Query: Please provide a short report on the relationship between child marriage and sexual, reproductive and maternal health behaviour and outcomes including the age of onset of sexual activity; age of first pregnancy; number and spacing of births; use of modern methods of contraception; number of unintended pregnancies and vulnerability to contracting HIV and other STIs. Where available, please provide contextual examples and information on social norms and practices that influence these patterns and the impacts of any changes in these norms and practices.

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1. Introduction

Although the marriage of adolescent girls has been declining in many regions of the world, significant proportions are still marrying at a young age. Early marriage is most common in sub-Saharan Africa, South Asia and Central America (Bates et al., 2007; Lloyd, 2005). The contextual examples provided throughout this helpdesk report will thus focus on these regions.

This report presents findings from a range of studies and literature that address the implications of early marriage on sexual and reproductive health. It focuses on the relationship of age of marriage with: age of onset of sexual activity, timing of first pregnancy and spacing of births, use of contraception and the level of unintended pregnancies, and vulnerability to contracting HIV and other STIs. The report is to be read in conjunction with the prior report on ‘Child Marriage’ (10/03/2010).
2. Age of onset of sexual activity

The trend toward later female marriage throughout much of the developing world has resulted in lower incidence of onset of sexual activity among females before age 15 in most countries and, to a lesser extent, before age 18 (Lloyd, 2005; Brown et al., Mensch et al., and Wellings et al. cited in WHO, 2011: 23). In countries though where child marriage remains prevalent (a number of sub-Saharan countries: Chad, Ethiopia, Mauritania, the Niger, and Senegal; and in the Asian region: Bangladesh and India), sexual initiation of girls at 14 years or younger is still common and occurs predominately within marriage (WHO, 2011; Dixon-Meuller, 2008). In such contexts, there is a close correspondence between early marriage and girls’ sexual debut (WHO, 2011: 24).

A variation of this close correspondence is found in Central Asia (Dominican Republic, Honduras and Nicaragua), where early onset of sexual activity and pregnancy tends to result in cohabitation (or in some cases marriage) rather than the other way around (WHO, 2011).

Mensch et al. (2006) find that while the delay in marriages has in some cases resulted in a rise in the age of sexual debut, in other contexts age at first sex has remained the same. This indicates an increase in the rate of sexual initiation before marriage. Delay in age at marriage has in some countries thus been accompanied by a shift in the context of first intercourse for adolescent girls.

Dixon-Meuller (2008) argues that this shift from marital to non-marital sexual initiation can be beneficial for girls’ sexual and reproductive health. Drawing on the research of Clark et al., they note that ‘non-marital initiation is generally followed by less frequent sexual activity than would be the case within a marital or cohabiting union and is more likely to be protected, even if inconsistently, from early pregnancy and STIs/HIV’ (Clark, 2004; Clark et al., 2006, cited in Dixon-Meuller, 2008: 252). In contrast, Juárez et al. (2008) claim that increases in the number of adolescents engaging in premarital sex are likely to result in higher risks of unintended pregnancy, unplanned birth, and abortion.

Regional variations

Sub-Saharan Africa
Sub-Saharan Africa differs in terms of the correlation between marriage and sexual initiation. In Ethiopia, for example, pre-marital sex is uncommon: ‘the earlier a girl marries, the earlier she has sex’ (Erulkar et al., 2009: 29). In other countries in the region, there is a growing gap between age at time of first intercourse and marriage (WHO, 2011). In Tanzania, for example, the rise in female age at marriage is linked to longer time between sexual debut and marriage (Zaba, 2009).

Central America
In Central America, early unions remain common for women (approximately 45-60% of 20-24 year old women surveyed enter into union as adolescents) and most sexual activity occurs within union among women (in contrast to men) (Remez et al., 2008). There is nonetheless a trend toward postponement of first union in some countries in the region. This has not corresponded, however, with a postponement in timing of first sex or of first birth (Remez et al., 2008).

