and Bangladesh (2014)	32
Figure 11. Child marriage by five-year age cohort (girls), Nepal (2016) and Bangladesh (2014)	33
Figure 12. Adolescent pregnancy by five-year age cohort, Nepal (2016) and Bangladesh (2014)	34
Figure 13. Child marriage and educational attainment for women aged 20–24 by child marriage status, Nepal (2016) and Bangladesh (2014)	35
Figure 14. Educational attainment by five-year age cohort (girls and boys), India (2016)	35
Figure 15. Child marriage (girls) and adolescent pregnancy by five-year age cohort, India (2016)	36
Figure 16. Child marriage and educational attainment for women in age groups 20–24 and 25–29 by child marriage status, India (2016)	37
Figure 17. Prevalence of child marriage by socio-economic status, Nepal (2016), India (2016) and Pakistan (2013)	38
Figure 18. Prevalence of adolescent childbearing by socio-economic status, Nepal (2016), India (2016) and Pakistan (2013)	39
Figure 19. Prevalence of child marriage (girls) and adolescent childbearing by socio-economic status, Bangladesh (2014)	39
Figure 20. Prevalence of child marriage (girls) and adolescent childbearing by socio-economic status, Afghanistan (2015)	40
Figure 21. Prevalence of child marriage (girls) and adolescent childbearing by urban-rural residence, Afghanistan (2015)	40
Figure 22. Prevalence of child marriage (girls) and adolescent childbearing by urban-rural residence, Bangladesh (2014)	41
Figure 23. Educational attainment for boys and girls by socio-economic status, Afghanistan (2015)	41
Figure 24. Educational attainment for boys and girls by socio-economic status, Pakistan (2013)	42
Figure 25. Educational attainment for boys and girls by urban-rural residence, Afghanistan (2015)	43
Figure 26. Educational attainment for boys and girls by urban-rural residence, Pakistan (2013)	43
Figure 27. Educational attainment for boys and girls by socio-economic status, Bangladesh (2014)	44
Figure 28. Educational attainment for boys and girls by socio-economic status, Nepal (2016)	44
Figure 29. Educational attainment for boys and girls by socio-economic status, India (2016)	45
Table 1. Data availability and DHS datasets used	23
Table 2. Operationalization of primary and secondary school completion by country	24



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Foreword

In South Asia, significant progress has been made in expanding access to education. Similarly, progress in eliminating child marriage has accelerated in the last decade, but major barriers remain. Moreover, the pace of progress is still slower than needed to reach the Sustainable Development Goals of Education and Gender Equality by 2030.

More education is generally associated with later marriage and later childbearing; however, the magnitude of that association varies across diverse contexts, including in the different countries of the South Asia region.

To obtain a clearer understanding of these relationships, the UNICEF Regional Office for South Asia is happy to partner with the Population Council on this important study, *Child marriage, adolescent pregnancy and school dropout in South Asia*.

The report explores important questions on how child marriage affects attendance of adolescent girls, especially in secondary school. It looks at the contributing factors that hinder adolescents' school attendance after marriage and pregnancy or childbirth, the extent to which the effect of child marriage varies by geographic, socio-economic, ethnic and religious factors, and how adolescent pregnancy affects secondary school attendance.

This report gives a multi-country descriptive analysis of the interrelationships between child marriage, adolescent pregnancy and educational attainment in South Asia, presenting analysis from five countries – Afghanistan, Bangladesh, India, Nepal and Pakistan – utilizing the most recently available data.

'Every child learns' and 'End child marriage' are two of UNICEF South Asia's committed priorities to achieve the regional headline results for children. As these priorities are closely linked, the report findings and guidance are positioned synergistically to help build convergence among various programmes and cross-cutting themes to explore inclusive approaches in achieving the best results for every child in the region.

I hope this report will contribute in expanding the knowledge base and narrowing the evidence gap. I have no doubt that it will assist UNICEF country offices and partners, including governments, international organizations and civil society actors, in their policy dialogue, advocacy and programming for Education, especially girls' secondary education, and ending child marriage.

Jean Gough

Regional Director
UNICEF Regional Office for South Asia (ROSA)



Executive Summary

Globally, more than a third of women aged 20–24 in 2012 were married before the age of 18, while half of all child brides live in South Asia.

Despite global progress in expanding access to education and delaying adolescent marriage and childbearing, important barriers remain. Globally, more than a third of women aged 20–24 in 2012 were married before the age of 18, while half of all child brides live in South Asia. UNICEF estimates indicate that progress in eliminating child marriage has accelerated in the last decade, especially in South Asia, but the pace of progress is still slower than needed to reach the Sustainable Development Goal of eliminating child marriage by 2030.

Further, approximately 150 out of 1,000 births are to adolescent girls aged 15–18 globally. Yet the majority of adolescent pregnancies in developing countries are to girls

who are married. In South Asia, adolescent childbearing outside of marriage is believed to be rare, although cultural norms often prevent researchers from collecting data on this issue. Alongside the continuing challenges of child marriage and adolescent childbearing, a higher proportion of adolescent girls are in school than ever before. As more girls enter and stay in school, especially in contexts where child marriage is common, the conflict between school, marriage and childbearing becomes more acute.

The UNICEF Regional Office for South Asia commissioned the Population Council to conduct a review of the literature and analyses of cross-sectional Demographic and

Health Survey (DHS) data to understand more clearly the relationships between child marriage, adolescent childbearing and education in the South Asia region.

Literature review and conceptual framework

Across diverse contexts, research shows that, on average, more education is associated with later marriage and later childbearing, including in South Asia. However, the magnitude of that association varies, indicating that other factors, such as social norms around marriage and girls' schooling, contribute to these decisions.

Child marriage is most common among poor families in many South Asian countries, for whom it may be a household strategy to cope with economic insecurity, particularly when school fees or transportation costs are high. Dowry contributes to pressure for young girls to marry because the price increases as girls get older and is higher for more educated husbands.

Therefore, the contribution of education to improving marriage prospects for girls may only be relevant for families who can afford the higher dowry necessary for more educated grooms. Even then, social norms may act as more powerful forces. There is some evidence in the scientific literature that parents' support for child marriage and adolescent childbearing in South Asia is malleable and may be evolving.

Policymakers and practitioners point to the strong correlations between educational attainment and age of marriage and childbearing in diverse settings as evidence of a causal relationship. However, despite theories about the effect of marriage on educational attainment, vice versa, and correlations between these events, there are important challenges in estimating this relationship accurately because both educational attainment and the timing of marriage and childbearing are likely driven by the same underlying factors. Therefore, it cannot be concluded, based on the strong association between education and marriage or childbearing alone, that policies or programmes to delay these events will lead to improved educational attainment, or that education policies

and programmes will lead to delayed marriage or childbearing.

A conceptual framework was developed in this analysis, based on the existing literature, representing the relationships between schooling, marriage and pregnancy for adolescent girls in South Asia. Rather than characterizing the timing of marriage and school dropout as independent decisions that occur sequentially, they are presented as closely related, and part of a joint decision-making process. A set of shared underlying factors, including poverty, cultural and gender norms, and perceived returns to girls' schooling (including both learning outcomes and employment opportunities), feed into the joint decision-making process about marriage and schooling.

Given the shared underlying causes of child marriage, adolescent pregnancy and school dropout, and the incompatibility of marriage, motherhood and schooling, seeking to isolate the relationship between school dropout on the one hand and marriage and pregnancy on the other is not only challenging, but may not be the most important policy question. Rather, the more important question may be how to address the underlying factors that affect this joint decision-making process for families, such as poverty, in order to delay marriage and childbearing and to extend schooling.

This report gives a multi-country descriptive analysis of the interrelationships between child marriage, adolescent pregnancy and educational attainment in the South Asia region, presenting analysis from five countries – Afghanistan, Bangladesh, India, Nepal and Pakistan – utilizing the most recently available data from the Demographic and Health Survey in each country. The analyses are limited to countries in which DHS data have been collected since 2010 to ensure comparability.

The report presents comparative analyses by country pairs, showing similar or contrasting patterns, multivariate regression analyses for selected countries, and highlights some empirical challenges in isolating a causal relationship between education, marriage and childbearing.

Child marriage is most common among poor families in many South Asian countries, for whom it may be a household strategy to cope with economic insecurity, particularly when school fees or transportation costs are high.

Results

Comparative descriptive analysis

Three sets of country comparisons are presented to illustrate the diversity of contexts in South Asia: 1) Pakistan and Bangladesh, 2) Pakistan and Afghanistan, and 3) Bangladesh and Nepal. Results from the recently released National Family Health Survey (NFHS), 2015–2016, for India are also presented.

Pakistan and Bangladesh

Pakistan and Bangladesh have starkly distinct profiles in educational attainment, child marriage and adolescent childbearing despite similar religious and socio-economic profiles. Educational enrolment and attainment are much higher for girls in Bangladesh, particularly at the primary level, than in Pakistan, where a third of girls have never enrolled in school. School enrolment is nearly universal for girls at the primary level in Bangladesh and nearly half of girls attend some secondary school.

Despite relatively better outcomes in schooling compared to Pakistan, particularly in primary school completion, Bangladesh has a considerably higher prevalence of child marriage and, as a result, adolescent childbearing, than Pakistan. School dropout is more intimately tied to marriage outcomes in Bangladesh than in Pakistan, where an overwhelming majority of girls who married before the age of 18 had never enrolled in school.

Pakistan and Afghanistan

The educational attainment profiles of both Afghanistan and Pakistan are characterized by an overwhelming majority of girls, even in the youngest cohorts, who have never enrolled in school. Child marriage and adolescent

childbearing are prevalent at high levels in Afghanistan and Pakistan, with Afghanistan faring worse in both child marriage and adolescent pregnancy outcomes.

Irrespective of whether girls were married before or after the age of 18, an overwhelming majority of girls in Afghanistan, and to some extent in Pakistan, is excluded from the formal schooling system. As a result, the association between child marriage and education, including secondary school, is weak due to other important underlying factors at play.

Nepal and Bangladesh

Despite significant gains in education in Nepal and Bangladesh, child marriage and adolescent pregnancy remain highly prevalent. Both countries have strong primary school enrolment and completion levels for girls, and, unlike in Pakistan and Afghanistan, only a very small proportion of women reported never attending school. Challenges are observed for both countries in dropout during secondary school, particularly in Bangladesh.

Girls in Nepal and Bangladesh faced the highest levels of child marriage and adolescent childbearing in the South Asia region. The association between educational attainment, particularly secondary school completion, and child marriage is evident for both Nepal and Bangladesh. Girls who married after the age of 18 in both countries had remarkably high secondary completion rates.

India

The recently released National Family Health Survey 2015–2016 provides an update for the situation of child marriage, adolescent pregnancy and educational attainment. The

results show that India has made major headway in improving educational attainment outcomes for boys and girls with significant strides in improving primary school completion, but still faces challenges in the transition of girls from primary to secondary school.

Child marriage and adolescent pregnancy persist at high levels despite declines over the last decade. The association between educational attainment, particularly secondary school completion, and child marriage is evident for India, as it was for Nepal and Bangladesh.

Socio-economic status and urban-rural residence

The report also looks at the extent to which child marriage, adolescent childbearing and educational attainment vary by socio-economic status and urban-rural residence within countries.

Child marriage and adolescent childbearing

Marked differences are evident in the prevalence of child marriage and adolescent childbearing by socio-economic status in Pakistan, Nepal and India. The differences in levels of prevalence of child marriage and adolescent childbearing between socio-economic groups are less distinguishable for Bangladesh and virtually indistinguishable for Afghanistan, with overall levels high across the socio-economic spectrum. This indicates a relatively weaker role of socio-economic status and the potentially stronger roles of social, cultural or religious norms in the persistence of these practices.

Differences by urban and rural residence do not feature significantly in the outcomes for child marriage and adolescent childbearing and are almost indistinguishable in countries such as Bangladesh and Afghanistan, indicating that social, cultural and religious practices may transcend the urban-rural divide.

Educational attainment

There are significant disparities in educational attainment outcomes by socio-economic status with marked disadvantages for girls. These are particularly evident in the outcomes for girls in Pakistan, India, Nepal and Bangladesh. Whereas the differences in Pakistan and Afghanistan

manifest in the proportions of girls who have never attended school, in Nepal, India and Bangladesh, differences are evident on the outcome of secondary school completion. In all cases, a vast gap between the richest and the poorest segments of the population is evident. Urban-rural differences are less pronounced in these countries, although disparities do exist.

Multivariate analyses

The multivariate analyses utilize logistic regression models that focus on the relationship between school completion at the primary and secondary level and child marriage. These models use data on cohorts of women aged 20 to 24 in Bangladesh and Pakistan to illustrate the differences between the two contexts.

The multivariate analyses indicate that there is a negative and highly statistically significant relationship between child marriage and the likelihood of a girl completing primary and secondary school, meaning a girl who married



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This report shows that in many South Asian settings, rather than decisions about schooling, marriage and childbearing occurring sequentially, it is more likely that these decisions are made jointly.

before the age of 18 has significantly lower odds of completing primary school and secondary school. There was a stronger negative relationship for Bangladesh.

For primary schooling, the nature of the relationship changes drastically in both countries upon the introduction of socio-economic status to the model, but the introduction of age and urban-rural status is observed to affect the relationship minimally and inconsistently. For secondary schooling, although the magnitude of the association did not change, it remained highly statistically significant.

Both in Bangladesh and Pakistan, additional shared underlying factors, such as poverty, cultural and social norms, and religion, among others, which are not accounted for in these models, may explain a large proportion of the relationship between these variables.

Limitations and further research

One of the most significant limitations of this report is its reliance on cross-sectional data and the resulting inability to estimate causal relationships among the variables of interest. Although the analyses suggest that child marriage and early childbearing are closely linked with educational attainment, the directionality of the relationships, and the extent to which these relationships are causal, is less clear.

Given this significant limitation, future studies, including primary data collection, should gather detailed longitudinal data on girls and young women, examining their outcomes and life course trajectories not only prior to marriage but also after they are married. Such data would enable the sequencing of life events for girls, including the timing of school completion or dropout, marriage

and childbearing. Having data over time on the same individual would also enable the temporal ordering of these life events in the analysis, helping meet a prerequisite for causal inference.

Insights provided by such studies will be able to address some of the questions that this report was not able to answer due to data limitations. Further, data from experimental or quasi-experimental studies would allow researchers to more effectively estimate the extent to which the relationships between education, marriage and childbearing are causal.

Conclusions and recommendations

The literature review and conceptual framework showed that in many South Asian settings, rather than decisions about schooling, marriage and childbearing occurring sequentially, it is more likely that these decisions are made jointly. Further, factors such as poverty, culture and religion may influence both decisions about schooling and about marriage (and childbearing). Therefore, efforts to delay marriage and childbearing and keep girls in school must address these shared underlying factors.

Overall, while this report shows that child marriage is one important factor associated with educational attainment for girls in South Asia, policies or interventions aiming to improve girls' educational attainment must also address broad socio-economic differentials in access to school, as well as cultural, religious and social barriers to delaying marriage and extending girls' schooling.

Several important recommendations are presented for future policies, programmes and research aiming to

address the links between girls' education, child marriage and adolescent childbearing.

Policy recommendations

Efforts to delay adolescent childbearing in this region should focus primarily on delaying marriage. Policies and programmatic strategies designed to both delay marriage and increase educational attainment may be most effective in addressing both issues.

Country-specific recommendations

For Afghanistan and Pakistan, with such a large proportion of girls and young women out of school, policies and programmes should prioritize improving access to schools for girls, particularly from the lowest socio-economic groups and rural areas.

These countries should also prioritize accelerated or alternate learning programmes or continuing education programmes for out-of-school girls and women who are beyond school-going age to enable basic literacy, numeracy and life skills.

Bangladesh, Nepal and India should prioritize programmes that improve girls' completion of secondary school. Improving retention in school through improvement in school accessibility and quality should be prioritized.

Programmes that improve the attractiveness of schooling to girls vis-à-vis marriage or change social norms regarding child marriage or opportunity costs of schooling, in particular economic and social factors, must be promoted. Girls from the lowest socio-economic backgrounds, who face heightened vulnerabilities, should be prioritized for programmes.

Research recommendations

The factors driving both child marriage and educational attainment for girls vary within countries, even within the South Asia region. These may include socio-economic, cultural, social and religious factors, the effects of which vary by country. Each of these factors needs to be studied in depth to understand its implications for educational attainment and child marriage in order to develop effective policies and interventions that incorporate and address these important differences.

Rigorous programme evaluations that exploit national programmatic and policy interventions in natural experiments or impact evaluations that focus on context-specific factors associated with educational attainment and child marriage may provide the evidence required for targeted policy and programme design for country contexts, or even within countries, in this very diverse region.



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1 Introduction

“Progress in ending child marriage has accelerated in the last decade, especially in South Asia, but the pace of progress is still much slower than needed to reach the Sustainable Development Goal of eliminating child marriage by 2030.”

Despite global progress in expanding access to education and delaying marriage and childbearing, important barriers remain.¹ Globally, more than a third of women aged 20–24 in 2012 were married before the age of 18 (Nguyen & Wodon, 2012); half of all child brides live in South Asia (UNICEF, 2014).

More recent estimates from UNICEF indicate that progress in ending child marriage has accelerated in the last decade, especially in South Asia, but the pace of progress is still much slower than needed to reach the Sustainable Development Goal (SDG) of eliminating child marriage by 2030 (UNICEF, 2018).

Women who marry at younger ages tend to have a larger age difference with their husbands, lower power and autonomy in their relationships (Jensen & Thornton, 2003; Lee-Rife et al., 2012), and are at higher risk of domestic violence (Santhya & Jejeebhoy, 2015; Santhya et al., 2010). Married adolescents often face enormous family and cultural pressure to have children soon after marriage.

In 2016, adolescent girls had an estimated 21 million pregnancies, about half of which resulted in a birth (Darroch et al., 2016). Of those pregnancies, an estimated 17,000 adolescents died from complications of pregnancy and childbirth (Darroch et al., 2016). Women who give birth during adolescence face higher risks of maternal morbidity and mortality (Blanc, Winfrey & Ross, 2013), and their infants are at higher risk of negative outcomes (Bott et al., 2003; Brown, 2012; Jensen, 2003; Wodon et al., 2017).

Alongside the continuing challenges of child marriage and adolescent childbearing, a higher proportion of adolescent girls are in school than ever before (Lloyd, 2009; UNESCO, 2016). As more girls enter and stay in school, especially in

contexts where child marriage is common, the conflict between school, marriage and childbearing becomes more acute (Lloyd, 2009).

While education and age at marriage and pregnancy are positively correlated in many settings, evidence of a causal relationship is more limited. A clearer understanding of the relationships between school dropout, marriage and childbearing in South Asia can inform effective policies and programmes to improve the lives of adolescents.

To obtain a clearer understanding of these relationships, this report presents a review of relevant literature and analyses of cross-sectional Demographic and Health Survey (DHS) data and longitudinal data, which address the following questions:

1. Does child marriage affect attendance of adolescent girls and boys in lower and upper secondary schools? If so, in what ways? And what are the contributing factors that hinder adolescents' school attendance after marriage and pregnancy or childbirth?
2. How does child marriage affect transition of adolescent girls and boys from primary to secondary school and school attendance differently? And, to what extent does the effect of child marriage vary by geographic area, urban-rural settings, household wealth, ethnicity and/or religious minority?
3. Is adolescent pregnancy an issue in South Asia? What are the trends in the field of adolescent pregnancy outside of marriage? How does it affect adolescent girls' attendance in lower/upper secondary schools?

¹ Throughout this report, text providing a global overview of the relationships between marriage, pregnancy and education for girls draws heavily on a recently published paper by one of the authors (Psaki, 2016). Full text of an earlier version, prepared as a background paper for the 2015 UNESCO Education for All Global Monitoring Report, is available at <http://unesdoc.unesco.org/images/0023/002324/232451e.pdf>.



2 Literature review²

“Although child marriage occurs for boys, the incidence is much higher for girls, indicating that most child marriages are a manifestation of social norms that support discrimination against girls and women.”

