

HIV and adolescents: guidance for HIV testing and counselling and care for adolescents living with HIV

ANNEX 15: Adolescent consent to testing: a review of current policies and issues in sub-Saharan Africa

ADOLESCENT CONSENT TO HIV TESTING: A REVIEW OF CURRENT POLICIES AND ISSUES IN SUB-SAHARAN AFRICA

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Over the past decade, the annual number of new HIV infections and HIV-related deaths has been declining steadily in most regions of the world, primarily due to significant scale-up in prevention and treatment. Approximately 2.5 million people became newly infected in 2011—a 20% reduction from 2001 (1). Even in sub-Saharan Africa, the number of newly infected people has decreased in 23 of the 49 countries in the region (1). Despite this progress, sub-Saharan Africa still accounted for 71% of newly infected adults and children and 69% of people living with HIV in the world in 2011 (1). While there has also been decreasing incidence of HIV infection in adolescents in many countries—linked to clear trends toward safer behaviours and practices, including increased condom use and reduction in the number of sexual partners—adolescents remain particularly vulnerable to the infection, and HIV continues to be a prominent cause of death in this segment of the population (1). In many countries, incidence rates of HIV in adolescents and young people (15–24) remain unacceptably high, and adolescents still account disproportionately for over 41% of new HIV infection in the 15–49 age group (2).

Globally, over two million adolescents aged 10–19, and five million adolescents and young people aged 15–24 are living with HIV; and, it is estimated to be the sixth and eighth leading cause of death among people aged 10–14 and 15–19, respectively, the overwhelming majority in sub-Saharan Africa (2,3). In stark contrast to the 3.8 million (76%) adolescents and young people (15–24) estimated to be living with HIV in sub-Saharan Africa in 2009, only 320,000 were reported to be infected with HIV in South Asia; 180,000 in East Asia and the Pacific; 250,000 in Latin America and the Caribbean; 81,000 in Central and Eastern Europe and Central Asia; and 94,000 in the Middle East and North Africa (4). Within this young population there are significant sex differences in prevalence—young women from sub-Saharan Africa accounted for about 71% of the HIV prevalence in that region for adolescents and young people living with HIV ages 15 to 24 in 2009 (2,4).

In generalized epidemics, many adolescents living with HIV acquired the infection perinatally because either their mothers were not enrolled in prevention of mother-to-child transmission (PMTCT) interventions or as infants they were not diagnosed postnatally (5,6). Some mature into adolescence as ‘slow progressors’ unaware of their HIV status, many of whom develop chronic clinical and developmental problems that would have benefitted significantly from early diagnoses and initiation of antiretroviral therapy (ART).

Survey data collected from 2005 to 2010 in sub-Saharan Africa indicates that only 10% of young women and 15% of young men (15–24 years) were aware of their HIV status, suggesting that the epidemic within this population is potentially largely undiagnosed and, consequently, not linked with care or treatment (2). As many factors contribute to the low level of testing within this population—from the

fear of discovering they are HIV positive to the barriers to services created by national age of consent laws and social norms influencing service providers attitudes and behaviours —it is not surprising that adolescents from key affected populations (sex workers, men who have sex with men, and people who inject drugs) and vulnerable populations (e.g. incarcerated youth, young women) are likely to have even less access to HIV testing and counselling or care and treatment than the general adolescent population. Additionally, if a parent or guardian is reluctant to give their adolescent consent to get an HIV test and the adolescent is under the nationally specified age of consent, the adolescent may remain undiagnosed and, if HIV positive, be deprived of appropriate care and treatment.

Adolescents and Risk

The main mode of HIV transmission among adolescents, who were not perinatally infected, is unprotected heterosexual sex; however, adolescents are also exposed through injecting drug use, sex work, and non-consensual and homosexual sex (4). In countries with concentrated epidemics, exposure through drug use is often coupled with other high-risk behaviours, such as transactional sex—a major driver of HIV transmission. The criminalization of ‘illicit’ activities (e.g. drug use, transactional sex, men having sex with men) in many countries intensifies exclusion from prevention and treatment services, including HIV testing and counselling (HTC) (7). If the goals of universal access are to be achieved, prevention and treatment programs will have to reach these most-at-risk populations. Early sexual debut, low condom use, and a host of other risk-taking behaviours, combined with biological vulnerability (in adolescent girls), all contribute to the risk of HIV transmission. A wide range of factors influence the adoption of risk behaviours: the availability and access to alcohol and illicit substances, peer pressure, curiosity, and thrill-seeking behaviours sometimes lead to experimentation with drugs, alcohol, and sexuality. Similarly, structural issues such as poverty, unemployment, illegal status, conflict, and marginalization exacerbate adolescents’ connections with their families and society, and contribute to engagement in risk behaviours for HIV transmission.

