



Ending Child Marriage and Stopping the Spread of HIV

...Opportunities and challenges for action

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Acronyms

Acquired Immune Deficiency Syndrome	AIDS
African Union	AU
Campaign on Accelerated Reduction of Maternal, Newborn and Child Mortality in Africa	CARMMA
Demographic Health Survey	DHS
Femal Genital Mutilation/ Female Genital Cutting	FGM
Human Immuno- deficiency Virus	HIV
Herepes Simplex Virus	HSV
Maternal and Child Health	MCH
Millenium Development Goal	MDG
Maternal Neonatal and Child Health	MNCH
Non- Governmental Organization	NGO
Sexually Transmitted Disease	STD
Sexually Transmitted Infections	STI
United Nations Population Fund	UNFPA
United Nations Internation Children's Emergency Fund	UNICEF
World Health Organization	WHO

Executive Summary

Child marriage is a significant cultural, political and public health issue on the African continent. Child marriage is defined as any legal or customary union involving a boy or girl below age 18. While it is prevalent throughout the world, it occurs with higher frequency in low-income countries in Africa and Southeast Asia. The many drivers to child marriage include poverty, weakness in civil registration, discriminatory gender relations and cultural and religious norms. More than 700 million women worldwide will get married before age 18, with about one in three of these marrying before age 15.

For more than 30 years, the HIV epidemic has been a top public health challenge in Africa. More than 36.7 million people worldwide were living with HIV at the end of 2015, about 70% of these in Africa south of the Sahara. AIDS is now the number-one killer of adolescents in Africa. What is more worrying is that seven of every 10 new infections of HIV among adolescents are girls, which shows how vulnerable girls are to acquiring HIV. Similar socioeconomic factors drive both HIV and child marriage, but very few studies have shown the causal effects and links between the two.

Ending child marriage and stopping HIV are both fundamental to the socio-economic development of Africa. Ending child marriage is now ensconced in the Sustainable Development Goals, and is the third target under SDG 5. Child marriage continues the cycle of poverty and is linked to poor health, instability and violence. Its deep gender dimensions have a harmful effect not only on individuals, but also on families, communities and economies.

This desk review examines some of the existing literature to highlight what is known about the links between child marriage and HIV, and spotlights opportunities for further action. Very few studies have explicitly explored the two phenomena. Given recent increases in the number of adolescent girls who are HIV-positive and the high numbers and rates of child marriage in countries with high HIV prevalence, the data do suggest a correlation between ending child marriage and stopping the spread of HIV/AIDS. Concerted action on both is

undoubtedly needed. Ending child marriage should immediately be included in HIV programming, and can likely contribute to preventing, treating, stopping and eradicating HIV/AIDS.

Several factors potentially link child marriage to HIV. These include:

- **Immature Reproductive Tract:** The vaginal mucosa in girls is still at an early developmental stage before age 18. The low level of mucosal integrity at this young age, along with the potential for tears and lacerations, make girls who marry before age 18 more susceptible to HIV transmission.
- **Intergenerational sex:** Most girls who are married early have spouses five to 20 years older than they are. These more experienced partners could have had a wider sexual network; increasing the probability the girls will acquire HIV. Intergenerational sex has been shown to increase the risk of acquiring HIV.
- **Potentially higher viral exposure and unprotected sexual intercourse:** Child marriage can be linked with HIV from increased viral exposure through unprotected sexual intercourse, particularly in regions with generalised HIV epidemics. Young married girls are usually expected to fulfil their reproductive roles and bear children soon, and thus are hindered from using contraception.
- **Gender and women's empowerment:** Girls married young and usually to older men are vulnerable to gender-based disadvantages. The imbalance of power in a child marriage significantly erodes a girl's control of her body and her social and economic potential. Transmission, spread and control of HIV hinges closely on improving gender relations; this may be even truer of child marriage.
- **Education:** Due to gender discrimination and other factors, girls in child marriage usually have their education curtailed and lose access to formal education. They do not have basic knowledge of ways to protect themselves from HIV, use condoms, treat current infections or seek health care.

- **Poverty:** Girls in child marriage who are in poverty are less likely to access health care. Even where health services are provided free, costs of transportation and other antecedent expenses hamper their access. The girls are then less likely to seek health care, more likely to be disempowered and more vulnerable to acquiring HIV.
- **Other factors:** Other factors that may be important in links between child marriage and HIV include polygamy and concurrent sexual partners, female genital mutilation/cutting and challenges in health-seeking behaviour.

Some significant challenges exist with data and findings on child marriage and HIV. There is clearly a dearth of studies and literature that examine direct links. While the public health importance of both child marriage and HIV is well recognised, very few studies have reviewed the causal links. To obtain a more complete picture, research on and examination of some of the following questions, related to both public health and the sociological impact are imperative:

- **In what ways does child marriage affect the transmission, control, risk and prevention of HIV?** Further information on transmission dynamics and causal pathways is required.
- **What are the differences between the effect of child marriage in concentrated HIV epidemics and its effect during generalised epidemics?** It would be useful to explore some of the known effects of child marriage during concentrated and generalised HIV epidemics. For example, effects on maternal mortality, prevention of mother to child HIV prevention or acceptable treatments for adolescents.
- **How can child marriage influence the diagnosis and treatment of HIV?** Does child marriage influence diagnosis rates and access to treatment? Are there sociological or cultural barriers to access by married teens?
- **What social research and action is required for child marriage and HIV?** Which support services are required for married

adolescents? Which are the common stigmas associated with both HIV and child marriage? What other sociological factors should be considered as programmes are developed around ending child marriage and stopping HIV?