² This review includes evidence and theory from global analyses and reports and those focused on South Asia. This is for two main reasons: 1) Understanding global trends and theory provides important framing for analyses of trends in South Asia, even though there are important regional variations; and 2) The literature in South Asia is limited, but growing, and some issues are the same across settings, such as the methodological challenge in understanding the causal relationships between education, marriage and childbearing.

2.1 Trends in schooling, child marriage and adolescent childbearing

2.1.1 School enrolment and dropout

Over the last half century, there has been enormous progress in school enrolment and educational attainment for both girls and boys, globally. The Education for All movement was launched in 1990 in Thailand, and later renewed in Senegal, committing 164 countries to achieving universal primary school enrolment and gender parity in enrolment by 2015.

Alongside strong policy commitments and investments of resources, many countries achieved high levels of primary school enrolment by 2015, although secondary enrolment and completion levels often lagged far behind (Psaki, McCarthy & Mensch, 2018).

The 2016 Gender Review accompanying the annual Global Education Monitoring Report of the United Nations Educational, Scientific and Cultural Organization (UNESCO) stated that, “in 2014, gender parity was achieved globally, on average, in primary, lower secondary and upper secondary education” (p. 14) (UNESCO, 2016).

However, global averages mask important regional variations. Sustainable Development Goal 4, agreed on in 2015, calls for universal completion of upper secondary education by 2030. The Incheon Declaration for Education 2030, in support of SDG 4, emphasizes quality education and lifelong learning for all.

Despite progress, South Asia is home to the largest number of out-of-school children. According to UNESCO, more than 100 million out of the 263 million out-of-school children and youth in 2014 lived in South Asia (UNICEF ROSA, 2017). Further, even when young people attend school, the poor quality of schooling in many South Asian countries leads to low levels of learning (Dundar et al., 2014).

2.1.2 Child marriage

UNICEF defines child marriage as a formal marriage or informal union occurring before the age of 18 (UNICEF, 2014). As of 2018, more than 650 million living women had married before the age of 18 globally, and 12 million women are married as children each year. More than 40 per cent, or 285 million, women who married before age 18 live in South Asia. Child marriage is much less common for men than for women (UNICEF, 2014).

The proportion of women aged 20 to 24 who married before the age of 18 declined from 27 per cent in 1995 to 21 per cent in 2015, reflecting 25 million child marriages averted; this progress has largely been driven by declines in child marriage in South Asia, according to recent UNICEF estimates (2018).

However, the pace of progress would need to accelerate dramatically to meet the SDG goal of eliminating child marriage by 2030 (UNICEF, 2018). Although child marriage occurs for boys, the incidence is much higher for girls, indicating that most child marriages are a manifestation of social norms that support discrimination against girls and women (UNICEF, 2014).³

Child marriage for girls is a widespread challenge, with estimated prevalence exceeding 30 per cent or more in 41 countries (Loaiza, 2012). Half of girls affected by child marriage live in South Asia, although the risk is greatest for girls living in parts of West Africa (Lee-Rife et al., 2012; Loaiza, 2012). Three of the ten countries with the highest levels of child marriage are in South Asia: Nepal, India and Bangladesh.

Prevalence of child marriage is decreasing slowly worldwide, especially for marriages before age 15 (Brown, 2012; Nguyen & Wodon, 2012; UNESCO, 2014). Using DHS data from 60 countries, one study estimated that the average prevalence of child marriage in low- and middle-income countries

³ Given the much higher prevalence of child marriage for girls and the resulting larger research literature on the topic, the remainder of this literature review is focused on girls. However, data analyses will be disaggregated by sex where appropriate.

Girls most likely to marry as children are those who live in rural areas, come from poor households, and have little or no education.

decreased from 51 per cent for women born between 1955 and 1959 to 40 per cent for women born between 1985 and 1989 (Nguyen & Wodon, 2012).

However, progress has stagnated in the last decade (Loaiza, 2012; UNESCO, 2014). Due to large youth populations in countries most affected by child marriage, if current trends continue, the number of children married annually is estimated to increase from 14.2 million in 2010 to 15.1 million in 2030 (Loaiza, 2012). Girls most likely to marry as children are those who live in rural areas, come from poor households, and have little or no education (Loaiza, 2012).

Beyond the effects of child marriage on human rights and health, recent estimates of the potential economic impacts of ending child marriage found that countries would have experienced a \$15 billion welfare benefit due to reduced population growth in 2015, which would grow to an estimated \$566 billion welfare benefit by 2030 (Wodon et al., 2017).

A recent study by the Lancet commission on adolescent health and well-being found that investments in ending child marriage globally would result in a substantial increase in educational attainment, and specifically secondary school completion, leading to higher productivity.

Largely as a result of these productivity gains, the authors estimated a benefit to cost ratio for investments in ending child marriage of 6.9 for low-income countries, meaning every dollar spent on ending child marriage would translate into nearly seven dollars of benefit. They noted, however, that much of the evidence for impact comes from sub-Saharan Africa, so these estimates may not be as accurate for South Asia (Sheehan et al., 2017).

2.1.3 Adolescent childbearing

UNICEF estimates that approximately 150 out of 1,000 births are to adolescent girls aged 15–18 globally (Brown, 2012). In 2016, adolescent girls had an estimated 21 million pregnancies, about half of which resulted in a birth (Darroch, et al., 2016). The majority of adolescent pregnancies in developing countries are to girls who are married, due to their higher exposure to sex, lower probability of using contraception compared to their unmarried peers, and pressure to conceive quickly after marriage (Brown, 2012; Erulkar, 2013; Hindin & Fatusi, 2009; Presler-Marshall & Jones, 2012).

Using data from four countries, a study found that women who married before age 15 had their first birth on average three years earlier than women who married between ages 15 and 20, and seven years earlier than those who marry between ages 21 and 25 (Jensen & Thornton, 2003).

Women who give birth during adolescence face a higher risk of maternal mortality compared to women who give birth between ages 20 and 24 (Blanc, Winfrey & Ross, 2013), and their infants are at higher risk of negative outcomes (Bott et al., 2003; Brown, 2012; Darroch et al., 2016; Jensen, 2003).

Global progress in delaying marriage and increasing educational attainment is reflected in changing patterns of premarital sex and pregnancy. As the mean age of marriage has increased globally and the age of menarche has fallen, the risk of unplanned pregnancies has increased for unmarried adolescents (Hindin & Fatusi, 2009; Presler-Marshall & Jones, 2012).

A study found that the prevalence of premarital sex before age 18 increased in 19 out of 27 countries

included in its analyses (Mensch, Grant & Blanc, 2006). It did not find evidence of an overall shift towards earlier sexual initiation, but rather a change in the context of sexual initiation from marriage to premarital sex. The authors suggested that one possible explanation for the seeming stability in the age at sexual initiation was an increase in girls' educational attainment (Mensch, Grant & Blanc, 2006).

More recently, another study found that increases in the mean age of marriage in sub-Saharan African countries have not always translated into increases in premarital fertility, as some had anticipated, in part due to factors such as delayed sexual debut and use of contraception (Clark, Koski & Smith-Greenaway, 2017).

2.2 The context of child marriage and adolescent pregnancy in South Asia

2.2.1 Poverty

Child marriage is most common among poor families in many South Asian countries (Amin, 2011; Bajracharya & Amin, 2012; Brown, 2012; McCleary-Sills et al., 2015; Sekine & Hodgkin, 2017). Using the most recent DHS data from 54 countries covering 78 per cent of the population in developing countries, a study found that girls living in poor households were twice as likely to marry before age 18 than those living in wealthy households, and girls living in rural areas were at higher risk of child marriage than those in urban areas (McCleary-Sills et al., 2015).

In Nepal, a study found that household poverty during early childhood (age 5–9) was associated with greater likelihood of child marriage or joining the workforce rather than continuing in school (Bajracharya & Amin, 2012). Another study in Nepal found that adolescent pregnancy was significantly more common among girls from poorer families and lower social class (52 per cent) than among wealthier families of higher social class (26 per cent) (Shrestha, 2002).

Daughters may represent financial burdens for poor families, as they are often unable to earn an income, their education requires investment of limited family resources, and any future benefits will likely accrue to their husbands' families (Bajracharya & Amin, 2012; ICRW, 2013). Therefore, child marriage can be a household

strategy for coping with economic insecurity by reducing the number of children to support; this may be particularly relevant when school fees or transportation costs are high. For wealthier families, girls' education may be viewed as a worthwhile investment in finding a better educated groom (Amin & Huq, 2008), particularly as social norms promoting child marriage erode (Schuler et al., 2006).

2.2.2 Marriage transactions

Marriage transactions are exchanges between the bride and groom's family at the time of marriage. They may be transfers from the bride's family to the groom's family (dowry), or in the opposite direction (bridewealth/bride price) (Amin & Bajracharya, 2011a). In countries where child marriage is common, these transactions are often a key element of decisions regarding the trade-off between marriage and schooling for girls.

In some countries, such as Bangladesh, the practice of dowry is relatively recent and replaced bride price in many communities over the last two decades (Amin & Huq, 2008; Amin, Selim & Waiz, 2006). Amounts of these transactions often reflect various demands in the marriage marketplace, including the bride's age or level of schooling.

Dowry contributes to pressure for young girls to marry because the price increases as girls get older, and is higher for more educated husbands (often required for more educated girls) (Amin, Selim & Waiz, 2006; Brown, 2012). Beyond the cost to the bride's family, dowry may also create a sense of entitlement by grooms (Amin & Huq, 2008). Poor families may marry their daughters to less educated or much older grooms to pay a lower amount, while wealthier families tend to seek more educated husbands for their daughters and are able to pay more.

On the other hand, when parents are concerned about being unable to pay the dowry for their daughters, they might choose to invest in education so that she can find a husband herself (Amin & Huq, 2008). The contribution of education to improving marriage prospects for girls may only be relevant for families who can afford the higher dowry necessary for more educated grooms (Amin & Huq, 2008), but even then, social norms in support of child marriage and against girls' schooling may act as more powerful forces.

Child marriage is seen by many families as a protective strategy for girls against a variety of real or perceived threats, including harassment and abuse at school, premarital sex, and natural disasters and conflict.

2.2.3 Premarital childbearing

A 2010 review found that levels of adolescent pregnancy in South Asia were high, primarily due to child marriage and pressure to conceive quickly after marriage (Dev Raj et al., 2010). By the age of 18, 40 per cent of girls in Bangladesh had at least one child, as did 22 per cent in India, 19 per cent in Nepal, 15 per cent in Bhutan and 10 per cent in Pakistan (with regional variations in each country) (Loaiza, 2012).

However, using DHS data collected in 29 countries between 2004 and 2011, a study found a negative association between age of marriage and length of first birth interval – mean first birth intervals were longer in countries with earlier mean ages of marriage, compared to countries with later ages of marriage (Amin & Bajracharya, 2011b). The authors argued that in countries with very early marrying regimes, like Bangladesh, cultural expectations for quick birth intervals may be tempered by girls' very young ages, whereas in relatively late marrying countries, like Egypt, girls may experience more pressure to conceive quickly given their older ages. In short, societal norms around first birth interval may, in part, be oriented around fecundity at marriage.

Premarital childbearing is assumed to be rare in South Asia due to strong cultural norms against sex outside of marriage (Bajracharya & Amin, 2012; Bongaarts, Mensch & Blanc, 2017; Kamal, 2012). Studies documenting levels of premarital sex and childbearing in South Asia are rare relative to other regions (one exception is Santhya et al., 2011), but these experiences may be more common than assumed due to lack of data and strong social desirability bias (Darroch et al., 2016).

2.2.4 Evolving cultural norms

In South Asia, as elsewhere, the timing of marriage and school leaving for girls is closely tied to norms surrounding gender and sexuality (Santhya, Haberland & Singh, 2006). Child marriage is seen by many families as a protective strategy for girls against a variety of real or perceived threats, including harassment and abuse at school, premarital sex, and natural disasters and conflict (Amin & Huq, 2008).

These risks may be even more severe for poorer families, as they and their daughters have few alternatives (ICRW, 2013; Schuler et al., 2006). Despite familial support for child marriage and subsequent pregnancy in many settings, a qualitative study in Rajasthan, India, found that adolescent girls preferred to wait until after age 18 to marry, given the educational, health, social and other sacrifices often resulting from child marriage (Santhya, Haberland & Singh, 2006).

Some evidence exists that parents' support for child marriage and adolescent childbearing in South Asia is malleable and may be evolving. A study in Bangladesh found that educated mothers and mothers-in-law were less likely to pressure younger women to marry and have children (Bates, Maselko & Schuler, 2007).

If parents perceive education to be of high quality, providing relevant skills and credentials, their analyses of the costs and benefits of marriage may change (Amin et al., 2016; Brown, 2012; Heath & Mobarak, 2015; Jensen, 2012). For example, a study examined the effect of the presence of garment factories in Bangladesh, which largely employ females, on age of marriage and childbearing and

school enrolment (Heath & Mobarak, 2015). The authors argued that growing access to factory jobs, which reward literacy and numeracy skills, has had a larger impact on delaying marriage and increasing school enrolment, especially for younger girls, than the well-known female secondary school stipend programme.

2.3 Associations between marriage, childbearing and schooling

Across diverse contexts, research consistently shows that, on average, more education is associated with later marriage and later childbearing (Ainsworth, Beegle & Nyamete, 1996; Bongaarts, Mensch & Blanc, 2017; Jensen & Thornton, 2003; Loaiza, 2012; McCleary-Sills et al., 2015; Mensch, Singh & Casterline, 2005; Sekine & Hodgkin, 2017; Zaidi et al., 2012).

Multiple studies have found that secondary school, in particular, is linked with older age at marriage and childbearing. One study argued that education programmes and policies should focus on a key education 'tipping point', that is, ensuring that girls stay in school through ages 13 or 14, when they may be transitioning from primary to secondary school and at highest risk of child marriage (Brown, 2012).

Using DHS data on ever-married women collected between 1991 and 2011 in Bangladesh, India, Nepal and Pakistan, another study found that more education was associated with later age at marriage in these countries, but that secondary schooling was most strongly associated with delayed marriage, especially among older adolescents (Raj et al., 2014).

Interestingly, the study found that levels of child marriage were highest in Bangladesh and lowest in Pakistan, yet women in Pakistan were most likely to report no education and women in Bangladesh were least likely to report no education. That is, although educational attainment and age at marriage are consistently positively associated across countries in South Asia, the magnitude of that association varies, indicating that other factors, such as social norms around marriage and girls' schooling, contribute to these decisions.

Cross-sectional data indicate that adolescents who stay in school longer are less likely to engage in

risky sexual behaviour than those who drop out of school, but it is unclear whether staying in school is protective, or adolescents who engage in risky sexual behaviour are also less likely to stay in school for other reasons (Hargreaves et al., 2008; Hindin & Fatusi, 2009).

Conversely, sexual activity may increase adolescents' risk of poor school performance and dropout (Biddlecom et al., 2008; Grant & Hallman, 2008; Hindin & Fatusi, 2009). Despite widespread policy attention, evidence of the prevalence of schoolgirl pregnancies, i.e., a pregnancy that precedes – and may cause – school dropout, is mixed, and varies by region (Lloyd, 2005; Lloyd & Mensch, 2008).

In parts of sub-Saharan Africa (Eloundou-Enyegue, 2004; Erulkar & Matheka, 2007) and Latin America (Kruger, Berthelon & Navia, 2009), unplanned pregnancy among adolescents may be a significant cause of premature school leaving. For example, a study in Cameroon found that pregnancy accounted for a third of dropout in Grade 7 (first year of secondary school) (Eloundou-Enyegue, 2004). A study in Chile, which accounted for the endogeneity of decisions about schooling and pregnancy, found that motherhood reduced the probability of completing high school by between 24 per cent and 37 per cent (Kruger et al., 2009). However, there is little evidence that premarital fertility is a major cause of school dropout in South Asia.

Some researchers have taken analyses of associations between age of marriage or pregnancy and education a step further by examining changes over time. Mensch and colleagues (2005) used DHS data from 39 countries to compare the expected change in child marriage, given increases in educational attainment for a younger cohort of women in each country. They found that in 16 out of 39 countries the expected change exceeded the observed change, meaning that the magnitude of decline in child marriage was less than what would have been expected given the increase in educational attainment. In the majority of countries, however, the decline in the percentage marrying at early ages was larger than expected, given the increase in educational attainment. In these cases, factors other than schooling seemed to be driving declines in child marriage.

The authors concluded that increases in schooling were unlikely to explain all of the declines in child

Qualitative research in Bangladesh revealed that parents considered education and marriage to be a trade-off for their daughters and were concerned that choosing to keep their daughters in school would make it more difficult to find them appropriate husbands.

UNESCO explains that, given this trade-off in most settings, households often make decisions about child marriage and schooling jointly, not sequentially.

marriage, and that other factors, such as urbanization, declines in arranged marriages, increases in the cost of marriage, and changing laws and norms, might also have been driving the changes in age of marriage. However, they noted that their analyses did not account for the endogeneity of decisions about schooling and marriage, potentially leading to inflated estimates of the impacts of schooling (Mensch, Singh & Casterline, 2005).

More recently, another study examined associations between educational attainment and ages at first sex, marriage and birth using the earliest (1993 on average) and most recent (2010 on average) DHS data available in 43 countries (Bongaarts, Mensch & Blanc, 2017).

It found that in all regions and at both time points, higher educational attainment was associated with older age at first sex, marriage and first birth. These relationships were particularly strong for those who attended secondary school, which reflects, in part, the selectivity of this group in many countries.

In sub-Saharan Africa, Asia and North Africa, changes in the age of reproductive events were largely a result of increases in mean levels of educational attainment, rather than changing behaviour within attainment groups (Bongaarts, Mensch & Blanc, 2017).

2.4 Joint decision-making on marriage and schooling

Policymakers and practitioners point to the strong correlations between educational attainment and age of marriage and childbearing in diverse settings as evidence of a causal relationship. However, despite theories about the effect of marriage on educational attainment,

vice versa, and correlations between these events, there are important challenges in estimating this relationship accurately because educational attainment is endogenous to the timing of marriage and childbearing (Bajracharya & Amin, 2012; Lloyd & Mensch, 2008; Mensch, Singh & Casterline, 2005; Nguyen, 2014).

Therefore, it cannot be concluded, based on the strong association between education and timing of marriage or childbearing alone, that policies or programmes to delay these events will lead to improved educational attainment, or that education policies and programmes will lead to delayed marriage or childbearing. An alternative explanation is that the same underlying factors, such as poverty or cultural norms, cause both low educational attainment and child marriage or early childbearing.

In many cultures school attendance is considered incompatible with the responsibilities and expectations of marriage and motherhood (Bajracharya & Amin, 2012; Mensch, Singh & Casterline, 2005; Schuler et al., 2006; UNESCO, 2014). For example, qualitative research in Bangladesh revealed that parents considered education and marriage to be a trade-off for their daughters and were concerned that choosing to keep their daughters in school would make it more difficult to find them appropriate husbands (Schuler et al., 2006). UNESCO explains that, given this trade-off in most settings, “households often make decisions about child marriage and schooling jointly, not sequentially” (UNESCO, 2014).

Few studies have explored the decision-making processes underlying schooling, marriage and childbearing, so it is difficult to know precisely how they are related (Lloyd

& Mensch, 1999). Research on this topic has often used cross-sectional data and lacked information on factors linking education and marriage and childbearing, such as attitudes about gender roles or the reasons for leaving school (Lloyd & Mensch, 1999; Mensch et al., 2001). Keeping girls in school may also lead to further delays in marriage or childbearing.

A study has proposed three potential pathways for the effects of education on age at marriage: 1) educated girls and women have more input into who they marry and they resist early marriages; 2) educated girls and women or their families delay marriage in order to focus on work; or 3) it is more difficult to find a husband for an educated woman because it is more costly and there are fewer potential partners (Jejeebhoy, 1995).

Given the shared underlying causes of child marriage, adolescent pregnancy and school dropout and the incompatibility of marriage, motherhood and schooling, seeking to isolate the relationship between school dropout on the one hand and marriage and pregnancy on the other is not only challenging, but may not be the most important policy question. Rather, the more important question may be how to address the underlying factors that affect this joint decision-making process for families, such as poverty, in order to delay marriage and childbearing and to extend schooling.