South Asia
In India, it is difficult to obtain reliable data on the sensitive topic of early pre-marital sex. As such, there is much more information about early marriage than about early sex (Moore et al., 2009).
Lloyd (2005) emphasises that the key consequence of early marriage for women is the fact that those who marry early also bear children at a young age. Early marriage is seen as an important determinant of fertility in developing countries, given the relative low use of contraception (Ahmed et al., 2007). Despite evidence of pre-marital sexual activity, pregnancy and childbearing, it is still more commonly marriage or unions that dictate the timing of parenthood in the developing world. Less than 5 percent of women in the developing world are reported to have a pre-marital birth by the age of 25, although these rates vary substantially across regions (Lloyd, 2005: 531-533). In some contexts, such as in South Asia, childbearing is considered an important role of women and at the same time, there are strong social sanctions against childbearing outside of marriage. This means that ‘early marriage is almost always associated with early childbearing’ (Bates et al., 2007: 101).

The overall percentage of young women who have their first birth before the age of 16 or 18 has been declining. These rates of decline vary substantially, however, and are linked to trends in child marriage. The decline in arranged marriages of girls 14 or younger in some countries where they were once the norm has corresponded with a decline in first birth at age 14 years or younger (WHO, 2011; Dixon-Mueller, 2008; Lloyd, 2005). In contrast, in countries where early arranged marriages are still common (Bangladesh, Chad, Guinea, Mali, Mozambique and the Niger — where as many as one-quarter to one-third of young women had been married before the age of 15), early child-bearing persists: ‘one woman in 10 had a child before the age of 15 years’ (WHO, 2011: 27). In Bangladesh and sub-Saharan countries where child marriage remains common, almost half of women had given birth by the time they turned 18. This is in contrast to ‘one-tenth or fewer in Rwanda, most of Northern Africa and Western Asia (except in Yemen and Sudan), and Thailand, Cambodia, the Philippines, Sri Lanka and Vietnam’ (Dixon-Mueller, 2008: 254).

Early marriage can have various implications for reproductive health. Prior research from developing countries has shown that ‘married adolescents have earlier and higher fertility, poor fertility outcomes, inadequate number of years between children, and lower contraceptive use than have married young adults’ (Raj et al., 2009: 1888). For these adolescents, these patterns persist even into adulthood (Raj, 2010).

Various factors have been noted in the literature as contributing to early childbearing in adolescent marriages. In many settings, particularly in Asia and sub-Saharan Africa, there are societal and family expectations for women to become pregnant and give birth soon after marriage and cohabitation (Daniel et al., 2008; Lloyd, 2005). Further, improvements in general health may have resulted in improved fecundity (particularly in regions where substantial proportions of women marry prior to age 16), contributing to less time between marriage and motherhood (Lloyd, 2005). There is also often a rural-urban divide, with adolescents in rural areas having a lower mean age at first birth than in urban areas (as in the case of Bangladesh). This could be because women in rural areas often marry earlier and may have less working opportunities (Rahman, 2010; Sayem and Nury, 2011).

A recent study by Amin and Bajracharya (2011) compares first birth intervals (time between marriage and first birth) in early marrying regimes (where adolescent marriage is common) and later marrying regimes. This study stands apart from the majority of literature that emphasises the links between adolescent marriage, immediate pregnancy and early childbirth. It finds a ‘clear negative association between age at first marriage and first birth interval, suggesting that birth intervals decline with the increase in age at marriage. […] In early marrying regimes, the first birth interval is consistently longer.
than two years and in the extreme case of Niger, as long as 5 years. In later marriage regimes, birth intervals are consistently shorter and all under 2 years’ (p. 12).

Regional variations

South Asia

Much of the literature on early marriage and childbearing focuses on the case of India. A 2009 study report that nearly half (45%) of 20-24 year old Indian women surveyed marry before they turn 18 (Moore et al., 2009: 1). Data on childbearing indicates that 22% of all Indian young women have already given birth by the age of 18 (12% in urban areas and 26% in rural areas) (Moore et al., 2009: 13). Since childbearing outside marriage is rare in the country, the slow trend toward delaying marriage has resulted in a similar trend in the timing of first birth (Moore et al., 2009: 1).

The key determinants of the first birth interval in India are pressures to prove fertility and access to spacing methods. There is often considerable pressure on young women to prove their fertility as soon as possible after marriage: ‘among married men and women who had cohabited for 12 months or more and for whom age at first pregnancy was known, two thirds reported that the first pregnancy occurred within a year of marriage’ (IIPS and Population Council, 2010, 6). Moore et al. (2009) report that the first birth usually occurs about two years after marriage and that this interval has been reasonably constant. This indicates an absence of change in pressures to have a child quickly or in the lack of access to spacing methods (p. 12-15).