- **What are the policy implications for child marriage and HIV?** What policies need to be put in place to ensure that both child marriage and HIV are dealt with effectively?

More research is required to fully elucidate the relationships between child marriage and HIV. Most research was done in the early and mid-2000s, and the context of the HIV epidemic has changed dramatically since then, as have public awareness and actions related to the impact of the harmful practice of early, forced and child marriage. However, it is necessary for child marriage to be included in HIV programming, as ending both is crucial to the socio-economic development of the continent. Politicians, activists, public health professionals, affected individuals and other stakeholders are urged to commit themselves to ending child marriage and stopping HIV.

Ending child marriage and HIV requires bold interventions in key areas. It is vital that action be taken in continued advocacy, awareness-raising, legislative change and improvement in social factors such as gender relations, education levels and poverty. Recommendations include:

High-level advocacy:

- Ending child marriage and stopping HIV should continue as a primary focus for member states, because continued high-level political will is more necessary now than ever before.
- The African Union, as custodian of the campaign to end child marriage in Africa, should continue to advocate with partners to ensure that child marriage and HIV are kept high on the public policy agenda.
- UN Agencies, donors and NGOs can play a significant role in continuing to support research, to advocate and to campaign for ending child marriage and stopping HIV.
- Ministers and those who oversee national programmes of health, gender equality, child protection, the courts and legal affairs,

census and data collection, economic development and foreign affairs should convene high-level panels with ongoing work to integrate programmes on ending child marriage and preventing or treating HIV.

Use of data and targeting

- It will be crucial to revise the ways that married girls are targeted and reached in order to ensure that information and services are provided to those who are most vulnerable.
- Improved surveillance techniques and data collection are required in order to identify married girls who may need HIV testing and treatment services.
- Data currently being collected on HIV/AIDS programmes -- including prevalence, demographic information and other key statistics -- should be incorporated into research on child marriage and analysed on sex, marital status, and age of first marriage. This can form a basis for better targeting, research and modification of HIV programmes to focus on child marriage as well.

Research

- More focused research on child marriage and HIV should be conducted and aggressively disseminated to academics, policy-makers, the public health community and media.
- Research now and in the future should include basic science, public health and social factors to fully explore the direct links between child marriage and HIV; and
- The girl child, who ultimately bears the brunt of both child marriage and HIV, must be better served through preventive reproductive health education and services.

Joint Programming between Child Marriage and HIV

- A detailed mapping of current research and a convening of lead researchers in child marriage and HIV would help to better position and highlight the need for joint programmes to end child marriage and stop HIV.
- Lessons learned over the past decades on HIV programming, including prevention, empowerment of women and involve

ment of the community, should be adapted and modified to be readily useful in ending child marriage

- Child marriage programmes can be natural entry points for HIV prevention and treatment programmes, and vice versa. These approaches should be coordinated as an effective way to reach adolescents who would otherwise be left out.

Introduction

Child marriage is defined as any legal or customary union involving a boy or a girl below age 18. Child marriage is prevalent throughout the world, with higher frequency in low-income countries in Africa and South Asia. There are many drivers for child marriage, including gender inequality, poverty, weakness in civil registration, cultural and religious norms, family honour and inadequate legislation. These drivers have caused more than 700 million women to marry before age 18, with about one in three of these marrying before age 15 (UNICEF, 2014a).

Child marriage affects both sexes but girls are disproportionately affected, and they are more likely to enter into an early union. More than four times as many women as men were married before age 18 (720 million women compared to 156 million men) (UNICEF, 2014a). Child marriage is a harmful practice that affects the rights of children (African Union Commission, 2014). It hinders children from attaining their full potential, denies them the right to childhood, deprives them of the opportunity to further education and has marked effects on their health. Nearly all countries have declared child marriage illegal, yet almost 39,000 women worldwide marry before they are 18 every day. By 2020 more than 14.2 million women will be in these unions (UNFPA, 2012).

In Africa, the prevalence of child marriage varies considerably, as shown in figure 1, with striking differences across the continent. In Niger, 76% of girls are married before age 18, while only 5% of girls have similar unions in Djibouti (UNICEF, 2015b). However, of 41 countries with a child-marriage prevalence of more than 30%, 30 are in Africa. This illustrates the gravity of the challenge (African Union Commission, 2014). This is significant as the continent also has an increasingly young population: an estimated 30% of the population is age 10 to 24 (UNFPA, 2014). The scale of child marriage as a socio-economic and health issue in Africa is therefore evident. Indeed, in Africa, the level of child marriage among the poorest has remained unchanged since 1990 (UNICEF, 2015a).

