# Advancing the Evidence Base on Child Marriage and HIV

White Paper

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## *GENESIS OF THIS PAPER*

In the process of updating a series of policy and technical briefs in early 2018, Girls Not Brides recognized that a positive relationship between child marriage and HIV – frequently cited in advocacy documents and evidence syntheses over the years – may have been overstated. This recognition was deepened through discussions with the World Health Organization, UNAIDS and others. At the same time, UNICEF was seeking to expand its HIV work with adolescent girls and young women and identified a need to better understand how child marriage may or may not impact HIV acquisition, as well as what this evidence may mean for prevention efforts.

This paper and an associated expert consultation were developed to better understand this relationship and its implications for policies and programming. Specifically, Girls Not Brides and UNICEF hosted a consultation with experts from academia, civil society and bilateral and multilateral institutions in New York in November 2018. The goal was to generate an enhanced understanding of the relationships between child marriage and HIV, identifying gaps in the evidence and promising programmes, and establishing a course of action for generating new evidence on vulnerabilities and protective factors for both child marriage and HIV, as well as informing the design of effective programmes (see Annex 1 for a list of consultation participants). This consultation led to a refinement of this paper and the development of a brief action plan to be shared with stakeholders globally. It also generated informal commitments from convening participants to take on some of the recommendations made in this paper, including support for more comprehensive, holistic, girl-centred programmes and policies.


## *ACKNOWLEDGMENTS*

The paper was written by Suzanne Petroni, Gender Equality Solutions, LLC, with important contributions from Arwyn Finnie and Rachel Yates of Girls Not Brides; Manahil Siddiqi of the University of Washington; Chewe Luo, Damilola Walker, Nankali Maksud and Catherine Langevin-Falcon of UNICEF; Venkatraman Chandra-Mouli of the World Health Organization; Alice Welbourn of Salamander Trust; Sarah Baird of George Washington University; and other individuals at the World Health Organization and UNAIDS.

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# Glossary of Acronyms

| | |
|---|---|
| AIDS | Acquired immune deficiency syndrome |
| AIS | AIDS Indicator Survey |
| DHS | Demographic and Health Survey |
| HIV | Human immunodeficiency virus |
| HSV-2 | Herpes simplex virus type 2 |
| IPV | Intimate partner violence |
| MICS | Multiple Indicator Cluster Survey |
| NGO | Non-governmental organization |
| ODI | Overseas Development Institute |
| SRHR | Sexual and reproductive health and rights |
| STD | Sexually transmitted disease |
| STI | Sexually transmitted infection |
| UNAIDS | Joint United Nations Programme on HIV and AIDS |
| UNDP | United Nations Development Programme |
| UNICEF | United Nations Children's Fund |
| UNFPA | United Nations Population Fund |
| WHO | World Health Organization |

# Advancing the Evidence Base on Child Marriage and HIV

## BACKGROUND

A technical consultation on married adolescents sponsored by the World Health Organization (WHO), United Nations Population Fund (UNFPA) and the Population Council in December 2003 provided early impetus for the global discussion on the implications of child marriage for HIV acquisition among adolescent girls and young women. A paper stemming from that consultation noted that early marriage greatly intensifies girls' exposure to unprotected sex and limits their access to HIV prevention information and services. It also found that strategies focused on abstinence, use of condoms and monogamy with an HIV-negative partner were often not realistic for married girls.[1]

Indeed, the interpretation of limited research published in the early 2000s suggested – as illustrated by the adjacent extract – that child brides face a higher vulnerability to, and higher rates of, HIV acquisition than girls and women who marry later.[2] In the years since, advocates, policymakers, researchers and programme designers have interpreted this as evidence of a positive correlation – and even causal relationship – between child marriage and HIV vulnerability. Various international non-governmental organizations (NGOs) and UN agencies have asserted in numerous reports over the years that child marriage increases girls' vulnerability to HIV, and that HIV prevalence rates will decline as child marriage rates decline.[3]

> "Of substantial consequence, yet largely ignored, is the fact that the majority of sexually active girls aged 15–19 in developing countries are married, and **these married adolescent girls tend to have higher rates of HIV infection than their sexually active, unmarried peers**. Thus, married adolescent girls not only represent a sizeable fraction of adolescents at risk, but they also experience some of the highest rates of HIV prevalence of any group."
>
> *From a brief (2004) based on a background paper prepared by J. Bruce and S. Clark of the Population Council for the WHO/UNFPA/Population Council Technical Consultation*

More recent studies, however, have produced contrary findings, such as one that suggests that *unmarried* young women have a higher vulnerability to HIV than those who marry early,[4] and another that reviewed national indicator data from 97 countries and found *no association* between child marriage and HIV.[5] In fact, much about the relationship remains unknown.

Despite increasing attention within the global health and development community to girls and young women as a population disproportionately affected by HIV and AIDS, there appears to be limited evidence from the past decade regarding the relationship between child marriage and HIV. Specifically, there has been scant attention to understanding whether child marriage is, in itself, a vulnerability factor for HIV acquisition or whether the risks of acquiring HIV are more closely associated with early first sex, age difference between partners and frequency of unprotected sex, for example.

In early 2018, Venkatraman Chandra-Mouli and Manahil Siddiqi gave a presentation on these linkages on behalf of the WHO.[6] They noted that some early research that was interpreted as suggesting that child marriage increases the likelihood of acquiring HIV,[7] did not, in fact, demonstrate this fact. Yet, they say, researchers and advocacy groups continue to misrepresent the evidence. Specifically, they wrote that these actors do not always "accurately portray the relationship between child marriage and HIV," and

that much of the data on this relationship is misrepresented in NGO and UN reports, articles and advocacy papers.

Chandra-Mouli and Siddiqi recognized the many streams of evidence that suggest child brides are vulnerable to HIV. Indeed, many factors associated with child marriage and HIV acquisition among adolescent girls overlap; perhaps most significant are harmful gender norms and a range of gender inequalities that underlie girls' vulnerability to these and other negative outcomes. Early sexual onset, unsafe sex, frequency of unwanted sex, age-disparate relationships, low educational attainment, limited access to information, social isolation, and experience of intimate partner violence (IPV) are all characteristically higher within child marriages – and all have been shown to increase adolescent girls' vulnerability to HIV.[8,9] Thus, while we can identify a number of overlapping vulnerability factors between child marriage and HIV, there is currently insufficient evidence to assume a causal link.

While many of these vulnerability factors are common to adolescent girls across cultures and settings, however, it is also critical to understand the contexts in which child marriage and the sexual transmission of HIV are occurring and the factors that may make adolescent girls particularly vulnerable to either – or both – in different contexts. This implies a need for sub-national-level research, including programme and policy evaluation and analysis at local levels. At the same time, a better understanding of the relationship between HIV and child marriage in diverse settings may help to bolster programme design and advocacy arguments in order to more effectively address child marriage and HIV transmission – and to promote the overall health and well-being of girls and young women.

This paper provides a starting point for discussion around what is currently known about the connections between child marriage and HIV. It considers programmatic evidence from interventions that address structural drivers of poor health and well-being among adolescent girls. Lastly, it provides some initial considerations to help guide a research and action agenda moving forward. It is intended to generate further discussion about priorities for policies, programmes and research in the years ahead.

