

THEME: ADOLESCENTS' HEALTH AND HUMAN RIGHTS

Sexual and reproductive health and rights of adolescent girls: Evidence from low- and middle-income countries

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(Received 18 October 2014; accepted 6 November 2014)

This paper reviews the evidence on sexual and reproductive health and rights (SRHR) of adolescent girls in low-income and middle-income countries (LMIC) in light of the policy and programme commitments made at the International Conference on Population and Development (ICPD), analyses progress since 1994, and maps challenges in and opportunities for protecting their health and human rights. Findings indicate that many countries have yet to make significant progress in delaying marriage and childbearing, reducing unintended childbearing, narrowing gender disparities that put girls at risk of poor SRH outcomes, expanding health awareness or enabling access to SRH services. While governments have reaffirmed many commitments, policy development and programme implementation fall far short of realising these commitments. Future success requires increased political will and engagement of young people in the formulation and implementation of policies and programmes, along with increased investments to deliver at scale comprehensive sexuality education, health services that are approachable and not judgemental, safe spaces programmes, especially for vulnerable girls, and programmes that engage families and communities. Stronger policy-making and programming also require expanding the evidence on adolescent health and rights in LMICs for both younger and older adolescents, boys and girls, and relating to a range of key health matters affecting adolescents.

Keywords: adolescent girls; sexual and reproductive health; low- and middle-income countries

Since the International Conference on Population and Development (ICPD), and especially since the turn of the century, attention to and, in some cases, investments in adolescent girls' health and development have been increasing in most countries. Policy and programme commitments to address their sexual and reproductive health and rights (SRHR) have expanded. This paper examines the SRHR of adolescent girls (aged 10–19) in low- and middle-income countries (LMIC) and discusses additional actions that need to be taken to enable all girls to make a safe and healthy passage to adulthood. It builds on several recent syntheses of evidence on the health status of adolescents published in the 2012 Lancet series on adolescent health (Catalano et al., 2012; Patton et al., 2012; Sawyer et al., 2012; Viner et al., 2012), Reproductive Health Matters (Jejeebhoy, Zavier, & Santhya, 2013), UNICEF's 'Progress for Children 2012' (United Nations Children's Fund [UNICEF],

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KG Santhya conceptualised the study, analysed the data and wrote the manuscript. Shireen J Jejeebhoy conceptualised the study and co-drafted the manuscript.

2012) and the UNFPA's 'State of World Population 2013' (United Nations Population Fund [UNFPA], 2013). While we recognise that SRH in adolescent girls is intimately linked with other aspects of health, such as mental health, nutrition and avoidance of risk factors for non-communicable diseases later in life, among others, on the one hand, and SRH among men and boys on the other, these could not be addressed adequately in the space allowed for this paper.

There are several reasons for a focus on adolescent girls. There are an estimated 580 million adolescent girls (United Nations, Department of Economic and Social Affairs, Population Division, 2013) in the world today, and 88% of them live in LMICs. Sexual and reproductive health (SRH) continues to elude many, and many are denied the right to make safe and informed decisions that affect their health and well-being. Clearly, SRH is only one among the many dimensions of adolescent girls' health, including notably nutrition and mental health, and improvements in SRH depend on progress in other dimensions of health; at the same time, girls' SRH situation has huge implications both for their later health as well as the health of the next generation. As the UN reviews 20 years of implementation of the ICPD Programme of Action (POA; United Nations, 1994) and designs a new global agenda for 2015 and beyond, it is important to review the situation of today's cohort of adolescent girls, and assess their need for sustained and expanded national and global attention and investment.

Beginning with the Convention on the Rights of the Child in 1989 (CRC; Office of the United Nations High Commissioner for Human Rights, 1989), and repeatedly since 1994, governments have acknowledged that closing gender gaps in health and education and providing other opportunities equally for girls and boys are human rights obligations, and are also essential for national and global development and security. In 2012, the 45th Session of the United Nations Commission on Population and Development (United Nations, 2012) and the Declaration of the Bali Global Youth Forum (United Nations Population Fund [UNFPA], 2012) elaborated on the ICPD POA commitments to adolescents' SRHR. Both documents urged governments to ensure adolescents' access to quality SRH services and to comprehensive sexuality education (CSE) in and out of schools; to eliminate early and forced marriage; to design and implement policies and programmes to eliminate violence against women and girls; to engage gatekeepers, including parents and communities; and to give adolescents themselves a voice in decision-making.

This paper briefly reviews the most recent data on adolescent girls' SRH and its social determinants in LMICs, and analyses progress since 1994 to the extent that data allow. It maps the challenges and opportunities for meeting the health needs and protecting the human rights of adolescent girls, looking forward to continuing ICPD implementation, and to inclusion of actions for adolescents' SRHR, particularly of girls, in the post-2015 development agenda. Section A presents an overview of the extent to which the SRH of girls remains compromised; Section B reviews the challenges that inhibit girls from protecting their SRHR and discusses programmes that hold promise for overcoming these challenges.

Methods

Like other reviews, this review draws primarily on publicly accessible data from the Demographic and Health Surveys (DHS) from some 55 countries as these surveys provide data on a range of indicators measuring the SRH situation of adolescent girls

for a large number of countries at two points in time (early to mid-1990s and 2005 onwards). For a few selected indicators for which data are not available from DHS, we relied on data from other national surveys and estimates including the global burden of disease (GBD) estimates (from 156 countries) and the Global School-based Student Health Survey (30 countries, for the indicator related to the prevalence of malnutrition). We provide regional estimates, defining region in accordance with the UN World Population Prospects (United Nations, Department of Economic & Social Affairs, Population Division, 2013). While the number of countries from each region varies according to the source of data, they typically range from fewer than five in North Africa, Central Asia, South East Asia, West Asia and Eastern and Southern Europe, to 5–10 in South Asia and Latin America and the Caribbean and to 31 in Sub-Saharan Africa. We provide regional or sub-regional estimates for the most recent point in time (2005 onwards) by weighting country estimates by each country's population in 2010 and therefore our estimates reflect weighted averages for all those countries for which data were available within each region (for a description of countries included in each regional estimate, see [Tables 1–5](#) and [Appendix Tables 1–4](#)). Estimates from regions for which data were available for more than 50% of the population, that is, sub-Saharan Africa, South Asia and South East Asia, are considered to be regional estimates, and estimates from regions for which data were available for less than 50% of the population are considered to be sub-regional estimates. We note, moreover, that the number of countries for which data are available varied by indicator.