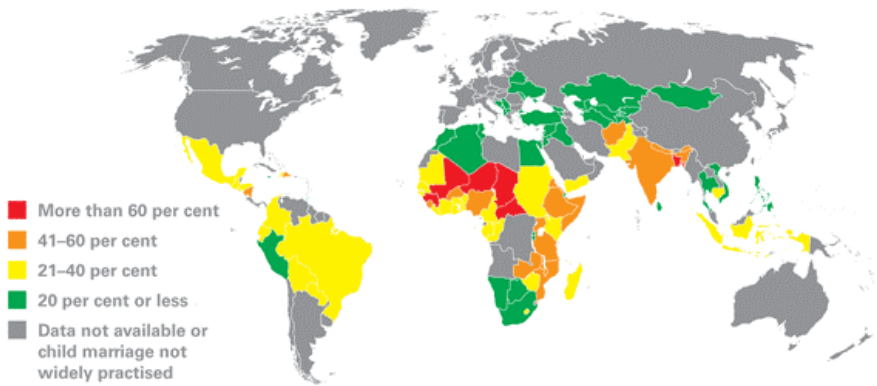


Figure 1: Percentage of women age 20 to 24 who were married or in union before age 18 (1987–2011) (UNFPA, 2012)

Child marriage contributes to, exacerbates and is a result of poverty. Girls from the poorest households are three times as likely to marry before age 18 as girls from the richest households (UNICEF, 2010). Worldwide, more than 56% of child marriage occurs in the poorest wealth quintile. Figure 2 shows the stark distribution of child marriage by wealth index, which highlights how interlinked child marriage is with poverty.

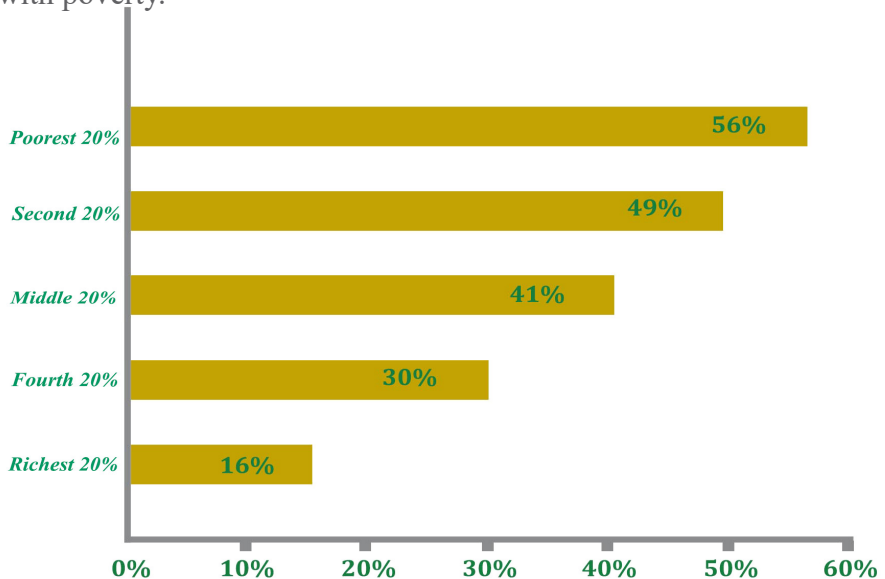


Figure 2: Pourcentage des femmes de 20 à 24 ans qui ont été mariées ou qui ont été dans en union avant 18 ans (1987–2011) (UNFPA, 2012)

When girls are married before age 18, it almost certainly curtails their education. That denies them the opportunity to fully explore their potential and lift themselves out of poverty. Poor families often marry off their girl children before age 18 to stave off the economic burden of raising them and for some financial gain (Erulkar & Muthengi, 2007; Hervish & Feldman-Jacobs, 2011).

Fundamentally, child marriage is the result of gender inequality. The structural social inequalities that drive girls into early marriage are related intimately to the social, political and economic structures that prevent women and girls from exercising their rights to safe, healthy lives. Girls and female-headed households are more affected by poverty due to restricted economic rights and access to avenues out(UNDP, 2016).

Child marriage has a detrimental effect on health. Complications during pregnancy and childbirth are the main cause of death among adolescent girls age 15-19 in developing countries (UNFPA, 2012). Many young girls do not survive childbirth, and an even larger number are left with life-altering injuries such as obstetric fistula due to prolonged obstructed labour. Girls who are married before age 18 are also more vulnerable to intimate partner violence; they will not have access to health-educational materials and will have hindered access to medical care. Mental disorders are often not fully explored in children but are high among adolescents. Poor reproductive and sexual health is among the most important contributor to poor mental health (Patel, Flisher, Hetrick, & McGorry, 2007), so girls who marry before age 18 are at risk for both.

A correlation between HIV infection and child marriage may also exist. HIV is currently the second leading cause of death in adolescents worldwide (UNFPA, 2014). The number of HIV deaths among adolescents is rising steadily. Given increases in the number of adolescent girls who are HIV-positive and the high numbers and rates of child marriage in countries with high HIV prevalence, the data do suggest a correlation between ending child marriage and stopping the spread of HIV/AIDS.

The African Union has firmly recognised and continues to campaign vigorously to end child marriage in Africa. African leaders are committed to the Sustainable Development Goals of UN Agenda 2030, and realise that child marriage can undermine the attainment of these goals. Ending child marriage is crucial in achieving the sustainable development goals, and is a key target under Sustainable Development Goal 5: Achieve gender equality and empower all women and girls. The third target is to eliminate all harmful practices, such as child, early and forced marriage and female genital mutilation (United Nations, 2016). Indeed, the AU has consistently integrated gender-equality priorities in its policies, programs and initiatives. The AU has been leading the continent's effort in ending AIDS by 2030 and is determined to end new HIV infections among females age 15 to 24. In this regard, ending female genital mutilation and child marriage remains at the core of continental social development and health policies.