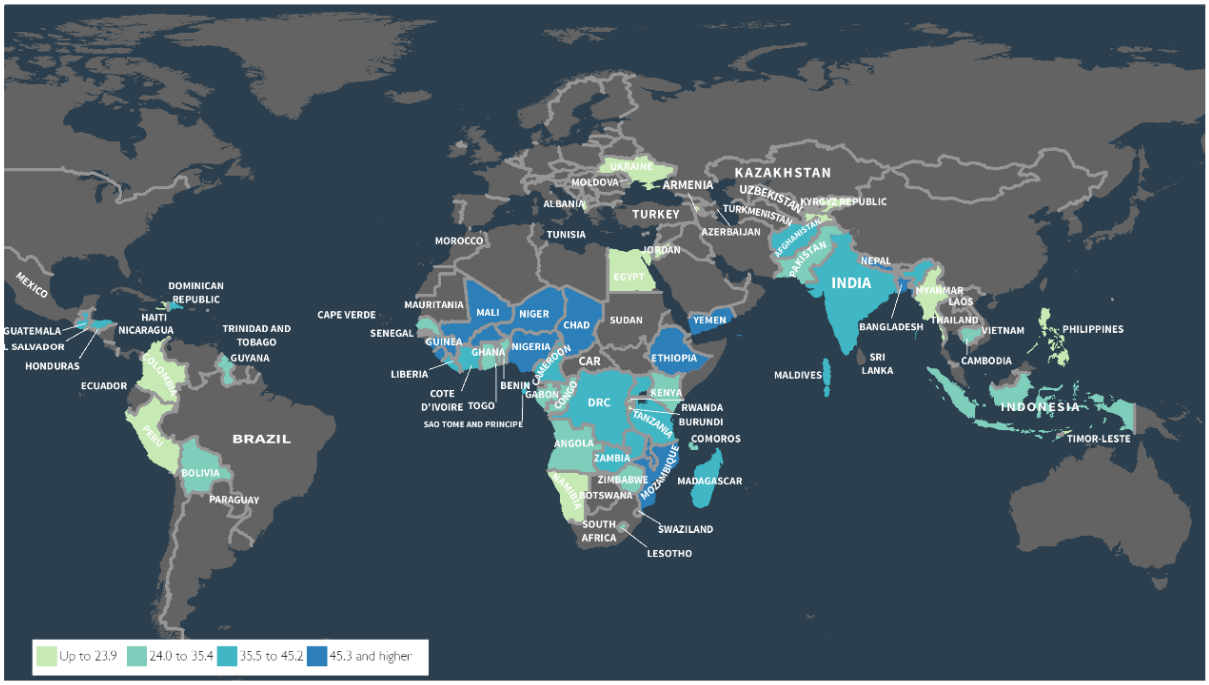
## Child Marriage

An estimated 12 million girls are married before the age of 18 each year, which translates to roughly 32,000 girls every day.[10] Child marriage takes place in every region of the world, across diverse cultures, religions and ethnicities.[11] Both boys and girls are affected by child marriage, but it disproportionately affects girls; some 650 million women alive today were married as children, compared to 150 million men.[12]

Recognizing that national averages mask stark geographic discrepancies within countries, the highest total number of child brides are in South Asia (prevalence rates at the national level can be up to 59 per cent, as in the case of Bangladesh), while many countries in Eastern and Southern Africa – the region with the highest burden of HIV – also have very high prevalence of child marriage.[i] These include Mozambique, with a child marriage prevalence rate of 48 per cent, Malawi (42 per cent), Uganda (40 per cent), Zimbabwe (32 per cent), Zambia (31 per cent), United Republic of Tanzania (31 per cent) and Kenya (23 per cent).[13]

[i] The child marriage prevalence rate is defined as the percentage of women aged 20 to 24 years who were first married or in union before age 18.

**Figure 1: Child marriage prevalence rates for all countries with a Demographic and Health Survey (DHS) or AIDS Indicator Survey (AIS) since 2008.[ii]**




ICF. 2015. The DHS Program STATcompiler. Funded by USAID. http://www.statcompiler.com. September 26 2018

Child marriage rates have declined significantly in recent years in some of the largest high-prevalence countries, such as India, Bangladesh and Ethiopia, which has contributed to a decline in the total annual number of child marriages.[14] UNICEF estimates that the child marriage prevalence rate in India has decreased from nearly 50 per cent to 27 per cent in the past decade alone. However, prevalence rates have remained stubbornly stable in other countries, and in some regions – particularly those affected by humanitarian crises – rates are increasing. A recent study indicates, for example, that child marriage rates may be up to four times higher among Syrian refugee populations now than among Syrians prior to the conflict, suggesting that displacement, instability and poverty are contributing to these marriages.[15]

If current trends hold, an estimated 150 million more girls will marry before they turn 18 by the year 2030.[16] Furthermore, due to population growth and slower rates of decline in child marriage in sub-Saharan Africa, the region is projected to overtake South Asia as the region with the highest absolute number of child brides.[17]

While the issue of child marriage has become prominent on the global agenda only in the past two decades, the evidence regarding the causes and consequences of child marriage has expanded significantly during this time. The drivers and impacts differ for girls in different contexts. We do know, however, that child brides are generally more likely than non-married girls to experience early pregnancy and childbirth, frequent and unprotected sex, high fertility rates, low educational attainment, IPV, poverty, and lower earnings over their lifetimes.[18] The evidence further indicates that child brides

[ii] This map was generated using the DHS Program StatCompiler. The designations employed and the presentation of material on this map do not imply the expression of any opinion whatsoever on the part of the Secretariat of the United Nations concerning the legal status of any country, territory, city or area, or of its authorities, or concerning the delimitation of its frontiers or boundaries.

are often restricted in their physical mobility and limited in their ability to make decisions regarding their health and their households.[19] More recent evidence suggests that child marriage may negatively impact the lifetime mental health and well-being of those married as children.[20,21] What is not so clear, as discussed below, is whether child marriage increases girls' vulnerability to HIV.

**HIV in Adolescence**

Despite global gains in expanding access to HIV prevention and treatment, some 1.8 million adolescents aged 10-19 were living with HIV in 2017 – a 30 per cent increase since 2005.[22]

A large number of adolescents living with HIV acquired the virus through mother-to-child transmission during the perinatal or post-natal periods. In 2017, an estimated 390,389 boys and 380,088 girls aged 10-14 had already entered adolescence with HIV, having acquired the virus through such "vertical" transmission.[23]

It is not possible to reliably estimate the number of very young adolescents (aged 10-14) who acquire HIV each year, as the Multiple Indicator Cluster Surveys (MICS) and DHS, the most widely utilized health surveys globally, typically do not collect data for this age group, including on sexual or injecting drug behaviours, which are both modes of HIV transmission. This applies even to the millions of girls who marry before age 15, and the 10-12 per cent of adolescents in this age group who are sexually active – often, for girls, through coercion.[24]

Globally, some 61 per cent of older adolescents (aged 15-19) living with HIV are girls, and 66 per cent of all new HIV acquisitions among 15- to 19-year-olds occur among girls. In sub-Saharan Africa, the region with the highest burden of HIV, three in four new HIV infections among 15- to 19-year-olds are among girls.[25] In countries with the highest burden of HIV, adolescent girls and young women are much more likely than adolescent boys and young men to acquire HIV.[26]

The higher proportion of new HIV in adolescent girls, as compared to adolescent boys, suggests that sexual transmission of the virus is a greater factor for adolescent girls than for adolescent boys, which has important implications for prevention, treatment and care, particularly in countries with high prevalence of both HIV and child marriage.[27]

Biological factors make adolescent girls more vulnerable to sexual transmission of HIV,[28] but gender-based discrimination is also a significant factor. Specifically, early and forced sex, transactional sex, early pregnancy, a lack of agency in decision-making, poverty, exclusion from education, large age differences between partners, gender-based violence and poor access to accurate health care information and services have all been cited as factors that contribute to HIV vulnerability among adolescent girls.[29,30] As noted above, many of these same factors are common among child brides as well.

**Linkages between Child Marriage and HIV: What does the evidence say?**

A small number of cross-sectional studies in regions of high HIV prevalence from the early 2000s suggested that marriage was associated with higher HIV prevalence among adolescent girls, concluding that early marriage is associated with, and may contribute to, a variety of HIV vulnerabilities. As noted above, these findings were often repeated – and sometimes oversimplified, overstated and/or misinterpreted – in reviews of the literature and in a variety of advocacy publications. These and other studies suffered from some of the methodological challenges discussed below, i.e., they focus on population-level data and/or utilized surveys that were inadequately powered statistically for incidence rates. To date, however, no rigorous longitudinal cohort studies have investigated the linkages between

child marriage and HIV, which may be the type of research required to truly understand the relationship between the two.

Below, we provide a brief synthesis of some of these early studies and reports. It is important to note that these studies vary greatly in scope, sample size, methodology and aims, and cover a diversity of countries, contexts and populations. They are therefore not comparable.