The risk of HIV infection is significantly higher for adolescent girls than for adolescent boys. Globally, just over one in ten adolescent girls are sexually active before the age of 15, and in sub-Saharan Africa, young women account for 54% of all adolescents living with HIV worldwide (2). Studies have reported a strong correlation between early age of sexual debut and increased risk of HIV (2,8). Similarly, in cultures where adolescent marriages are allowed, or even encouraged, adolescent girls often find themselves powerless to make informed decisions, related to sexual behaviour, putting them at risk of HIV transmission (3,9). Adolescent girls are also subject to sexual violence and rape, both inside and outside of marriage, further exacerbating their risk of HIV infection. In many settings, adolescent boys aged 15–19 years are more likely to engage in high-risk sex than girls of the same age, and knowledge of HIV status could be important in supporting safer sex choices and uptake of HIV prevention interventions, including male circumcision. Thus, increased investment in interventions that prioritize programs focused on increasing knowledge and prevention of HIV transmission and greater access to services—including HTC for adolescents, is critical to accelerating current HIV prevention efforts.

HTC and Adolescents

The proportion of adolescents who have correct and comprehensive knowledge about and have been tested for HIV remains inadequate. In 2010, an estimated 34% of adolescents possessed comprehensive HIV knowledge, far from the UNGASS global target of 95%, set in 2001, (10). Based on ten population-based surveys conducted between 2007 and 2009, the median percentage of people with HIV who know their status is estimated below 40%, and the lack of awareness of HIV status is especially high for adolescents (11). Within southern Africa, gender appears to play a significant role in knowing one’s HIV status. Adolescent girls, who have significantly higher prevalence rates than adolescent boys, are more

likely to know they are infected than adolescent boys in the region, primarily because adolescent girls more frequently access health services, e.g. family planning and antenatal care, where HTC is often routinely offered (10). However, although adolescent girls are now more likely to know where to get an HIV test than they were ten years ago, HIV testing rates still remain relatively low in many countries, in particular, those in sub-Saharan Africa (3).

Informed Consent and Adolescence

To best understand the issues and challenges regarding informed consent and adolescence, it is useful to know how these terms are defined and what key issues might influence the development of national laws or policies.

Consent is defined as the agreement, expressed either verbally or in writing, to a proposed action or situation. For purposes of medical intervention or research, consent given by a subject for a procedure, course of treatment, or any other health intervention to be performed, must be informed. The subject should receive information about the intervention and must indicate that they understand the possible risks and/or benefits of participation; and, if consent is given, that it has been done so voluntarily without any feeling of coercion. Therefore, informed consent must be given by someone who has the competence to understand the elements of the intervention and the consequences of making the choice to receive the intervention.

Adolescence is typically defined as beginning with the onset of puberty and ending at the age of majority, the latter being the age at which one is recognized as an adult with its attendant responsibilities and rights. WHO defines adolescence inclusively as the period between 10 and 19 years of age in order to capture the range of developmental changes occurring during this time and to correspond with national information systems often aggregated in 5 year age bands. However, the demarcation of this life stage is dependent on the physical, mental, and cognitive maturation of an individual, as well as a range of social, cultural, and legal factors articulated by one's community, culture, or country. The Convention on the Rights of the Child, a universally agreed upon set of non-negotiable standards and obligations, defines a child as every human being under the age of 18 years (12,13). Many countries include exceptions in their legislation allowing for an adolescent in a specific group or situation to be considered a 'mature minor' (to have attained majority earlier than general adolescent population) (12,13). However, UNICEF points out that regardless of national laws, many children under 18 years are engaged in 'adult' activities, such as labour, marriage, and childbearing (14). Intertwined in many national policies are legal definitions of adolescence, including legal age of sexual debut, marriage, consumption of alcohol, as well as age of consent to medical treatment or HIV testing. In most countries and in most guidelines that discuss HTC, there is a tension between the desire to protect and the recognition that all adolescents, particularly older adolescents (15–19), need to be able to take increasing responsibility for their lives including health-care decisions (15).