Where national-level, comparable data are available from two points in time (early to mid-1990s and 2005 onwards), we assess progress on selected key SRHR indicators. Wherever possible, we present evidence on both younger and older adolescent girls, and, in some instances, boys. We supplement this analysis with evidence from selected quantitative and qualitative studies conducted over the last two decades.

Data limitations are considerable (Patton et al., 2012). More data are available on adolescent SRH than on other dimensions of their health. More data are available for girls than for boys, more for those 15–19 than for those 10–14 years old, and more for married girls than unmarried girls (World Health Organization [WHO], 2011a). Data are available for fewer countries in the 1990s than in the 2010s, and therefore, findings on changes over time cannot be generalised beyond the countries that have data.

Girls' SRH: the magnitude of vulnerabilities

While many of today's adolescent girls are better educated, healthier, more aware of their rights and better equipped to advocate on their own behalf than the previous generations, many face threats to their health and rights, including unmet health needs, and new as well as old risks (Kleinert, 2007; Patton & Viner, 2007; Sawyer et al., 2012; UNFPA, 2013). Progress has been slow and uneven, and wide regional differences exist. Unmet needs are often concentrated among adolescents residing in rural areas, with limited education, and belonging to economically disadvantaged households or socially excluded ethnic groups (Engebretsen, 2012; Population Council, n.d.; World Health Organization [WHO], 2011a). Adolescent girls who migrate, often on their own, are emerging in many countries as a large group at high risk of violence, exploitation and potentially poor SRH outcomes (Temin, Montgomery, Engebretsen, & Barker, 2013).

Table 1. Sexual and reproductive health situation of adolescent girls (2005 onwards).

Indicators	Sub-Saharan Africa (51 countries)	North Africa (7 countries)	Central Asia (5 countries)	South Asia (8 countries)	South East Asia (11 countries)	West Asia (19 countries)	Eastern & Southern Europe (26 countries)	Latin America and the Caribbean (48 countries)
<i>Initiation into sexual life in adolescence</i>								
% of adolescents aged 15–19 who were married ^a	25.6 (±2.2)(30)	13.4(1)	–	27.8 (±1.5)(6)	12.6 (±0.3)(4)	9.1 (±1.4)(3)	6.9 (±0.6)(3)	17.0 (±2.1)(7)
% of girls aged 15–19 married before age 15 ^a	8.0 (±1.1)(30)	1.1(1)	–	8.4 (±0.7)(6)	1.5 (±0.0)(4)	0.4 (±0.1)(3)	0.2 (±0.1)(3)	4.0 (±1.0)(7)
% of women aged 20–24 married before age 18 ^a	39.1 (±2.3)(30)	16.6(1)	–	44.0 (±2.3)(6)	16.3 (±0.4)(4)	10.8 (±1.2)(3)	10.6 (±1.4)(3)	23.6 (±2.8)(7)
% of adolescents aged 15–19 who had experienced pre-marital sex ^a	24.6 (±2.9)(30)	–	–	0.6(2)	0.3 (±0.0)(3)	0.3(2)	11.7 (±1.2)(3)	27.7 (±4.6)(7)
% of adolescents aged 15–19 who had pre-marital sex in the one year preceding the interview ^a	19.6 (±2.6)(30)	–	–	0.4(2)	0.3 (±0.0)(3)	0.0(1)	10.7 (±1.1)(3)	23.3 (±4.5)(7)
% of adolescents aged 15–19 who had sex before age 15 (before or within marriage) ^a	13.4 (±1.1)(30)	–	–	7.9(2)	0.5 (±0.0)(3)	0.3(2)	1.0 (±0.1)(3)	11.0 (±1.5)(7)
<i>Experience of sexual coercion and violence</i>								
% of married girls aged 15–19 who ever experienced physical or sexual violence within marriage or cohabitation ^b	28.8 (±4.3)(18)	20.9(1)	8.7(1)	32.6 (±1.2)(3)	19.6 (±2.3)(3)	16.1(2)	7.5(2)	30.4 (±2.4)(5)
% of married girls aged 15–19 who ever experienced sexual violence within marriage or cohabitation ^b	14.1 (±3.1)(18)	2.8(1)	1.7(1)	13.9 (±0.5)(3)	9.7 (±1.4)(3)	7.0(2)	0.2(2)	8.6 (±4.6)(4)

Table 1 (Continued)

Indicators	Sub-Saharan Africa (51 countries)	North Africa (7 countries)	Central Asia (5 countries)	South Asia (8 countries)	South East Asia (11 countries)	West Asia (19 countries)	Eastern & Southern Europe (26 countries)	Latin America and the Caribbean (48 countries)
<i>Unsafe sex</i>								
% of sexually active 15–19 year-olds (unmarried or married) who had sex with multiple partners in the last year ^a	3.9 (±0.5)(30)	–	–	0.2(2)	0.1 (±0.1)(3)	0.1(2)	8.2 (±1.4)(3)	8.2 (±1.2)(6)
% of sexually active 15–19 year-olds who had used a condom at last sex in the last year in a premarital relationship ^a	35.0 (±3.1)(29)	–	–	18.1(1)	–	–	68.0 (±9.0)(3)	46.0 (±4.0)(6)
% of married adolescents aged 15–19 who reported current use of condom ^a	2.1 (±0.5)(30)	0.0(1)	–	3.6 (±0.2)(6)	0.5 (±0.2)(5)	1.8 (±0.6)(4)	32.4 (±5.6)(3)	7.3 (±2.0)(12)
<i>Early and unintended pregnancy</i>								
% of adolescent girls aged 15–19 who had initiated childbearing before age 15 ^a	2.3 (±0.3)(30)	0.1(1)	–	1.3 (±0.2)(6)	0.3 (±0.0)(4)	0.0 (±0.0)(3)	0.1 (±0.0)(3)	1.5 (±0.2)(7)
% of women aged 20–24 who had initiated childbearing before age 18 ^a	27.6 (±1.7)(30)	6.5(1)	–	22.2 (±1.4)(6)	6.7 (±0.1)(4)	3.6 (±0.7)(3)	3.3 (±0.3)(3)	18.3 (±1.6)(7)
% of births in the five years preceding the interview to women aged <20 that were unintended ^a	26.8 (±2.9)(30)	3.8(1)	–	14.7 (±0.6)(5)	13.5 (±2.9)(4)	9.1 (±3.1)(4)	23.6 (±2.7)(3)	55.9 (±4.7)(12)