- One of the earliest studies to consider a connection between child marriage and HIV was conducted by Glynn et al. (*Why do young women have a much higher prevalence of HIV than young men? 2001).*[31] The study sampled 1,000 men and 1,000 women in Kisumu, Kenya, and Ndola, Zambia – regions with high HIV prevalence. The authors found that married women and girls aged 15-19 were more vulnerable to HIV than unmarried women and girls in the same age range; however, this only applied if their husbands were at least four years older than them, suggesting that a large age difference may be a risk factor. A minority of child brides who tested positive for HIV had not engaged in sexual intercourse prior to marriage, so the timing of HIV acquisition could not be determined. The study concludes that the higher prevalence of HIV seen in adolescent girls and young women compared to adolescent boys and young men stemmed largely from their greater physiological susceptibility to HIV and suggested a high risk of HIV acquisition during first intercourse for girls and women.
- Kelly et al. (*Age Differences in Sexual Partners and Risk of HIV-1 Infection in Rural Uganda, 2003*)[32] studied 6,177 ever-sexually active women aged 15 to 29 years in rural Uganda. The study concludes that "high rates of HIV infection in female adolescents and young women were a result of the early onset of sexual activity," and finds that a large age difference between partners was a risk factor for HIV in young women, "particularly young married adolescents." The study notes that, "Among HIV-infected women 15 to 19 years of age, 88.5 per cent were ever-married (i.e., currently married, separated, divorced or widowed) compared with 66.4 per cent of HIV-negative women aged 15 to 19 years." This, the authors note, "suggests that many of the HIV-positive female adolescents were infected by an older husband," but the study did not rule out that some of the HIV-positive married girls included in the study may have acquired HIV prior to marriage.
- Clark et al.'s *Early marriage and HIV risk in sub-Saharan Africa* (2004)[33] is perhaps the most frequently cited article justifying the claim that married girls are more likely to acquire HIV than unmarried girls, though it does not make this claim quite as definitively as some have suggested. The study, which focused on married adolescent girls in urban centres in Kenya and Zambia, found that "early marriage increases coital frequency, decreases condom use, and virtually eliminates girls' ability to abstain from sex" – all risk factors for HIV. It also found that the husbands of married girls were three times more likely to be HIV-positive than boyfriends of single girls. "Although married girls are less likely than single girls to have multiple partners," the authors note, "this protective behaviour may be outweighed by their greater exposure via unprotected sex with partners who have higher rates of infection." Further, they note that, "Because these data are cross-sectional, whether early marriage causes or is merely associated with riskier sexual behaviours and selection of riskier partners cannot be determined satisfactorily."
- In *Too Young to Wed* (2003) by the International Centre for Research on Women (ICRW),[34] a pioneering publication that helped put child marriage on the global agenda, Mathur et al. write: "Young women generally enter into marriage with partners who are much older and more

sexually experienced. In these marriages, women have little negotiating power in sexual behaviour and practices, putting them at greater risk of contracting reproductive and sexually transmitted infections." Adding references to Clark's then-ongoing research in Kenya and Zambia, the authors note that, "evidence… disproves the belief that early marriage may protect young women from HIV/AIDS."

- A frequently cited 2006 article by Nour (*Health Consequences of Child Marriage in Africa*),[35] states boldly: "A common belief is that child marriage protects girls from promiscuity and, therefore, disease; the reality is quite different. *Married girls are more likely than unmarried girls to become infected with STDs, in particular HIV* and human papilloma virus" (emphasis added). However, there is no citation or justification provided for this statement, and the references given for the following statement – "Marriage by age 20 has become a risk factor for HIV infection for young and adolescent girls, as has been shown by several studies of African population" – do not necessarily back up the claim.[iii]
- A 2007 report on a Population Council study in Burkina Faso[36] notes the *potential for* child marriage to heighten girls' vulnerability to HIV for several reasons:
    1. husbands of child brides tend to be older than the boyfriends of unmarried girls and, therefore, have a greater lifetime risk of carrying sexually transmitted infections (STIs) such as HIV;
    2. a considerable age gap may exaggerate the power imbalance in the marital relationship and inhibit communication about safe sex, and;
    3. marriage is almost always accompanied by increased frequency of sexual relations and strong pressure to bear children, ruling out the use of condoms.

  Citing Clark, the authors note that in Burkina Faso, "married girls are significantly more likely than unmarried girls to have had unprotected sex in the week prior to the interview (45.2 per cent versus 2.4 per cent, respectively)."
- Santhya and Jeejebhoy used National Family Health Surveys in their 2007 article, *Early Marriage and HIV/AIDS: Risk Factors among Young Women in India,* to demonstrate that married girls and young women in India have distinct "risks of HIV infection," as they are more likely than their sexually active unmarried peers to be exposed to regular and unprotected sex.[37] Married girls and young women are also likely to engage in sex with husbands who already have HIV, "sometimes without consent and forcefully," they write. They conclude that their review "suggests that early marriage provides a particular path to and not a barrier against HIV transmission."

In contrast to these early reports, other studies have found that sexually active, *unmarried women may have a higher vulnerability to HIV* than married girls, and that a late average age of marriage may contribute to HIV acquisition.

- Bongaarts' *Late marriage and the HIV epidemic in sub-Saharan Africa* (2007)[38] used epidemiological and demographic data from 33 countries in sub-Saharan Africa to confirm the hypothesis that a long period of premarital sexual intercourse contributes to the spread of HIV.

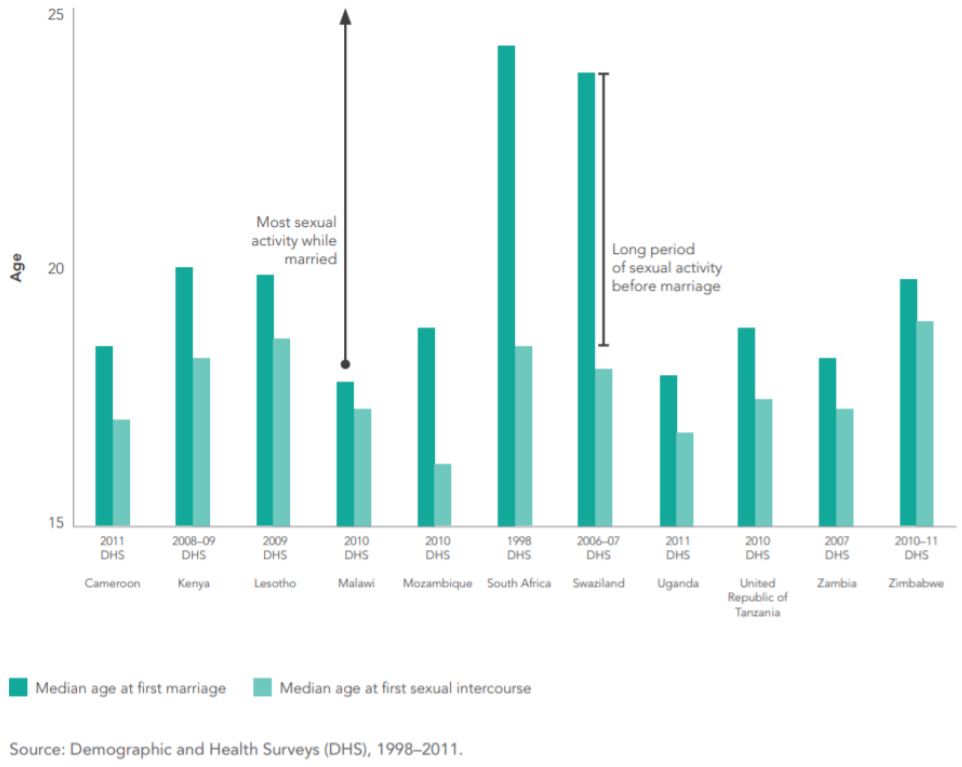
[iii] The references cited (Glynn, 2001, and Kelly, 2003) do not appear to justify the claim that child marriage, per se, leads to higher rates of HIV among married females. As discussed, Glynn does not find such a conclusion and Kelly focuses on a large age difference between young women and their male partners as the significant HIV risk factor.

But because this analysis cannot prove a causal relationship, the author assesses individual-level data from Kenya and Ghana and finds that there is a *higher rate of HIV acquisition among never-married sexually active women than among married women*. He concludes that this increased rate is likely due to a higher number of sexual partners and higher levels of infection among partners of never-married women than women who are currently married.

Bongaarts notes the existence of two partially counteracting sets of factors; one that places unmarried women at increased vulnerability to HIV (e.g., frequent partner change, higher infectiousness of partners), and another that raises the risk for married women (e.g., higher frequency of sexual intercourse, lack of condom use, higher infection level of partner). His analysis suggests that the effects of the second set of factors do not fully offset those of the first, thus leaving unmarried sexually active women with a net elevated vulnerability to HIV. He also recognizes that *very early marriage – before the age at which she would otherwise become sexually active – raises the vulnerability of young girls to HIV acquisition* because they would otherwise not be at risk.

As Bongaarts suggests, it is important to understand that, in some countries, the majority of adolescent sexual activity takes place within marriage, while in others (including those where HIV rates are highest, such as Swaziland or South Africa) there are years of sexual activity before marriage. This is illustrated in the following graph from a UNAIDS report (Figure 2).[39]

**Figure 2: Different demographic patterns in relation to sex and marriage**




Source: Demographic and Health Surveys (DHS), 1998–2011.