The central issue in the debate over minor rights to health interventions is finding the balance between the parental responsibilities toward the adolescent, the immaturity and vulnerability of adolescent children, and his or her right to be emancipated from the decision of the parent. As a result, a patchwork of laws has been produced, making it difficult to make any overriding statements about minor and parental rights in regard to medical treatment. This highlights the acknowledged conflict between the rights of the adolescent—under the Convention on the Rights of the Child—and that of the parent or guardian who understands themselves to have the legal right to make medical decisions for his or her child (12,13). For adolescents, limiting the right of consent to HIV testing to parents or guardians, has serious potential implications. Studies have shown that requiring parental consent to HTC services might in fact reduce adolescent access because of perceived negative reactions from parents/guardians

or health-care providers and the fear of HIV-related stigma (16,17). It has also been documented that adolescents may opt not to seek care because they want to avoid telling their parents about their health problems and sexual activity (18). A survey of a nationally representative sample of adolescents in the US found that 35% avoided health care so they would not have to tell their parents about their health issues, and that girls were more likely to avoid health care in order to prevent their parents' discovery of their daughter's high-risk behaviour (18). In another US study, a substantial increase in uptake of HTC services was observed after the removal of parental consent to HIV testing requirements in New Jersey state law (19).

Age restrictions also pose a barrier to adolescents accessing HTC services. A review analysing the HTC experiences of adolescents in over ten countries found that restrictions placing the conventional or widely accepted legal age of consent at 18 years of age prevented access to HIV testing where minors were sexually active and at risk of HIV infection (20). Another barrier to HTC services is the ambiguity and/or inconsistency in national policies on consent issues. In many countries, consent to HIV testing is either not specified or is ill defined in national policies. This may be due to the sensitivity or complexity of the issue, or to the lack of available evidence to inform decision-making. Regardless, it is common to see country policies be silent, vague, or contradictory on these issues (19). When policies are unclear or not well understood, and guidance is limited or vague, it follows that health providers may be reluctant to provide HIV testing services. This paper reviews policy issues concerning consent to HTC for adolescents, and the potential of those policies to limit or prevent adolescent access to HTC and other HIV prevention and care services.

REVIEW OF COUNTRY POLICIES ON HTC CONSENT IN SUB-SAHARAN AFRICA

A review of available national policies, legislation, and guidelines on HIV/AIDS, including voluntary counselling and testing (VCT) and provider-initiated testing and counselling (PITC), was conducted in 2011 and 2012. We searched the World Health Organization Library Information System (WHOLIS), Institutional Repository for Information Sharing (IRIS), Google Scholar, individual country Ministry of Health websites, and knowledge-base repositories of various organizations and institutions, including: International Labour Organization (ILO), AIDSTAR ONE (USAID), United Nations Population Fund (UNFPA), and International Planned Parenthood Federation (IPPF).

For the purpose of this review, no eligibility criteria were defined and all national policies, legislation, and guidelines making reference to adolescent or minor age of consent were included for consideration. Each document was assessed for its content on consent to HIV testing, age criteria for self-consent, and exceptions for HIV testing below the age of consent for the general population or a stipulated subpopulation. We developed a data extraction tool to capture the following information: country, legal age for consensual sexual relations or age of majority (if the former was unavailable), existence of an HTC law or policy, date of the law or policy, existence of an age of consent criteria within that law or policy, specific age of consent (with parental consent), specific age of consent (without parental consent), and exceptions for the stated age of consent to HIV testing (such as demonstrated maturity, at-risk behaviour, symptomatic, pregnant, married, young parent, head of household, abandoned children, street children, injecting drug users, commercial sex workers, or young men who have sex with men).

We also reviewed available literature on age of consent to sexual relationships with the aim of comparing it against the age of consent to HTC services. We combined a thorough scoping search with the review of existing work done by the US Department of State, United Nations Development Programme (UNDP), AVERT, as well as national documents accessed through the International Labour

Organization (ILO) and individual country websites, to arrive at our final list. Two reviewers independently analysed the findings of the scoping search for errors and disparities, and legislation or technical guidance written in languages other than English were translated.