Evidence of the impact of policies and programmes aiming to delay marriage and childbearing and keep girls in school further underlines the joint decision-making process for families in South Asia. The Female Secondary School Stipend Project (FSP) was launched in 1982 in Bangladesh with the goal of increasing enrolment of girls in secondary school and delaying marriage and childbearing. Although ostensibly an education programme, the requirement that girls remain unmarried until age 18 was a direct reflection of the government's focus on reducing child marriage through education.

FSP provides tuition fees and monthly stipends for unmarried rural girls up to Grade 10, who maintain a high attendance level and at least 45 per cent marks on annual exams (35 percent is passing). In partnership with the World Bank, the government of Bangladesh scaled up the programme in 1994 in rural areas and extended it to higher secondary

education for a select group of students in 2002 (Schurmann, 2009).

Unfortunately, a full impact assessment of the FSP has not been conducted. However, one study found that the proportion of girls who were married declined dramatically in intervention communities between 1992 and 1995: from 29 per cent to 14 per cent for 13–15-year-olds and from 72 per cent to 64 per cent for 16–19-year-olds (Amin & Sedgh, 1998). Another study also reported that parents considered the availability of the education stipend in decisions about a daughter's marriage (Schuler et al. 2006).

2.5 Evidence of a causal relationship between marriage and school dropout

Understanding the nature and direction of the relationships between marriage, pregnancy and schooling is critical to designing effective policies and programmes to delay marriage and childbearing and to promoting gender equality in education. However, existing evidence of the strength of the relationship between marriage, childbearing and education is mixed and largely observational, limiting the opportunity to draw causal inferences.

Since the timing of marriage and childbearing cannot be randomized to adolescent girls, estimates of causal relationships between education, marriage and childbearing must rely on quasi-experimental approaches, specifically the use of statistical methods aiming to adjust for endogeneity (Field & Ambrus, 2008; Murnane & Willett, 2011; Nguyen, 2014).

Several researchers have used these methods in an attempt to estimate the effect of child marriage or adolescent childbearing (before marriage) on education for girls. For example, Field and Ambrus (2008) used age of menarche, which has been shown to affect the timing of marriage in certain countries in South Asia (Raj et al., 2015), to instrument the relationship between marriage and education in Bangladesh. They found that postponing marriage by one year for girls aged 11 to 16 in Bangladesh would increase schooling by an estimated 0.22 years and adult literacy by 5.6 percent. They estimated that effectively eliminating marriage below the age of 17 would increase female schooling by at least 0.56 years, or 9 per cent.

A study concluded that interventions addressing only supply-side barriers are less effective at improving learning than those that address social norms and trade-offs affecting the demand for education.

These findings were supported by a later study in sub-Saharan Africa, which found a similarly sized estimated effect of child marriage on education outcomes using DHS data collected between 2005 and 2009 in 27 countries (Nguyen & Wodon, 2014). Using a similar approach in Uganda, the same group of researchers also found significant effects: girls married at age 15 were 35 percent less likely to attend secondary school and girls married at age 17 were 14 percent less likely to attend secondary school, compared to girls who married at age 18 or later (Wodon, Nguyen & Tsimo, 2015).

Some researchers have also examined this relationship in the opposite direction: does education cause delayed marriage or childbearing (Behrman et al, 2006; Ferre, 2009; Glick, Handy & Sahn, 2015; Grant, 2015)? With the exception of one study (Grant, 2015), most found a significant positive effect of education on age of marriage and childbearing after addressing the endogeneity of these relationships.

2.5.1 Evidence from programme evaluations

Evaluations of interventions designed to delay marriage and childbearing also provide useful insights into the causal relationships between child marriage, adolescent childbearing and education. For example, the BALIKA (Bangladeshi Association for Life Skills, Income, and Knowledge for Adolescents) programme was designed to prevent child marriage among adolescent girls aged 12–18 in three districts of Bangladesh.

The programme included more than 9,000 girls in 72 villages. The control villages received standard services, while the intervention communities were assigned to receive one of three packages for 18 months:

- 1) education, which included tutoring in mathematics and English (in-school girls) and computing or financial training (out-of-school girls);
- 2) gender-rights awareness training, which included life skills training on gender rights and negotiation, critical thinking and decision-making; or
- 3) livelihoods skills training, which included training in computers, entrepreneurship, mobile phone servicing, photography and first aid.

Participants in all intervention villages met regularly with mentors and peers in girl-only safe spaces to receive life skills training. At the end of the programme, girls living in intervention communities were one third less likely to be married as children and about one fifth more likely to be attending school, compared to girls in the control communities. There were no significant differences between the intervention villages (Amin et al., 2016).

This evaluation provided evidence of a significant impact of the programme, which addressed both academic skills and norms around child marriage on the timing of marriage and school dropout. However, given joint decisions about marriage and education in these contexts, it is difficult to identify the direction of the effects: Did delayed marriage cause less school dropout? Or did school attendance cause delayed marriage? Or both?

A study in western Kenya reported on promising findings from a randomized evaluation of an education subsidy programme implemented in 328 schools (Duflo, Dupas & Kremer, 2012). It found that the subsidy programme, which provided two free school uniforms during the last three years of primary school, led to a 17 per cent reduction in the proportion of adolescents who became pregnant. The authors argued that adolescent girls' decisions

about partnerships and sexual behaviour were determined, in part, by their expectations for future schooling (Duflo, Dupas & Kremer, 2012).

The Berhane Hewan programme, piloted in the Amhara region of Ethiopia from 2004–2006, was designed to delay marriage and keep girls in school through community conversations, support for remaining in school, and cash transfers if the girls remained unmarried and in school for the duration of the programme.

At the end of the pilot, the participants aged 10–14 were three times more likely to be in school, and 10 times less likely to have ever been married than their peers in the control sites. Among girls aged 15–19, however, 7 per cent in the intervention group were married in the previous year, compared to 4 per cent in the control group. The authors explain this counter-intuitive finding as the result of

delays in marriage during early adolescence among those in the intervention group, leading to higher levels of marriage in later adolescence (Erulkar & Muthengi, 2009).

Given consistent and compelling evidence for the joint decision-making process on marriage and schooling in South Asia, as well as other contexts, it is striking that many evaluations of education interventions largely overlook the role of marriage (see, for example, Glewwe & Muralidharan, 2015; Snilstveit et al., 2015).

In fact, in synthesizing results of a systematic review of what works to improve student learning in developing countries, a study concluded that interventions addressing only supply-side barriers are less effective at improving learning than those that address social norms and trade-offs affecting the demand for education (Masino & Nino-Zarazua, 2016).



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3 Goals and conceptual framework

“A set of shared underlying factors, including poverty and cultural and gender norms, and perceived returns to girls’ schooling feed into the joint decision-making process about marriage and schooling.”

Despite accelerations in progress reducing child marriage in the last decade, especially in South Asia (UNICEF, 2018), even more dramatic accelerations will be needed to meet the global goal of ending child marriage by 2030. Rapid expansions in access to school globally have led to an increasing conflict between schooling and marriage in many countries where child marriage is most common, but have also presented an opportunity.

Understanding the relationship between child marriage and schooling in South Asia may help to inform the design and implementation of more effective policies and interventions to both promote higher grade attainment and delay marriage. Towards that end, this report aims to describe the relationships between child marriage, adolescent pregnancy and school in South Asia, understand how that relationship varies for boys and girls, as well as between and within countries, and provide policy recommendations to help accelerate progress on these issues in the region.

A conceptual framework was developed representing the relationships between schooling, marriage and pregnancy for adolescent girls in South Asia (see Figure 1). Rather than characterizing the timing of marriage and school dropout as independent decisions that occur sequentially, they are shown as closely related and part of a joint decision-making process.

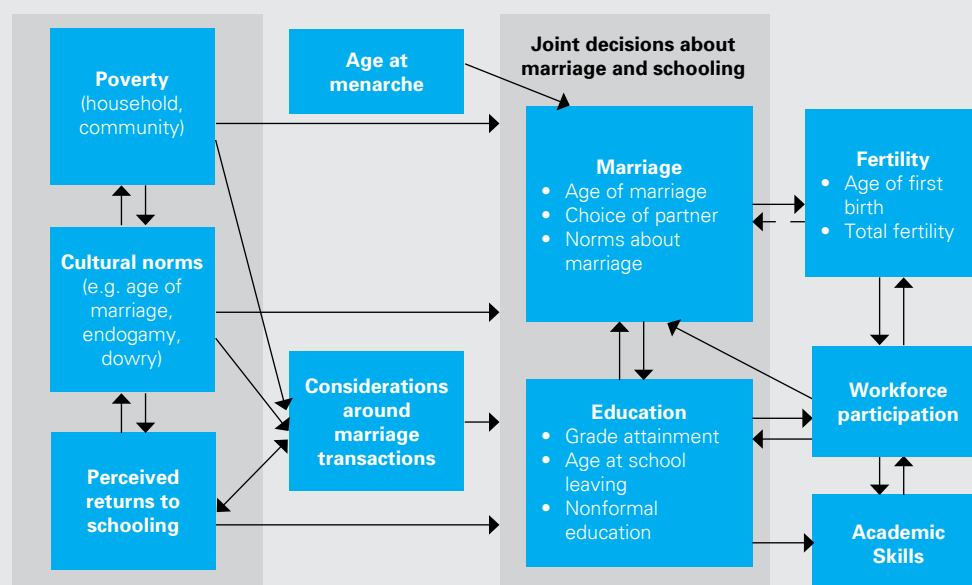
A set of shared underlying factors, including poverty and cultural and gender norms, and perceived returns to girls' schooling (including both learning outcomes and employment opportunities), feed into the joint decision-making process about marriage and schooling. These shared underlying factors also influence marriage transactions, consideration of which affects the timing of marriage and school dropout.

Age of menarche is shown as an exogenous factor that affects age of marriage in some settings. Given the relatively rare occurrence of pregnancy before marriage in South Asia, the conceptual framework shows the timing of first birth and total fertility as a consequence of age of marriage.

Workforce participation and school attendance are shown as substitutes for one another, as workforce participation may delay marriage. Last, educational attainment affects the level of academic skills, and academic skills and workforce participation affect each other.

This conceptual framework is not intended to show an exhaustive picture of factors affecting schooling, marriage and pregnancy, but rather the main relationships of interest in this report. Further, the focus is on girls because they disproportionately bear the burden of child marriage in South Asia; literature on child marriage for boys is lacking but would likely involve a different set of considerations for adolescents and their parents.

Figure 1: Conceptual framework representing the relationships between schooling, child marriage and pregnancy for adolescent girls in South Asia



Note: It is widely assumed that premarital pregnancies are rare in South Asia, but little data exist to support this assumption. We therefore show this relationship with a dashed line.



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4 Methods

“In each of the countries in the South Asia region for which data are examined, the dynamics of the relationships between child marriage, adolescent pregnancy and educational attainment are unique and influenced by different underlying factors.”

Utilizing the conceptual framework and insights from the literature review, this report presents a multi-country descriptive analysis of the interrelationships between child marriage, adolescent pregnancy and educational attainment in the South Asia region.

The analysis sets out to answer the questions posed in Chapter 1. It recognizes the significant data challenge in which information on the timing of marriage, dropout and data on adolescent pregnancy and childbearing, particularly outside of marriage and in the form that would allow for analysis of causal pathways, are virtually non-existent. This is particularly true when it comes to nationally representative studies.

Despite these limitations, and with assumptions about some uniformity on conceptualization of educational attainment and norms around marriage and childbearing among a diverse set of country and sub-national contexts within Asia, the report presents analyses using data from the most recent, available nationally representative datasets that provide information, to the extent possible, on the interrelationships between these contexts.

With these data challenges and caveats considered, the report presents analysis from five countries in the region: Afghanistan, Bangladesh, India, Nepal and Pakistan, utilizing the most recently available DHS data in each of these countries. The analyses are limited to countries in

which DHS data have been collected since 2010 to ensure comparability (see Table 1).

The study initially considered utilizing the Multiple Indicator Cluster Surveys (MICSs) as an alternative to the DHS for the multi-country analyses. However, as shown in Table 1, DHS was selected as the dataset of choice due to the availability of more recent data in all of the countries for which the analyses are presented.

As indicated in the literature review, the relationships between child marriage, adolescent pregnancy and educational attainment in different contexts are complex. Decisions around marriage timing, pregnancy and school dropout reflect a joint decision-making process, rather than occurring as independent events.

That process is influenced by a host of underlying factors, including poverty, cultural and gender norms and related factors. In each of the countries in the South Asia region for which data are examined in this report, the dynamics of these relationships are unique and influenced by different underlying factors. Thus, presentation of a unifying theory on how these constructs interact for the South Asia region as a whole would be misleading.

In addition, although child marriage and adolescent pregnancy are measured utilizing standardized measures across the countries in the region (marriage or childbearing before the age of 18 or

Table 1: Data availability and DHS datasets used

Country	Most Recent DHS	Most Recent MICS
Afghanistan	2015	MICS4, 2010–2011
Bangladesh	2014	MICS5, 2012–2013
Bhutan	–	MICS4, 2010
India	2015–2016	MICS2, 2000
Maldives	2009, 2016*	MICS2, 2001
Nepal	2016	MICS5, 2014
Pakistan	2012–2013	MICS5**, 2016–2017*
Sri Lanka	2006–2007	–

DHS: Demographic and Health Survey; MICS: Multiple Indicator Cluster Survey

*Survey ongoing or incomplete

**Survey conducted in phases/incomplete

The analysis recognizes the significant data challenge in which there is limited information on the timing of marriage, school dropout and adolescent pregnancy and childbearing.

before the age of 15), measures of educational attainment, particularly primary and secondary school completion, vary by country. Table 2 highlights the operationalization of primary and secondary school completion for the selected countries.

In order to account for the diversity of contexts under which decisions around child marriage, adolescent pregnancy and school attendance and dropout occur in the five South Asian countries examined, several sets of analyses have been undertaken to examine these relationships:

- **Comparative descriptive analyses**

Comparative analyses of pairs of countries – showing similar or contrasting patterns –highlight how the three life events are related and their relationship to underlying factors, including socio-economic status and urban-rural residence.

- **Multivariate analyses**

For several countries, results from logistic regression models are presented to show the multivariate associations between child marriage and school completion. These analyses highlight issues related to endogeneity of child marriage and school completion.

- **Discussion of causal analysis utilizing instrumental variables**

A brief discussion of instrumental variables estimation as a potential methodology to address endogeneity issues is also presented, highlighting the challenges of identifying an appropriate and suitable instrumentation strategy to identify a robust causal relationship between child marriage or adolescent childbearing and educational attainment or dropout (see Annex 2).

Table 2: Operationalization of primary and secondary school completion by country

	Country	Primary school	Secondary school
1	Afghanistan	Grades 1–6	Grades 7–12
2	Bangladesh	Grades 1–5	Grades 6–10
3	India	Grades 1–7	Grades 8–12
4	Nepal	Grades 1–5	Grades 6–10
5	Pakistan	Grades 1–5	Grades 6–10

Note: In the data analyses, when completed primary school and completed secondary school are mutually exclusive, complete primary includes those who completed primary only and those who completed primary and some secondary. Complete secondary includes those who completed secondary only and those who continued onto higher education after secondary.



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5 Results

“The analysis clearly indicates the need for targeted and context-specific interventions in these countries, highlighting further the need for specialized programmes to account for within-country variation, rather than policies and programmes that attempt to address these issues as uniform across the region.”

5.1 Comparative descriptive analysis

Three sets of country comparisons are presented to illustrate the diversity of contexts in South Asia and to highlight patterns of results in contexts that share similarities and differences in how child marriage, adolescent pregnancy and educational attainment interact. These pair-wise analyses are not exhaustive of all the possible pair-wise combinations possible between the study countries.

The three country-pairs however provide the most unique insights on the interactions among the constructs of interest that also help illuminate the most programme and policy relevant recommendations. More importantly, the country-pairs considered clearly indicate the need for targeted and context-specific interventions in these countries, highlighting further the need for specialized programmes to account for within-country variation, rather than policies and programmes that attempt to address these issues as uniform across the region.

In these comparisons, results for women aged 20–24, 25–29 and 30–34 are primarily reported for reasons of consistency across countries and, more importantly, to avoid censoring of educational attainment and child marriage variables.

Inclusion of results for girls aged 15–19 would be problematic for ascertaining child marriage or adolescent pregnancy (younger women in this age group who are unmarried or are not mothers still risk being married or becoming mothers) as well as primary or secondary school completion (young women in this group may still be attending lower or upper secondary school).

5.1.1 Pakistan and Bangladesh

The first country comparison presents a contrast between Pakistan and Bangladesh, countries that are socio-demographically similar but have unique education, marriage and childbearing profiles. Pakistan and Bangladesh are majority Muslim countries with large populations. However, they have starkly distinct profiles in educational attainment, child marriage and adolescent childbearing as highlighted in this section.

Data utilized for these analyses are from the 2012–2013 DHS sample for Pakistan and the 2014 DHS sample for Bangladesh, both the latest available nationally representative data for each country.

Educational attainment

Educational enrolment and attainment are much higher for girls in Bangladesh than in Pakistan, particularly at the primary level, despite similar socio-economic profiles. About one third of girls in Pakistan have never enrolled in school, compared to Bangladesh, where school enrolment is nearly universal for girls at the primary level and nearly half of girls attend some secondary school.

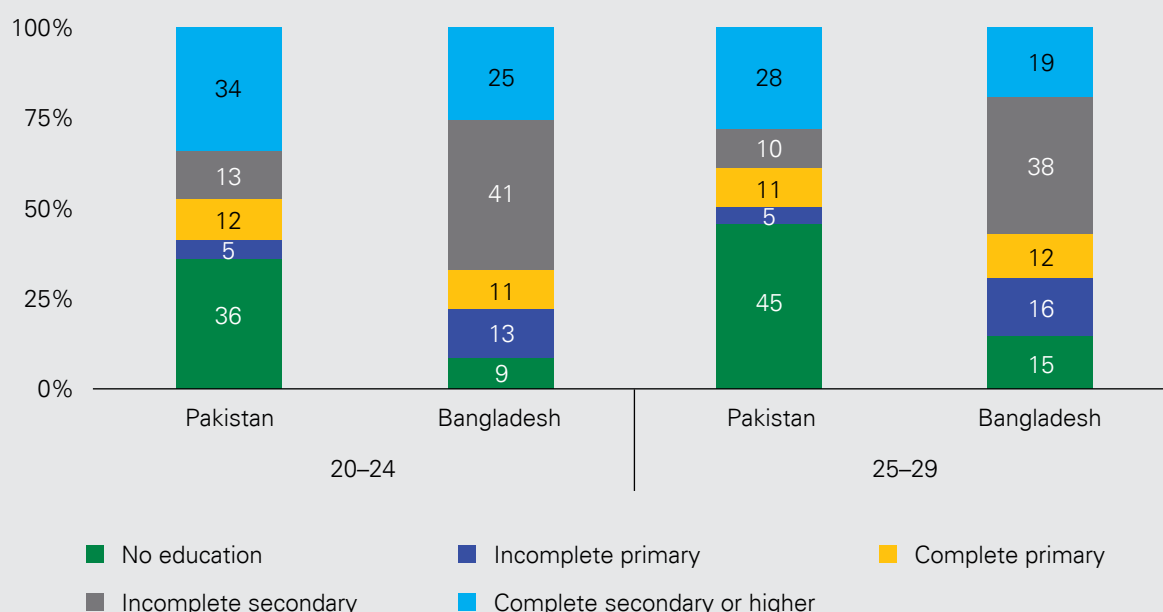
In Pakistan, girls are at a disadvantage in schooling compared to boys. In Bangladesh, in contrast, although secondary school completion levels remain low, girls have largely caught up with or surpassed boys on a national level in school enrolment and attainment.

Another noteworthy distinction between these countries is in the proportion of women who have never attended school. As shown in Figure 2, 36 per cent of women aged 20–24 and 45 per cent of those aged 25–29 in Pakistan had never been to school in 2012–2013. In comparison, figures for the same cohorts in Bangladesh were much lower at 9 per cent and 15 per cent, respectively, in 2014.