Table 1 (Continued)

Indicators	Sub-Saharan Africa (51 countries)	North Africa (7 countries)	Central Asia (5 countries)	South Asia (8 countries)	South East Asia (11 countries)	West Asia (19 countries)	Eastern & Southern Europe (26 countries)	Latin America and the Caribbean (48 countries)
<i>Sexually transmitted infections/HIV</i>								
HIV prevalence among adolescents aged 15–19 ^a	1.7 (±0.5)(25)	–	–	0.1(1)	0.0(2)	–	–	0.4(2)
% of sexually experienced adolescents aged 15–19 who reported having an STI and/or STI symptoms in the past one year ^b	10.8 (±1.8)(31)	19.1(1)	4.8(1)	10.7 (±0.1)(4)	15.1 (±1.4)(5)	0.5(1)	3.4 (±2.1)(3)	15.0 (±2.5)(7)
<i>Anaemia and malnutrition</i>								
% of adolescent students aged 13–15 who were underweight ^c	3.2(6)	4.9(3)	–	9.0(1)	11.4(4)	4.1(5)	–	1.3(11)
% of adolescent girls aged 15–19 who were moderately or severely anaemic ^a	10.3 (±1.7)(24)	8.6(1)	–	15.3 (±0.7)(3)	6.9(2)	4.7 (±0.9)(3)	1.6(2)	4.6 (±2.8)(5)

Note: We arrived at regional estimates for the most recent point in time by weighting country estimates by each country's population in 2010. The regional estimates reflect a weighted average for as many countries for which data were available within each region. Shaded cells refer to regional estimates, that is, estimates for regions for which data for more than half of the population were available; others refer to sub-regional estimates, that is, regions in which data are available for less than half of the population; numbers in parentheses refer to the confidence interval of the weighted average estimated and number of countries for which data points were available.

^aData obtained from various rounds of Demographic and Health Surveys (DHS) through the STATcompiler; ^bData obtained from Demographic and Health Surveys (DHS) country reports; ^cData obtained from Global School-based Student Health Survey (GSHS).

Table 2. Deaths and DALYs lost due to maternal complications and sexually transmitted infections other than HIV.

Indicators	Sub-Saharan Africa (51 countries)	North Africa (7 countries)	Central Asia (5 countries)	South Asia (8 countries)	South East Asia (11 countries)	West Asia (19 countries)	Eastern & Southern Europe (26 countries)	Latin America and the Caribbean (48 countries)
<i>Early and unintended pregnancy</i>								
% of all deaths among girls aged 15–19 that were caused by abortion related complications	1.7 (47)	0.7 (6)	0.1 (5)	1.4 (8)	1.0 (11)	0.3 (19)	0.5 (23)	0.5 (32)
% of all deaths among girls aged 15–19 that were caused by maternal complications excluding abortion related complications	10.1 (47)	5.8 (6)	1.4 (5)	6.9 (8)	6.7 (11)	4.5 (19)	1.1 (23)	3.8 (32)
<i>Sexually transmitted infections/HIV</i>								
% of DALYs lost among adolescents aged 10–14 due to STIs other than HIV	0.07 (47)	0.07 (6)	0.11 (5)	0.04 (8)	0.10 (11)	0.06 (19)	0.19 (23)	0.07 (32)
% of DALYs lost among adolescents aged 15–19 due to STIs other than HIV	0.19 (47)	0.20 (6)	0.24 (5)	0.09 (8)	0.27 (11)	0.18 (19)	0.58 (23)	0.24 (32)

Note: Data obtained from the Global burden of disease (GBD) 2010 – <http://www.healthmetricsandevaluation.org/gbd>; data of deaths/DALYs due to maternal complications, abortion, STIs, etc for each country were summed for each region and divided by the deaths/DALYs due to all causes for that particular region.

Table 3. Changes in the SRH situation of adolescent girls over time.