RESULTS

Legal Adolescent Age of Consent to Access HTC in Sub-Saharan Africa

Of the 49 sub-Saharan African countries, national publications (policies, legislation, and guidelines) on HIV/AIDS were available for review from 41 countries. Of these, one country (Mauritania) had a law addressing HTC but did not mention minors or provide any detail regarding access to HTC, and seven countries limited self-consent to non-minors but did not define the term ‘minor’ within that particular HIV law or policy. Of the remaining 33 countries that provided either a clearly defined age-based or other specific criteria at which adolescents (or minors) could consent to HIV testing:

- 14 stipulate that only persons 18 years of age and above could give consent to HTC without parental guidance.
- 14 stipulate a legal age of consent to HIV testing allowing adolescents under the age of 18 years to assent to HIV testing without the additional consent of a parent or guardian. In three of those countries—Lesotho, South Africa, and Uganda—adolescents are able to consent to HTC services as early as 12 years of age.
- 5 countries did not specify an age limit, but used other criteria—demonstrated maturity, of reproductive age, married, pregnant, or engaged in HIV-risk behaviour—to enable access to HTC.

Table 1: Legal age of consent laws and policies in sub-Saharan Africa

National laws and policies reviewed (n=49)	No. of countries (%)
Law or policy existing for HTC, age of consent clearly defined (including no age limit)	33 (67.3%)
Law or policy existing for HTC, but no age of consent specified*	7 (14.3%)
<i>Total number of countries with laws or policies discussing age of consent to HTC (see below)</i>	<i>40 (81.6%)</i>
Law or policy existing for HTC, but no mention of ‘adolescent’ or ‘minor’ [Mauritania ²¹]	1 (2.1%)
No law or policy for HTC [Chad, The Comoros, Equatorial Guinea, Eritrea, Gabon, The Gambia, São Tomé and Príncipe, South Sudan]	8 (16.3%)
<i>Total number of countries either without HTC laws or policies, or have policies but do not mention adolescents or minors</i>	<i>9 (18.4%)</i>
National age of consent to HTC (n=40)	No. of countries (%)
Age of minor not defined [Angola, ²² Benin, ²³ Burundi, ²⁴ Guinea-Bissau, ²⁵ Madagascar, ²⁶ Mali, ²⁷ Togo ²⁸]	7 (17.5%)
No age limit – all or most adolescents eligible** [Botswana, ^{29,30,31} Cape Verde, ³² Kenya, ^{29,33} Mauritius, ²⁹ Somalia (Somaliland ³⁴)]	5 (12.5%)
12 years [Lesotho, ^{29,35} South Africa, ^{29,36} Uganda ³⁷]	3 (7.5%)
13 years [Malawi ³⁸]	1 (2.5%)
14 years [Liberia ³⁹]	1 (2.5%)
15 years [Ethiopia, ⁴⁰ Rwanda, ⁴¹ Senegal ^{29,42}]	3 (7.5%)
16 years [The Congo, ⁴³ Mozambique, ⁴⁴ Namibia, ⁴⁵ Swaziland, ^{46,47} Zambia, ⁴⁸ Zimbabwe ⁴⁹]	6 (15.0%)
18 years [Burkina Faso, ⁵⁰ Cameroon, ^{51,52} The Central African Republic, ⁵³ Côte d’Ivoire, ⁵⁴ The Democratic Republic of the Congo, ⁵⁵ Djibouti, ⁵⁶ Ghana, ⁵⁷ Guinea, ⁵⁸ Niger, ^{59,60} Nigeria, ^{61,62} Seychelles, ⁶³ Sierra Leone, ⁶⁴ Sudan, ⁶⁵ United Republic of Tanzania ^{66,67}]	14 (35.0%)

* These countries used the term ‘minor’ in their legislation or guidance, but do not specify an age.

** These countries stipulate considerations other than age to allow access to HTC (e.g. shows maturity, of reproductive age, or married, pregnant, or engaged in behaviour that would put them at risk).