A high-level campaign to end child marriage was launched to further galvanise action against the practice in Africa. The AU Campaign to End Child Marriage in Africa complements and draws on the years of experience, extensive work and recent success of the AU Campaign on Accelerated Reduction of Maternal, Newborn and Child Mortality in Africa (CARMMA). The Campaign was launched as a follow-up to the AU's 50th anniversary Solemn Declaration that adopted Agenda 2063, the continental blueprint that aims to ensure positive socio-economic transformation of the continent. The roadmap prominently calls for ending all harmful social practices, especially female genital mutilation and child marriage, and for eliminating barriers to quality health and education for women and girls.

A key function of the Campaign to End Child Marriage is to sustain the momentum of efforts to end child marriage in Africa. This includes supporting the development of tools and evidence to keep the issue of child marriage high on the policy agenda. Strengthening the evidence base will assist in designing and implementing effective policies and programmes for reducing child marriage.

This report will examine the links between child marriage and HIV,

highlighting existing knowledge, gaps, challenges and opportunities for action.

Methodology

This review was carried out as a desk study of pertinent literature such as policy documents and reports from the AU campaign for ending child marriage, AU health-related policy documents and UN agency reports. The review included peer-reviewed journals and articles on child marriage, HIV and health. A triangulation and tiering procedure identified the most pertinent documents. The review is also based on secondary data from various sources, including peer-reviewed and published and unpublished reports. Broadly, the literature was divided thus:

Tier 1: Peer-reviewed research papers and articles; articles with high impact ratings; and reports from the UN, AU or similar bodies.

Tier 2: Non-peer-reviewed journal articles, documents and websites from reputable international organisations..

Tier 3: Other website information, personal articles and information.

Tier 1 documents were the main focus of the review. Tier 2 documents were used in several instances to further bolster the review and triangulate with Tier 1 documents. Tier 3 documents were only used sparingly. A reverse-snowball approach was then used on reference lists from Tier 1 and Tier 2 documents, hand-searching for additional articles for relevance to cover the widest spectrum possible.

Literature searches used the following databases and information sources: Pubmed, Mendeley Literature search, Google scholar, the Google search engine, African Union website, UNICEF website, UNFPA website, WHO website and international NGO websites.

Search terms included: *Child marriage(s), early marriage(s), HIV, AIDS, Africa, biological, socioeconomic, girl child, gender violence, socio protection and STIs.*

Links between Child Marriage and HIV

A limited body of evidence shows a direct association between child marriage and HIV. Further research is needed to ascertain direct correlations, but enough is understood to be certain that concerted efforts in ending child marriage and stopping HIV are crucial for the socio-economic development of Africa. AIDS is now the number one killer of adolescents in Africa south of the Sahara, and more than seven out of ten new HIV infections among adolescents are among girls. This underscores the need to have further joint programming in ending child marriage and stopping HIV.

Factors such as increased coital frequency, decreased condom use and lack of control over intercourse in the context of marriage have been cited as possible contributors to an increased risk of HIV transmission. A study in Kenya and Zambia estimated that among girls age 15 to 19 who are sexually active, being married increased their chances of having HIV by more than 75%. Any protection that marriage might offer was not apparent (Clark, 2004). The same study further asserted that husbands of married girls are about three times more likely to be HIV-positive than are boyfriends of single girls. This study compared girls currently in marriage against similar-age girls not in unions. However, the complexity of child marriage, which includes power relations, gender relations, religion and poverty, makes it quite difficult to analyse and derive direct cause-and-effect.

A wide body of literature shows how gender, religion and education have influenced rates of child marriage around the world. Though definite conclusions cannot be drawn, correlations can be made between child marriage and HIV. Social and traditional interactions including patriarchal family and gender differentiation, early marriage, polygyny, domestic violence and culturally imposed traditions have all been cited as contributing to the spread of HIV. A study in Nigeria emphasised the strong correlations between child marriage and HIV transmission, and stated that this was closely linked to the prevailing cultural practice of child marriage in some Nigerian states (Isiugo-Abanihe, 2006).

Child marriage increases the risk for depression, sexually transmitted infection, cervical cancer, malaria, obstetric fistula and maternal mortality. Child brides are at an increased risk for premature birth and, subsequently, neonatal or infant death. Linking all these findings, Nour inferred that child marriage increases the transmission of HIV in some African countries (Nour, 2006, 2009).

Very few quantitative studies show the numerical contribution of child marriage to the incidence and prevalence of HIV. A recent study was designed to assess associations between national rates of girl-child marriage and rates of HIV and maternal and child health (MCH) by using national indicator data from 2009 United Nations reports. The ecological study used regression analysis from data in 96 countries to measure outcomes including maternal mortality, use of health services and incidence of HIV. The overall conclusion was that child marriages were linked to poor maternal health outcomes, including higher rates of maternal and infant mortality and non-use of maternal health services. The regression analysis, however, could not show a clear association of child marriage to prevalence of HIV (Raj & Boehmer, 2013). The authors concluded that as the study used an aggregation of national data estimates, some of the conclusions cannot be readily applied at the individual country level, nor can the findings demonstrate causation, due to several confounders in an ecological study. This again highlights the need for further research in exploring the links between child marriage and HIV.