Indicators	Around the time of ICPD (1990s)								Current (2005 onwards)							
	Sub-Saharan Africa	North Africa	Central Asia	South Asia	South East Asia	West Asia	Eastern & Southern Europe	Latin America and the Caribbean	Sub-Saharan Africa	North Africa	Central Asia	South Asia	South East Asia	West Asia	Eastern & Southern Europe	Latin America and the Caribbean
% of adolescents aged 15–19 who were married ^a	30.6 (±3.1)(20)	14.3(1)	–	35.3 (±1.3)(4)	15.5(2)	8.2(1)	–	15.9 (±1.9)(5)	26.9 (±2.8)(20)	13.4(1)	–	28.0 (±1.5)(4)	12.7(2)	6.8(1)	–	16.1 (±1.8)(5)
% of girls aged 15–19 married before age 15 ^a	9.9 (±1.6)(20)	2.3(1)	–	15.6 (±1.4)(4)	2.8(2)	1.2(1)	–	3.9 (±1.2)(5)	8.3 (±1.5)(20)	1.1(1)	–	8.5 (±0.7)(4)	1.5(2)	0.6(1)	–	3.6 (±1.0)(5)
% of women aged 20–24 married before age 18 ^a	42.1 (±3.5)(20)	26.8(1)	–	50.3 (±1.8)(4)	25.9(2)	13.5(1)	–	24.3 (±1.4)(5)	39.3 (±3.0)(20)	16.6(1)	–	44.1 (±2.0)(4)	16.1(2)	10.2(1)	–	22.8 (±2.7)(5)
% of adolescents aged 15–19 who had pre-marital sex in the one year preceding the interview ^a	23.9 (±2.9)(19)	–	–	–	–	–	–	9.5 (±1.6)(6)	21.3 (±2.6)(19)	–	–	–	–	–	–	23.3 (±4.5)(6)
% of sexually active 15–19 year-olds (unmarried or married) who had sex with multiple partners in the last year ^a	9.6 (±1.9)(10)	–	–	–	–	–	–	3.6(1)	5.3 (±0.8)(10)	–	–	–	–	–	–	10.1(1)
% of sexually active 15–19 year-olds who had used a condom at last sex in the last year in a pre-marital relationship ^a	18.3 (±2.3)(15)	–	–	–	–	–	–	18.8(2)	35.9 (±3.5)(15)	–	–	–	–	–	–	50.3(2)
% of married adolescents aged 15–19 who reported current use of condom ^a	1.3 (±0.4)(20)	0.1(1)	–	1.7 (±0.2)(4)	0.4 (±0.2)(3)	0.5(1)	20.1(2)	4.0 (±1.2)(11)	2.3 (±0.5)(20)	0.0(1)	–	3.6 (±0.2)(4)	0.4 (±0.2)(3)	3.0(1)	34.8(2)	7.2 (±2.0)(11)
% of women aged 20–24 who had initiated childbearing before age 18 ^a	30.2 (±2.2)(20)	14.6(1)	–	28.5 (±1.5)(4)	12.3(2)	6.0(1)	–	16.5 (±0.9)(5)	29.2 (±2.0)(20)	6.5(1)	–	22.2 (±1.5)(4)	6.7(2)	3.5(1)	–	18.0 (±1.6)(5)
% of births in the five years preceding the interview to women aged <20 that were unintended ^a	26.8 (±3.0)(20)	10.5(1)	–	15.2 (±0.8)(4)	15.9(2)	18.7(1)	20.1(2)	41.0 (±4.6)(11)	25.5 (±3.7)(20)	3.8(1)	–	14.7 (±0.6)(4)	13.7(2)	13.0(1)	25.1(2)	55.9 (±4.7)(11)

Note: We arrived at regional estimates for the 1990s by weighting country estimates by each country's population as estimated for 1995 by the United Nations Population Division, and likewise, for the most recent point in time by weighting country estimates by each country's population in 2010. The regional estimates reflect weighted average for as many countries for which data were available within each region. Numbers in parentheses refer to the confidence interval of the weighted average estimated and number of countries for which data points were available.

^aData obtained from various rounds of Demographic and Health Surveys (DHS) through the STATcompiler.

Initiation into sexual life in adolescence

Although most nations have reiterated their commitment to eliminating early marriage, the practice continues in many regions of the world. It is most prevalent in South Asia, and sub-Saharan Africa, where 44% (based on six countries) and 39% (based on 30 countries) of women aged 20–24, respectively, were married before age 18 and 8% each of girls aged 15–19 were married before age 15 (Table 1). In nine countries within these two regions, marriage before age 18 was even more widespread, ranging from 48% to 75% (one in South Asia and eight in sub-Saharan Africa) and in two countries, marriage before age 15 was as high as 17% (in Bangladesh) and 23% (in Mali). In other regions, sub-regional estimates show that the percentage of young women married before age 18 ranged from 11% in three countries each in West Asia and Eastern and Southern Europe to 24% in seven countries in Latin America and the Caribbean. In contrast, fewer than 5% of boys aged 15–19 were married, even in South Asia and sub-Saharan Africa, regions that are hotspots for early marriage among girls.

Early marriage goes hand in hand with exclusion of girls from the decision on when and whom to marry (Banerji, Martin, & Desai, 2008; Ross, 2011; Santhya, Haberland, & Singh, 2006; Santhya et al., 2010). Evidence from India, for example, shows that compared with young women who had married at age 18 or older, those who had married early were less likely to have been consulted on the timing of marriage and choice of spouse, as well as to have had an opportunity to get to know their spouse before marriage (Banerji et al., 2008; Santhya et al., 2010).

Trends in early marriage, based on data from 33 countries (20 from sub-Saharan Africa, 1 from North Africa, 4 from South Asia, 2 from South East Asia, 1 from West Asia and 5 from Latin America and the Caribbean), suggest limited change since the ICPD (Table 3). The only exception is countries in South Asia and South East Asia, which recorded declines (6 and 10 percentage points decline in young women married before age 18 in South Asia and South East Asia, respectively).

Early sexual initiation before marriage is also observed among adolescent girls (Table 1). Regional estimates of pre-marital sexual experience among 15- to 19-year-old girls in the year preceding the survey ranged from less than 1% in South Asia to 20% in sub-Saharan Africa. Sub-regional estimates similarly range from less than 1% in other parts of Asia (four countries in all) to 23% in Latin America and the Caribbean (seven countries). Trends in girls' experience of pre-marital sex from the 1990s to the present, based on data from 25 countries, suggest that recent experience of pre-marital sex among girls remained unchanged in sub-Saharan Africa (19 countries; 24% and 21%, respectively), but increased by 14 percentage points in selected countries in Latin America and the Caribbean (five countries; 10% to 23%; Table 3).

In short, entry into sexual life takes place in adolescence for many girls in LMIC, either within the context of marriage or union, or prior to marriage.

Experience of sexual coercion and violence

Violence against girls takes many forms including that perpetrated by intimate partners, non-partners, strangers or through trafficking (Bruce, 2011). Violence against girls is perpetrated largely by husbands and partners, starts early in relationships and is a reflection of the inegalitarian gender norms that are pervasive in most settings. WHO estimates that 29% of all ever-partnered girls aged 15–19 years had experienced physical or sexual violence perpetrated by an intimate partner (World Health Organization [WHO], 2013). Regional estimates, obtained from DHS data 2005 onwards, show that ever

experience of physical or sexual violence within marriage or cohabitation among married girls was as high as 30% or more in such regions as sub-Saharan Africa (18 countries) and South Asia (three countries). In other regions, sub-regional estimates show that between 8% and 30% of married or co-habited girls had ever experienced spousal violence (Table 1). Fewer girls reported lifetime experience of sexual violence within marriage or co-habitation; even so, as many as 14% of girls reported so in South Asia (three countries) and sub-Saharan Africa (18 countries). We note that these estimates are based on nationally representative data for the period 2005 onwards and refer to physical or sexual violence within married or formal unions. Our estimates exclude violence experienced in dating relationships and pre-marital sexual relationships; as such, they may differ from those drawn from sub-national and other studies, including the WHO Global and regional estimates of violence against women (World Health Organization [WHO], 2013).