We also assessed national publications for ‘exceptions’ to providing HTC to adolescents, under the stated age of consent, without the requirement of parental consent. A total of 20 countries had exceptions in their national laws, policies, and/or guidance indicating ‘mature behaviour’, ‘symptomatic adolescents’, pregnant or married adolescents, young parents, at-risk adolescents, young heads of household, abandoned children, young commercial sex workers, street children, and emancipated minors. Of those countries, nine provided clauses for married girls to consent without parental consent, and ten gave health-care providers the right to decide whether the adolescent is mature enough to understand the HTC process and potential results and therefore is able to consent to HIV testing independently. Only three national policies discussed the right of young commercial sex workers to consent to HTC services without parental consent.

Table 2: Exceptions for testing below legal age of consent to HTC in sub-Saharan Africa

Exceptions for testing below stated legal age of consent (n=20 countries) The age in parentheses indicates the national legal age of consent to HTC before the exception is applied.	No. of countries
<i>Shows maturity and understanding of the process and potential results (health-care provider discretion)</i> Cameroon (18 years) ^{51,52} , The Central African Republic (18 years) ⁵³ , Nigeria (18 years) ^{61,62} , Côte d'Ivoire (18 years, but exception is limited to 15 years, 14 years and under can receive counselling only without parental consent) ⁵⁴ , Djibouti (18 years, but exception is limited to 15 years, 14 years and under can receive counselling only without parental consent) ⁵⁶ , Ghana (18 years, but exception is limited to 15 years, unless the adolescent is considered a ‘mature minor’) ⁵⁷ ; Swaziland (16 years) ^{46,47} ; South Africa (12 years) ^{29,36} , Uganda (12 years) ³⁷ ; Madagascar (age of ‘minor’ not defined) ²⁶	10
<i>At risk of contracting HIV (e.g. sexually active)</i> [Sierra Leone (18 years) ⁶⁴ , The United Republic of Tanzania (18 years) ^{66,67} ; Zambia (16 years) ⁴⁸ , Ethiopia (15 years) ⁴⁰ ; Liberia (14 years) ³⁹ ; Malawi (13 years) ³⁸ ; Kenya (no age limit) ^{29,33}]	7
<i>Symptomatic</i> [Swaziland (16 years) ^{46,47} ; Liberia (14 years) ³⁹ ; Kenya (no age limit) ^{29,33}]	3
<i>Pregnant</i> [Sierra Leone (18 years) ⁶⁴ ; Zambia (16 years) ⁴⁸ , Zimbabwe (16 years) ⁴⁹ ; Ethiopia (15 years) ⁴⁰ ; Liberia (14 years) ³⁹ ; Malawi (13 years) ³⁸ ; Lesotho (12 years) ^{29,35} ; Botswana (no age limit) ^{29,30,31} , Kenya (no age limit) ^{29,33}]	9
<i>Parent (adolescent is already a parent)</i> [Sierra Leone (18 years) ⁶⁴ , The United Republic of Tanzania (18 years) ^{66,67} ; Swaziland (16 years) ^{46,47} , Zambia (16 years) ⁴⁸ , Zimbabwe (16 years) ⁴⁹ ; Kenya (no age limit) ^{29,33}]	6
<i>Head of household</i> [Swaziland (16 years) ^{46,47} , Zambia (16 years) ⁴⁸ ; Ethiopia (15 years) ⁴⁰ ; Liberia (14 years) ³⁹]	4
<i>Married</i> [Sierra Leone (18 years) ⁶⁴ , The United Republic of Tanzania (18 years) ^{66,67} ; Swaziland (16 years) ^{46,47} , Zambia (16 years) ⁴⁸ , Zimbabwe (16 years) ⁴⁹ ; Ethiopia (15 years) ⁴⁰ ; Liberia (14 years) ³⁹ ; Malawi (13 years) ³⁸ ; Kenya (no age limit) ^{29,33}]	9
<i>Commercial sex workers</i> [Zambia (16 years) ⁴⁸ ; Ethiopia (15 years) ⁴⁰ ; Liberia (14 years) ³⁹]	3
<i>Street children</i> [Ethiopia (15 years) ⁴⁰ ; Liberia (14 years) ³⁹]	2
<i>Emancipated minor</i> [Madagascar (age of ‘minor’ not defined) ²⁶]	1

Age of Consent to Sexual Activity Compared to Age of Consent to HTC

Where information was available, the comparison between the age of consent to HTC to the age of consent to sexual activity revealed some inconsistencies in national policies. In most countries, the age at which a person can give their own consent to an HIV test was the same as the age of consent to

sexual activity or lower. However, in three countries—The Democratic Republic of the Congo, Guinea, and Seychelles—the age of consent to sex relations is lower than that for accessing HTC services.