In West and Central Africa, as in South Asia and the Middle East and North Africa region, where child marriage rates are higher but HIV rates are lower, there tends to be a closer relationship between age at

marriage and first sex, but this is not uniformly applicable, as demonstrated in the following table (Table 1).[40]

**Table 1: Median ages at first marriage, first sexual intercourse, and first birth by 'type': Women aged 25-29**

| | | Median age at first marriage | Median age at first sexual intercourse | Median age at first birth |
|---|---|---|---|---|
| Type 1 Median age at first marriage and first sexual intercourse very close together | Burkina Faso | 17.9 | 17.6 | 19.5 |
| | Guinea | 17.4 | 16.3 | 18.9 |
| | Mali | 16.7 | 16.2 | 18.6 |
| | Niger | 15.9 | 16.0 | 18.1 |
| | Nigeria | 18.6 | 17.9 | 20.4 |
| | Senegal | 19.9 | 19.4 | 21.4 |
| | Central African Republic | 16.9 | 15.8 | 19.1 |
| | Chad | 16.0 | 15.7 | 18.6 |
| | Mean | 17.4 | 16.9 | 19.3 |
| Type 2 Median age at first sexual intercourse much lower than first marriage | Côte d'Ivoire | 20.5 | 16.9 | 21.4 |
| | Ghana | 20.2 | 18.3 | 21.2 |
| | Liberia | 19.3 | 16.3 | 19.1 |
| | Sierra Leone | 18.2 | 16.0 | 19.3 |
| | Cameroon | 19.0 | 17.3 | 19.7 |
| | Congo Brazzaville | 19.9 | 16.4 | 20.1 |
| | Congo, Democratic Republic of the | 18.9 | 16.8 | 19.9 |
| | Sao Tome and Principe | 18.8 | 17.5 | 19.4 |
| | Mean | 19.3 | 16.9 | 20.0 |
| Neither type | Gabon | 22.1 | 17.1 | 20.3 |

Other studies published in recent years have found no association between child marriage and HIV incidence or prevalence.

- In 2013, for example, Raj and Boehmer analysed national-level data for 97 countries to assess associations with HIV, among other health outcomes.[41] The authors *do not find a higher prevalence of HIV in countries with high rates of child marriage*. Like Bruce and Clark a decade earlier, they note that child brides experience higher rates of unprotected sex, limited access to sex education and difficulty refusing sex and negotiating condom use compared with unmarried adolescents and women who marry later. They go on to suggest that there are similar risks of sexual transmission of HIV among child brides in sub-Saharan Africa and India. They suggest that, in high HIV prevalence areas, child marriage "is a salient risk factor warranting integration with existing HIV prevention efforts, though it may be less relevant to HIV in low prevalence areas." They recommend additional research to better understand the associations between child marriage and HIV in diverse contexts.
- Finally, based on the various hypotheses of the links between HIV and marriage, especially among young women, the UNICEF Office of Research–Innocenti recently assessed the relationship in about 15 countries in Eastern and Southern Africa using DHS data. They found no specific relationship between HIV and marital status among young women.[42]

Indeed, while intergenerational sex, unprotected sex, higher frequency of sex, lower educational attainment, lower access to information, and experience of IPV – all characteristically higher within child marriages – have been shown to increase vulnerability to HIV acquisition, it does not appear that there is sufficient evidence to demonstrate a causal relationship between child marriage and HIV. As

new evidence is being generated, it is critical for programme implementers and advocates to understand the contexts in which child marriage and sexual transmission of HIV are occurring, and the factors that may make adolescent girls particularly vulnerable (i.e., high rates of premarital sex, multiple sexual partnerships, large age gaps with partners, polygamous marriages) in these different contexts.

## METHODOLOGICAL ISSUES AND RESEARCH CHALLENGES

Even as we argue in this paper for new research on the relationships between child marriage and HIV, so as to better inform programmes and policies, we must recognize that there are methodological concerns that pose challenges for undertaking such research. These challenges, some of which are described briefly below, have hindered previous studies and must be considered as new research is designed and undertaken.

1. *Time of HIV acquisition*: Women and girls who know they are living with HIV or who test positive at the time of a survey or study would have acquired HIV at an earlier time, in some cases years earlier. This makes it difficult to determine whether girls and women living with HIV who report being currently married, for example, acquired the HIV prior to, or within, marriage.[43]
2. *Insufficient attention to mode of transmission*: Many studies implicitly assume that most, if not all, HIV among adolescent girls is the result of heterosexual transmission. However, particularly with advances in treatment, more and more girls who acquired HIV perinatally are surviving into and through adolescence. According to the most recent data from UNAIDS, an estimated 658,000 girls aged 10-19 acquired HIV through mother-to-child transmission in 2017, 90 per cent of whom live in sub-Saharan Africa, and 69 per cent of whom live in Eastern and Southern Africa.[44] While there are no data for sexual transmission among 10- to 14-year-olds (as discussed earlier), an estimated 37 per cent of girls aged 15-19 living with HIV in sub-Saharan Africa acquired HIV through mother-to-child transmission. Ensuring that their status is captured when assessing the association between HIV acquisition and child marriage is important, as is understanding whether, how and why these girls may be more or less vulnerable to child marriage, as well as what type of marriage they have.
3. *Timing versus quality of marriage*: Evidence suggests that if girls are able to marry after they turn 18, the quality of their partnership and relationship may be better. They may be better educated and have more agency to be able to make decisions regarding their own health care, including how to protect themselves against HIV and whether to have sex during the more vulnerable pregnancy and post-partum periods, for example. What is more, there may be a smaller age difference between partners, which could affect the quality of marriage, ability to negotiate safer sex and risk of unplanned pregnancy and/or acquiring STIs. Understanding how the quality of a marriage, rather than the age of marriage, impacts vulnerability to HIV, is therefore an additional consideration to consider. A deeper understanding of marriage markets in specific contexts would also help inform the effectiveness of different interventions.
4. To detect differences in HIV incidence and establish a causal link between child marriage and HIV, the *size of the impact on child marriage would have to be significant and other confounding variables would need to be adequately addressed*. This is likely a near impossibility, as the majority of interventions that tackle child marriage will influence HIV through channels other than child marriage. The low feasibility and high costs associated with such studies would probably make them unrealistic and inadvisable.

5. Identifying what package or combination of interventions can most effectively improve child marriage and HIV outcomes is very challenging. Disentangling the relative impacts of multi-component or integrated interventions on various outcome measures requires *complex and typically costly research*, which is particularly challenging to undertake at large scale. Moreover, with pressure to understand cost-effectiveness and to provide cost-benefit analyses for interventions, researchers may retreat to methodologies that favour single stream and/or single outcome-oriented interventions, rather than more complex and integrated ones. This raises the question of whether these more reductionist approaches could skew resources away from interventions that tackle the complexity of structural drivers.

6. Short programmatic cycles (often less than three to five years) can make it difficult to undertake robust evaluations of programmes that address the underlying drivers of HIV and child marriage, and that may or may not have lasting, durable impacts. Similarly, to effect meaningful change in adolescence and young adulthood, interventions may have to start much earlier i.e., in late childhood, and persist over several years. Moreover, research from Tostan and others has indicated social norm change can take decades, which suggests that measuring impact requires long-term research investments and longitudinal studies.[45]

7. High-quality research into interventions that address structural drivers of child marriage and HIV often takes place in small-scale pilot programmes, which can ensure more ideal, experimental conditions. However, such interventions may be outside of national systems and, due to cost or capacity issues, often fail to be taken up at scale. Research is needed to assess the impact of structural interventions at scale on child marriage and HIV, such as social protection, and work is needed to include relevant indicators (including indicators most relevant to and defined by adolescent girls and young women) in evaluations of these programmes.[46]

8. There is increasing research being done into the structural drivers of HIV and child marriage and interventions to address them, but there are systemic and organizational barriers to ensuring that lessons learned from this research are taken up by those working in "the other" sector. Furthermore, interventions that may demonstrate effects in one context may or may not have been successful in another. Learnings from new research should be better disseminated and utilized across silos and sectors in order to influence policies and programmes at scale.

9. Many programmes with great potential have not been rigorously evaluated and/or only appear in the gray literature (i.e., NGO reports). In addition, some programmes that *have* been formally evaluated in relation to HIV have not formally assessed the impacts they may have on child marriage and vice versa. As noted in the recommendations section below, reviewing interventions beyond the published literature would be a helpful contribution to the field.