Factors that could link child marriage and HIV include:

Immature reproductive tract

Several factors make it easier for women to contract HIV than men. These may be further amplified in young girls. A study that sought to understand the central events in the transmission of HIV-1 advanced reasons for early infection including vaginal mucosal integrity, the larger surface area of the vagina, micro-lacerations and the thin lining of the endocervix and the ectocervix transformation zone (Hansasuta & Rowland-Jones, 2001; Sagar, 2010).

“The likelihood of acquiring HIV infection following sexual

contact is most clearly affected by physical factors, such as the presence of genital ulcerating infections, which have been proposed to be one of the main reasons for the rapid spread of HIV-1 in sub-Saharan Africa. Hormonal factors can also influence mucosal integrity.” (Hansasuta & Rowland-Jones, 2001)

“Intuitively, it seems that the virus would have the easiest time reaching susceptible cells at places with minimal barriers, such as the endocervix, the transformation zone between the ecto- and endocervix, or the rectal mucosa, where a single epithelial layer separates the luminal surface from the potential target cells.” (Sagar, 2010)

The vaginal mucosa of girls under age 18 is still at an early developmental phase. The level of mucosal integrity at this young age, along with the potential for tears and lacerations, may link child marriage closely to HIV transmission.

Certain conditions also make adolescents more vulnerable to HIV. An assessment of the epidemiology of HIV/AIDS in adolescents found them more likely to harbour inflammatory sexually transmitted infections (STIs) for longer periods. This increases inflammation and ulceration in the genital tract, which makes it easier to transmit HIV.

“Biologic, behavioural and socioeconomic factors make adolescents and young adults highly susceptible to HIV. Over 3 million teens acquire a sexually transmitted infection (STI) each year, with 15-19-year-olds having the highest rates of chlamydia and gonorrhoea in the United States...Inflammation associated with STIs has been shown to make the infected individual more susceptible to HIV. Young women are further disadvantaged because of the efficiency of transmission of STIs from men to women [and] the likelihood of not being diagnosed if they have a sexually transmitted disease (STD) that does not cause symptoms.” (Catallozzi & Futterman, 2005)

This documents ways that adolescents can be more vulnerable to HIV and shows how child marriage can be a significant public health

concern.

Intergenerational sex

Intergenerational sex in this context refers to sexual intercourse between an individual age 15-24 and a partner 10 or more years older. Intergenerational sex almost always involves gender and power imbalances. A literature review on cross-generational sex included these findings:

“Furthermore, we find probable links between greater age asymmetries and pregnancy, abortion, and HIV infection among girls... [and] that greater age differences between adolescent girls and their recent partners are associated with increased risk of HIV infection.” (Luke & Kurz, 2002)

Girls who have intergenerational sex have an increased risk of acquiring HIV. This may be due to having a more experienced sexual partner with a wider sexual network, which increases the possibility of acquiring HIV. Intergenerational sex is usually strongly associated with increased levels of child marriage, with an age difference between the spouses of 5–20 years (African Union Commission, 2014; Clark, Bruce, & Dude, 2006). Intergenerational sex is associated with both child marriage and HIV and further highlights the complex interactions that link the two phenomena.

A randomised community-based trial on the control of sexually transmitted diseases (STDs) for AIDS prevention in 56 communities of rural Rakai District, Uganda, between 1994 and 1998, involved 6,177 women and investigated the age differences in sexual partners and the relative risk of having HIV. It concluded that the age difference between young women and their male partners is a significant HIV risk factor. This suggests that high HIV prevalence in younger women is caused in part by transmission from older male partners. The key finding:

“HIV risk associated with the age difference between partners was greatest among women aged 15 to 19 years with male partners 10 or more years older (adjusted PRR 2.04; 95% CI:

1.29–3.22) and women aged 20 to 24 years with partners 10 or more years older (adjusted PRR 1.24; 95% CI: 0.96–1.60). The age difference in partners was not associated with HIV risk in women aged 25 to 29 years (adjusted PRR 0.91; 95% CI: 0.69–1.19)” (Kelly et al., 2003)

This documents another potentially key link between HIV and child marriage and is a consideration in efforts to control either factor. It also highlights an opportunity for action to advocate for male engagement in child marriage and HIV prevention programmes.

Potentially higher viral exposure and unprotected sexual intercourse

One of the possible ways child marriage can be linked to increased risk of HIV is viral exposure through unprotected sexual intercourse. This may be particularly true in regions with generalised epidemics.

Several studies have shown that girls in child marriage are expected to have unprotected sex with their spouses. A study that used Demographic and Health Survey data from 29 countries in Africa and Latin America examined the frequency of factors that may increase HIV risk in married women age 15-19 and concluded that marriage does increase the frequency of unprotected sex and potential exposure to HIV:

”... marriage greatly increases their potential exposure to the virus, because marriage results in a transition from virginity to frequent unprotected sex... In all countries except South Africa and Namibia, more than half of adolescent females who had had unprotected sex (i.e., sex without a condom) during the previous week were married; in 18 of the 29 countries, more than 80% were married. These findings reflect both a lower frequency of sexual activity and greater condom use among unmarried female adolescents than among married female adolescents.”
(Clark et al., 2006)

Studies focusing on child marriage in other parts of the world showed similar findings. A study in India which used cross-sectional analyses

of a nationally representative household sample of 124,385 Indian women age 16-49 found that more than 90% of young married girls were not using contraception (Raj, Saggurti, Balaiah, & Silverman, 2009)

The principal factor behind girls' vulnerability to HIV is the increase in frequency of unprotected sex in child marriage. This increases exposure to HIV-infected seminal and vaginal secretions, and constant exposure to such fluids will eventually lead to transmission. A study that sought to understand the central events in the transmission of HIV-1 infection concluded that very high viraemia in the first 6–15 days after infection greatly increases transmission rates (Hansasuta & Rowland-Jones, 2001). It is therefore highly probable that in generalised HIV epidemics, there is a link between child marriage and HIV.