Conversely, although primary school enrolment is nearly universal in Bangladesh, a large proportion of girls dropped out during secondary school (52 per cent and 50 per cent for ages 20–24 and 25–29, respectively); secondary school completion levels remained low. In 2014, only 25 per cent of 20–24-year-olds and 19 per cent of 25–29-year-olds in Bangladesh had completed secondary school.

Interestingly, despite significant proportions of girls never having been to school in Pakistan, over 34 per cent of 20–24-year-olds and 28 per cent of 25–29-year-olds completed secondary school in 2012–2013. That is, whereas in Bangladesh primary school enrolment is nearly universal and most girls enrol in secondary school, only one in four completes secondary school. In contrast, while one in three girls never enrolls in school in Pakistan, one in three girls also completes secondary school.

Figure 2: Educational attainment by five-year age cohort (girls), Pakistan (2013) and Bangladesh (2014)



Child marriage and adolescent childbearing

Despite relatively better outcomes in schooling, particularly in primary school completion, compared to Pakistan, Bangladesh has a considerably higher prevalence of child marriage and, as a result, adolescent childbearing than Pakistan.

Figures 3 and 4 show the contrasting situation of child marriage and adolescent childbearing in Pakistan and Bangladesh. Bangladesh has considerably larger proportions of women who were married by the ages of 15 and 18 (see Figure 3). Among women aged 20–24 in the latest DHS data, 59 per cent in Bangladesh had married by the age of 18 compared to only 21 per cent in Pakistan.

Prevalence levels for older cohorts of women were higher: Among women aged 30–34, 73 per cent of respondents in Bangladesh had married by the age of 18 and 36 per cent by age 15, compared to only 33 per cent and 6 per cent, respectively, in Pakistan.

Adolescent pregnancy figures follow a similar pattern, reflecting the fact that in both countries, adolescent childbearing occurs largely

in the context of marriage. As shown in Figure 4, 36 per cent of women aged 20–24 in Bangladesh in 2014 had given birth by the age of 18, compared to only 8 per cent in Pakistan for the same age cohort in 2013.

Adolescent childbearing in Pakistan remained consistently low across cohorts, whereas in Bangladesh, larger proportions of older women were observed to have given birth by age 18.

Child marriage and education

An overwhelming majority of girls in Pakistan who married before the age of 18 had never enrolled in school, while in Bangladesh most girls who married as children entered school and completed primary schooling, but dropped out before completing secondary school, indicating that the dynamics of the relationship between school dropout and marriage timing are different in these two countries.

Figure 5 illustrates the relationship between educational attainment and child marriage in Pakistan and Bangladesh, showing the educational attainment profiles of women aged 20–24 by marriage before or after the age of 18.

Figure 3: Child marriage by five-year age cohort (girls), Pakistan (2013) and Bangladesh (2014)

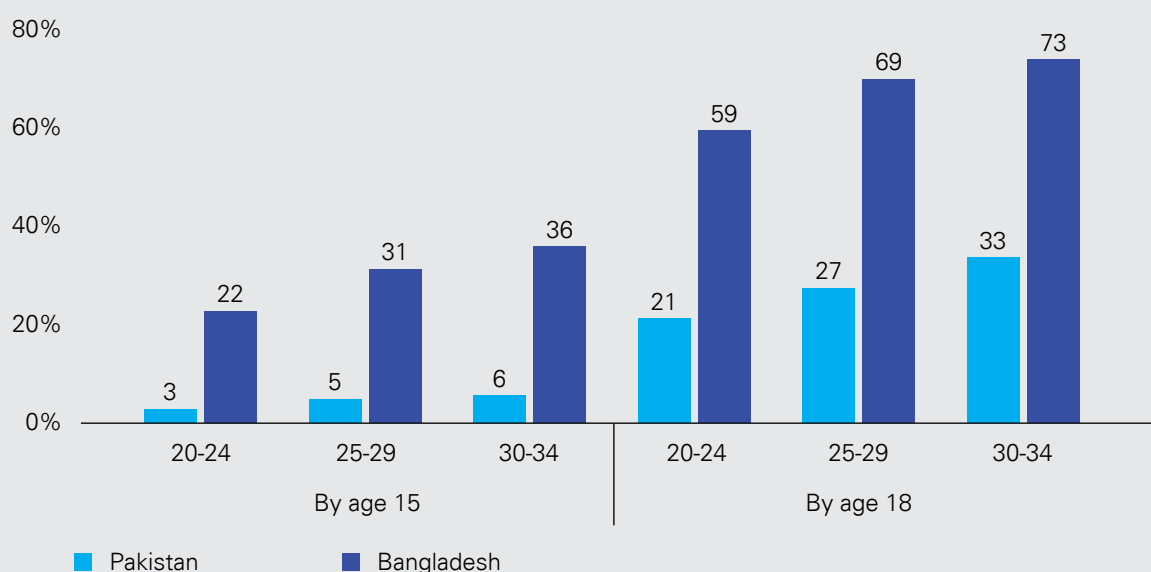
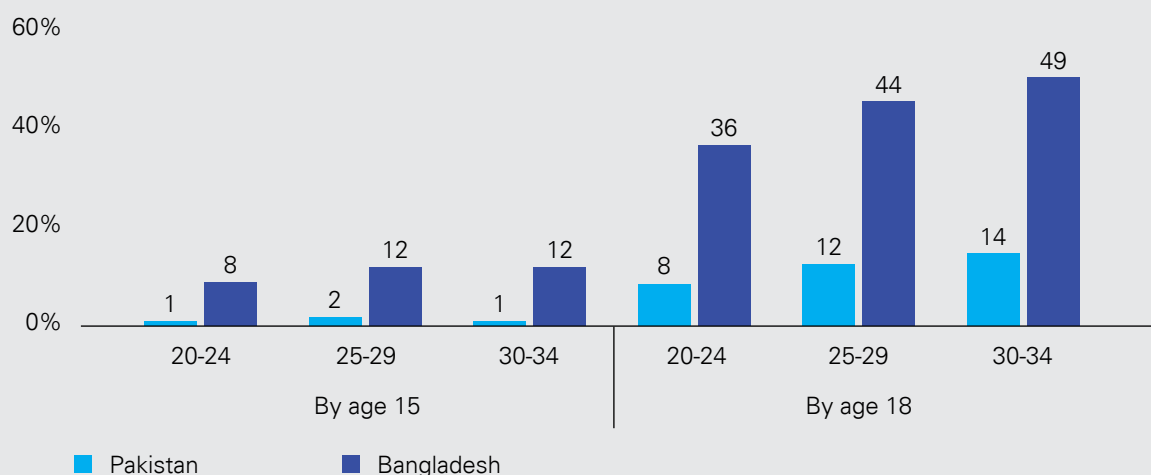


Figure 4: Adolescent pregnancy by five-year age cohort, Pakistan (2013) and Bangladesh (2014)



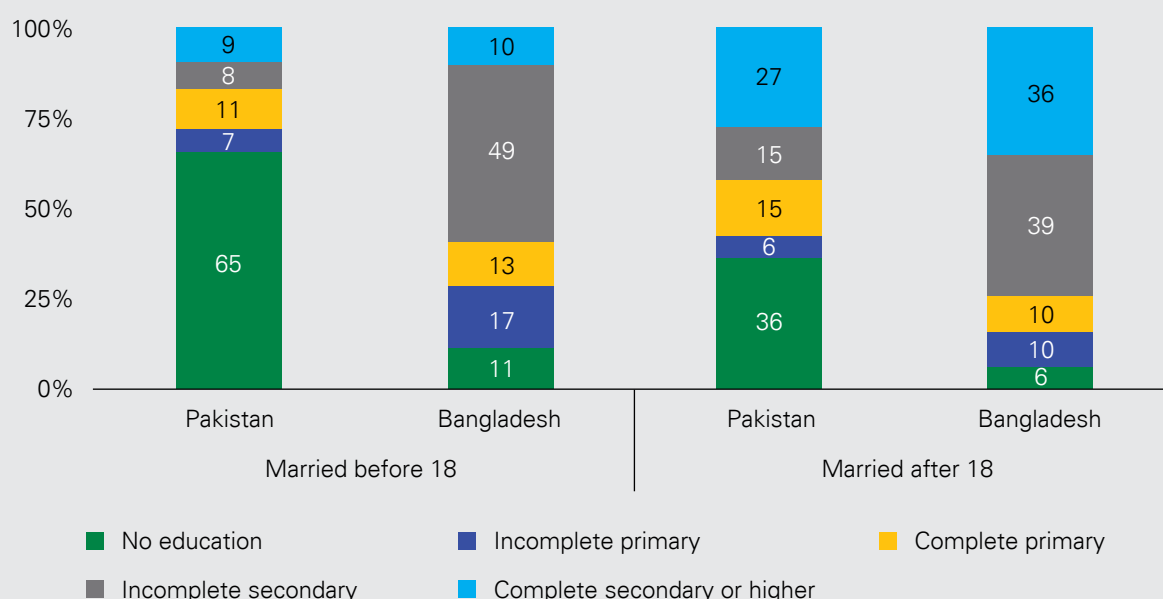
The differences between Pakistan and Bangladesh are particularly evident among girls who married before the age of 18. In Pakistan, 65 per cent of girls in this cohort who had married before the age of 18 in 2012–2013 had never been to school. Conversely, only 11 per cent of women aged 20–24 who had married before the age of 18 had never been to school in Bangladesh in 2014.

Notably, girls who married before the age of 18 in Bangladesh were much more likely to have ever attended school than girls who married after the

age of 18 in Pakistan, underlining the importance of other factors, in addition to the timing of marriage, in determining school enrolment and attainment levels.

In Bangladesh, nearly half of the women aged 20–24 who married before 18 reported dropping out during secondary school, indicating that the timing of dropout and marriage may be closely related. As expected, among those who married after the age of 18, secondary school completion rates were significantly higher in both countries, particularly for Bangladesh at 36 per cent.

Figure 5: Child marriage and educational attainment for women aged 20–24 by child marriage status, Pakistan (2013) and Bangladesh (2014)



5.1.2 Pakistan and Afghanistan

The second country comparison between Pakistan and Afghanistan highlights similarities between the two contexts in the region where education has suffered the most significant setbacks. Despite those setbacks, child marriage and teenage childbearing are prevalent at lower levels than in other countries, such as Bangladesh.

Data utilized for these analyses are from the 2015 DHS sample for Afghanistan and the 2012–2013 DHS sample for Pakistan, the latest available nationally representative data for each country.

Educational attainment

The educational attainment profiles of both Afghanistan and Pakistan are characterized by an overwhelming majority of girls, even in the youngest cohorts, who has never enrolled in school. The situation in Afghanistan is particularly acute with nearly 80 per cent of women aged 25–29 who never attended formal schooling.

Figure 6 shows educational attainment for girls in Pakistan and Afghanistan for the age cohorts 20–24

and 25–29. Both countries have similar educational attainment profiles. Significant proportions of women in both Pakistan and Afghanistan have never been to school in these two age cohorts. The figures for Afghanistan are particularly stark with over 65 per cent of women aged 20–24 and 81 per cent of women aged 25–29 in 2015 reporting that they had never attended school.

As expected, primary and secondary school completion in both countries have also suffered. However, completion rates for both primary and secondary school are particularly low for Afghanistan, where only 7 per cent of women aged 25–29 had completed secondary school and 13 per cent had completed primary school.

Child marriage and adolescent childbearing

Child marriage and adolescent childbearing are prevalent at high levels in Afghanistan with nearly half of women in age groups 25–29 and 30–34 marrying before the age of 18 in 2015. As in the case of educational outcomes, Afghanistan fared worse in child marriage and adolescent pregnancy outcomes than Pakistan. However, both countries have relatively lower levels of child marriage than Bangladesh.

Figure 6: Educational attainment by five-year age cohort (girls), Pakistan (2013) and Afghanistan (2015)

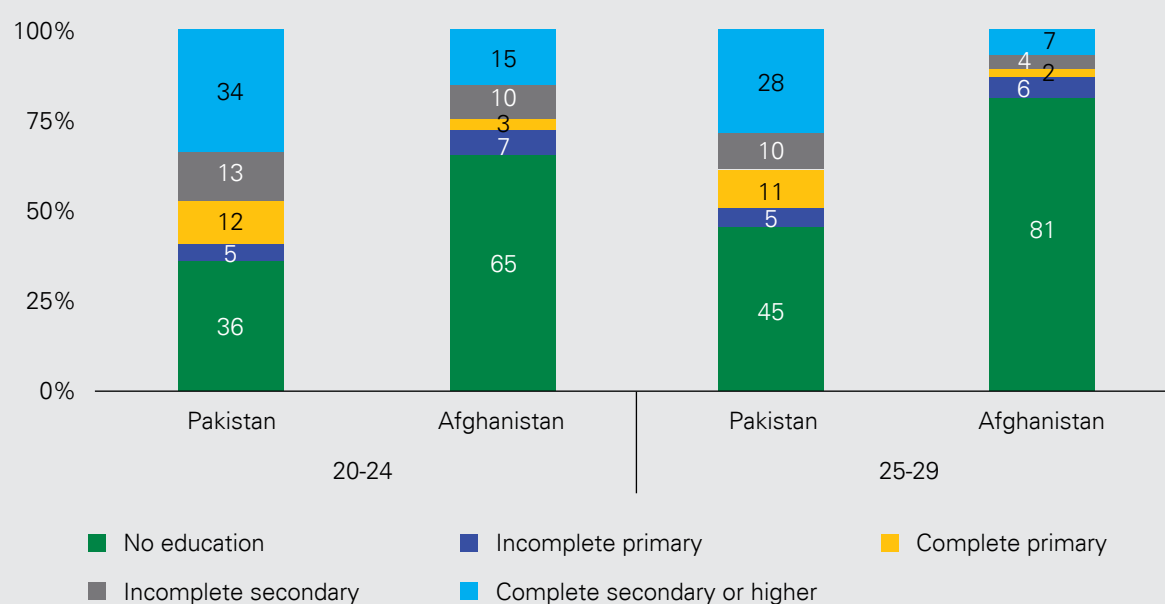
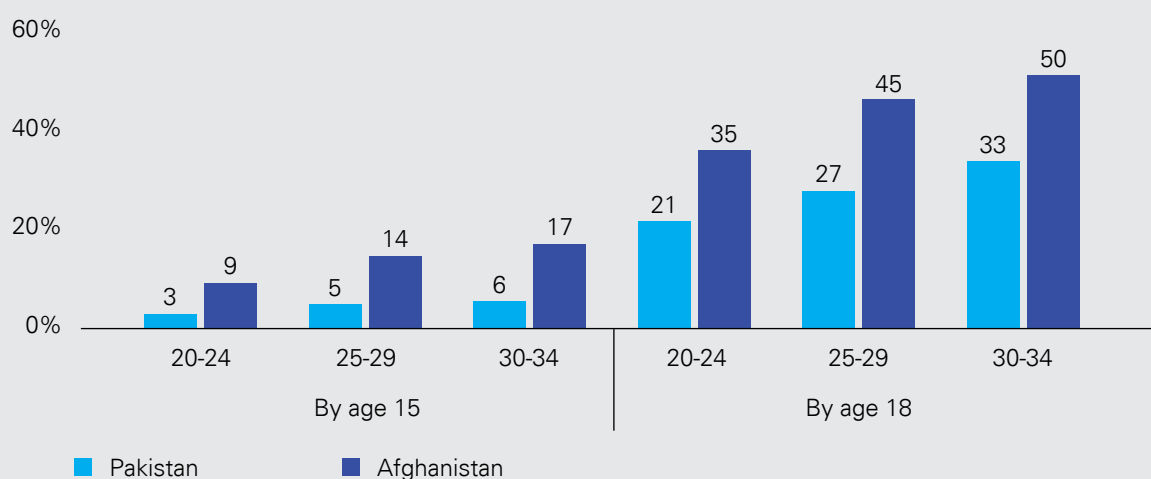


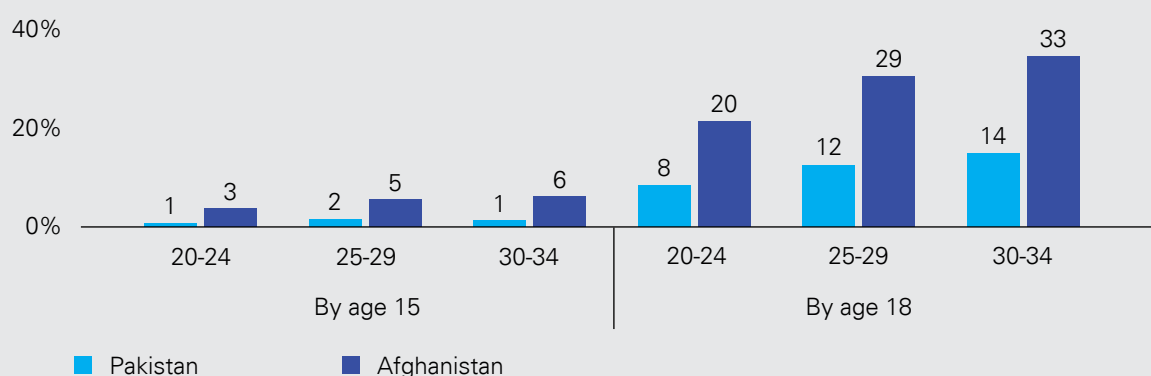
Figure 7: Child marriage by five-year age cohort (girls), Pakistan (2013) and Afghanistan (2015)



Child marriage in Afghanistan is prevalent at relatively higher levels than in Pakistan (see Figure 7). Among women aged 20–24 in Afghanistan in 2015, 9 per cent had married by the age of 15 and 35 per cent had married by the age of 18. These figures for women aged 25–29 were 14 per cent and 45 per cent, respectively. Pakistan, in comparison, had lower levels of child marriage, with 21 per cent of women aged 20–24 and 27 per cent of women aged 25–29

having married by age 18 in 2012–2013. These figures, when compared to Bangladesh, are however notably lower.

Adolescent childbearing figures showed similar patterns (see Figure 8), again reflecting the fact that adolescent childbearing occurs predominantly within marriage in these settings. Among women aged 20–24, 20 per cent in Afghanistan had given birth by age 18, compared to 8 per cent in Pakistan.

Figure 8: Adolescent pregnancy by five-year age cohort, Pakistan (2013) and Afghanistan (2015)

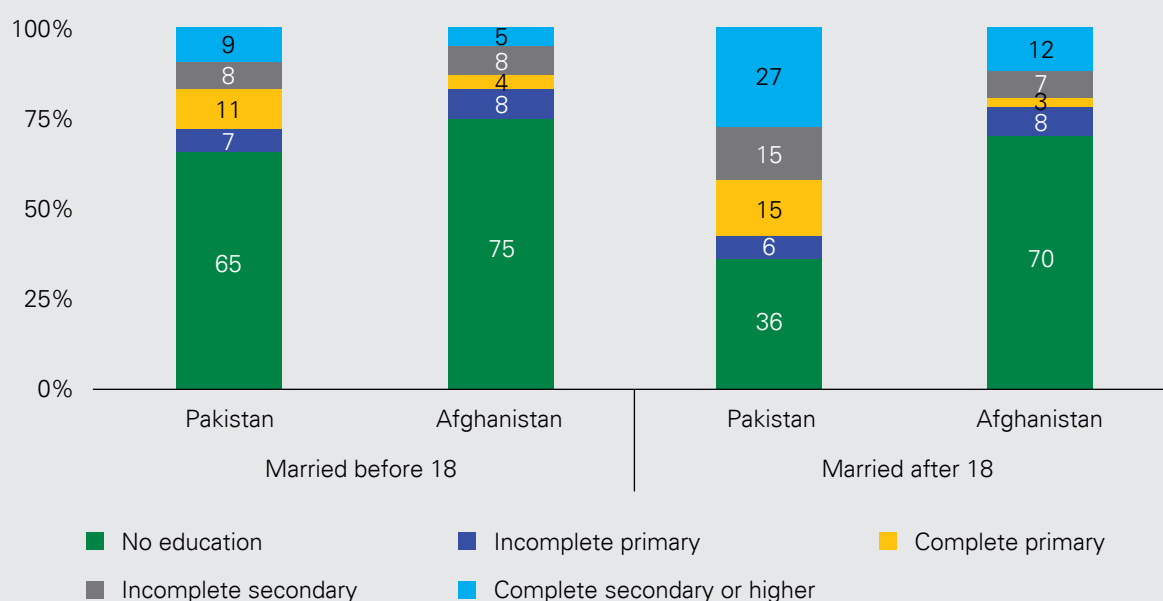
Similarly, among women aged 25–29, 29 per cent in Afghanistan had given birth by age 18 compared to only 12 per cent in Pakistan.