## COMMON DRIVERS AND VULNERABILITY FACTORS FOR HIV AND CHILD MARRIAGE

Acknowledging these methodological challenges, it is clear from the existing evidence that some of the factors that make girls more vulnerable to HIV are the same as those that expose them to child marriage. These include poverty, low educational attainment and gender inequality, which limit girls' ability to make decisions about their own lives, including if, when, how and with whom to have sex, and if, when

and whom to marry.[47,48] Tackling these underlying factors could thus have multiple benefits for girls, their families and their communities.

**Figure 3: Domains that could increase married girls' vulnerability to HIV**

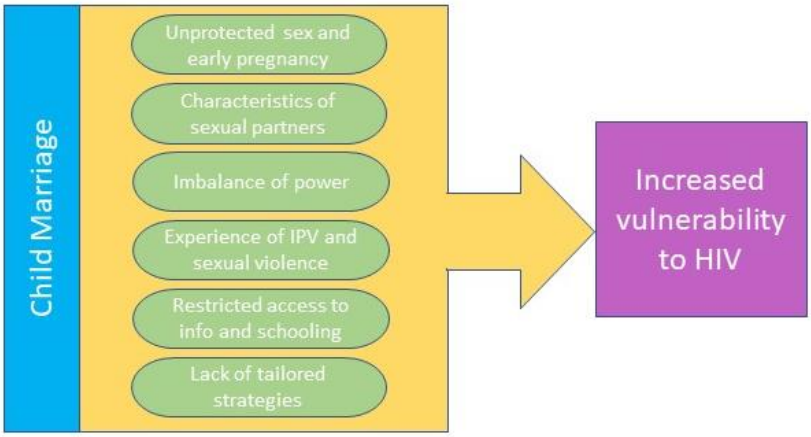



Figure 3, adapted from one developed by Chandra-Mouli and Siddiqi, synthesizes some of the risk factors, or "domains of impact", that could increase married girls' vulnerability to HIV. These include unprotected sex and early pregnancy; having older, more experienced and non-monogamous sexual partners; an imbalance of power and lack of choice within the marital relationship; experience of IPV; limited access to education, information and services; and a dearth of appropriate prevention strategies designed to meet the needs and priorities of married girls. This set of domains can also serve as a useful starting point for a discussion of vulnerability to HIV among unmarried adolescent girls. We discuss each of these factors below.

### Unprotected sex and early pregnancy

A solid evidence base indicates that females are more biologically susceptible to HIV than males, and that adolescent girls are more susceptible to HIV than women even a few years older, due to the immaturity and proneness to inflammation of their reproductive systems.[49] In many contexts, early first sex, including that which takes place within child marriages, is associated with increased lifetime risk of HIV.[50]

The evidence suggests that a large proportion of girls' first sexual experiences are coerced, with up to 38 per cent of girls in some studies indicating they were not at all willing to engage at their initial sexual activity.[51]

Child brides are exposed to early and frequent unprotected sexual activity, in part because there is pressure on them to demonstrate their fertility, and in part because they are unable to negotiate (safer) sex practices with husbands who are often older and more sexually experienced.[52]

In addition, a growing body of evidence suggests that women may be at heightened risk of HIV acquisition during pregnancy and breastfeeding.[53] As child marriage increases both total fertility (the number of children a woman has) and the total number of years a woman is exposed to this increased risk, child brides are not exempt from this heightened risk. As they may have limited social capital and decision-making ability, child brides should be supported to take up interventions such as pre-exposure prophylaxis (PrEP) and repeat HIV testing during pregnancy and breastfeeding.

### Characteristics of sexual partners

As discussed above, having multiple sexual partners – or having a male partner who has had multiple partners – increases girls' vulnerability to HIV. While unmarried adolescent girls in high HIV-prevalence settings may have more partners than married girls, child brides often marry men who are

older than them and who have had multiple sexual partners which, in turn, increases their risk of HIV infection.[54,55] Additionally, in higher-burden HIV settings, multiple concurrent sexual partnerships outside of the marital relationship have been documented, including during the perinatal period, which further increases vulnerability to HIV and other STIs.[56,57,58]

### Imbalance of power

Study after study indicates that adolescent girls and young women tend to have low levels of power and agency within sexual relationships, and that low relationship power consistently predicts both experience of IPV and risk of HIV.[59] Child brides tend to have lower levels of education and lower mobility outside the household compared with their unmarried peers. They have also been shown to have less decision-making capacity within the household, as well as less agency to negotiate safe sex with their husbands or to access vital sexual health services such as HIV testing.[60] Up to 80 per cent of married 15- to 19-year-old girls in Burkina Faso, Cameroon, Côte d'Ivoire, Niger and Senegal report that they do not have the final say on their own health care.[61] This lack of agency and imbalance of power, which appears to be greater when a girls' partner is older than them, can increase married girls' vulnerability to HIV and unplanned pregnancy.

### Experience of IPV and sexual violence

Evidence suggests that a large proportion of girls' first sexual experiences globally are coerced, with an average of one in four young women surveyed in one multi-country study reporting that their first sexual experience was forced or coerced.[62] Girls and young women who experience IPV are more likely to have multiple partners in their lifetime, more likely to engage in transactional sex and less likely to use condoms consistently than those who do not, all of which contribute to their heightened vulnerability to HIV acquisition.[63]

UNAIDS estimates that, in some regions, women who experience IPV are up to 1.5 times more likely to acquire HIV,[64] and this vulnerability is even greater for girls and young women due to the relative immaturity of their vaginal tracts.[65]

IPV has been identified as a key driver of HIV transmission in Eastern and Southern Africa, where HIV prevalence rates are highest. An estimated 30-50 per cent of ever-married or partnered girls and young women (aged 15-24) in Uganda, the United Republic of Tanzania, Zambia and Zimbabwe reported experiencing IPV in the previous year.[66]

Studies across countries and regions indicate strongly that women who married as children experience higher levels of both physical and sexual violence than those married after the age of 18, and that this risk persists into adulthood.[67] The younger the girl is at the time of marriage, the more likely she is to experience IPV.[68]

Importantly, IPV experienced by either married or unmarried girls and young women may not only make them vulnerable to HIV, but it can also serve as a barrier to accessing HIV testing and counselling, knowing their partner's HIV-positive status, safe disclosure of their HIV status, and antiretroviral treatment uptake and adherence.[69] Violence at home and in health care settings can also act as a major barrier to treatment for women, once diagnosed.[70,71]

### Restricted access to information and schooling

A deep body of evidence indicates that girls' education is among the most significant factors associated with child marriage, with lower levels of schooling strongly connected to lower ages of marriage.

Education has been shown to enhance girls' voices, agency and decision-making power in the home; to provide them with skills they need to engage productively in their communities; to improve educational outcomes for their children; and, importantly, to determine their health and well-being, as well as that of their children.[72]

Numerous studies demonstrate that higher educational attainment is correlated with lower child marriage rates and reduced likelihood of HIV infection for young women.[73] According to the World Bank and International Centre for Research on Women, each year of secondary school education reduces the risk of child marriage for girls by six percentage points.[74] However, in low-income countries, including those where child marriage and HIV rates are high, only one-third of girls complete lower secondary school.[75]

Whether learned in or out of school, comprehensive and accurate information about sexual and reproductive health and rights (SRHR), including about HIV and ways to prevent it, is critical for advancing adolescents' health. Comprehensive sexuality education, particularly when linked with youth-friendly services, has been shown to increase condom use, voluntary HIV testing and pregnancy among adolescent girls, yet far too few adolescent girls have access to such information.[76] In sub-Saharan Africa, less than one-third of 15- to 19-year-old girls currently have comprehensive knowledge about HIV.[77] This lack of information undermines the ability of girls and young women to negotiate condom use and other safer sex practices, thereby increasing their vulnerability to acquiring HIV.[78]

**Lack of tailored strategies**

Programmes that reach adolescent girls in high-vulnerability settings for both child marriage and HIV have historically been delivered in silos. Some focus on preventing early pregnancy and promoting adolescent-friendly contraception and other reproductive health services, while others focus on ending child marriage and HIV prevention. Rarely do programme designers and implementers overtly address the multiple factors that make girls vulnerable to both negative outcomes, and, although this has begun to change, the evidence base regarding the effectiveness of such multi-pronged programming is still thin. Furthermore, few of these studies assess the impact that a programme focused on child marriage or HIV prevention may have on the other outcome.