Sexually experienced unmarried adolescents also report non-consensual, including forced, sexual encounters. Indeed, a review of available evidence found that while non-consensual sexual relations, that is, sexual relations obtained through physical force, threats, deception, blackmail or by drugging an unwilling victim, are experienced by adolescent girls in a host of settings, wide variations are observed in the proportions reporting such experiences, ranging from under 5% to over 20% (Jejeebhoy & Bott, 2005).

For many girls, sexual initiation, before or within marriage, is forced or coerced. DHS data from 14 countries from different regions show that among sexually experienced women who had initiated sexual relations before age 15, between 13% and 47% had a forced sexual initiation (ICF International, n.d.). The deleterious effects of marital violence for the health and well-being of women and their children are well recognised (World Health Organization [WHO], 2013). For example, a global review shows that compared to women and girls who have not experienced intimate partner violence, those who have experienced partner violence have 16% greater odds of having a low-birth-weight baby, are more than twice as likely to have an induced abortion, are more than twice as likely to experience depression and in some settings 1.5–1.6 times more likely to acquire HIV or syphilis (World Health Organization [WHO], 2013).

Unsafe sex

Sexual relations among adolescents are commonly unsafe in several ways. Multiple partner sexual relations – pre-marital or extra-marital – in the past year were reported by less than 1% of sexually active 15- to 19-year-old girls in South Asia and 4% in sub-Saharan Africa. In other regions, sub-regional estimates show that multiple partner sexual relations ranged from less than 1% each in two countries in West Asia and three countries in South East Asia to 8% each in three countries in Eastern and Southern Europe and six countries in Latin America and the Caribbean (Table 1). Condom use is inconsistent and varies widely across countries in the regions. For example, reported condom use at last pre-marital sex in the past year ranged from 18% in South Asia (one country) to 35% in sub-Saharan Africa. In other regions, sub-regional estimates show that between 46% of girls in six countries in Latin America and the Caribbean and 68% of girls in three countries in Eastern and Southern Europe reported condom use at last pre-marital sex. Current use of condoms within marriage remains low, with less than 5% of married girls aged 15–19 reporting in such regions as South East Asia, sub-Saharan Africa and South Asia. Comparable data over time suggest a shift away from multiple partner relationships and an increase in condom use within pre-marital relationships in some

countries (Table 3). In sub-Saharan Africa (10 countries), for example, multiple partner sexual relations in the past year declined by 4 percentage points among girls, while condom use at last sex within pre-marital relationships increased by 18 percentage points (15 countries). In contrast, regional estimates from sub-Saharan Africa, South Asia and South East Asia suggest little progress towards increased condom use within marriage; sub-regional estimates show a similar trend for the most part, except among countries of Eastern and Southern Europe, where it increased from 20% to 35% (two countries).

Early and unintended pregnancy

As many as 19–20% of young women aged 20–24 in developing countries (excluding China) initiated childbearing before they were aged 18 (United Nations Children's Fund [UNICEF], 2012; United Nations Population Fund [UNFPA], 2013). Regional estimates show that such early childbearing ranges from 7% in South East Asia (four countries) to 22% in South Asia (six countries) and 28% in sub-Saharan Africa (30 countries; Table 1). In contrast, 2% or fewer boys aged 15–19 had ever fathered a child. Childbearing before age 15 is rare; however, in countries such as Guinea, Mali, Niger and Sierra Leone, 5–6% of girls, aged 15–19, began childbearing before age 15. Early childbearing is accompanied by rapid childbearing in many settings: at ages 15–19, 10–14% of married adolescent girls already had two or more children in sub-Saharan Africa and South Asia (not shown in Tables).

Data available over time show slow progress since the ICPD in reducing early childbearing. Table 3 suggests declines in the range of one percentage point in sub-Saharan Africa (30–29%, 20 countries) to 6–7 percentage points in South East Asia (12–7%, two countries) and South Asia (29–22%, four countries) in childbearing before age 18. In contrast in Latin America and the Caribbean, it slightly increased from 16.5% to 18%.

High rates of unintended pregnancy and abortion are also observed among adolescents, and are frequently associated with early marriage and experience of violence (Adhikari, Soonthornhdada, & Prasartkul, 2009; Jejeebhoy, Santhya, & Acharya, 2010; Raj, Saggurti, Balaiah, & Silverman, 2009; Santhya, 2011). Regional estimates show that unintended pregnancy among adolescents ranged from 14% to 15% of all pregnancies that resulted in live births in the five years preceding the interview to women below age 20 in South Asia (six countries) and South East Asia (four countries) to 27% in sub-Saharan Africa (30 countries). Even higher rates were reported in selected countries in Latin America and the Caribbean where 56% of all pregnancies that resulted in live births in the five years preceding the interview to women below age 20 were unintended (Table 1). The progress in reducing unintended pregnancy since the ICPD varies across countries. It did not change in such regions as sub-Saharan Africa, South Asia and South East Asia, but sub-regional estimates from 11 countries in Latin America and the Caribbean show an increase from 41% to 56% (Table 3). Moreover, an estimated 15% of the nearly 22 million unsafe abortions worldwide annually take place among girls aged 15–19, ranging from 11% in Asia (excluding Eastern Asia) to 22% in sub-Saharan Africa (Shah & Ahman, 2012). GBD estimates show that abortion related complications accounted for 1% of all deaths among girls aged 15–19 globally in 2010; South Asia and sub-Saharan Africa accounted for 48% and 38%, respectively, of these deaths (Table 2; Institute for Health Metrics and Evaluation [IHME], 2013).