Child marriage and education

Irrespective of whether girls were married before or after the age of 18, an overwhelming majority of girls in Afghanistan is excluded from the formal schooling system. Nearly three quarters of women aged 20–24 in 2015, regardless of whether they were married as

children or not, had never been to school, indicating that the association between child marriage and education, including secondary school, is weak and that there are other important underlying factors at play.

Examining child marriage and educational attainment in these two countries (see Figure 9), a particularly unique result for Afghanistan was that there was no clear difference between educational attainment profiles of women aged 20–24 in 2015 who had married before or after the age of 18.

Figure 9: Child marriage and educational attainment for women aged 20–24 by child marriage status, Pakistan (2013) and Afghanistan (2015)

Irrespective of whether they had been married before or after the age of 18, nearly three quarters of the women had never enrolled in school. This is indicative of the magnitude of the issue of girls' school attendance in Afghanistan.

In Pakistan, however, the negative association between child marriage and education was clearer: 36 per cent of women who had married after the age of 18 had never been to school, compared to 65 per cent for women who had married before the age of 18.

It also is indicative that in both country contexts, but particularly so in the case of Afghanistan, dropout, particularly at secondary level, and marriage may not be as closely related, largely because girls would have left school (or never enrolled) before they married. Interventions should focus instead on improving school enrolment and retention, including for those who have already dropped out of school.

5.1.3 Nepal and Bangladesh

The third country comparison is between Nepal and Bangladesh, two contexts where, despite significant gains in education, child marriage and

adolescent pregnancy remain highly prevalent. In these two countries, the association between child marriage and educational attainment, in particular dropout, is stronger.

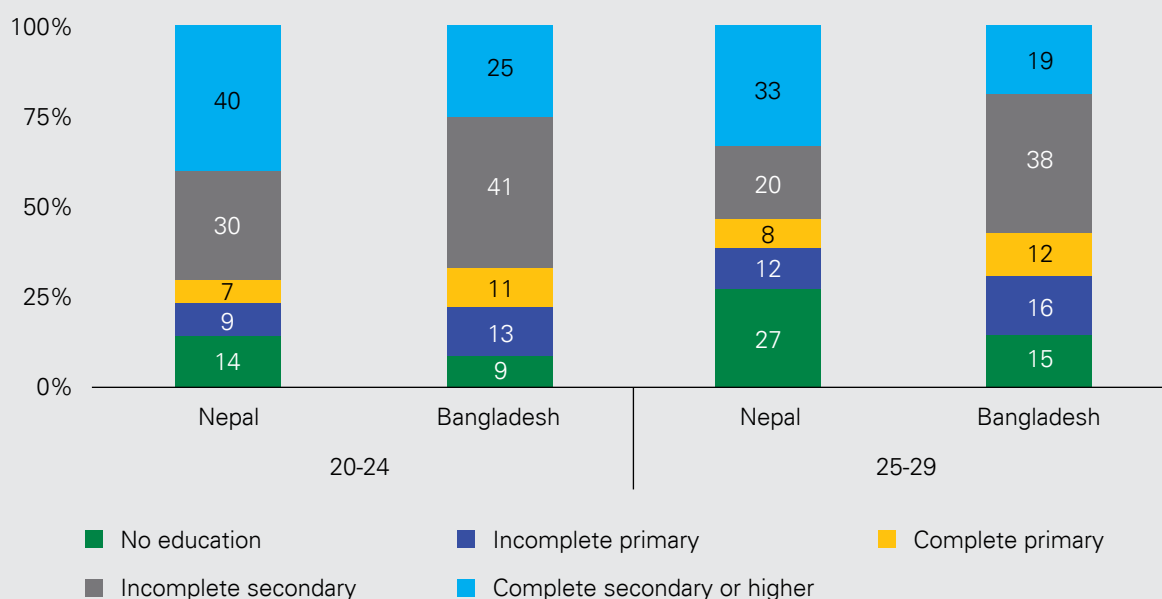
Data utilized are from the 2014 DHS sample for Bangladesh and the 2016 DHS sample for Nepal, the latest available nationally representative data for each country.

Educational attainment

Both countries have strong primary school enrolment and completion levels for girls, and, unlike in Pakistan and Afghanistan, only a very small proportion of women reported never attending school. Challenges are observed for both countries in dropout during secondary school, particularly for Bangladesh, where more than 4 in 10 girls did not complete secondary schooling.

Nepal and Bangladesh have similar educational attainment profiles (see Figure 10). Unlike in Pakistan and Afghanistan, only very small proportions of women never attended school in both countries; this is particularly true for the younger cohorts.

Figure 10: Educational attainment by five-year age cohort (girls), Nepal (2016) and Bangladesh (2014)



Primary school completion levels were high for both countries. Among women aged 20–24, 77 per cent of respondents in both Nepal and Bangladesh had completed primary school in 2016 and 2014, respectively.

In this same cohort, however, a large proportion of women in Bangladesh appears to have successfully transitioned to secondary school, but 41 per cent dropped out before completing that level. This figure was relatively smaller in Nepal at 30 per cent, which also had higher secondary school completion rates compared to that of Bangladesh (40 per cent to 25 per cent).

Interestingly, among women in the 25–29 cohort, the proportion who dropped out after completing primary schooling was lower for both countries than in the younger cohort. However, a higher proportion of women in this age cohort in both countries reported that they had never been to school (27 per cent for Nepal and 15 per cent for Bangladesh).

Child marriage and adolescent childbearing

Girls in Bangladesh and Nepal faced the highest prevalence of child marriage and adolescent childbearing in the South Asia region. Although relatively lower for younger cohorts, nearly three out of four women aged 30–34 in Bangladesh in 2014 were married before the

age of 18. Similarly, nearly half of women in this age group had given birth before their 18th birthday.

Figures 11 and 12 show similar scenarios of child marriage and adolescent childbearing in Nepal and Bangladesh in 2014 and 2016, respectively. The prevalence of child marriage in both countries is high, but particularly so for Bangladesh (see Figure 11).

Among women aged 20–24, 40 per cent of respondents in Nepal and 59 per cent of respondents in Bangladesh were married by the age of 18. For women aged 30–34, these figures were as high as 52 per cent for Nepal and 73 per cent for Bangladesh.

Very early marriage, or marriage before the age of 15, was also highly prevalent in both countries. Among women aged 30–34, 36 per cent of Bangladeshi women reported that they had married before the age of 15, with this figure lower at 12 per cent for Nepal.

Adolescent childbearing figures showed similar trends as expected (see Figure 12), given that childbearing occurs predominantly within marriage in both settings. While childbearing under the age of 15 in Nepal was virtually non-existent, between 8 per cent and 12 per cent of women in

Figure 11: Child marriage by five-year age cohort (girls), Nepal (2016) and Bangladesh (2014)

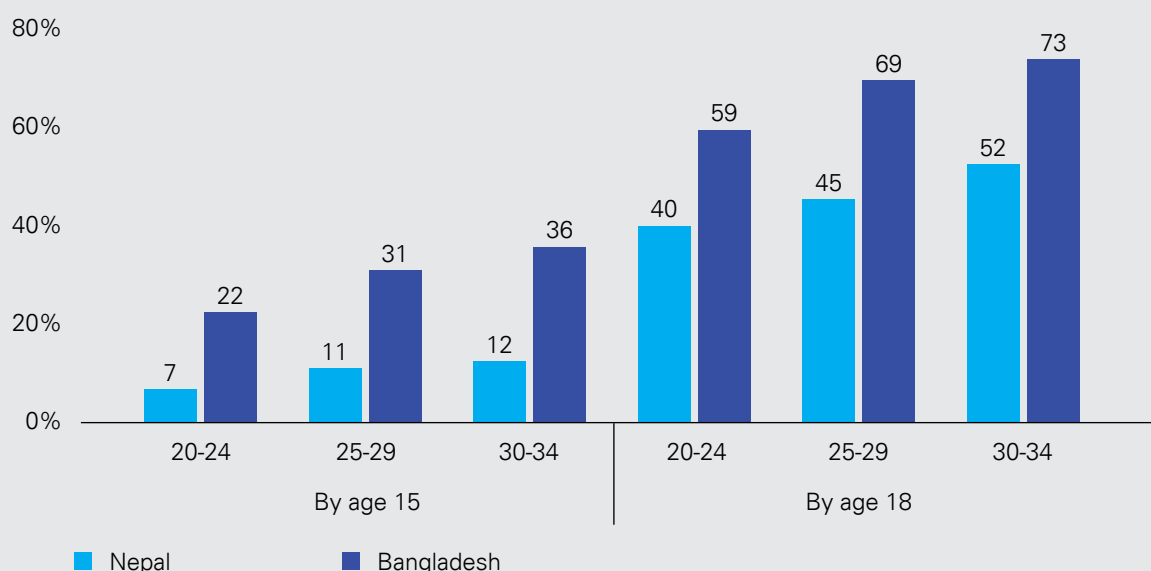
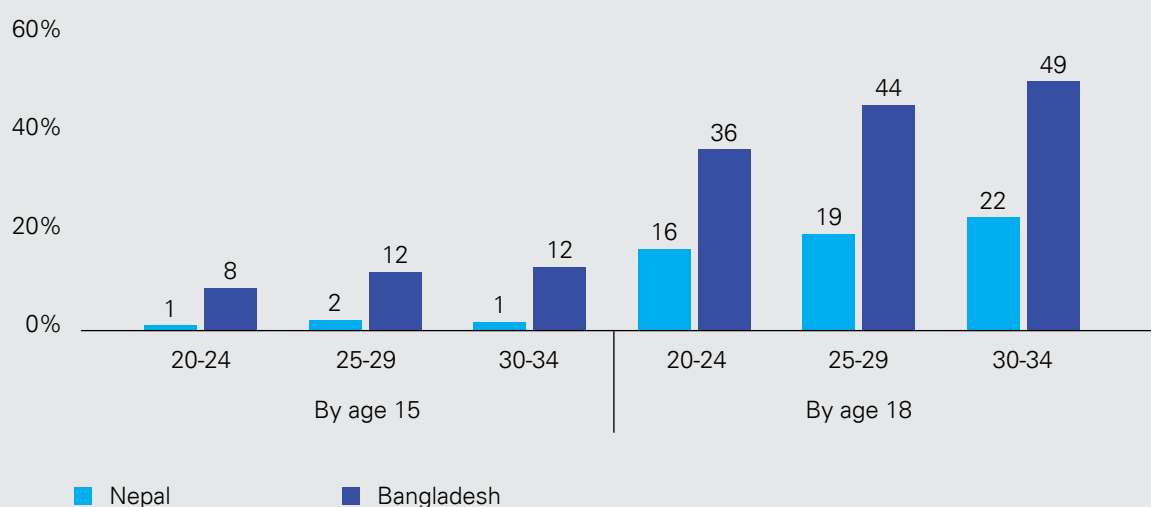


Figure 12: Adolescent pregnancy by five-year age cohort, Nepal (2016) and Bangladesh (2014)



Bangladesh in the age cohorts of 20–24 and 30–34 had given birth by age 15.

These figures were much higher when pregnancy and childbearing are considered under the age of 18, given the prevalence of marriage before that age. In Bangladesh, 36 per cent of women aged 20–24, 44 per cent of women aged 25–29 and 49 per cent of women aged 30–34 reported that they had given birth by age 18. These figures for Nepal were significantly lower at 16 per cent, 19 per cent and 22 per cent, respectively.

Child marriage and education

The association between educational attainment, particularly secondary school completion, and child marriage is evident for both Nepal and Bangladesh. Girls who married after the age of 18 in both countries had remarkably high secondary completion rates, as high as nearly 60 per cent in Nepal in 2016, compared to just 13 per cent for those who married before the age of 18.

Figure 13 shows contrasting educational attainment scenarios by women married before or after the age of 18 in both countries. Among women aged 20–24 who married before the age of 18, there were high levels of dropout after primary school in both settings.

In both countries, high proportions of women in this age group either had never gone to school, or if they had gone to school, had not completed the secondary level. For example, 35 per cent of Nepalese women and 49 per cent of Bangladeshi women who had married before the age of 18 did not complete secondary schooling, compared to only 13 per cent and 10 per cent, respectively, who did. In comparison, 57 per cent and 36 per cent of women in Nepal and Bangladesh, respectively, who had married after the age of 18, completed secondary school.

5.1.4 India: Recently released 2015–2016 data

The data for the National Family Health Survey 2015–2016 for India were recently released and provide an update and current information on the situation of child marriage, adolescent pregnancy and educational attainment after an approximately 10-year hiatus. The analyses indicate significant gains in India across all indicators analysed in this report over this time period.

Educational attainment

India has made major headway in improving educational attainment outcomes for boys and girls with significant strides in improving primary school completion. Despite strong secondary school completion numbers as

Figure 13: Child marriage and educational attainment for women aged 20–24 by child marriage status, Nepal (2016) and Bangladesh (2014)

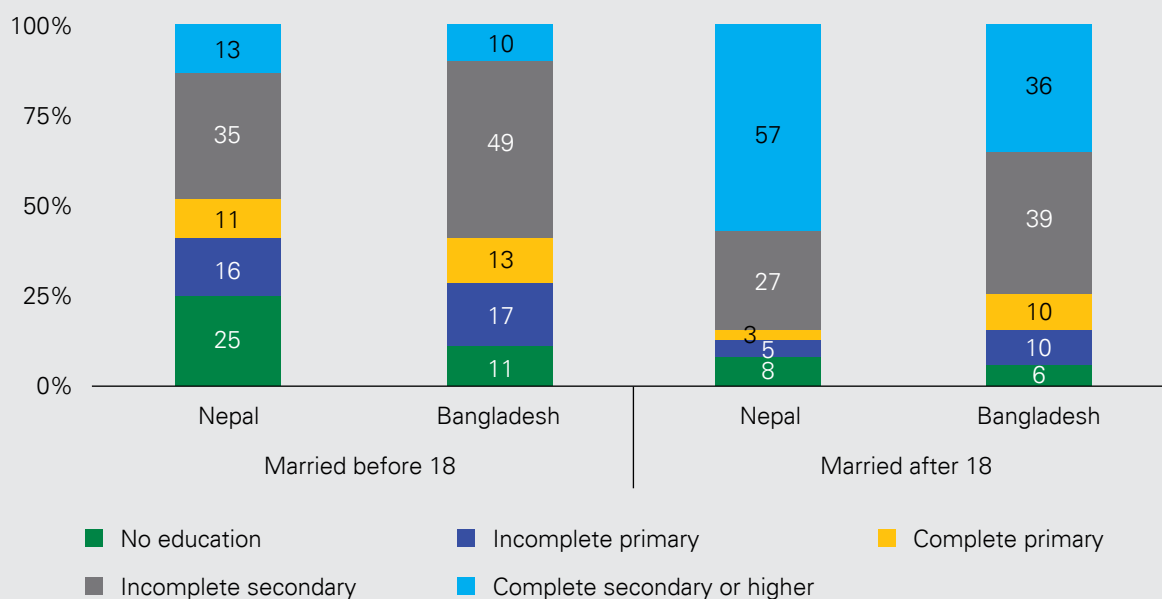
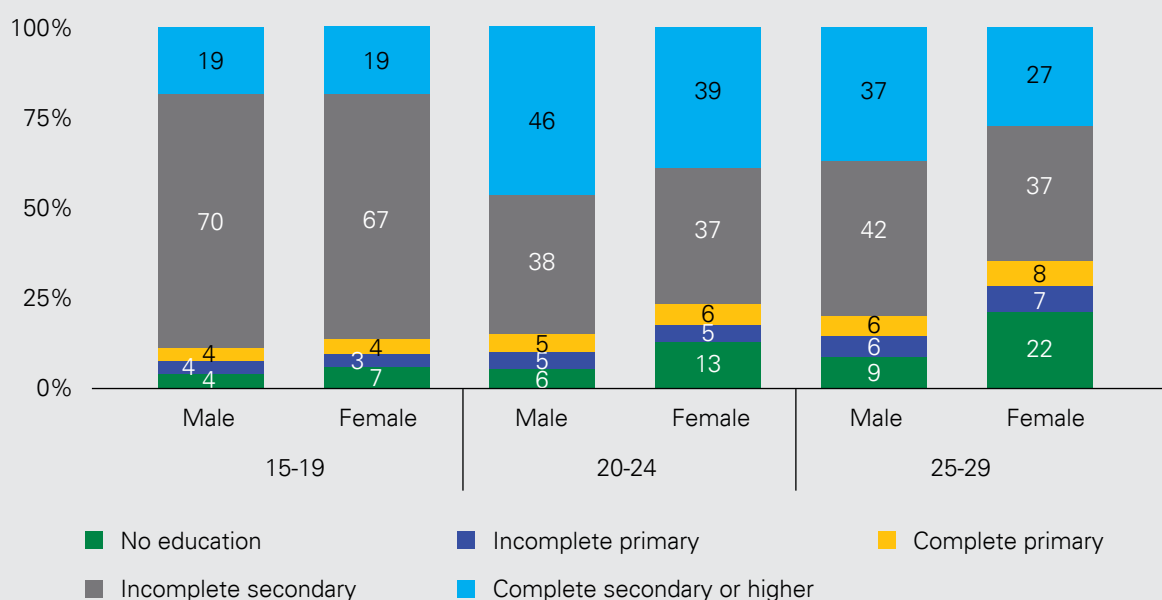


Figure 14: Educational attainment by five-year age cohort (girls and boys), India (2016)



well, India still appears to face challenges, particularly for girls, in the transition from primary to secondary school.

Figure 14 shows the educational attainment for girls and boys in India in 2015–2016. Much like in Bangladesh and Nepal, India has made significant

headway in improving educational attainment outcomes for both boys and girls with important achievements in primary school completion. In addition to ensuring that all young people enter school and complete primary education, a significant challenge remains in the transition from primary to secondary school.

Among the respondents aged 20–24, 43 per cent of both men and women dropped out after completing primary school, although primary school completion rates were 89 per cent and 82 per cent for men and women, respectively.

Secondary school completion levels for India were strong, however, with 46 per cent of men and 39 per cent of women completing secondary school in this age cohort. These figures showed improvement compared to the older age cohort.

Child marriage and adolescent childbearing

Although the prevalence of child marriage and adolescent pregnancy has declined in India over time, they continue to persist at high levels. Nearly half of Indian women aged 30–34 married before the age of 18 and one in five had given birth by their 18th birthday. Levels are much lower for younger cohorts, however, demonstrating improvements over time.

Child marriage and adolescent pregnancy continue to exist in India at relatively high levels, particularly among older cohorts of women, despite significant

progress being made over the last decade (see Figure 15). Among women aged 20–24 in 2015–2016, only a quarter of respondents reported having been married before the age of 18. For women aged 30–34, the figure was as high as 42 per cent.