Insufficient attention has been paid on intervention design, delivery and research to the different risk profiles and pathways through which girls marry and/or acquire HIV, to the different types and patterns of relationships girls may have (i.e., marital, cohabiting), or to how issues related to place and culture (i.e., those related to mobility and movement) may drive adolescent girls' joint vulnerabilities to child marriage and HIV.

In addition, there are currently an estimated 770,000 10- to 14-year-olds who have come into adolescence having acquired HIV perinatally and, although this number is anticipated to decline due to the success of programmes to prevent perinatal transmission, exceedingly few programmes recognize and account for the distinct priorities of adolescents already living with HIV, particularly in relation to their sexuality and vulnerability to child marriage.[79]

Finally, programmes that aim to improve health, education and well-being outcomes for adolescent girls tend to focus on unmarried adolescents. The distinct priorities of married girls, including HIV avoidance, are less recognized and attended to.

There are, however, some promising examples of programmes that aim to address some of the common drivers and vulnerability factors for both child marriage and HIV. Below we provide some illustrative examples.

## PROMISING PRACTICES OF INTEGRATED PROGRAMMING

There is growing evidence that integrated, holistic, girl-centred programmes that tackle the structural drivers of HIV and child marriage can have multiple positive effects. Below, we highlight several interventions that have demonstrated some of these positive impacts, as well as some promising new initiatives and resources. While these examples indicate the potential to address a number of priorities for adolescent girls, as the structural vulnerability factors for child marriage and HIV are often overlapping, it is important to note that they did not assess impact on HIV acquisition as an outcome.

These examples are derived from Girls Not Brides' *Child Marriage and HIV: Thematic Brief* [80] and, while most include more than one strategy, they are presented in line with the types of interventions identified as high-priority in Girls Not Brides' *Theory of Change on Child Marriage*.[81]

### I. Programmes that support girls' empowerment

- The Population Council's *Biruh Tesfa* programme in Ethiopia is among the few rigorously evaluated girls' empowerment programmes focusing on vulnerable girls in sub-Saharan Africa. Working with the poorest urban adolescent girls, the programme aimed to build their social support networks and improve their skills, and to reduce their risk of HIV, through a combination of girls' clubs, mentoring and training on HIV and AIDS, life skills and basic literacy. Girls participating in the programme were more than twice as likely to report having social support compared to girls in the control group and were twice as likely to score highly on HIV knowledge questions, to know where to obtain voluntary counselling and testing and to want to be tested.[82]
- The *Intervention with Microfinance for AIDS and Gender Equity (IMAGE)* study in South Africa combined training sessions on HIV and gender inequality with microfinance loans to girls and women aged 14-35. Participants showed improvements in economic well-being and multiple dimensions of empowerment, higher levels of HIV-related communication and HIV testing, and increased confidence to negotiate condom use, particularly among younger participants. The programme also decreased reported physical and sexual IPV by 55 per cent.[83]

### II. Programmes that mobilize families and communities, including men and boys

- *Stepping Stones* is a holistic, gendered, and inter-generational social norms-change programme that promotes gender equitable relationships and better communication between partners through participatory learning sessions involving both adolescent and adult males and females. An evaluation of the programme in South Africa found that, while it did not have a direct impact on HIV prevalence, it had a significant impact on HIV-risk behaviours among men who took part, including reduced perpetration of IPV, payment for sex and problematic alcohol use. It also decreased the number of new HSV-2 infections, a significant biological risk factor for HIV, in both sexes by 33 per cent.[84]
- *SASA!* is a community mobilization programme run by Raising Voices that aims to prevent violence against women and reduce HIV-risk behaviours in Uganda through community dialogue engaging both men and women. A 2016 evaluation found that *SASA!* reduced the incidence of IPV by 52 per cent and nearly halved the number of men reporting concurrent sexual partners.[85]

- South Africa's Child Support Grant is a large-scale national programme that provides an unconditional monthly payment to households (as opposed to directly to girls themselves) below the poverty line. Evaluation of the programme found that not only did it increase learning and the number of years of schooling completed, it also reduced HIV-risk behaviours, including risky sexual behaviour, adolescent pregnancy and alcohol and drug use.
- The Population Council's *Meseret Hiwott* programme in Ethiopia targeted young married girls with the aim of increasing their social networks and their knowledge and skills for reproductive health and HIV prevention. Among many other strategies, the programme engaged with the husbands of participating girls. While participating girls increased their use of family planning and were nearly eight times more likely to receive voluntary HIV counselling and testing than non-participants, girls whose husbands participated were more than 18 times more likely.[86]
- Other programmes that focus on promoting gender equality with men and boys, such as Bandebereho (Rwanda), the Gender Roles, Equality and Transformation (GREAT) Initiative (Uganda), Parivartan (India), and REAL Fathers (Uganda), have demonstrated various positive outcomes that could potentially affect the drivers of child marriage and HIV.

## III. Programmes that provide adolescent-friendly services, including health, education and justice

- There are few evaluated examples of interventions targeting the SRHR needs of adolescents living with HIV. The *Young4Real* programme run by the Southern Africa HIV and AIDS Information Dissemination Service (SAfAIDS) in Zimbabwe delivered SRHR training for young people in combination with community dialogue and edutainment focused on gender, SRHR and HIV. The programme improved knowledge and understanding of the role of condoms in STI prevention among 15- to 24-year-olds of both sexes and decreased the number of concurrent sexual partners among girls of the same age.[87]
- A large-scale randomized control evaluation in Kenya compared different school-based interventions for HIV prevention. The interventions included school-based debates and essay writing competitions on HIV and the role of condoms in prevention; training teachers in the national HIV curriculum; and subsidizing access to education through provision of free school uniforms. Reducing the costs of schooling reduced child marriage, school drop-out and early child bearing, while debates and essay writing increased knowledge of HIV and use of condoms. The study suggests that a combination of school-based interventions related to school retention and HIV awareness could yield the best results.[88]
- A review by the Population Council of 22 curriculum-based sexuality and HIV education interventions found that those that addressed gender and/or power were five times as likely to be effective as those that did not. Some 80 per cent of these interventions were associated with a significantly lower rate of STIs or unintended pregnancy, while only 17 per cent of programmes that did not address gender or power had such an association. This suggests strongly that addressing gender and power should be considered a key characteristic of effective sexuality and HIV education programmes.[89]
- A cash transfer study in Zomba, Malawi, looked at increasing girls' access to education and financial resources through cash transfers, while also tracking their impact on other outcomes including adolescent pregnancy, marriage and HIV prevalence. In the short term, the programme reduced HIV prevalence by 64 per cent and HSV-2 prevalence by 76 per cent, while also

reducing rates of pregnancy and child marriage.[90] However, the impacts were not sustained over time, with rates of marriage, pregnancy (among baseline schoolgirls) and new HIV among girls who had the received cash transfers catching up with the control group within two years of the programme ending. This suggests that there is a need to incorporate sustainability and long-term attention to programmes over time, such as extending and expanding cash transfers to older adolescents to maintain their protective effects.[91]

- A comparative study of cash transfers in South Africa looked at the impact on adolescent HIV-risk behaviour of economic support in combination with psychosocial support (in the form of improved parenting and pastoral support from teachers) versus economic support alone. It found that cash alone was associated with reduced HIV-risk behaviours in 37 per cent in girls, while "cash plus care" was associated with reductions of 45 per cent in girls and 50 per cent in boys. The study suggests that cash transfers in tandem with other interventions may be more effective at reducing risky behaviours than cash transfers alone.[92]

**Establishment and implementation of relevant laws and policies, particularly in high HIV prevalence contexts**

While the effects of most laws and policies on HIV and child marriage outcomes have not been documented, the existing evidence suggests that supportive laws and policies are necessary, albeit insufficient on their own, to effect change.

- Increasing numbers of regional commitments and model laws that aim to end child marriage and promote adolescent health and rights have been put forward in recent years, such as those put forward by the African Union, Economic Community of West African States and the Southern Africa Development Committee.[93] These types of commitments can inspire legal and policy actions at the national level.
- The Uganda *2014-2020 National Strategy to End Child Marriage and Teenage Pregnancy* recognizes that child marriage can make adolescent girls more vulnerable to contracting HIV and includes specific indicators in its implementation plan for youth-friendly sexual health services, including HIV testing, counselling and treatment. It also lists interventions to reach adolescent girls with HIV testing and treatment that are ongoing as part of the strategy.[94]
- Malawi's *National HIV Prevention Strategy 2015-2020* recognizes the particular vulnerability of adolescent girls to HIV and identifies early marriage as a driver of the epidemic in country. The strategy lists campaigns to stop early marriages and to keep girls in school as part of the package of interventions to be implemented to prevent HIV among adolescent girls. It also highlights the need to increase the legal minimum age of marriage to 18, which was passed into law by the Malawian parliament in February 2017.[95,96]
- The Indian Ministry of Health and Family Welfare launched *Rashtriya Kishor Swasthya Karyakram (RKSK)* in 2014 to promote comprehensive approaches to health and well-being among India's more than 250 million adolescents.[97] The policy and associated programmatic guidelines drove a paradigm shift, going beyond sexual and reproductive health to include a wide range of other elements of health, and from an approach that was primarily clinic-based and service-provision oriented to one that also reaches adolescents with promotion and prevention approaches in their own environments and communities.