An opportunity for action is to use discussions on HIV as an entry point to discuss sexual and reproductive health issues in the context of child marriage.

Marriage's failure to protect against HIV

Initially, researchers thought marriage offered some level of protection against HIV, and most HIV control programmes were designed with the premise of “staying faithful”. However, it has been shown that marriage offers low protection against HIV infection (Cooper, 2014). Widowhood and divorce leave women even more vulnerable, with high infection rates for bereaved and separated wives (Cooper, 2014). A recent analysis of DHS data in Rwanda and Zambia concluded that 55.1% to 92.7% of new heterosexually acquired HIV infections among adults occurred within marital or cohabiting relationships where one partner was HIV-positive and the other was not (Dunkle et al., 2008).

Few studies have explicitly investigated the rate of prevalence and incidence of HIV in child marriages, but a 10-17% prevalence rate has been found in previously married girls age 15-19 in Ethiopia and Uganda (Bruce, 2007). So even without explicit research on the extent to which HIV can be transmitted in child marriage, it is highly probable that it is significant. It may also be possible that some diagnoses of HIV infection in later life could be a result of infection during child

marriage.

In regions with generalised HIV epidemics it is possible that child marriage could have public health significance and contribute to the perpetuation of the HIV epidemic.

These findings spotlight opportunities to scale up promising interventions to support girls in extreme vulnerability, including forcibly married and HIV-positive girls.

Gender and women's empowerment

Gender, gender relations and women's empowerment play a significant role in linking child marriage and HIV. When girls marry young, usually to older men, they are vulnerable to gender-based disadvantages. The imbalance of power in a child marriage significantly erodes a girl's control of her body and her social and economic potential. Transmission, spread and control of HIV hinges on improving gender relations, and this may be even truer with child marriage. Fundamentally, child marriage is a construct and a result of gender imbalances.

Several documents and studies have shown that girls in child marriages are usually not able to demand safe sex, are usually disempowered and often face gender violence. One study that used data from a population-based survey conducted in 2009–2010 in seven Ethiopian regions examined early marriage among 1,671 women age 20–24 to find patterns of gender relations and partner violence. It concluded that girls who had married before age 15 were more vulnerable to gender-based violence. Some of its findings:

"Those married at very early ages were less likely than others to have known about the marriage in advance or to have wanted it, and they were at elevated risk of intimate partner violence, including forced first marital sex." (Erulkar, 2013)

Girls in child marriages will often be extremely dependent on their husbands economically. This limits them considerably in seeking health care and protecting themselves. Raj et al studied cross-sectional analyses of nationally representative household samples to determine relations between child marriage and mortality of children under five. They found that:

“ In view of previous evidence that child brides are often more controlled by husbands and in-laws, it may be that women married as minors are unable to advocate for adequate nutrition for their children, perhaps in the context of their own limited access to food.” (Raj et al., 2010)

Improving gender relations and women’s empowerment may be key in the campaigns against both child marriage and HIV.

Health-seeking behaviour and knowledge

Girls who are married young usually have their educational opportunities curtailed, reducing the chances they will learn about primary health care and HIV prevention (Erulkar & Muthengi, 2007). Girls in child marriage are further hindered from accessing health education through gender and power imbalances. Gender-based violence also makes it harder for women to access prevention, treatment and care and so could increase vulnerability to HIV infection.

Some studies have shown that girls in child marriage have an increased risk of poor health outcomes, possibly as a result of limited health-seeking behaviour (Hervish & Feldman-Jacobs, 2011). Health seeking and knowledge of one’s HIV status are primary steps for HIV prevention. They may be curtailed in child marriage, making both parties in the union vulnerable.

Education

An individual’s level of education has impacts that cut across several socioeconomic factors and can link child marriage and HIV. Education has been considered an effective social vaccine to HIV (Vandemoortele & Delamonica, 2000). Due to gender discrimination and other factors, girls in child marriage usually have their education curtailed

While very few definitive studies link education to both child marriage and HIV, several studies show the effects of education on one or the other.