Because of early initiation of childbearing, inadequate care during pregnancy and childbirth, and limited, if any, access to safe abortion, maternal causes claim the lives of many adolescents annually (Institute for Health Metrics and Evaluation [IHME], 2013;

United Nations Population Fund [UNFPA], 2013; World Health Organization [WHO], 2011b). Adolescents aged 15–19 contribute to 11% of all births, but accounted for 14% of all maternal deaths globally (World Health Organization [WHO], 2011b). The estimated risk of mortality is even higher among adolescents than those aged 20–24 (Blanc, Winfrey, & Ross, 2013). GBD estimates show that maternal morbidities, excluding abortion-related complications and nutritional deficiencies, account for 7% and 3% of all deaths and disability-adjusted life year (DALYs) lost, respectively, among girls aged 15–19; sub-Saharan Africa and South Asia (47 and eight countries, respectively) accounted for 40% and 42%, respectively, of deaths and DALYs lost due to maternal complications among girls globally (Table 2; Institute for Health Metrics and Evaluation [IHME], 2013). Adolescents are also more likely than older women to bear underweight infants and experience neonatal and infant deaths (Jejeebhoy et al., 2013). Moreover, although research from the developing world on the social and economic impact of adolescent childbearing is thin (National Research Council [NRC] & Institute of Medicine [IOM], 2005), evidence from developed countries suggest that early childbearing is associated with poor educational and economic outcomes for the mother and child (Boden, Fergusson, & Horwood, 2008; Coyne, Landstrom, Lichtenstein, & D’Onofrio, 2013; Jutte et al., 2010; Lipman, Georgiades, & Boyle, 2011).

Sexually transmitted infections/HIV

While national level data on prevalence of sexually transmitted infections (STIs) among girls are not available, data are available on reported symptoms of infection; we caution readers that this is a somewhat subjective indicator. STIs, or related symptoms, and HIV are experienced by large numbers of girls; indeed, girls are more likely than boys to experience both. For example, as many as 11–15% of 15- to 19-year-olds girls in sub-Saharan Africa, South Asia and South East Asia reported experiencing STIs or related symptoms (31, 4 and 5 countries, respectively), compared to 2–11% of boys (Table 1). Likewise, a larger number of girls than boys aged 10–19 were living with HIV in 2010 (an estimated 1.3 million girls compared to 0.9 million boys), with prevalence highest in sub-Saharan Africa (United Nations Children’s Fund [UNICEF], 2012). Gender differences reflect early marriage of adolescent girls to older men, and in some cases, pre-marital sexual relationships with older men, who are likely to have had multiple partners and other risk factors, girls’ lack of power to negotiate condom use as well as such physiological reasons as a less mature vagina and cervix with thinner cell structures in adolescent girls that allow easy transmission of infections to them (Berman & Ellen, 2008; Bruce & Clark, 2004; Jejeebhoy & Bott, 2005; Koenig et al., 2004; Watstein & Laurich, 1991).

Anaemia and malnutrition

Anaemia and under-nutrition exacerbate the risks that girls face during pregnancy, and continue to be problems among adolescent girls in several LMICs (United Nations Children’s Fund [UNICEF], 2012). Data on the prevalence of anaemia show that 10–15% of adolescent girls aged 15–19 were moderately or severely anaemic in sub-Saharan Africa (24 countries) and South Asia (three countries; Table 1). The Global School-based Student Health Surveys (GSHS) show that almost 1 in 10 female students aged 13–15 were underweight in selected countries in South Asia (one country) and South East Asia (four countries).

Table 4. Indicators of challenges in meeting adolescent girls' SRH and rights needs (2005 onwards).

Indicators	Sub-Saharan Africa	North Africa	Central Asia	South Asia	South East Asia	West Asia	Eastern & Southern Europe	Latin America and the Caribbean
<i>Access to health promoting information and comprehensive sexuality education</i>								
% of adolescents aged 15–19 who displayed comprehensive awareness ^a of HIV/AIDS ^b	25.6 (±2.0)(30)	–	–	18.8(2)	41.7 (±1.6)(3)	6.4(2)	38.6(2)	24.1 (±2.9)(7)
% of currently married adolescents aged 15–19 who were aware of modern contraceptive methods ^b	78.6 (±4.7)(30)	99.6(1)	–	96.4 (±0.8)(6)	96.7 (±0.5)(4)	93.0 (±4.8)(3)	99.6 (±0.5)(3)	99.0 (±0.6)(7)
% of currently married adolescents aged 15–19 who could name a source of condom ^b	46.4 (±3.6)(30)	–	–	39.5(2)	47.1 (±3.0)(3)	31.8(2)	92.5 (±2.9)(3)	88.4 (±4.1)(7)
% of currently aged 15–19 year-olds who had heard family planning messages on television or radio ^b	13.5 (±1.5)(30)	16.1(1)	–	20.0 (±1.8)(5)	19.5 (±3.7)(4)	11.0 (±3.8)(3)	15.1 (±1.8)(3)	25.9 (±4.3)(6)
Number of countries that provided life skills-based HIV education in at least 50% of schools in the last academic year ^c	14/27	–	3/4	0/4	2/6	2/3	5/10	16/25
<i>Safe spaces for the most vulnerable girls</i>								
% of adolescent girls aged 15–19 who had some say in decisions related to own health care ^b	39.6 (±7.2)(17)	66.3(1)	–	46.1(2)	70.9(2)	86.1(2)	8.9(1)	52.2 (±9.4)(5)
% of adolescent girls aged 15–19 who believed that a man is justified in beating his wife if she refuses to have sex with him ^b	23.5 (±2.2)(30)	26.0(1)	–	10.5 (±0.4)(4)	7.9 (±1.1)(4)	7.3(2)	1.1 (±1.1)(3)	1.4 (±0.8)(7)
<i>Access to SRH services</i>								
% of live births in the last 5 years to women aged <20 years that were attended by health care professionals ^b	47.1 (±4.9)(31)	78.8(1)	–	46.4 (±1.1)(6)	83.4 (±2.7)(4)	95.4 (±1.9)(3)	99.9 (±0.1)(3)	85.7 (±7.1)(7)
% of currently married adolescent girls aged 15–19 who reported unmet need for contraception ^b	25.8 (±2.0)(30)	7.0(1)	–	25.5 (±0.9)(5)	15.4 (±3.2)(4)	14.8 (±4.3)(3)	27.9 (±3.3)(3)	27.0 (±4.9)(7)
% of currently married adolescent non-users who reported contact with family planning service providers in the past one year ^b	24.7 (±2.4)(27)	41.3(1)	–	41.5(2)	23.1 (±0.7)(4)	36.7 (±21.7)(3)	39.0(2)	47.2 (±6.5)(7)
% of sexually active adolescents aged 15–19 who had an HIV test in the last 12 months and knew the test result ^b	15.8 (±2.9)(29)	–	–	2.1(2)	6.3(2)	6.3(1)	16.3 (±2.7)(3)	19.2 (±2.8)(5)
<i>Supportive environments</i>								
% of adults aged 18–49 who favoured provision of education about condoms to young people ^b	50.9 (±2.8)(30)	–	–	–	31.9(2)	55.3(1)	89.6 (±5.3)(3)	87.1 (±6.5)(5)