**Programmes and initiatives to watch**

There are a number of promising gender-transformative programmes and initiatives that have the potential to add to the evidence base in the near future. In order to most meaningfully contribute to the child marriage and HIV evidence base, however, it will be critical that they include both of these measures. Among others, these include:

- DREAMS, a US$800 million partnership led by the U.S. government's President's Emergency Plan For AIDS Relief (PEPFAR) programme, aims to reduce HIV among adolescent girls and young women aged 15-24 in 14 sub-Saharan African countries and Haiti. DREAMS supports a range of programmes in communities with a high burden of HIV and combines health sector interventions with programming that tackles the behavioural, social and structural risk factors of HIV.[98] Evidence and learning from these interventions, including large-scale impact evaluation and implementation science studies – both funded by the Bill and Melinda Gates Foundation – are currently underway.[99]
- HER: HIV Epidemic Response was recently launched by the Global Fund to Fight AIDS, TB and Malaria. In response to the high rates of HIV amongst adolescent girls and young women, and building on the work of DREAMS, HER aims to reduce the number of new HIV infections among this population by 58 per cent in 13 African countries over the next five years. The initiative will have a girl-centred, rights-based approach to programmes, which will include packages consisting of holistic biomedical, social and structural interventions.
- STRIVE is a research consortium led by the London School of Hygiene and Tropical Medicine that is dedicated to researching the structural drivers of HIV and promoting evidence from evaluations of programmes, which aim to prevent HIV by tackling poverty, gender inequality, stigma and discrimination and alcohol abuse.[100] Given that child marriage and HIV share many structural drivers for adolescent girls, child marriage programme implementers and researchers can likely learn much from the consortium's work.
- A joint UNAIDS/UNFPA project, sometimes known as LINK-UP, was designed to link SRHR and HIV prevention and care at the policy-, system- and service- delivery levels in seven Southern African countries. The project began in 2011 and has begun to demonstrate lessons learned and challenges in integrating services. Adolescents and young people are a focus for Zambia, but lessons may be learned for this population from other countries as well. More recently, the Government of Sweden, together with the regional offices of UNFPA, UNAIDS, UNICEF and WHO, began a US$45 million four-year programme called 2gether 4 SRHR. The programme aims to reduce unintended pregnancies, STIs, new HIV infections, maternal mortality and gender-based violence across five countries in Eastern and Southern Africa.
- The *Spotlight Initiative*, a €500 million initiative of the European Union, working in partnership with UNDP, UNFPA and UN Women and overseen by the Executive Office of the UN Secretary-General, focuses on eliminating violence against women and girls.
- Gender and Adolescence: Global Evidence (GAGE) is a global, longitudinal research programme of the Overseas Development Institute (ODI) charged with generating evidence on what works to empower adolescent girls and enable them to emerge from poverty.[101] Over the course of its nine-year tenure, GAGE will produce evidence related directly and indirectly to

child marriage and HIV for adolescents living in Bangladesh, Ethiopia, Jordan, Lebanon, Nepal, Rwanda and beyond.

- Advancing Learning in Gender Norms (ALIGN): Also managed by the ODI, ALIGN is a digital platform aimed at advancing understanding of gender norms by connecting a global Community of Practice committed to gender equality for adolescents and young adults. By encouraging collaboration and knowledge exchange, ALIGN aims to ensure evidence and learning on norm change informs more effective policy and practice.
- Similarly, the Learning Collaborative to Advance Normative Change works to advance research and practice on normative change, with a specific focus on adolescent sexual and reproductive health and well-being. Run by Georgetown University's Institute for Reproductive Health, the Learning Collaborative envisions a world where the powerful influence of social norms in shaping adolescents' lives is widely understood, and where projects and programmes improve adolescent sexual and reproductive health by applying normative science at scale.

## RECOMMENDATIONS

Given the information and evidence we currently have, how can we best move forward to improve health and well-being outcomes for adolescent girls, including through reductions in child marriage and HIV?

As a starting point, we must increase our response to the knowledge that, in many parts of the world, girls and young women are disproportionately affected by both child marriage and HIV, with harmful gender norms and gender inequalities underlying girls' vulnerability. Once married, child brides face profound health consequences as a result of their early marriage; in some contexts, this may include an increased vulnerability to HIV.

While there may be limited evidence for a causal relationship between child marriage and HIV, it is clear that many of the factors that make girls and young women more vulnerable to HIV also make girls more vulnerable to child marriage. Early sexual onset, unsafe sex, frequency of sex, age-disparate relationships, low educational attainment, limited access to information, social isolation, and experience of IPV are all characteristically higher within child marriages – and all have been shown to increase adolescent girls' vulnerability to HIV.[102,103]

There are therefore strong arguments to be made for investing in girl-centred programmes and policies that address the multiple levels of girls' socio-ecological environments and that take a holistic, comprehensive, context-specific and gender-transformative approach to advancing adolescent health, well-being and rights, and which simultaneously tackle the drivers of child marriage and HIV among adolescent girls where both are a concern.

While there may be common factors and drivers facing girls across cultures and settings, it is also critical to understand the context in which child marriage and the sexual transmission of HIV occur and the factors that may make adolescent girls particularly vulnerable to either, or both, in each context. This implies a need for differentiated programming and research, including programme and policy evaluation and analysis, at the national and sub-national levels. It is evident, for example, that the dual challenges of child marriage and HIV are currently much greater for girls in parts of Eastern and Southern Africa, particularly in Malawi, Mozambique, Uganda, Zambia and Zimbabwe, than in other regions of the world, and that efforts to address and learn about both issues simultaneously may be most effectively

focused here (see Table 2). Given current projections indicating that without intensified action new acquisition of HIV may increase among this population in West and Central Africa, where girls are highly vulnerable to child marriage, it may become increasingly important to focus on this region as well.[104]

**Table 2: Child marriage and HI prevalence**

| Country | Child marriage prevalence rate | HIV prevalence 15-19 y/old women |
|---|---|---|
| Mozambique | 48 per cent | 7.1 per cent |
| Malawi | 42 per cent | 4.2 per cent |
| Uganda | 40 per cent | 3 per cent |
| Zimbabwe | 32 per cent | 4.2 per cent |
| Zambia | 31 per cent | 4.8 per cent |
| United Republic of Tanzania | 31 per cent | 1.3 per cent |
| Kenya | 23 per cent | 1.1 per cent |

Below, we provide recommendations generated by the November 2018 expert consultation, as well as a brief recently produced by Girls Not Brides in consultation with UNICEF and other experts:

1. **Recognize adolescent girls as a priority population and focus on them to advance their sexual and reproductive health and well-being**

Research can provide solid data that programme designers can utilize to identify areas where both child marriage and HIV incidence rates are high, as well as to understand why. As discussed above, the largest number of adolescent girls newly acquiring HIV each year are in Eastern and Southern Africa. Here, as in other regions, both married and unmarried adolescent girls should be recognized as a population vulnerable to HIV and prioritized for holistic integrated health services, including violence and HIV prevention, treatment and care.[105]

Efforts to target adolescent girls with HIV programmes must also involve families and communities, including efforts that seek to address household poverty and harmful gender norms. Men and boys, in particular, should be engaged as positive agents of change including in efforts to promote effective and ethical approaches to social norms change that are holistic and gender-transformative, which tackle gender violence and end broader discrimination against girls and women.[106]

2. **Invest in integrated and multi-component programmes that address the structural risk factors that are common to both HIV and child marriage**

Programmes that reach adolescent girls in high-vulnerability settings for both child marriage and HIV have historically been delivered in silos, with some focusing on child marriage prevention and others on HIV. There are strong practical arguments for investing in programmes that can simultaneously tackle the drivers of new HIV acquisition and improve the well-being of girls, including through reducing child marriage.[107] While more evidence is needed on the most effective ways that alignment and coordination could be achieved and sustained, these potentially include investments in social norms change programmes that are gender-transformative, girls' primary and secondary education, addressing gender discrimination and harmful norms, promoting economic opportunities for girls and women, and ensuring

that adolescent girls and boys understand their rights, have basic economic security, and have access to comprehensive and youth-friendly sexual and reproductive health information and services. The initiatives described above, among others, provide opportunities to leverage investments to catalyse broad outcomes for adolescent girls and to generate learning on how to most effectively implement and evaluate multi-component and multi-outcome-oriented programmes at scale. Alongside such multi-sectoral programming, there is a need for greater investments in coordination structures and mechanisms so that governments, donors and programme implementers can most effectively and efficiently complement and learn from each other's work.