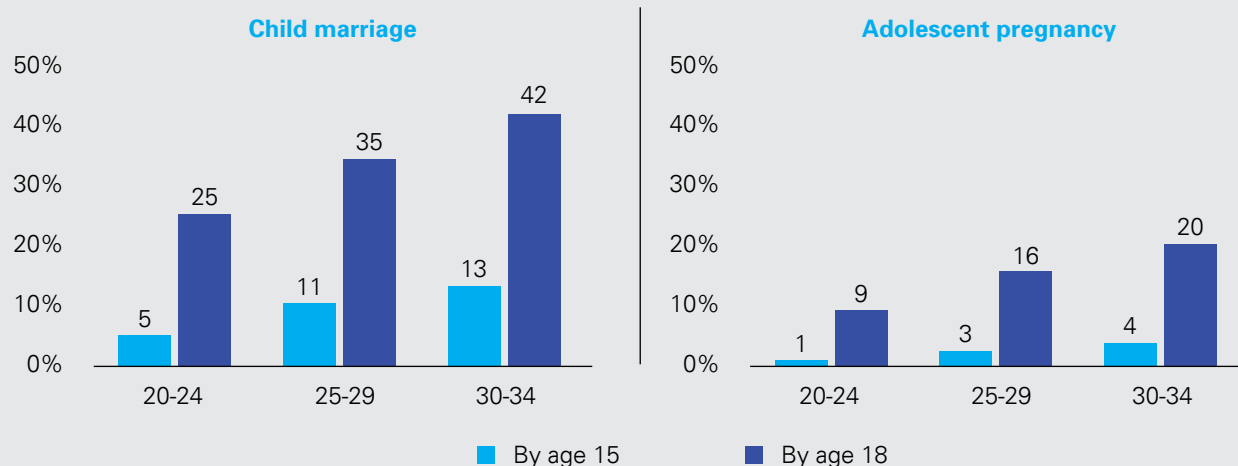
The prevalence of adolescent childbearing was relatively low for younger cohorts, reflecting the fact that childbearing largely occurs within the context of marriage in this setting. Only 9 per cent of women aged 20–24 reported that they had given birth by age 18, compared to 20 per cent of women aged 30–34. These figures are comparable to those observed in Pakistan but are lower than the levels in Nepal and Bangladesh.

Child marriage and education

The association between educational attainment, particularly secondary school completion, and child marriage is evident for India, as it was for Nepal and Bangladesh. Whereas over a third of women between the ages of 20 and 29 who had married after the age of 18 completed secondary school, only 1 in 10 did so if they were married before age 18.

Similar to the cases of Nepal and Bangladesh, Figure 16 shows contrasting educational attainment scenarios by women married before or after the age of 18 in India in 2016. Among women aged 20–24 who married before the age of 18, there were high levels of dropout after completing

Figure 15: Child marriage (girls) and adolescent pregnancy by five-year age cohort, India (2016)



primary school; 57 per cent of women in this age cohort completed primary school but did not complete secondary school. Only 10 per cent of women aged 20–24 completed secondary school.

By contrast, among women aged 20–24 who married after the age of 18, 33 per cent had completed secondary school. Interestingly, 43 per cent of women in this group did not complete secondary school.

Part of the difference between these two groups can be attributed to the higher proportion of women (25 per cent) who had married before the age of 18 who had never attended school, compared to those who had married after the age of 18 (14 per cent). Similar trends were observed for older cohorts of women as well.

5.1.5 Socio-economic status and urban-rural residence: Do they matter?

The analyses so far reveal that while child marriage and educational attainment are correlated in many settings in South Asia, other factors are also relevant in understanding patterns of educational attainment. This section examines the extent to which child marriage, adolescent childbearing and

educational attainment vary by socio-economic status and urban-rural residence within countries.

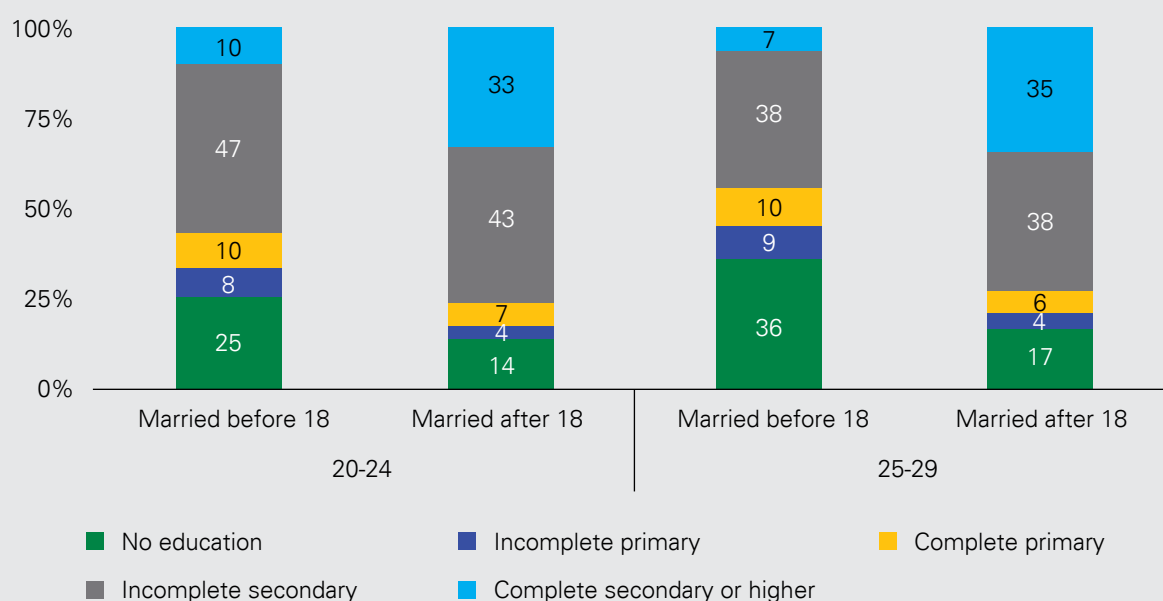
Child marriage and adolescent childbearing

Marked differences are evident in the prevalence of child marriage and adolescent childbearing by socio-economic status in Pakistan, Nepal and India. Among women aged 20–24 in Pakistan and India, nearly half of those in the poorest segment of the population had married by age 18 compared to less than 10 per cent in the richest segment.

A strong association is observed between socio-economic status and child marriage and adolescent childbearing outcomes in the data from Pakistan, Nepal and India, where marked differences are observed in prevalence rates for marriage and childbearing by the age of 18 between the poorest and richest quintiles (see Figures 17 and 18).

In all three countries, the poorest 20 per cent (quintile) of the population demonstrated significantly higher levels of prevalence for both child marriage and adolescent childbearing compared to the richest 20 per cent (quintile) of the population.

Figure 16: Child marriage and educational attainment for women in age groups 20–24 and 25–29 by child marriage status, India (2016)



Among women aged 20–24 in the richest quintile, 20 per cent of women in Nepal, 9 per cent of women in India and 8 per cent of women in Pakistan reported that they had married by age 18 (see Figure 17). By contrast, over 40 per cent of women in the same age cohort in the poorest quintile in these countries had married by the age of 18. There were even starker differences between the richest and poorest quintiles for older cohorts of women.

Similarly, 16 per cent of women in India and 17 per cent of women in Pakistan aged 20–24 in the poorest quintile had given birth by age 18, compared to just 3 per cent and 2 per cent of women in the richest quintile, respectively (see Figure 18). The trend in Nepal was similar for the same age cohort, with 6 per cent of women in the richest quintile having given birth by age 18, compared to 31 per cent among the poorest quintile. These socio-economic status-based differences were even more pronounced in the 25–29 age cohort.

The differences in levels of prevalence of child marriage and adolescent childbearing between socio-economic groups are less distinguishable for Bangladesh and virtually indistinguishable for Afghanistan, with overall levels high across the socio-economic spectrum. This indicates a relatively weaker role of socio-economic status and the potentially stronger roles of social,

cultural or religious norms in the persistence of these practices.

Differences between the richest and poorest socio-economic status groups existed for women in Bangladesh, although the differences themselves were less stark than those observed for Nepal, Pakistan and India. However, marriage by the age of 18 was common in both the poorest and richest quintiles among women aged 20–24 in Bangladesh, with higher levels reported for the poorest quintile (79 per cent) compared to the richest (44 per cent) (see Figure 19).

Differences in levels of adolescent childbearing were even less distinguishable between the top and bottom socio-economic status groups. Among women aged 20–24, 56 per cent of those in the richest quintile and 40 per cent in the poorest quintile reported that they had had a birth by the age of 18.

In Afghanistan, both child marriage and adolescent childbearing are observed to persist across the socio-economic status spectrum without significant variation between the richest and poorest groups (see Figure 20).

Among women aged 20–24 in Afghanistan, 41 per cent of women in the poorest quintile and 29 per cent in the richest quintile had married by the age of 18. These figures for the 25–29 age cohort were 51 per cent and 38 per cent, respectively.

Figure 17: Prevalence of child marriage by socio-economic status, Nepal (2016), India (2016) and Pakistan (2013)

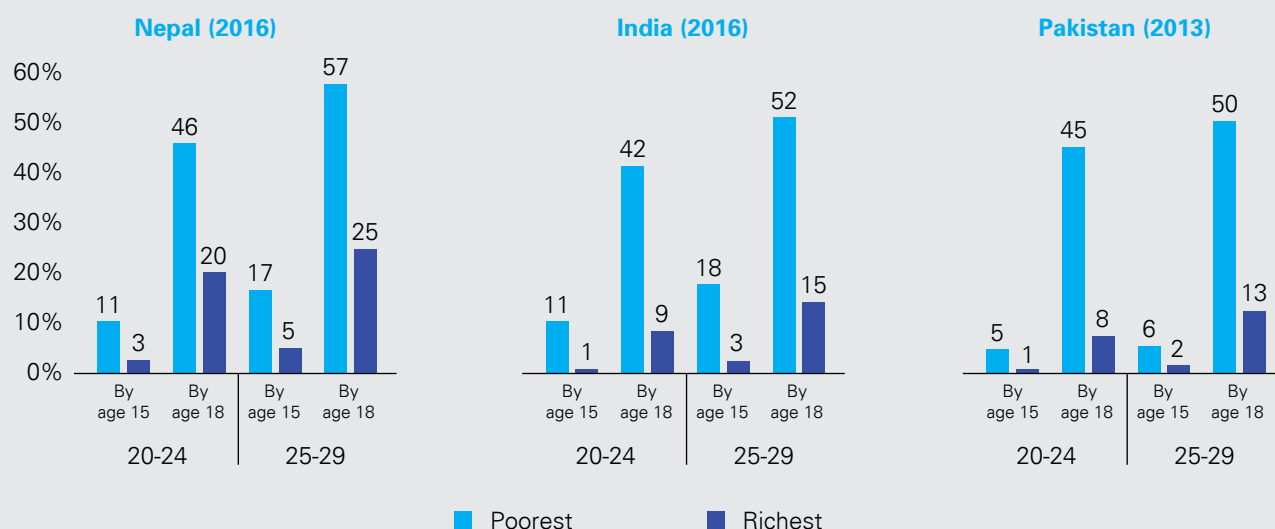


Figure 18: Prevalence of adolescent childbearing by socio-economic status, Nepal (2016), India (2016) and Pakistan (2013)

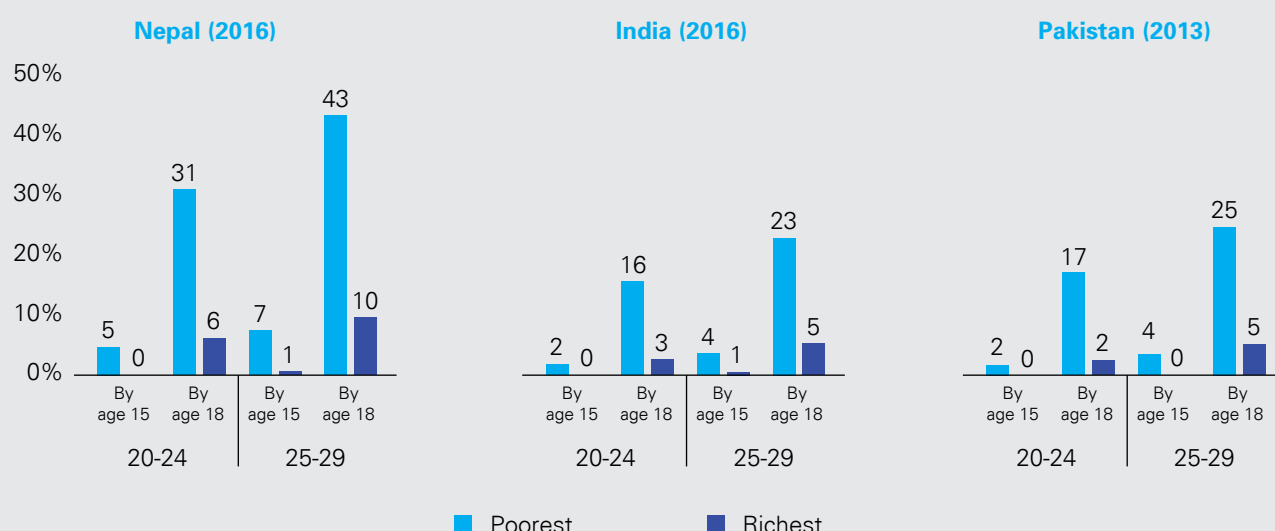
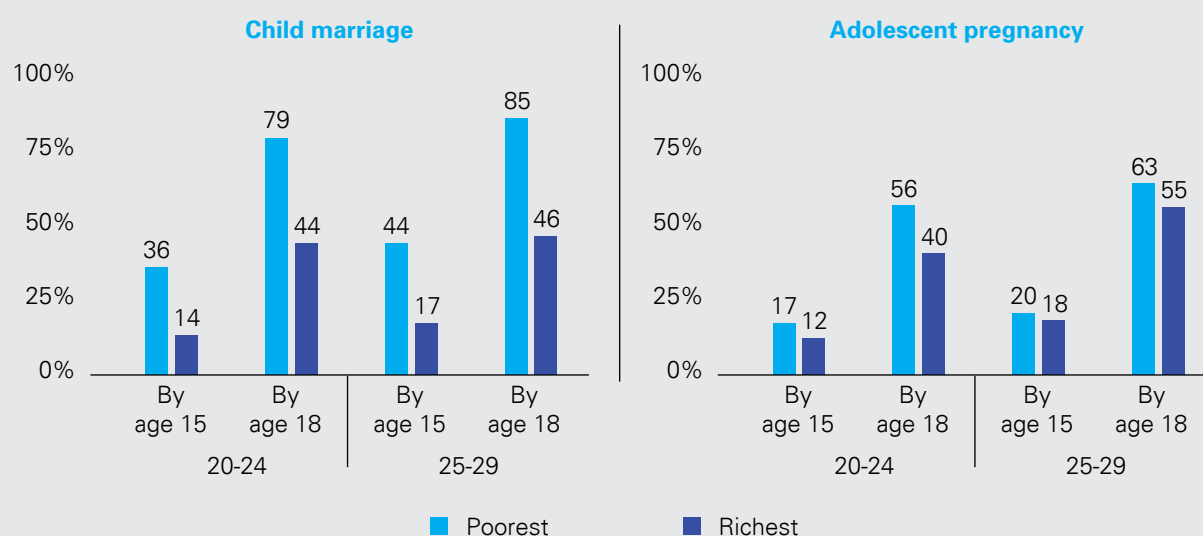


Figure 19: Prevalence of child marriage (girls) and adolescent childbearing by socio-economic status, Bangladesh (2014)



Differences by urban and rural residence do not feature significantly in the outcomes for child marriage and adolescent childbearing and are almost indistinguishable in countries such as Bangladesh and Afghanistan, indicating that social, cultural and religious practices may transcend the urban-rural divide.

Differences by urban-rural residence did not feature significantly in the outcomes for child marriage

and adolescent childbearing, as the size of the differences remained relatively low, particularly for Bangladesh and Afghanistan.

In Afghanistan, among women aged 20–24, 31 per cent of urban and 36 per cent of rural women had married by the age of 18 (see Figure 21). Adolescent childbearing differences were similarly indistinguishable with 19 per cent of women aged 20–24 in

Figure 20: Prevalence of child marriage (girls) and adolescent childbearing by socio-economic status, Afghanistan (2015)

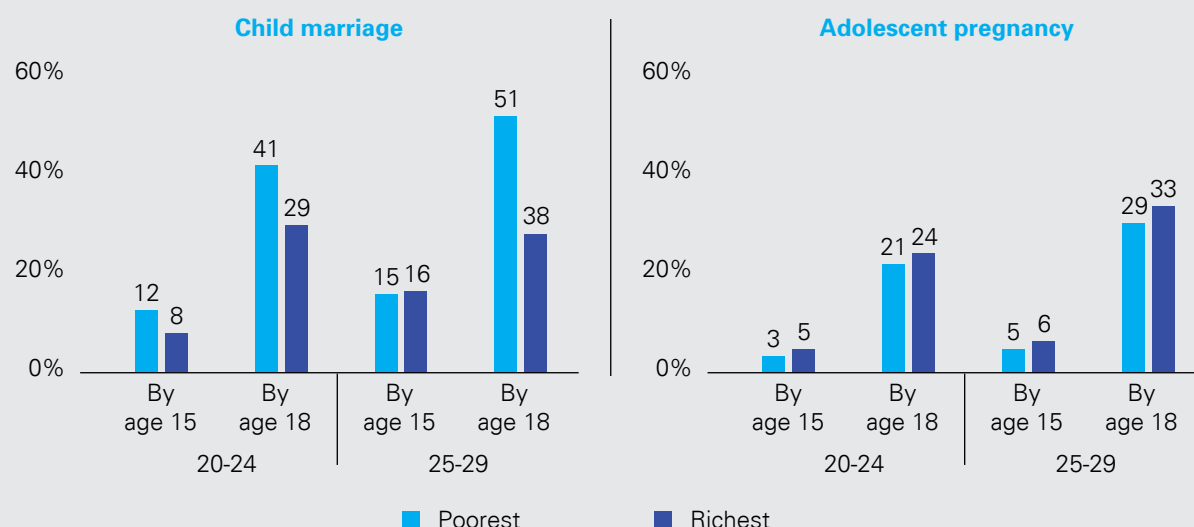
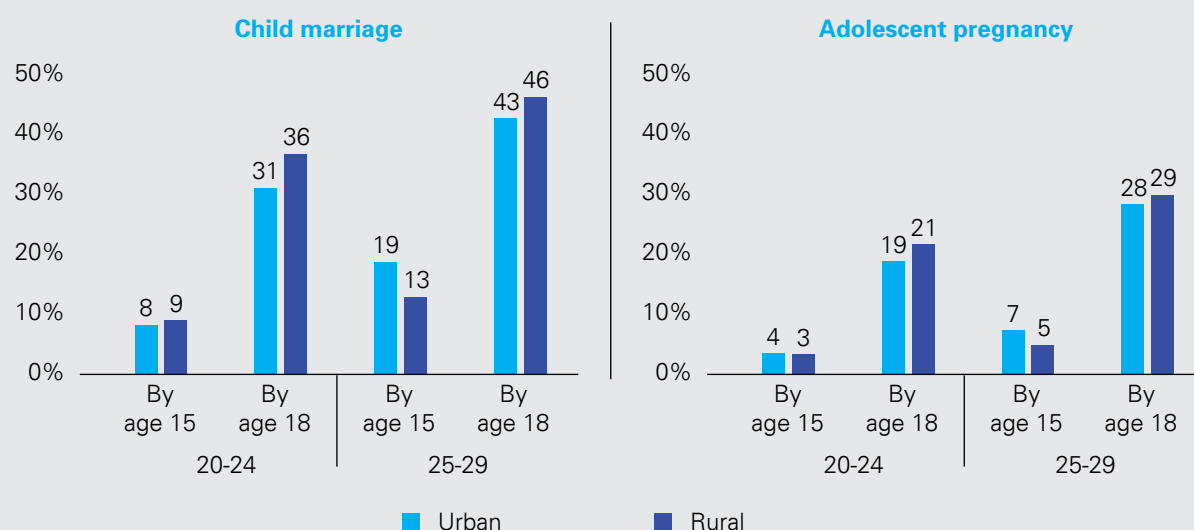


Figure 21: Prevalence of child marriage (girls) and adolescent childbearing by urban-rural residence, Afghanistan (2015)



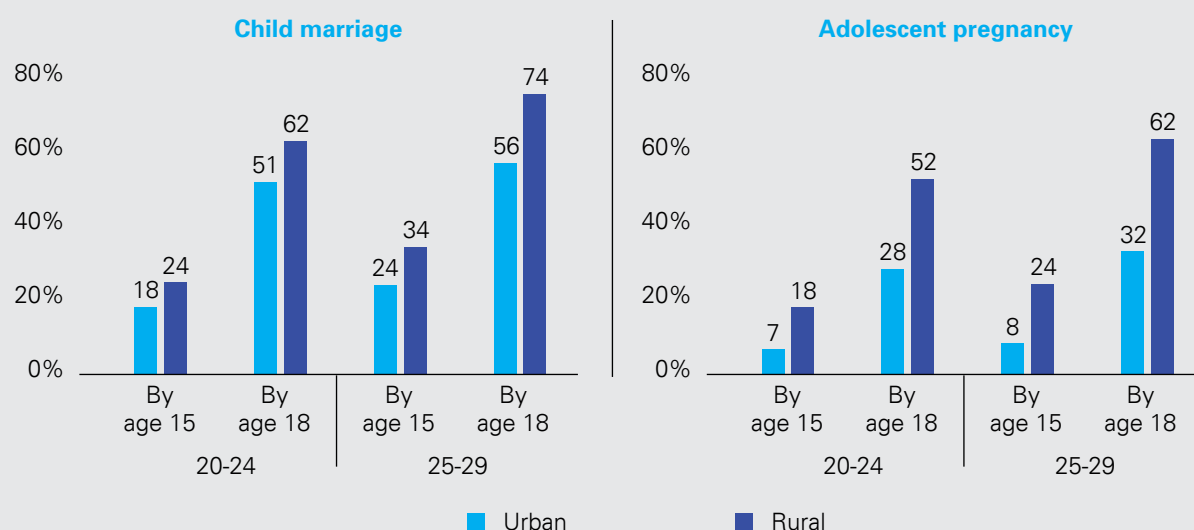
urban areas having given birth by age 18 compared to 21 per cent in rural areas.