Note: We arrived at regional estimates for the most recent point in time by weighting country estimates by each country's population in 2010. The regional estimates reflect weighted average for as many countries for which data were available within each region. Shaded cells refer to regional estimates, that is, estimates for regions for which data for more than half of the population were available; others refer to sub-regional estimates, that is, regions in which data are available for less than half of the population; numbers in parentheses refer to the confidence interval of the weighted average estimated and number of countries for which data points were available.

^aComprehensive awareness of HIV/AIDS is measured as (1) awareness of two key HIV prevention methods, namely condom use and limiting sex to one faithful uninfected partner; (2) awareness that a healthy-looking person can have HIV; and (3) rejection of two most common local misconceptions, namely that HIV/AIDS can be transmitted through mosquito bites and by sharing food. ^bData obtained from various rounds of Demographic and Health Surveys (DHS) through the STATcompiler; ^cData obtained from UNAIDS report– SECURING THE FUTURE TODAY Synthesis of Strategic Information on HIV and Young People.

Table 5. Changes in indicators of challenges in meeting adolescent girls' SRH needs over time.

Indicators	Around the time of ICPD (1990s)								Current (2005 onwards)							
	Sub-Saharan Africa	North Africa	Central Asia	South Asia	South East Asia	West Asia	Eastern & Southern Europe	Latin America and the Caribbean	Sub-Saharan Africa	North Africa	Central Asia	South Asia	South East Asia	West Asia	Eastern & Southern Europe	Latin America and the Caribbean
% of currently married adolescents ages 15–19 who were aware of modern contraceptive methods ^a	66.3 (±6.7)(20)	98.9(1)	–	93.8 (±2.0)(4)	94.5(2)	100(1)	–	96.2 (±2.2)(5)	76.5 (±5.9)(20)	99.6(1)	–	96.7 (±0.7)(4)	96.6(2)	99.9(1)	–	99.0 (±0.7)(5)
% of live births in the last 5 years to women aged <20 years that were attended by health care professionals ^a	40.7 (±4.1)(20)	43.3(1)	–	35.0 (±2.6)(4)	46.2(2)	97.9(1)	–	77.4 (±7.5)(4)	48.3 (±4.8)(20)	78.8(1)	–	46.6 (±1.1)(4)	83.9(2)	97.3(1)	–	90.9 (±3.2)(4)
% of currently married adolescent girls aged 15–19 who reported unmet need for contraception ^a	23.0 (±2.3)(20)	17.2(1)	–	27.2 (±0.5)(4)	15.9(2)	20.6(1)	–	30.5 (±5.3)(5)	24.1 (±2.6)(20)	7.0(1)	–	25.4 (±0.9)(4)	15.3(2)	8.4(1)	–	27.7 (±5.1)(5)
% of currently married adolescent non-users who reported contact with family planning service providers in the past one year ^a	26.6 (±4.2)(12)	26.5(1)	–	32.4(1)	38.5(2)	–	–	45.7 (±4.5)(4)	22.0 (±3.5)(12)	41.3(1)	–	41.2(1)	23.0(2)	–	–	50.2 (±6.5)(4)

Note: We arrived at regional estimates for the 1990s by weighting country estimates by each country's population as estimated for 1995 by the United Nations Population Division, and likewise, for the most recent point in time by weighting country estimates by each country's population in 2010. The regional estimates reflect weighted average for as many countries for which data were available within each region. Numbers in parentheses refer to the confidence interval of the weighted average estimated and number of countries for which data points were available.

^aData obtained from various rounds of Demographic and Health Surveys (DHS) through the STATcompiler.

Actions to protect adolescent girls' SRHR

Our review shows that there has been some progress in selected dimensions of adolescent girls' SRHR situation in some regions (for example, in early marriage in South Asia, reduction in multiple partnership and increase in condom use within pre-marital relationship in sub-Saharan Africa). Yet, we acknowledge that several countries have to strive hard to delay marriage and childbearing, reduce unintended childbearing among adolescent girls, and reduce the risk of poor health outcomes. A range of barriers have compromised girls' SRHR. Principal among these are lack of knowledge, agency, services tailored to girls' specific needs and situations and a supportive environment (Bearinger, Sieving, Ferguson, & Sharma, 2007; Hindin & Fatusi, 2009; Jejeebhoy et al., 2013). In many settings characterised by early marriage, moreover, girls have little or no say in whom or when they will marry, further compromising their ability to exercise their reproductive rights within marriage (Jejeebhoy, Santhya, Acharya, & Prakash, 2013). In order to overcome these barriers, a number of interventions were recommended in the ICPD POA, and are being implemented in diverse countries. Notable among these are access to health promoting information and CSE, safe spaces for the most vulnerable girls, access to SRH services and creating an enabling environment, reviewed below. While limited studies and observation suggest that these have strong potential for improving the health and rights for large numbers of adolescent girls, including the most vulnerable, rigorous evaluations of these interventions have yet to be conducted in most cases.

Access to health promoting information and CSE

Adolescent girls and boys the world over are generally uninformed or misinformed about their bodies, sexuality and health promoting behaviours. For example, just 19–26% of girls aged 15–19 in South Asia and sub-Saharan Africa displayed comprehensive knowledge about HIV; in other regions, sub-regional estimates show that between 6% and 42% of girls were aware of HIV comprehensively (Table 4). While large percentages of married adolescent girls are aware of at least one modern contraceptive method, in-depth knowledge remains limited. For example, in a study in India, only 26% knew that a condom should be used only once, and only 34% understood that oral contraceptive pills must be taken daily (International Institute for Population Sciences [IIPS] and Population Council, 2010).