Table 3: Age of consent to sexual activity versus age of consent to HTC

Country	Age of consent to sexual activity	Age of consent to HTC
Angola	16 ⁶⁸	MND ²²
Benin	18 ⁶⁸	MND ²³
Botswana	16 ⁶⁸	NA-Maturity ^{29,30,31}
Burkina Faso	18 ⁵⁰	18 ⁵⁰
Burundi	18 ^{68,69}	MND ²⁴
Cameroon	18 ⁵² majority 15 ⁶⁸ marriage	18 ^{51,52}
Cape Verde	Unknown	NA-Maturity, MND ³²
Central African Republic (the)	18 ⁵³	18 ⁵³
Chad	14 ⁶⁸	NI
Comoros (the)	13 ^{68,70}	NI
Congo (the)	18 ⁶⁸	16 ⁴³
Côte d'Ivoire	18 ^{29,54,68}	18 ⁵⁴ (if mature enough, then 15 ⁵⁴)
Democratic Republic of the Congo (the)	14(F), 18(M) ⁶⁸	18 ⁵⁵
Djibouti	18 ⁵⁶	18 ⁵⁶ (if mature enough, then 15 ⁵⁶)
Equatorial Guinea	18 ⁶⁸	NI
Eritrea	18 ⁶⁸	NI
Ethiopia	18 ⁶⁸	15 ⁴⁰
Gabon	15(F), 18(M) ⁶⁸	NI
Gambia (the)	18 ⁶⁸	NI
Ghana	16 ⁶⁸	18 ⁵⁷ (if mature enough, then 15 ⁵⁷)
Guinea	15 ⁶⁹	18 ⁵⁸
Guinea-Bissau	16 ⁶⁸	MND ²⁵
Kenya	18 ^{29,41} majority	NA-Risk ^{29,33}
Lesotho	18 ⁶⁸	12 ^{29,35}
Liberia	18 ⁶⁸	14 ³⁹
Madagascar	18 ⁶⁸ marriage	MND ²⁶
Malawi	16 ⁶⁸	13 ³⁸
Mali	18 ⁶⁸	MND ²⁷
Mauritania	16 ⁶⁹ 18 ⁶⁸ marriage	NM ²¹
Mauritius	16 ⁶⁸	NA-Maturity ²⁹
Mozambique	18 ⁶⁸	16 ⁴⁴
Namibia	16 ⁴⁵	16 ⁴⁵
Niger (the)	18 ⁶⁰	18 ^{59,60}
Nigeria	18 ^{61,68}	18 ^{61,62}
Rwanda	18 ^{68,69}	15 ⁴¹
São Tomé and Príncipe	12 ⁷¹	NI
Senegal	16 ^{42,69}	15 ^{29,42}
Seychelles	15 ⁶⁸	18 ⁶³
Sierra Leone	18 ⁶⁸	18 ⁶⁴
Somalia	NL ⁶⁸	NA-Reproductive age ³⁴ Somaliland
South Africa	16 ⁶⁸ (with another minor)	12 ^{14,29,36}
South Sudan	NL ⁶⁸	NI
Sudan	18 ⁶⁵ accountability	18 ⁶⁵
Swaziland	16 ^{47,68,72}	16 ^{46,47}
Togo	16 ⁶⁸	MND ²⁸
Uganda	18 ^{68,69,73}	12 ³⁷
United Republic of Tanzania (the)	18 ^{66,69}	18 ^{66,67}
Zambia	16 ⁶⁸	16 ⁴⁸
Zimbabwe	16 ^{49,69}	16 ⁴⁹

MND Minor not defined
 NA No age set in law
 NI No information
 NL No age of consent law
 NM No mention of minors