Research indicates that marrying as a minor (rather than as an adult) in India is significantly associated with no contraception used to delay first pregnancy; high fertility (three or more births); poorly spaced birth (a repeat childbirth in less than 2 years); multiple unwanted pregnancies; and reliance on female sterilisation for contraception (Raj et al., 2009: 1883; see also Santhya et al., 2008).

In Bangladesh, early marriage combined with low levels of contraceptive use has resulted in early childbearing (Maitra and Pal, 2007). Sayem and Nury (2011) state that most first pregnancies occur soon after marriage, particularly among adolescents. A recent study on the Rajshahi District in Bangladesh indicates that ‘adolescents who were aged 15 get married at age 14 and have first birth when they were 15 years of age’ (Rahman, 2010: 9).

Amin and Bajracharya (2011) emphasise instead that the use of contraception during the first birth interval has risen significantly since the early 1990s, indicating that: ‘despite what might be considered to be a conservative society, a country like Bangladesh, where girls marry before they reach fecund periods in their lives, might be more open to contraceptives even in the first birth interval simply because the norms around expectations of having children right away are likely not as strong’ (p. 14). They see the use of contraception as the key driver of first birth intervals, exceeding the influence of social norms or biological factors (p. 17). Rahman (2010) finds that approximately 39% of married adolescents use contraception to delay first birth (p. 15). Amin and Bajracharya’s study contrasts the case of Bangladesh with Egypt (a later marrying society); in the case of the latter, marriage occurs during fecund periods of women’s lives, during which the pressure to start bearing children is likely to be stronger. It observes that in the case of Bangladesh, the slight increase in age in marriage that has occurred is likely to correlate with a decline in first birth interval (p. 16).

Central America
Much less literature is available on Central America. In this region, the general decline in the age of first union has not resulted in delays in the age of sexual initiation or changes in the timing of first births. Reported decreases in adolescent fertility rates reflect women having fewer second births during adolescence, rather than a postponement of first birth (Remez et al., 2008). The persistence of early first births is attributed to traditional and cultural norms that continue to support early childbearing; the lack of education and employment opportunities; the desire to please a partner; and the desire to gain status by fulfilling the role of motherhood. Adolescents who have already become mothers are often keen to delay pregnancy; it is thus usually the second birth that is reported as unplanned (mistimed or unwanted) (Remez et al., 2008).

4. Use of modern contraception and unintended pregnancies

The use of contraception is increasing in many developing countries, however rates are still considered low overall. The use of contraception in most developing countries is higher among women in their thirties and usually lowest among adolescent women and women in their forties (Rahman, 2010: 13). This links to the view discussed in the prior section that women who are married, even as adolescents, are often expected to have children right away. This is particularly the case in contexts where women’s gender identities and social status are tied to motherhood, such as in sub-Saharan Africa. The use of modern contraceptives is low in this region, especially among married youth (Hindin and Fatusi, 2009: 59).

In contrast, Amin and Bajracharya (2011) find that when marriage is early, ‘contraceptive uptake might be higher as [a] function of the number of factors … including the absence of expectations to bear children right away when marriage takes place potentially during a time when girls are subfecund’ (p. 19). They also find confirmation in their study of Bangladesh that where social norms related to longer birth intervals was already an accepted practice among an older generation; this will result in higher use of contraceptives among a younger generation of women.

Other factors that may influence the use of contraception is the educational level of women; cultural factors; rural-urban residence; and external interventions. In Bangladesh, for example, the likelihood of contraceptive use increases significantly as women’s education increases (Rahman, 2010). Muslim adolescents in the country were also more likely to use contraception than non-Muslim adolescents. In both Bangladesh and India, adolescent women in urban settings demonstrated higher use of (modern) contraception than adolescents in rural settings, perhaps indicative of greater health facilities and concentration of mass media in urban areas, resulting in greater awareness and access (Rahman, 2010; Moore et al., 2009). Various interventions, including regular visits by family planning workers, are also linked to greater contraceptive use in Bangladesh (Rahman, 2010). In Bihar, India, where contraceptive use has been very low, various behaviour change communication interventions directed not only at young couples, but also at their parents their in-laws and influential community members contributed to a rise in the demand and use of contraception. The aim of the interventions was to promote the use of contraception to delay and increase the spacing of births (Daniel et al., 2008).