### 3. Improve and implement laws, policies, statutes, regulations and procedures to empower girls and young women and advance their SRHR and well-being

Laws regarding the minimum legal age at marriage, the age of consent to sex, or the age of consent to medical treatment; policies requiring spousal consent for access to services or asset registration; policies prohibiting pregnant or parenting girls from remaining in or returning to school; and procedures that allow births and marriages to go unregistered are just a few examples of the many that can subjugate and suppress the rights of girls and young women to live freely and equally in society. Furthermore, inconsistencies across constitutional, statutory, religious, customary or traditional law can have profound implications for girls' and young women's rights. Such laws can also negatively influence the social norms and expectations of girls in relation to sex, relationships and marriage, contributing to an environment that enables the continuation of child marriage, unplanned pregnancies, and the further spread of HIV (and other STIs). As such, laws, policies and procedures should be reviewed with a gender lens – and either promoted, upheld and implemented or changed accordingly.

### 4. Invest in programmes that support married and unmarried girls living with HIV and advance their SRHR and well-being

With more than 650,000 girls aged 10-19 already living with HIV, it is important to understand and address their needs. They should be ensured quality access to girl and young-women-centred, integrated adolescent health services to achieve their own SRHR and well-being. Quality services should include, among others, informed voluntary confidential access to contraception; antiretroviral treatment to help them manage their health and informed voluntary support with partner disclosure as appropriate; and confidential access to programmes to help them prevent HIV transmission to others, including their children.[108] For adolescent girls, promoting age-appropriate voluntary, confidential testing and treatment with robust counselling and other supports should be a programming priority, particularly in sub-Saharan Africa where rates of HIV prevalence and adolescent fertility are both high.[109] Maternal, newborn and child health services that are adolescent-friendly and stigma-free are also important for pregnant and parenting girls and young women living with HIV.

Support should go beyond access to health services. Adolescent girls living with HIV should also be supported to remain in school and have access to mentoring programmes and safe spaces where they can find peer support and gain support in tackling stigma and discrimination; this will reduce the social isolation that can make girls vulnerable to gender-based violence and child marriage.

### 5. Ensure programmes reach all girls in need, including those with more vulnerability

Adolescent girls are not a homogenous group – neither are the types of relationship structures and vulnerability pathways they face. There is thus a need to respond to the specific needs of those with

greatest vulnerability to HIV and child marriage, as well as to understand that different drivers of vulnerability for girls in different settings may require different interventions. Interventions that aim to tackle HIV and child marriage should be designed on the basis of a solid understanding of the local context, including identifying, targeting and ensuring the inclusion of girls who are most at risk. This may require particular efforts to reach girls living with HIV, as discussed above, as well as the poorest girls, out-of-school girls, girls who are of ethnic or caste minority status, orphans and those living without parental care, those who have been displaced, trafficked, or are migrants, those engaging in transactional sex, those who use drugs, or those who have disabilities, among others. Adolescent girls who are already married are often excluded from basic services, and greater efforts are needed to ensure they have access to self-empowerment, education, health and SRHR programming.

While this appears to be shifting, few programmes focused on ending child marriage, even in high HIV prevalence contexts, few have specific strategies to address HIV prevention and treatment for adolescent girls, and few programmes aimed at reducing HIV acquisition address the need to end child marriage.

Likewise, few programmes adequately prepare the world's estimated 1.8 million children under the age of 15 already living with HIV[110] to address issues related to sexuality and marriage. Even as we work toward comprehensive programming, operations or implementation research can help identify ways for siloed programmes to effectively address both issues simultaneously. Moreover, meaningfully involving girls and young women throughout policy and programme design, implementation and evaluation will help to ensure that programmes, policies and outcomes are grounded in the realities of girls' lives and are achieved effectively and ethically.[111]

### Provide protection, care and support to girls affected by HIV

Even girls who do not have HIV themselves may be negatively impacted by the epidemic through the chronic illness or death of parents or other close family members, and may face stigma, discrimination and negative economic impacts on their household. These girls may also be more vulnerable to child marriage, due to their loss of economic and family support. At the end of 2016, 16.5 million children had lost one or both parents to AIDS-related illnesses; more than half of these children were in Eastern and Southern Africa.[112]

Particular attention is needed to identify the most vulnerable children affected by HIV and to ensure that they are included in interventions to prevent child marriage and support married girls. These can include educational support, mental health and psychosocial support services, SRHR information and services, and protection from all forms of abuse and neglect.[36]

## 6. Involve girls and young women

Adolescent girls are an incredibly diverse population with unique assets and vulnerabilities that require nuanced interventions and responses. To achieve SRHR and the well-being of adolescent girls and young women in all their diversities, there is also a clear need to ensure that those who are most directly affected are involved throughout the research and intervention design and implementation processes. This includes both creating and measuring indicators defined by girls and young women and measuring/assessing these in participatory ways (e.g., mapping, drawing, mood meters, time charts, etc.) that can easily be understood and used by young people with various levels of literacy. These indicators and methods can complement more formal approaches to data collection with true youth engagement so that laws, policies, services and programmes may best respond to their own experiences, insights and perspectives.[113]

### 7. Increase research on the links between child marriage and HIV

Better understanding the relationships and shared determinants of HIV and child marriage in diverse settings around the world may bolster both programme design and advocacy arguments to more effectively end both child marriage and the transmission of HIV – and to promote the overall health and well-being of girls. This does not always necessitate significant new research investments, however. Rather, there are likely numerous opportunities to better utilize existing datasets related to adolescent girls; to add questions relating to HIV, child marriage and common drivers to already-planned and newly designed surveys and evaluations; to make better use of existing programmatic and administrative data; to encourage the publication of studies demonstrating negative associations or unexpected findings; to stimulate innovation in policy research; and to undertake qualitative research on the underlying dynamics and opportunities for and between HIV and child marriage.

Research is needed to better understand the diverse priorities of girls who are vulnerable to child marriage, as well as ever-married girls (i.e., currently married, separated, divorced or widowed) and girls in informal unions or marriages (who may have even fewer rights) who may need focused support, including if they acquire HIV. This may include a range of concerns, including but not limited to safety, respect and support around disclosure of their status, if and how to access treatment, and if and how to find support from peers. This will help ensure HIV and child marriage programming is more adolescent- and young woman-centred, gendered and relevant, including by recognizing the need for age-appropriate, rights-based interventions for younger and older adolescent girls in diverse contexts. Research should meaningfully include girls who already have HIV from the outset, including those who acquired HIV at birth, about whom an insufficient amount is known.[114]

There is growing evidence on types of interventions that work to end child marriage, and on what works to prevent HIV effectively among adolescent girls. However, further evidence on what works and how best to implement multi-component, girl-centred, rights-based programmes is needed to help inform both comprehensive child marriage and HIV prevention and treatment programming in a holistic manner.[115]

## CONCLUSION

This paper aims to help clarify the existing evidence base about the relationships between child marriage and HIV, including what is and is not known, what can and cannot be easily understood, and why – regardless of evidence on the linkages – it is critical to support holistic, comprehensive, rights-based and girl-centred approaches to improve the health and well-being of adolescent girls everywhere.

## CONSULTATION PARTICIPATION LIST

| PARTICIPANTS IN THE EXPERT CONSULTATION ON CHILD MARRIAGE AND HIV<br>Convened by Girls Not Brides and UNICEF<br>New York, November 2018 | | |
|---|---|---|
| **NAME** | **TITLE** | **ORGANIZATION** |
| Alice Welbourn | Founding Director | Salamander Trust |
| Angeli Achrekar | Acting Principal Deputy Coordinator, Office of the U.S. Global AIDS Coordinator and Health Diplomacy | U.S. Department of State |
| Anita Raj | Director, Center on Gender Equity and Health | University of California at San Diego |
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