In Bangladesh, the differences in figures were somewhat larger, as were the overall levels, for the same age cohort (see Figure 22). The prevalence of child marriage was 51 per cent for urban women and 62 per cent for rural women and 28 per cent and 52 per cent for adolescent childbearing, respectively.

Educational attainment

There are significant disparities in educational attainment outcomes by socio-economic status with marked disadvantages for girls. These are particularly evident in the outcomes for girls in Pakistan, India, Nepal and Bangladesh. Whereas the differences in Pakistan and Afghanistan manifest in the proportions of girls who have never attended school, in Nepal, India and

Figure 22: Prevalence of child marriage (girls) and adolescent childbearing by urban-rural residence, Bangladesh (2014)



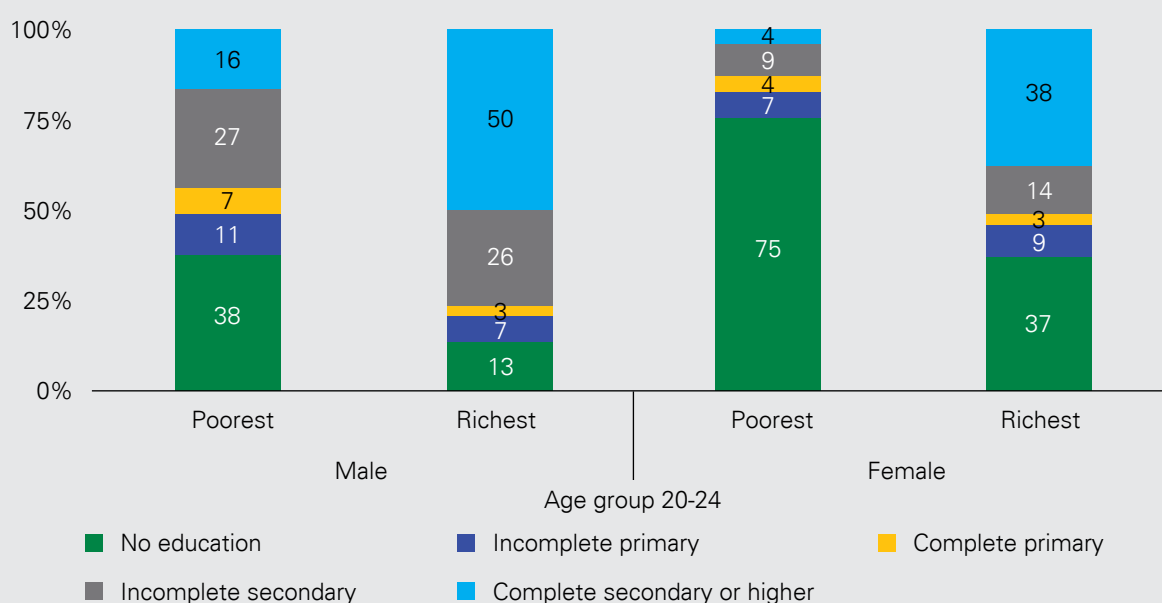
Bangladesh, the differences are evident on the outcome of secondary school completion. In all cases, a vast gap between the richest and the poorest segments of the population is evident. Urban-rural differences are less pronounced in these countries, although disparities do exist.

Examining the differences for educational attainment, the results show the strongest

differentials in attainment by gender, favouring boys, and by socio-economic status. In Afghanistan, three quarters of women aged 20–24 in the poorest quintile had never been to school, compared to only 37 per cent in the richest quintile (see Figure 23).

Among the richest quintile, 38 per cent of women in this cohort had completed secondary school,

Figure 23: Educational attainment for boys and girls by socio-economic status, Afghanistan (2015)



compared to just 4 per cent in the poorest quintile. Differences exist for boys as well, but they are not as stark.

The differences were even more extreme for girls in Pakistan (see Figure 24). Among women aged 20–24 in the poorest quintile, 83 per cent had never been to school and only 2 per cent had completed secondary school, whereas those in the same cohort in the richest quintile, only 5 per cent had never been to school and 72 per cent had completed secondary school. This is by far the most significant inequality observed by socio-economic status.

Although urban-rural differences were observed with outcomes favouring urban settings in both Afghanistan and Pakistan, the differences were not as drastic as those seen for socio-economic status (see Figures 25 and 26).

In Pakistan, for example, among women aged 20–24, 55 per cent of women in urban areas had completed secondary school, while 17 per cent had never been to school, compared to 23 per cent completing secondary school and 47 per cent never having been to school in rural areas.

As expected, the differences were less pronounced for boys than for girls.

Interestingly, the extreme differences observed for Pakistan and Afghanistan were not observed for Nepal and Bangladesh in the urban-rural analyses, although in the latter two countries, women in urban settings performed better than those in rural settings, particularly in secondary school completion (figures not shown).

Differences based on socio-economic status, however, remained pronounced for girls in Bangladesh, Nepal and India (see Figures 27, 28 and 29). In Bangladesh, Nepal and India, secondary school completion among women aged 20–24 in the richest quintile was 48 per cent, 75 per cent and 75 per cent, respectively, very high numbers for countries where secondary school completion has been a significant challenge.

For women in this same cohort, the figures for secondary school completion among the poorest quintile were 5 per cent, 21 per cent and 9 per cent, respectively. This indicates significant poverty related effects on dropout after completion of primary school.

Figure 24: Educational attainment for boys and girls by socio-economic status, Pakistan (2013)

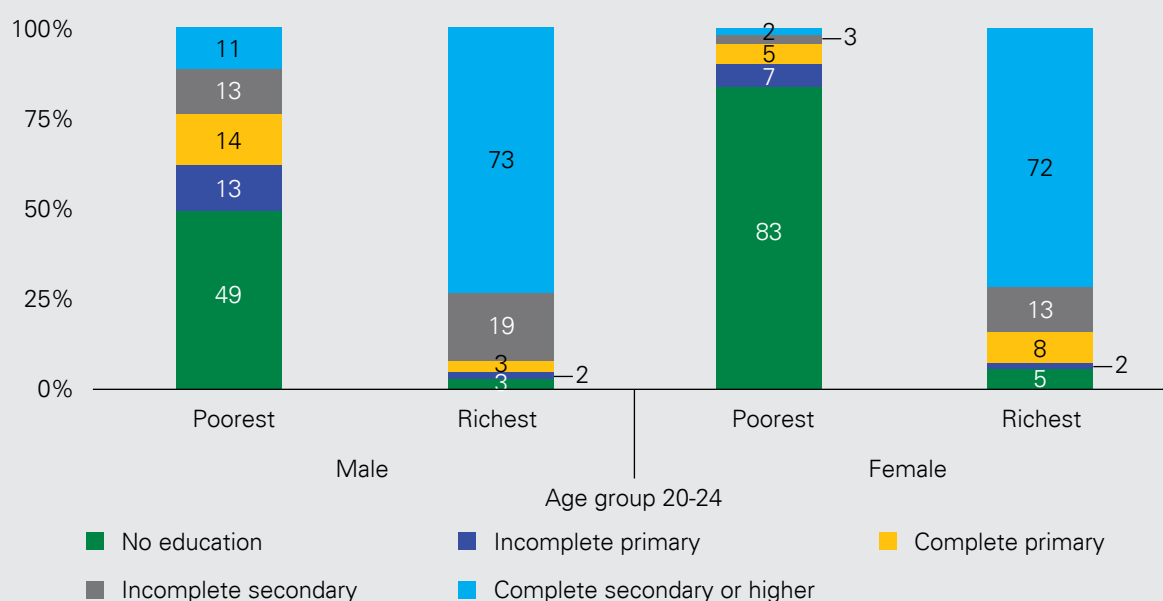


Figure 25: Educational attainment for boys and girls by urban-rural residence, Afghanistan (2015)

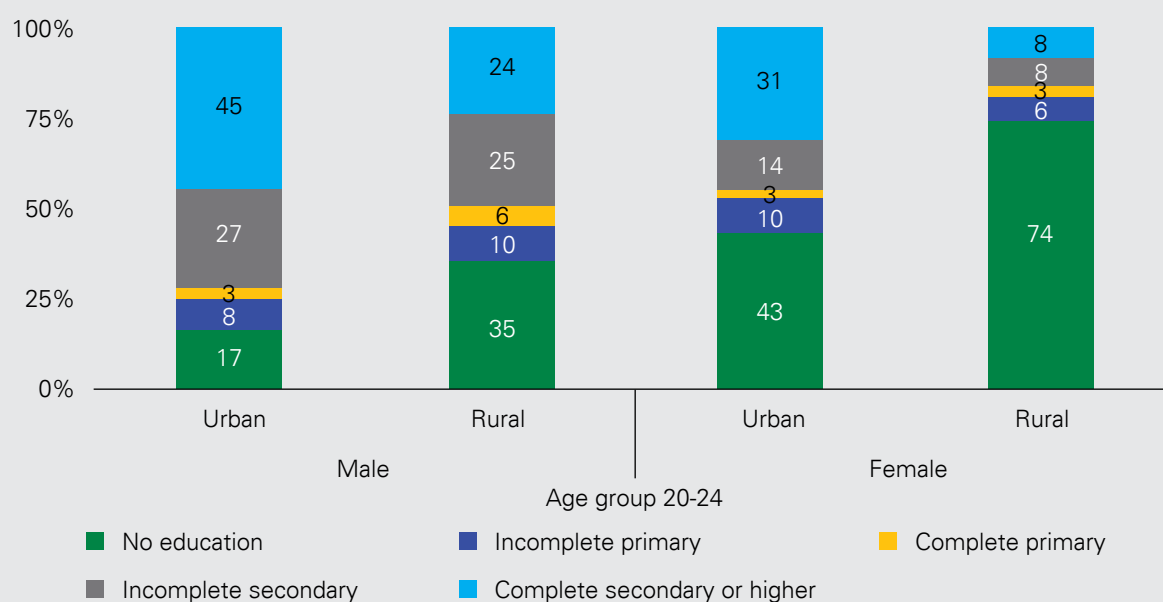


Figure 26: Educational attainment for boys and girls by urban-rural residence, Pakistan (2013)

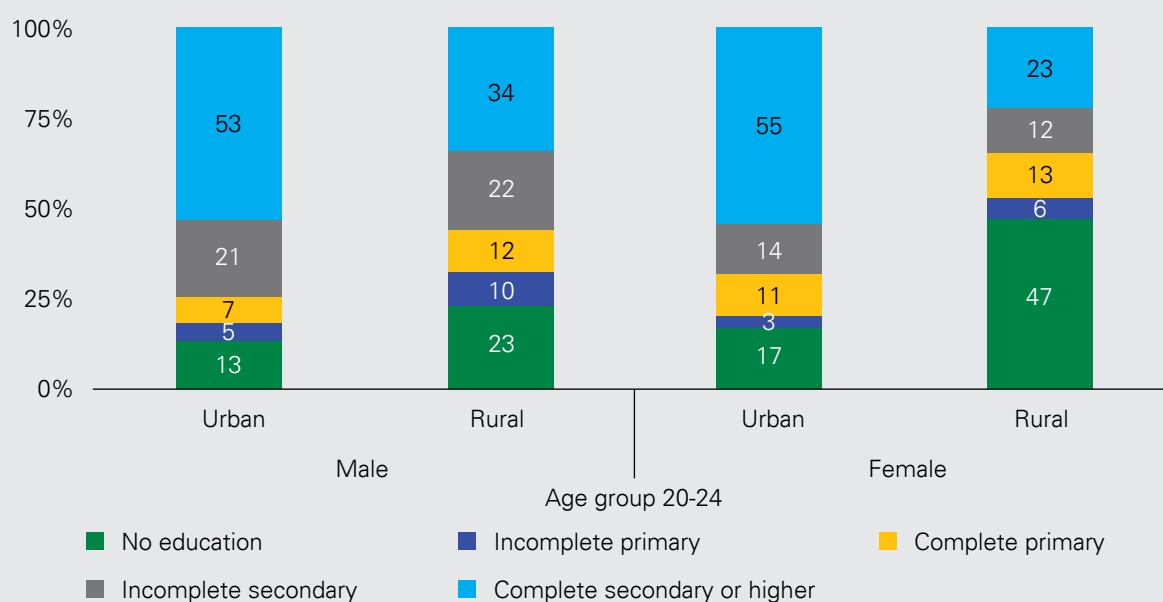


Figure 27: Educational attainment for boys and girls by socio-economic status, Bangladesh (2014)

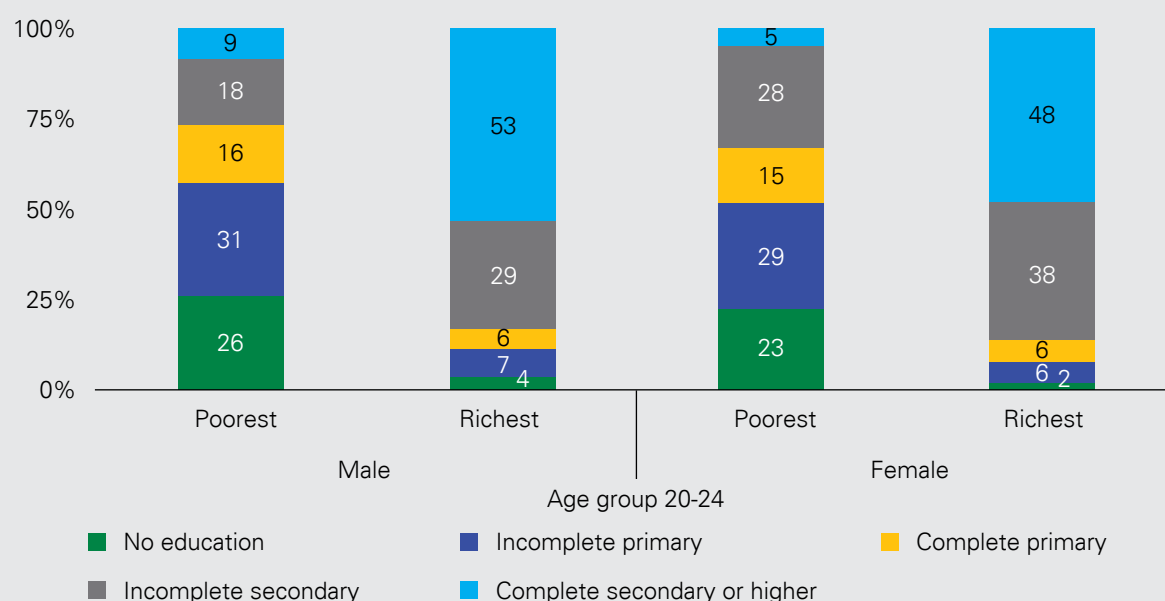
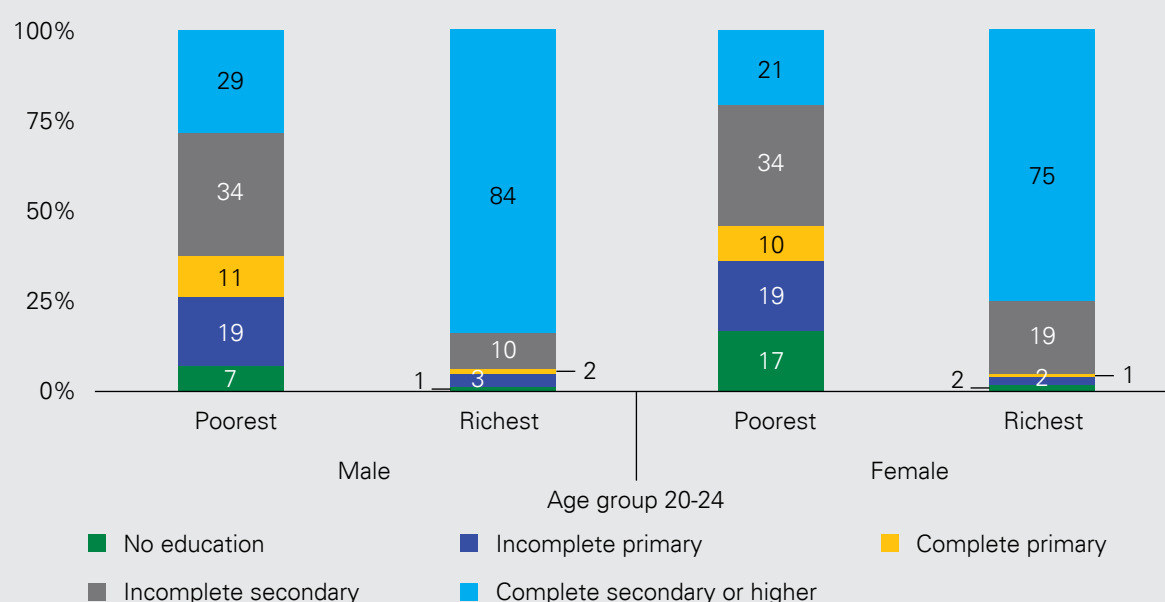


Figure 28: Educational attainment for boys and girls by socio-economic status, Nepal (2016)

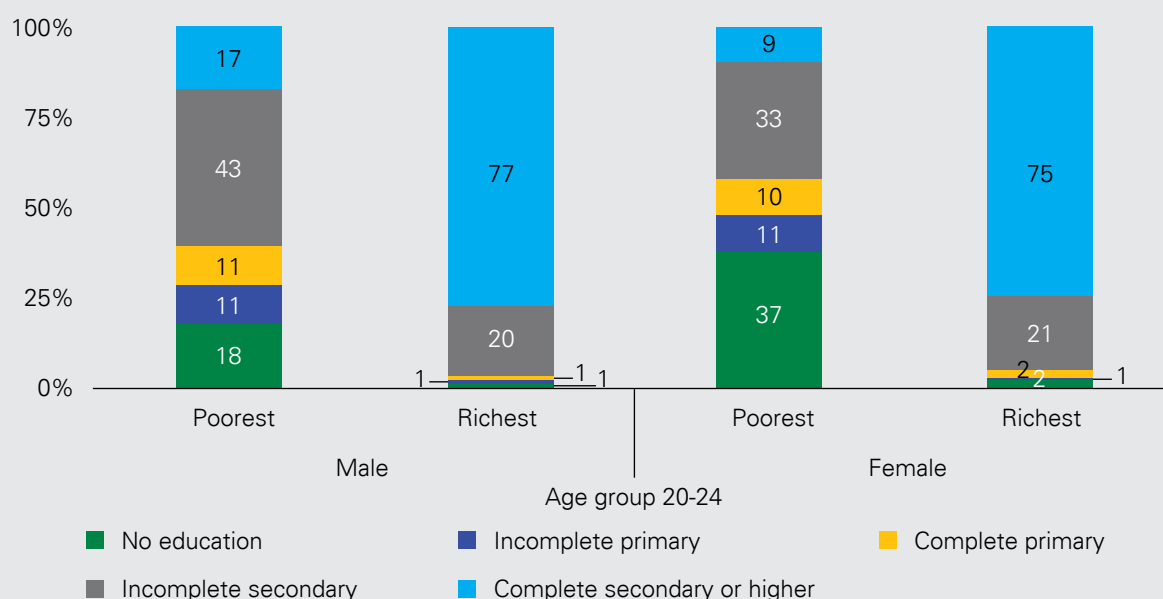


5.2 Multivariate analyses

The descriptive analysis presents evidence that girls' educational attainment and child marriage (and adolescent childbearing, which largely occurs within marriage in South Asia) are closely

related. It is evident, however, that the nature of their relationships varies by country and depends on a range of underlying factors that may influence both child marriage and schooling attainment, including socio-economic status and urban-rural residence.