A recent study in Zimbabwe showed that educational status was closely associated with increased HIV risk:

“Educational status was strongly associated with HIV/HSV-2

risk, but explained only a small part of double orphans' sexual risk and did not explain the HIV/HSV-2 risk of maternal and paternal orphans. High overall levels of secondary school participation and school fee assistance provided to vulnerable families may have reduced the schooling disparities between orphans and non-orphans." (Birdthistle et al., 2009)

Education can also significantly delay child marriage. A study in Ethiopia found that girls who are in school delayed marriage compared to a control group that did not attend school:

"Using a proportional hazards model, we found that for girls aged 10-14 at baseline, the likelihood of having ever been married increased with age and higher socio-economic status (hazards ratios, 1.3 for each) and decreased with years of education (0.8...). At end line, however, Mosebo girls were much less likely than girls at the control site to have gotten married (0.1), suggesting that the Berhane Hewan program may have helped delay marriage in this age group." (Erulkar & Muthengi, 2007)

It has been estimated that girls in formal education are likely to be married three years later than girls who are not in school (Hervish & Feldman-Jacobs, 2011). Even when girls enter marriage early, those with basic education are better able to protect themselves from harmful practices and to seek health care when needed.

Education could therefore play an enormous role in the links between child marriage and HIV. It has the potential not only to increase health-seeking behaviour and knowledge of HIV but also to delay child marriage, improve women's economic prospects and protect future generations.

Opportunities for improving girls' education can contribute to ending child marriage and HIV.

Poverty

Child marriage is often a product of poverty, low income and diminished economic opportunities. Several studies in various regions in Africa and worldwide have shown that child marriage is driven by the need to improve family income and reduce poverty (Nour, 2009).

UNFPA found that more than half (54%) of girls in the poorest 20% of households worldwide are child brides, compared to only 16% of girls in the richest 20% of households (UNFPA, 2012). Unfortunately, poverty can also increase vulnerability to HIV.

Poverty has been shown to be intimately linked to HIV, both as a driver and as a consequence of it. Studies in East Africa have shown that programmes that provide cash to girls are effective for HIV prevention.

Girls in child marriage who are in poverty are less likely to access health care. Even where health services are provided free, additional costs of transportation and other antecedent expenses hamper their ability to access health care.

Child marriage can be a significant barrier to economic attainment. A review of the economic impacts of child marriage showed that it has a profound effect on the female labour force and reduces employment opportunities for girls:

“Child marriage may influence female labour force participation in a number of ways, including through a reduction in expected returns from participation in paid employment due to lower educational attainment and an increase in the relative value of unpaid household work stemming from higher lifetime fertility... Child marriage may also reduce labour force participation by significantly increasing the barriers to employment posed by fertility and women’s reproductive roles.” (Parsons et al., 2015)

This exacerbation of poverty at both the individual and community level has a profound effect on the health status of girls in child marriage. They are less likely to seek health care, more likely to be disempowered and possibly more vulnerable to HIV infection.

Opportunities for action include promotion of programmes that address poverty and encourage families to keep girls in school, particularly where HIV and child marriage are prevalent.

Other factors

Child marriage is a complex phenomenon and has multiple factors that contribute to it. The drivers of HIV are equally complex. Other factors that may be important in the links between child marriage and HIV include:

Polygamy and multiple concurrent partners:

A number of child marriages may be polygamous or involve multiple or concurrent partners. While few studies have focused on the links between polygamy and HIV within the context of child marriage, it has been shown that concurrency is one of the major drivers of HIV. A study reviewed literature on concurrent partnerships in sub-Saharan Africa and concluded that some of the differences in HIV prevalence could be explained by differing levels of concurrent sexual partnerships:

“...proposed that observed differences in HIV prevalence between and within countries could be partially determined by varying levels of prevalence of concurrent sexual partnerships. Hudson hypothesized that due to high levels of viraemia during initial infection, epidemic spread of HIV would tend to occur in populations with high rates of overlapping partnerships.” (Mah & Halperin, 2010)

“Higher odds than those whose sexual debut comes later of testing positive for HIV... FGC may be an early life-course event that indirectly alters women’s odds of becoming infected with HIV through protective and harmful practices in adulthood” (Yount & Abraham, 2007)

Furthermore, scarring can occur around the vaginal opening after cutting, which can lead to increased injury during intercourse (Hrdy, 1987). These injuries may facilitate transmission of HIV.

These possible indirect links among child marriage, female genital mutilation and HIV may have to be factored into campaigns to end these conditions.

Opportunities for action include encouraging research on the links between harmful practices and HIV transmission, including levirate (in-family) marriages and virginity myths.

Challenges and Opportunities

There is clearly a dearth of studies and literature that examine the links between child marriage and HIV. While the public health importance of both is well recognised, very few studies have reviewed the links. Most that do are from the early and mid-2000s; very little research is from the last five years. The context of HIV has changed remarkably since the mid 2000s, as have public awareness and actions to address the impact of the harmful practice of early, forced and child marriage. It is therefore even more crucial to link programming and opportunities for ending child marriage and stopping HIV, as they are critical to the socio-economic development of Africa.

Research is important to examine the direct links of child marriage and HIV. It is also necessary to review both public health and the social impact of HIV and child marriage as these simultaneously affect Africa's most vulnerable girls.

Some areas that require further research include:

- **Child marriage and its effect on transmission and control of HIV:** Further information on transmission dynamics and causal pathways is required. Understanding ways that child marriage affects the control of HIV, ways to effectively reach married girls, and when and how to commence diagnostic and treatment interventions would be very useful. How much would the incidence of HIV be reduced if child marriage were ended?
- **Differences in concentrated HIV epidemics and generalised epidemics:** It would be useful to explore how the effects of child marriage differ between concentrated and generalised HIV epidemics. Countries with the highest HIV prevalence are not necessarily those with the highest prevalence of child marriage. Would approaches in the two contexts be different?
- **Child marriage and its role in the diagnosis and treatment of HIV:** How does child marriage influence rates of HIV diagnosis, access to treatment, adherence to and compliance with treatment schedules, and viral load suppression?