The use of or lack of use of contraception is linked to the level of unintended pregnancies. In India, for example, the limited use of contraception among young married couples means that ‘large minorities of married young men and women reported a mistimed or unwanted last pregnancy’ (IIPS and Population Council, 2010: 6).
Regional variations

Sub-Saharan Africa
As noted, the use of modern contraceptives is low among married youth in the region. Among unmarried sexually active adolescents, contraceptive use ranges from ‘a low of 3% in Rwanda to a high of 56% in Burkina Faso’ (Hindin and Fatusi, 2009: 59).

The number of reported unintended pregnancies differs across the region, with a lower level reported in countries, where child marriage is common. For current 15-19 year olds, the proportions of live births whose conception was ‘wanted then’ range from ‘lows of 22% in Swaziland, 34% in Namibia, and about 40% in Ghana, Columbia and Bolivia to over 80% in Guinea, Mali and Chad and 91% in the Niger – the latter representing early-marriage countries’ (WHO, 2011: 27-28).

South Asia
A recent study on contraceptive behaviour among married adolescents in Bangladesh (the first that explores this area) finds that contraceptive prevalence is about 56.7% (54.7% for modern methods, in particular the pill and condoms; and 2.0% for traditional methods) (Rahman, 2010: 13). As noted in section 3, this study found that approximately 39% of married adolescents used contraception to delay first birth (78.1% used modern methods and 21.9% used traditional methods) (Rahman, 2010: 15). The greater reliance in modern contraception is attributed to widespread publicity about such methods.

In India, use of contraception remains very low: just 7% of married 15-19 year old women use a modern method and 6% use a traditional method (Moore et al., 2009: 1). Married adolescent women living in urban areas are more likely to use a modern method than those living in rural areas (Moore et al., 2009: 15). A Youth Study found that few married youth practised contraception at any time during marital life: only 25% of your men and women reported ever using contraceptive methods (of those reported, the most common were condoms, oral pills, and female sterilisation) (IIPS and Population Council, 2010: 5).

Santhya et al. (2010) finds that ‘young women who had married at age 18 or older were more likely than those who had married before age 18 … to have used contraceptives to delay their first pregnancy’ (p. 1). In contrast, the practice of contraception to delay the first pregnancy was found to be rare among married youth (reported by only 5% of young women and 12% of young men) (Youth Study, cited in IIPS and Population Council, 2010: 6). This is the case despite findings from a small-scale study that two-thirds of young married Indian women want to postpone their first birth (only one-quarter had ever used a method to do so). Reasons for this disconnect include issues of access to services; traditional norms that pressure young wives to ‘solidify their standing in their husband’s family by producing a child soon after marriage’; and the predominance of the contraceptive method of sterilisation (Moore et al., 2009: 16; see also Santhya et al., 2008).

Unplanned childbearing among adolescents in India is not uncommon: at the national level, 14% of all adolescents’ recent births were unplanned (mistimed or unwanted) in 2006. Although, this national percentage has been basically the same since 1993 (Moore et al., 2009: 1), there have been changes among urban adolescents. The rise in modern contraceptive use has resulted in the decline in the proportion of unplanned births among urban adolescents from 21% to 13% between 1993 and 2006; rural women did not experience any such improvement (Moore et al., 2009: 16). While the need of married 15-19 year old women for modern contraception has been increasingly fulfilled over time, a
high overall proportion (43%) still have an unmet need for modern contraception (Moore et al., 2009: 1).

Central America
The level of unmet need for modern contraception in Central America is very high and a significant proportion of adolescent births are unplanned (from one-third in Guatemala to almost one-half in Honduras) (Remez et al., 2008: 2). Remez et al., (2008) argue that ‘the high proportions of births that are unplanned demonstrate that young women are not necessarily acting on their stated preference to delay a first birth or space later births’ (p. 3).

Modern methods of contraception that are most prevalent among young women are use of the injectable and the pill. Condoms are rarely used among young married couples, in contrast to single young people. This is due in part to the longstanding cultural norms that associate condom use with infidelity and prostitution (Remez et al., 2008).

5. Vulnerability to contracting HIV and other STIs

In most developing countries, the majority of sexually active female adolescents are married. The literature on early marriage and HIV/STIs is mixed with regard to the links between early marriage and young women’s risk of contracting HIV/STIs.