DISCUSSION

Of the 41 national policies assessed, our review found 33 national policies with age-based or other specific criteria for consenting to HTC. The remaining national policies did not clearly stipulate or define an age of consent to HTC. Ideally, the purpose of these policies is to guide decision making for adolescents, their parents or guardians, and health providers. However, when national HTC consent policies are non-existent, ambiguous, or restrictive in nature, barriers are created for both adolescents seeking services and health providers delivering services. As a result, adolescents are constrained by either parental consent requirements defined by national policies or the reliance on health providers to assess their 'capacity or eligibility to consent' or make medical decisions for them. These same policies, or lack thereof, have the potential to restrict the capacity of the health providers to make critical medical decisions because they fear a negative response or even legal action from parents or guardians. The resulting effect is that at-risk adolescents voluntarily presenting for HTC without parental consent are likely to be turned away by health providers. This review also reveals inconsistencies in some national policies which could result in at-risk adolescents being overlooked. For example, in Seychelles and Guinea the legal age of consent for sexual activity is 15 years and yet the legal age of consent for HTC is 18 years – this means that adolescents gain the legal right to consent to an HIV test three years after they are legally allowed to become sexually active (58,63,68,69). Scaling up HTC services for adolescents requires an understanding of the laws and policies that govern issues of consent, confidentiality, and competence (the mental and emotional capacity to understand the HIV testing process and the potential implications of the results); however, this can only be achieved by having clear, realistic, and explicit laws and policies in place.

Although the ages of consent to HTC vary widely across the 33 national policies reported, 14 (42.4%) set the age of consent at 18 years. For many years, the political and legal argument for maintaining the age of 18 years for consenting to HTC has been centred on the notion that adolescents are vulnerable, immature, and incapable of making critical decisions about their own health. More recently, the aim of national legislation, using 18 years as the age of consent, has been to align with the Convention on the Rights of the Child and be a protective measure for adolescents. And yet, especially with regard to sexual health matters, this notion seems to be steadily overshadowed by the apparent and growing consensus that adolescents are physiologically maturing at a much faster rate than they did a century ago (3). In the last century, Europe has witnessed a steady decline in the age of menarche, one of the key indicators of sexual maturity, from 17 to 13 years (74). Similar findings have been reported among girls in South Africa, where the age of menarche decreased from 14.9 to 13.1 years between 1956 and 2004 (75). At present, there is no international consensus on the age of consent to HIV testing, and very limited data to support consent to testing at a particular age. Even though countries like Lesotho, South Africa, and Uganda have lowered their age of consent to HTC, and countries like Botswana, Cape Verde, Kenya, Mauritius, and Somalia (Somaliland) have eliminated an age limit, asking instead for other specific criteria, to date none of these countries have formally documented the impact of these policies on service uptake or analysed beneficial or adverse consequences following this lowering of age for self-consent to HIV testing. Further research on the impact of these policy changes would be useful to help inform decision making on issues related to HTC and adolescents.

HIV prevention strategies must target people at a much younger age for many reasons, including the ever-growing burden of HIV among adolescents and the HIV risk-taking behaviour prevalent within this sub-population—especially among vulnerable adolescents and adolescents from key populations. Scaling up access to HTC services requires that we first expand the decision-making rights of the adolescent by increasing the legal autonomy they have to consent to HTC services. Policies are needed to support adolescents' right to informed consent to HTC and treatment without the requirement of a parent or guardian's consent, particularly where the need to obtain parental consent is a barrier to

access to and uptake of these services. Some adolescents have unsupportive or abusive parents or guardians, and have legitimate concerns about not discussing HIV testing with them. Studies have shown that the potential for a negative reaction from a parent or guardian is an important reason why adolescents avoid HIV testing even when they feel they have been at risk of infection, and why requiring parental consent can be a barrier to adolescents initially seek HIV testing (19,76,77,78). Negative parental reactions could stem from any number of issues including: the fear that testing the adolescent could inadvertently disclose the parent's own HIV status, the guilt or embarrassment that their child was infected through vertical transmission, or a concern that testing their adolescent might lead others to assume the parent has HIV. However, most parents are caring, supportive, and wish to act in the best interests of their child, and as such, HTC counsellors and providers should encourage adolescents to involve their parent or guardian before or during the HIV testing process, especially if the adolescent tests positive and needs help to access and manage initial treatment and ongoing care.