Figure 29: Educational attainment for boys and girls by socio-economic status, India (2016)



To further illustrate the varying nature of these relationships, this section presents results from multivariate analyses utilizing logistic regression models that focus on the relationship between school completion at the primary and secondary level and child marriage. These models use data on cohorts of women aged 20 to 24 in two countries where the descriptive analysis indicated that these associations were dissimilar: Pakistan and Bangladesh.

In these models, primary and secondary school completion is the dependent variable, while child marriage is the independent variable, represented by whether a girl married before the age of 18. To this base model, a range of control variables are added, which include respondent age, urban-rural residence status and socio-economic status represented by wealth index quintiles. These models show the dynamics of the relationship between child marriage and school completion when these variables are accounted for and provide insights into how the interrelationships differ by country.

However, because the variables that represent educational attainment and child marriage are endogenous, the regression models produced biased and inconsistent estimates of these relationships. Therefore, these estimates should not be interpreted as representing causal

relationships between educational attainment and child marriage. The problem of endogeneity and its implications for the estimation of causal relationships are further discussed in Annex 2 on Instrumental Variables.

5.2.1 Primary school completion and child marriage

The first set of analyses shows the association between child marriage and primary school completion among women aged 20–24 in Pakistan and Bangladesh (see Tables A1 and A2 in Annex 1). As observed in the descriptive analysis, the multivariate analyses also indicate that there is a negative and highly statistically significant relationship between child marriage and the likelihood of a girl completing primary school, meaning a girl who married before the age of 18 has significantly lower odds of completing primary school.

However, these analyses also indicate that the level of this negative association varies between Pakistan and Bangladesh, showing a stronger negative relationship for Bangladesh.

In both countries, the nature of the relationship changes drastically upon the introduction of socio-economic status as a variable, but the introduction of age and urban-rural status affects

the relationship minimally and inconsistently. This indicates that socio-economic status related factors, e.g., poverty, has significant influences on this relationship.

In the model that includes age, urban-rural and socio-economic status variables, the odds ratio for the child marriage variable, indicating the lower odds of a girl's likelihood of completing primary school if she was married under the age of 18, is higher for both countries than in the base model and maintains its high level of statistical significance, showing a stronger relationship for Bangladesh.

5.2.2 Secondary school completion and child marriage

Although results for Pakistan largely mirrored those observed for primary school completion, the results for Bangladesh were markedly different (see Tables A3 and A4 in Annex 1). Even with the addition of age, urban-rural and socio-economic status variables, the size of the odds ratio indicating the lower likelihood of a girl who married before the age of 18 completing secondary school did not change drastically in magnitude, although remaining highly statistically significant.

This indicates that in Bangladesh there may be additional factors, such as cultural and social norms, religion among others, which are not accounted for in these models, which may explain a greater proportion of the relationship between these variables than the ones that were included.

The models also indicate that an individual's age within this age cohort was largely statistically unrelated to the likelihood of school completion and that socio-economic status is consistently and statistically significantly associated with school completion, with the odds of school completion for both primary and secondary school improving exponentially among richer cohorts, with particularly large differences for Pakistan.

5.3 Limitations and future research

One of the most significant limitations of this report is its reliance on cross-sectional data and its inability to identify causal relationships among the constructs of interest. It is clear from the analysis above that the constructs of child marriage and early childbearing are intimately related to educational attainment. However, as

noted, the directionality of the relationships and the determination of causality is more challenging.

Data availability issues particularly related to girls' outcomes after marriage in the South Asian context, upon leaving their natal households, have plagued the ability of researchers to identify robust causal relationships among these constructs due to the inability to temporally order events even with longitudinal data, as well as the inability to address shared underlying determinants of education and marriage.

This report explored a limited number of longitudinal datasets from a number of countries in South Asia, including the Pakistan Family Life Survey, but was unable to identify an existing dataset that could rigorously establish a robust causal relationship between these variables. With the use of DHS data for the primary descriptive and multivariate analyses, the analyses explored rigorous methods to address questions regarding causality, even with cross-sectional data, to address the data limitations.

Some of the most rigorous attempts to analyse the question of the impact of child marriage or early marriage on educational outcomes or vice-versa have come from the utilization of Instrumental Variables estimation approaches (see Annex 2 for more details).

Given the significant limitation, future data collection endeavours should strive to gather detailed longitudinal data on girls and young women, examining their outcomes and life course trajectories not only prior to marriage, but more importantly after they are married. Such data would enable the sequencing of life events for girls including the timing of school completion or dropout, marriage and childbearing. Having data over time on the same individual would also enable the temporal ordering of these life events in the analysis, helping meet a primary prerequisite for causal analysis.

Insights provided by such studies will be able to address some of the questions that this report was not able to answer due to data limitations. In order to estimate causal relationships, more work is needed to collect or utilize data from experimental studies (e.g., randomized controlled trials that effectively improve educational attainment) or natural experiments (e.g., removal of school fees).



6 Conclusions and recommendations

“Child marriage is one important factor associated with educational attainment for girls in South Asia, but policies or interventions aiming to improve girls’ educational attainment must also address broad socio-economic differentials in access to school, as well as cultural, religious and social barriers to delaying marriage and extending girls’ schooling.”

Given the importance of girls' education in improving the health and well-being of girls and their communities, this raises the question: What can be done to accelerate further progress in girls' education in the South Asia region?

South Asia has experienced enormous progress in recent decades in getting girls into school, mirroring similar positive global trends. And yet, many girls in South Asia still never enrol in school, and many of those who do enrol drop out before completing secondary school. Given the importance of girls' education in improving the health and well-being of girls and their communities, this raises the question: What can be done to accelerate further progress in girls' education in the South Asia region?

Recently, global attention has focused on both child marriage and adolescent pregnancy as key barriers to girls' education. Data from diverse settings clearly show, as demonstrated in this report, that girls who marry and begin childbearing at older ages are also likely to receive more education than their peers who marry before the age of 18.

This observation has led many to conclude that delaying marriage and childbearing may be key in keeping girls in school through to secondary school. In practice, the relationships between child marriage, adolescent childbearing and educational attainment are complex and do not simply operate in one direction.

The literature review and conceptual framework showed that rather than decisions about schooling, marriage and childbearing occurring sequentially in many South Asian settings, it is more likely that these decisions are made jointly. Further, factors such as poverty, culture and religion may influence both decisions about schooling and decisions about marriage (and childbearing). Therefore, efforts to delay marriage and childbearing and keep girls in school must address these shared underlying factors.

The quantitative analyses, using data from five countries in South Asia, further expanded on the complexity of the relationship between marriage, childbearing and schooling in these settings.

- The series of country comparisons showed, consistent with previous research, that girls who marry later tend to complete more schooling than their peers in the same country who marry at younger ages.
- Levels of education for girls and women, however, tend to vary more between countries than within countries. That is, within the South Asia region, where a girl is born is an even more important determinant of how much schooling she completes than when she is married.
- In a country like Afghanistan, where 65 per cent of women aged 20–24 never attended school, the difference in educational attainment between those married before and after age 18 is relatively minor. That is, most women in that age cohort in Afghanistan have received very little education, regardless of when they were married.
- In a setting like Bangladesh, however, where most girls not only enter school but continue onto secondary education, the potential for child marriage to disrupt education is much greater.

The analyses also examined differences in levels of child marriage and adolescent childbearing by socio-economic status and urban-rural residence within study countries.

- There were marked differences in levels of child marriage (and adolescent childbearing) by socio-economic status and urban-rural residence in Pakistan, Nepal and India, as expected.

- Surprisingly, however, there was much less variation in levels of child marriage by socio-economic status and urban-rural residence in Bangladesh and Afghanistan, indicating the potentially stronger role of social, cultural or religious norms in driving child marriage practices in these settings.
- There were more consistent patterns linking socio-economic status and educational attainment. In all five countries, girls living in the poorest households received markedly less education than girls living in the richest households.

Overall, while the report shows that child marriage is one important factor associated with educational attainment for girls in South Asia, policies or interventions aiming to improve girls' educational attainment must also address broad socio-economic differentials in access to school, as well as cultural, religious and social barriers to delaying marriage and extending girls' schooling.

6.1 Recommendations

This section presents several important recommendations for future policies, programmes and research aiming to address the links between girls' education, child marriage and adolescent childbearing.

6.1.1 Policy recommendations

- The vast majority of adolescent childbearing in the South Asia region occurs within marriage. Any association between educational attainment and adolescent childbearing is manifested through its relationship with child marriage in this region. Therefore, efforts to delay adolescent childbearing should focus primarily on delaying marriage.
- Given the joint decision-making process related to marriage and schooling for girls, research focusing narrowly on isolating the causal effect of child marriage on educational attainment may have limited policy relevance. Instead, research seeking to identify effective policy and programmatic strategies to both delay marriage and increase educational attainment may be more valuable.

6.1.2 Country-specific recommendations

Afghanistan

- The results show that an overwhelming majority of girls in Afghanistan, even from the youngest cohorts, have never been to school. With such a large proportion of girls and young women out of school, policy and programmes in Afghanistan should prioritize improving access to primary schools for girls, particularly from the lowest socio-economic groups and in rural areas. This could include addressing known barriers to school accessibility for young girls, including cultural, geographical and geopolitical barriers as well as structural, institutional and governance related factors.
- With a significant population of girls out of school, Afghanistan should prioritize accelerated or alternate learning programmes or continuing education programmes for out-of-school girls and women who are beyond school-going age to enable basic literacy, numeracy and life skills.
- Policies and programmes that aim to delay marriage and childbearing are likely to benefit from interventions that focus on changing social norms around child marriage as well as addressing socio-economic factors that are related to child marriage, rather than focus on secondary school completion and dropout. Efforts to address such factors should target girls and young women from across the socio-economic spectrum and both rural and urban areas. Such efforts may also have positive consequences for girls' enrolment in primary school.

Bangladesh

- With relatively high levels of primary school enrolment and completion for the region, Bangladesh should continue to prioritize programmes that improve girls' completion of secondary school. Improving retention in school through improvement in school accessibility and quality should be prioritized. Girls living in rural areas and from the lowest socio-economic groups face the strongest barriers and targeted programmes for these vulnerable groups are likely to produce desired impacts. Government efforts such as the Female Secondary School Stipend Program reflect this focus well.
- Given the proximity of the ages at which girls transition through secondary school and Bangladesh's median age at marriage, the

findings suggest that marriage may impede a girl's chance at completing secondary school. Programmes that improve the attractiveness of schooling to girls vis-à-vis marriage or change social norms regarding child marriage or opportunity costs of schooling, in particular economic and social factors, must be promoted. Girls from the lowest socio-economic backgrounds, who face amplified vulnerabilities on this front, should be prioritized through programmes.

Nepal

- Similar to the case of Bangladesh, Nepal's strong performance on primary school enrolment and completion indicators suggests a focus on secondary school completion is critical to further enhance its successes in education.
- Much like in Bangladesh, the ages at which girls are in secondary school coincide with a relatively young age at marriage for Nepalese women. Strong norms around child marriage and perceived opportunity costs of education for girls affect dropout and secondary school completion. Therefore, a focus on programmes that improve access to secondary schooling as well as retention, which also have elements to counter these norms, including social behaviour change programmes against child marriage, may improve secondary school completion rates. A focus on geographic areas with high prevalence of child marriage and in post-earthquake settings where education outcomes may have experienced setbacks will need to be established.
- Alignment of education sector goals, particularly in secondary schooling, with the national strategy to end child marriage, will improve the likelihood of success in achieving desired outcomes in the education, marriage and adolescent childbearing arenas.

India

- Much like in Nepal and Bangladesh, the most recent data in India indicate challenges for secondary school completion and retention, suggesting a need for a focus at this level.
- Socio-economic inequity is observed to drive inequities in schooling outcomes; thus, a focus on the poorest segments of the population and vulnerable and marginalized groups should be targeted and prioritized.

- Child marriage and adolescent childbearing continue to persist in India at high levels, despite having declined over the last decade. Secondary school retention and completion is associated with child marriage and focused interventions in targeted provinces where child marriage is highly prevalent will likely help reduce the incidence of child marriage and adolescent childbearing as well as improve school completion.

Pakistan

- Large proportions of Pakistani girls, as girls in Afghanistan, never enrol in school and, thus, similar to the recommendation for Afghanistan, school accessibility and enrolment at the primary level should be prioritized in Pakistan, addressing unique country-specific barriers.
- The inequity in education is most apparent between the richest and poorest segments of the population, with significant proportions of those who complete secondary school coming from the richest segments, while girls from the poorest segment do not even attend formal schooling. Thus, a targeted strategy focusing on the poorest girls should be implemented at both the primary and secondary levels to serve as an impetus for improved schooling outcomes and a deterrent to child marriage.

6.1.3 Research recommendations

- The factors driving both child marriage and educational attainment for girls vary within countries, even within the South Asia region. These may include socio-economic, cultural, social and religious factors, the effects of which vary by country. Each of these factors needs to be studied in depth to understand its implications for educational attainment and child marriage in order to develop effective policies and interventions that incorporate and address these important differences. A deeper study of these factors was beyond the scope of this report.
- Rigorous programme evaluations that exploit national programmatic and policy interventions in natural experiments or specially designed impact evaluations that focus on context-specific factors associated with educational attainment and child marriage may provide the evidence required for targeted policy and programme design for country contexts, or even within countries, in this very diverse region.

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Annexes

Annex 1.

Association between school completion and child marriage, Pakistan and Bangladesh

Table A1: Association between primary school completion and child marriage: Pakistan

(Sequential models for women aged 20–24)									
Completed primary school		OR	P> z	OR	P> z	OR	P> z	OR	P> z
Married before age 18		0.287	0.000	0.293	0.000	0.331	0.000	0.497	0.000
Respondent's current age	Reference (age 20)								
	21			1.328	0.173	1.240	0.318	1.070	0.774
	22			1.364	0.096	1.245	0.284	1.071	0.778
	23			1.258	0.212	1.178	0.392	1.080	0.711
	24			1.371	0.089	1.177	0.412	1.074	0.746
Urban/Rural	Reference (Urban)								
	Rural					0.229	0.000	1.006	0.974
Socio-economic status (wealth index)	Reference (Poorest)								
	Poorer							3.565	0.001
	Middle							10.699	0.000
	Richer							31.964	0.000
	Richest							87.622	0.000
	Constant	1.361	0.000	1.075	0.602	3.260	0.000	0.103	0.000

Table A2. Association between primary school completion and child marriage: Bangladesh

(Sequential models for women aged 20–24)									
Completed primary school		OR	P> z	OR	P> z	OR	P> z	OR	P> z
Married before age 18		0.466	0.000	0.452	0.000	0.457	0.000	0.603	0.000
Respondent's current age	Reference (age 20)								
	21			1.068	0.745	1.065	0.754	1.066	0.786
	22			0.982	0.932	0.978	0.918	0.970	0.895
	23			0.814	0.286	0.810	0.275	0.781	0.259
	24			0.594	0.008	0.591	0.007	0.621	0.028

Table A2 (cont.)

(Sequential models for women aged 20–24)									
Completed primary school		OR	P> z	OR	P> z	OR	P> z	OR	P> z
Urban/Rural	Reference (Urban)								
	Rural					0.845	0.170	2.071	0.000
Socio-economic status (wealth index)	Reference (Poorest)								
	Poorer							2.644	0.000
	Middle							4.503	0.000
	Richer							7.292	0.000
	Richest							17.612	0.000
	Constant	5.434	0.000	6.467	0.000	7.276	0.000	0.810	0.386

Table A3: Association between secondary school completion and child marriage: Pakistan

(Sequential models for women aged 20–24)									
Completed secondary school		OR	P> z	OR	P> z	OR	P> z	OR	P> z
Married before age 18		0.271	0.000	0.278	0.000	0.326	0.000	0.502	0.000
Respondent's current age	Reference (age 20)								
	21			1.199	0.491	1.134	0.641	0.934	0.818
	22			1.208	0.407	1.089	0.721	0.959	0.868
	23			1.647	0.029	1.535	0.073	1.356	0.231
	24			1.545	0.051	1.339	0.196	1.168	0.531
Urban/Rural	Reference (Urban)								
	Rural					0.316	0.000	1.255	0.262
Socio-economic status (wealth index)	Reference (Poorest)								
	Poorer							4.801	0.013
	Middle							15.586	0.000
	Richer							32.735	0.000
	Richest							119.116	0.000
	Constant	0.379	0.000	0.284	0.000	0.620	0.015	0.012	0.000

Table A4: Association between secondary school completion and child marriage: Bangladesh

(Sequential models for women aged 20–24)									
Completed secondary school		OR	P> z	OR	P> z	OR	P> z	OR	P> z
Married before age 18		0.205	0.000	0.201	0.000	0.205	0.000	0.235	0.000
Respondent's current age	Reference (age 20)								
	21			1.006	0.977	0.980	0.916	0.942	0.771
	22			1.155	0.440	1.119	0.543	1.040	0.843
	23			0.844	0.380	0.817	0.293	0.770	0.194
	24			0.670	0.041	0.642	0.021	0.666	0.040
Urban/Rural	Reference (Urban)								
	Rural					0.551	0.000	1.222	0.143
Socio-economic status (wealth index)	Reference (Poorest)								
	Poorer							1.942	0.060
	Middle							4.725	0.000
	Richer							7.222	0.000
	Richest							17.079	0.000
	Constant	0.553	0.000	0.606	0.002	0.921	0.630	0.086	0.000

Annex 2. Instrumental Variables estimation

One of the strongest examples of the use of Instrumental Variables (IV) estimation is seen in the work of Field and Ambrus (2008) in Bangladesh examining the impact of child marriage on education outcomes. Field and Ambrus utilized age of menarche of girls in Bangladesh as an instrument in their estimation of child marriage impacts on education.

This work presents a strong argument for the use of age at menarche as a variable that is correlated with age at marriage, but not with education, a critical condition for an instrumental variables approach. In the Bangladeshi context, menarche and marriage occur close to each other. However, for contexts in South Asia where age at marriage is relatively late, such as Pakistan, the correlation does not hold, and thus this analytical approach would be inappropriate.

For a multi-country analysis scenario, such as the one presented in this report, the situation is even more challenging. A study by Nguyen and Wodon (2014) conducted in sub-Saharan African presents a model that has the potential to be replicated in the South Asia setting. The study presents a multi-country analysis among 27 sub-Saharan African nations utilizing DHS data and a variable summarizing child marriage levels at the Primary Sampling Unit (PSU) level (or at the community level) as the instrumental variable.

Nguyen and Wodon argue that these PSU-level variables, either estimated contemporaneously or in previous waves, are likely to affect the probability of a girl being married early, but not her educational potential when controlling for other PSU-level determinants of educational attainment. Given what we know about the underlying factors that are associated with both child marriage and educational outcomes, for example, poverty and social norms, this assumption is unlikely to hold and is a major limitation of this methodology. A replication of this methodology, although performed (results available upon request), is thus not presented here.

A review of the literature on IV methods to answer questions regarding causality on this topic reveals no clearly suitable IVs that can determine a rigorous causal relationship on whether child marriage causes dropout or lower educational attainment for the South Asian context.

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