- **Social research and action for child marriage and HIV:** We should examine in more detail which support services married adolescents require and how they can be encouraged to access HIV diagnosis and treatment. Which are the common stigmas associated with both HIV and child marriage? And how can these be more effectively reduced with a joint approach? We should examine other sociological factors that should be considered as programmes are developed around ending child marriage and stopping HIV.
- **Policy implications for child marriage and HIV:** if the two are intimately linked, what policy changes are needed to deal effectively with those connections? What changes to management information and evaluation systems are required to fully capture the two? What policies are needed to reach this key population?

Opportunities for action are clear in:

Advocacy and community awareness: Increased community awareness of the dangers of child marriage and its links to specific consequences like poor maternal health and HIV is essential. Several authors note that advocacy campaigns have the potential to affect child marriage and HIV rates (African Union Commission, 2014; Berman & Hein, 1999; Bruce, 2007; Clark, 2004; UNFPA, 2012, 2015; UNICEF, 2014a). More nuanced programming and advocacy are required that are tailored to specific communities but have the potential to galvanise action.

Involvement of chiefs and other traditional authorities: Chiefs and other traditional authorities can play a pivotal role in ending child marriage and HIV. Chiefs have significant authority over the unions in their localities and are thus vital players in the ending of child marriage. An example of a traditional authority who has moved to end child marriage is Senior Chief Kachindamoto in Dedza District in Malawi. With support from UN Women, Senior Chief Kachindamoto has annulled more than 1,455 child marriages in 2016 and reintegrated the girls and boys back into school. Other sub-chiefs are now following her lead (UN Women, 2016). Opportunities such as this can be very

successful in ending child marriage and HIV.

Social protection programmes: Social protection programmes by public, private and voluntary organisations as well as informal networks can support communities, households and individuals in overcoming risks and vulnerabilities. Such programmes can improve a community's education, knowledge, health-seeking behaviour and economic security (Jones & Holmes, 2010). Social protection programmes, when grounded in gender-sensitive programming, can offer key opportunities for ending child marriage and HIV. Poverty remediation efforts such as cash transfers that subsidize essential services can also be useful (Barrientos et al., 2014). Social protection programmes could play a significant role in reducing child marriage and HIV.

Recommendations

Ending child marriage and preventing HIV infection require bold interventions in key areas. Continued advocacy, awareness raising, legislative change and improvement of social factors such as gender, education and poverty must be the firm bases on which action is undertaken.

Ending child marriage is critical to the socio-economic development of the continent. Therefore opportunities for increased joint programming and synergy with efforts in HIV prevention should be fully explored and encouraged.

It is fundamental to address the following areas:

High-level advocacy

- Ending child marriage and stopping HIV should continue as a primary focus for member states, because continued high-level political will is more necessary now than ever before.
- The African Union, as custodian of the campaign to end child marriage in Africa, should continue to advocate with partners to ensure that child marriage and HIV are kept high on the public policy agenda.
- The African Union must use other policy instruments in the AU, such as the Maputo plan of action, which integrates SRH and HIV and focuses on adolescents, to further highlight links between child marriage and HIV.
- UN Agencies, donors and NGOs can play a significant role in continuing to support research, to advocate and to campaign for ending child marriage and stopping HIV.
- Ministers and those who oversee national programmes of health, gender equality, child protection, the courts and legal affairs, census and data collection, economic development and foreign affairs should convene high-level panels with ongoing work to integrate programmes related to ending child marriage and preventing or treating HIV.

Use of data and targeting

- It will be crucial to revise the ways that married girls are targeted and reached in order to ensure that information and services are provided to those who are most vulnerable.
- Improved surveillance techniques and data collection are required in order to identify married girls who may need HIV testing and treatment services.
- Data currently being collected on HIV/AIDS programmes -- including prevalence, demographic information and other key statistics -- should be incorporated and analysed on sex, marital status, and age of first marriage. This can form a basis for better targeting, research and modification of HIV programmes to focus on child marriage as well as HIV.
- Better harmonisation of data between HIV and child marriage programmes, including the use of appropriate common tools, will immensely benefit both interventions.

Research

It is important to conduct additional research and use its results for evidence-based programming. To have more effective programming, it is crucial that:

- More focused research on child marriage and HIV should be conducted and results aggressively disseminated to academics, policymakers, the public health community and media;
- Research now and in the future should include basic science, public health and social factors to fully explore the direct links between child marriage and HIV; and
- The girl child, who ultimately bears the brunt of both child marriage and HIV, must be better served through preventive reproductive health education and services.

Joint Programming between Child Marriage and HIV

A further detailed mapping of current research and convening of lead researchers in child marriage and HIV could better position and

highlight the need for joint programmes. This would not only reduce the costs of supporting efforts in both programmes, but encourage better synergy between the two:

- Lessons learned over past decades on HIV programming -- including prevention, empowerment of women and involvement of the community -- should be adapted and modified to be readily useful in efforts to end child marriage
- Child marriage programmes can be natural entry points for HIV prevention and treatment programmes and vice versa. These approaches should be coordinated as an effective way to reach adolescents who would otherwise be left out.

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