While parental involvement has its clear benefits and place in HTC, adolescents should also have the option to provide their own consent to take an HIV test, with the caveat that, when possible, the counsellor should encourage and support adolescents to disclose to someone close and supportive like a parent or family member. According to a two-staged study conducted in Zambia among adolescents between the ages of 16 and 19 years who attended HTC, and subsequently tested, qualitative in-depth interviews of 40 adolescents revealed that they were 6 times more likely to plan to get tested if they discussed this decision with a family member. Of the 550 respondents later surveyed, those who did not believe their family members would be upset if they got tested were 5.5 times more likely to present for an HIV test than adolescents who believed their families would be upset (16). For those adolescents without supportive immediate family members, referrals to peer support groups could be a helpful alternative. It makes sense, then, to make sure messages on supporting youth to access HIV counselling, testing, and care should be directed to adolescents, their parents or guardians, and the communities in which they live.

Article 5 of the Convention on the Rights of the Child acknowledges that even before the age of 18, adolescents develop 'evolving capacities' which put them in a position to exercise their own rights (12,13). Some countries have incorporated this concept into their HTC consent laws and/or policies by giving special permission to certain types of adolescents to request an HIV test without parental consent. Our review revealed that 20 countries in sub-Saharan Africa had exceptions in their consent laws for people below their nationally specified age of consent. Of those countries, ten required health-care providers to determine whether the adolescent was mature enough to understand the HTC process and the potential implications of the results, and nine made exceptions for pregnant and/or married adolescents. Only seven made exceptions for sexually active adolescents, three countries provided exceptions for adolescents who were either symptomatic or young sex workers, and only two provided exceptions for street children. These findings raise a seldom asked, but potentially transformational question at the national policy level: What happens to adolescents younger than the nationally specified age of consent (over half of which are defined as 16 or 18 years of age) who are not eligible for HTC because exceptions are not provided in the national policy, and do not want their parents or guardians to know that they are sexually active? The harsh reality is that this group of people will very likely not get tested, thus raising concerns about universal coverage targets. It is critical that the gaps must be addressed in order for those targets to be met.

To this end, national authorities should consider facilitating HTC access to adolescents. In settings that do not have explicit laws or policies that govern age eligibility criteria for HCT, and in settings that have set 16 or 18 years of age as the minimum age of autonomous consent for HTC access, authorities should consider setting the minimum age of consent for HTC to 12 or 14 years of age.

Authorities should also consider HTC holistically. In some settings, existing laws and policies on a range of issues related to HTC may require amendment and harmonisation to facilitate adolescent linkage to care. This includes laws and policies on access to condoms, treatment autonomy, pharmaceutical supply of ARVs, HIV prevention interventions such as pre-exposure prophylaxis (PrEP), and medical male circumcision.

It is worth considering some of the inherent limitations of this review. First, the review was limited to 41, rather than 49 sub-Saharan African countries due to the inaccessibility of national documents. Second, we could only review documents available electronically, and therefore may have missed key documents only available in hard copy. Last, it is possible that some countries mentioned in this review as not having an age of consent to HTC might actually have one, but that policy is addressed in other national documents.

CONCLUSION

Despite the limitations of our research, it is clear that in the interest of public health, and as a matter of urgency, national health authorities should improve access to HIV testing and counselling for adolescents by removing legal barriers. In so doing, more adolescents will be able to gain knowledge of their status, access care and prevention, and, hopefully, reduce the risk of acquisition or onward risk of transmission. Policies on age of consent to HTC should be reviewed and harmonized to allow greater access to adolescents without the restriction or requirement of gaining a parent or guardian's consent. It is important to learn from the experiences of countries that have lowered the age of consent to seek HTC to 12 years, or allow HTC at any age; and if outcomes are beneficial in supporting greater access to HTC for adolescents without precipitating negative consequences, as anecdotal evidence suggests, countries should consider reviewing their consent policies accordingly. In countries where policies are ambiguous or non-existent, age of consent to HTC policies must be clarified or created in order to give adolescents clear access to HTC, care, and treatment, and minimise confusion for health providers that, more often than not, results in decisions to take no action. National recommendations must be clear, simple, and widely disseminated. This will ensure that more opportunities are taken to engage adolescents in protecting themselves and prevent further transmission of HIV.

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