One set of studies finds that married adolescent girls have higher rates of HIV infection than unmarried, sexually active adolescent girls. Clark (2004)’s study on Kenya and Zambia and Clark et al. (2006)'s later study on 29 countries in Africa and Latin America found that although married girls are less likely than single girls to have multiple partners, this protective behaviour is outweighed by greater exposure to partners who have higher rates of infection. This is due to the fact that early marriage results in frequent, unprotected sex. Moreover, husbands of married girls are usually older on average and have longer sexual histories than partners of unmarried girls. They are thus more likely to have higher HIV infection rates than younger men (Clark, 2004; Clark et al., 2006). In India, ‘women who married at ages 15 or below have an average spousal age gap of 7.3 compared to a gap of 4.7 for women who married at ages between 21 and 25 (Jensen and Thornton, cited in Santhya and Jejeebhoy, 2007: 1293). Thus, married adolescent girls may be at greater risk than both sexually active unmarried women and women who married at a later age.

The older age of husbands also reduces the bargaining power of girls and they are less likely to be able to abstain from sex or negotiate the use of contraception (Clark, 2004; Clark et al., 2006). The inability of young wives to refuse sex or insist on contraception is discussed in much of the literature, including in the case of Central America (Remez et al., 2008) and India (Raj, 2010; Santhya and Jejeebhoy, 2007). In addition, married adolescents are often isolated, with less access to educational and media sources of information of HIV (Clark et al., 2006). A study on Andhra Pradesh and Madhya Pradesh in India found that few young women and men had been exposed to information on STIs and HIV and on the option of practising contraception (Santhya et al., 2008).

Early marriage and corresponding early sexual debut in many cases can also increase the risk of STIs and HIV transmission due to biological factors: ‘the girls’ virginal status and physical immaturity increase the risk of HIV transmission secondary to hymenal, vaginal, or cervical lacerations. Other sexually transmitted infections, such as herpes simplex virus type 2, gonorrhoea, and chlamydia, are also more frequently transmitted and enhance the girls’ vulnerability to HIV (Nour, 2009: 54)
Another set of studies finds that early marriage does not increase the risk of HIV infection and other STIs, and may even protect against transmission. Bongaarts study (2007), which relies on data from 33 countries in sub-Saharan Africa found that late average age at marriage contributes to the spread of HIV due to a longer period of pre-marital sexual activity and a higher number of partner changes. Although married women often have husbands that are older than the sexual partners of single women and thus have higher HIV prevalence levels, Boongaarts argues that these older men are less infectious because they have been infected for a longer period of time. The study finds that the risks that married women face (more frequent sexual activity, lack of contraceptive use, higher infection level or partner) are still less than the risks faced by unmarried women (frequent partner change, higher infectiousness of partners).

Country-level studies have also demonstrated greater risks for women who marry later. A study on Cameroon finds that 'marriage at age 20 years and above predicts a higher likelihood of being HIV positive for currently married women aged 20-29 years … compared with those marrying at age 16 years and under, controlling for age at first sex and current age' (Adair, 2008: 756-757). This is also attributed to a longer period of pre-marital sex. Raj (2010) finds in relation to India that there is no significantly greater risk for HIV among young wives who marry as minors. This is contrast to the literature that emphasises the risks associated with the older age of husbands in early marriage in India. Raj argues, however, that this finding could be due to relatively lower rates of HIV in India (in relation to Africa) and the fact that HIV in India is largely an urban issue, whereas child marriage in India is more pronounced in rural settings.

A study conducted in rural Malawi observes that it is the sequence of events (sexual initiation, pre-marital sexual activity, age at marriage, marital duration) that is more important than any single event. For example, marriage can provide considerable protection if both spouses enter the marriage HIV-negative and remain sexually exclusive; if, however, one spouse is already infected or is subsequently unfaithful, this could increase the risk of HIV transmission (Boileau et al., 2009). Marston et al., (2009) emphasise that factors such as the age of sexual initiation, the age at marriage, or time spent single are underlying determinants but not proximal determinants of HIV transmission. It is proximal determinants (such as behaviour within partnerships, condom use) that can modify the effects of the underlying determinants. They advocate for greater exploration of proximal factors.
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7. Additional information

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About Helpdesk research reports: Helpdesk reports are based on two days of desk-based research. They are designed to provide a brief overview of the key issues; and a summary of some of the best literature available. Experts are contacted during the course of the research, and those able to provide input within the short time-frame are acknowledged.