Programmes that provide information to adolescents and youth are usually narrow, many addressing only the human biology of pregnancy, or only HIV, or abstinence only until marriage (The United Nations Educational, Scientific and Cultural Organization [UNESCO], 2009a, 2009b). Few promote gender equality and many are not evidence-based (Rogow & Haberland, 2005). Since 1994, however, new curricula have been developed in a number of countries. These curricula, often developed in partnership between NGOs and government, provide information about biology and maturation, sexuality, contraception, prevention of STIs and HIV, relationships and marriage, as well as skills building for gender equality, non-violence and respect for human rights and diversity (please see commentary on CSE; Germain, 2014). UNESCO has produced international guidance for such programmes (The United Nations Educational, Scientific and Cultural Organization [UNESCO], 2009a, 2009b). The *It's All One Curriculum* is an exceptional resource that includes and meets the ICPD and subsequent commitments, allows for modifications for different contexts and for different age groups, takes a gender transformative approach and makes critical thinking central (Population Council, 2009).

While more rigorous evaluations are needed, encouraging results have been observed in programmes conducted in many settings (Acharya, Kalyanwala, Jejeebhoy, & Nathani, 2009; Action Health Incorporated, 2010; Barker, Ricardo, & Nascimento, 2007; Center for Development and Population Activities [CEDPA], 2009; Diaz et al., 2005; Dupas, 2011; Girard, 2003; Jewkes et al., 2008; Madunagu, 2003; Verma et al., 2008). Reviews of available evidence clearly indicate that: (1) abstinence-only programmes are ineffective and withholding information about contraceptives, including condoms, actually places adolescents at increased risk of unwanted pregnancy and STIs; and (2) comprehensive sexuality programmes not only reduce misinformation but also help adolescents to make informed decisions about engaging in sex and using contraception. Not a single study has found evidence to support the myth that CSE can lead to increased risk taking (Boonstra, 2011; Kirby, 2008). Similarly, preliminary results from a review of CSE evaluations, which assessed health outcomes, show that programmes that address issues of gender and power are substantially more likely to have positive health outcomes, including reductions in STIs and unintended pregnancies, than programmes that ignore these issues (Haberland & Rogow, *forthcoming*).

Since the ICPD, many national governments have reaffirmed or made new commitments to programmes to ensure the access of adolescents and youth to SRH information and services. The ICPD Beyond 2014 Global Survey indicates that 96%, 90% and 80% of countries in the Americas, Europe and Asia, respectively, and 54% of countries in Africa, have made commitments to develop SRH programmes that warrant and respect privacy, confidentiality and informed consent (United Nations Population Fund [UNFPA], 2014). Three-quarters of countries expressed commitment to age-appropriate sexuality education and counselling within schools, and 70% to making curricula more gender-sensitive. Commitments do not, however, mean that programmes are in place. For example, recent evidence suggests that even the relatively well-accepted life skills-based HIV education is far from universally available: of 88 countries indicating availability, only 26 reported that more than 90% of schools provided such education and 39 reported that less than 50% of their schools offered such education (Joint United Nations Programme on HIV/AIDS [UNAIDS], 2011).

Safe spaces for the most vulnerable girls

In many developing countries, adolescent girls, especially those who are most disadvantaged are socially isolated, placing them at risk for poor SRHR outcomes. Compared to adolescent boys, few adolescent girls have networks of friends or access to safe, social spaces outside their homes and schools in which they can develop and strengthen peer support (Hallman & Roca, 2007; International Institute for Population Sciences [IIPS] and Population Council, 2010; Santhya, Jejeebhoy, Saeed, & Sarkar, 2013). Girls are widely denied agency, or even participation in decisions on when and whom to marry (Banerji et al., 2008; Ross, 2011; Santhya et al., 2006, 2010), or their own health care (Table 4). Girls commonly do not have the negotiating skills or power to refuse unwanted or unsafe sex (Jejeebhoy & Bott, 2005), and many are raised not to confront someone with whom they disagree. Unequal gender norms are recognised and expressed even among very young adolescents (Hallman & Roca, 2007; Santhya et al., 2013).

Programmes that provide safe social spaces for in- and out-of-school girls, and build their ability to exercise informed life choices have been increasingly recognised as essential and effective, especially for highly vulnerable girls (Austrian, 2012; Bruce, 2007; Bruce, Temin, & Hallman, 2012). Typically, these programmes offer vulnerable

girls not only a safe social space and a friendship network, but also some combination of ‘assets’ such as knowledge about health and sexuality, social and economic rights, financial literacy and savings, self-protection planning and resources, such as health services, available in the community (please see commentary on investing in poorest girls early enough; Bruce, 2015). Such programmes are being implemented in diverse settings – from urban slums in East Africa to the Mayan highlands in Guatemala to conservative Upper Egypt. Several have demonstrated how to effectively support the most disadvantaged girls and improve health and development outcomes, including raising the age at marriage and contraceptive use (Erulkar & Muthengi, 2009; Catino, 2012; Hallman & Roca, 2007).

A recent systematic review of 23 evaluations of programmes for girls at risk of early marriage found that programmes that combined the critical elements of safe spaces for girls – information, skills and networks for girls with community mobilisation – are a promising approach for delaying marriage (Lee-Rife, Malhotra, Warner, & Glinski, 2012). Similarly, various programmes to reduce violence against girls include empowerment and safe spaces for girls, and CSE for the promotion of equitable norms of femininity and masculinity among girls and boys. While a decline in partner violence has been noted only in a few studies (Blanc, Melnikas, Chau, & Stoner, 2012), the more effective interventions were those that provided economic empowerment, gender and sexual health information, and group solidarity (Jewkes et al., 2008; Pronyk et al., 2006) and/or engaged men and boys (Dupas, 2011; Verma et al., 2008).

Access to SRH services

Access to SRH services is limited for both married and unmarried adolescents. For example, just 55% of young women who gave birth in adolescence in developing countries (excluding China) reported skilled attendance at delivery (United Nations Children’s Fund [UNICEF], 2012). Skilled attendance ranged from 46% to 47% in sub-Saharan Africa (31 countries) and South Asia (five countries) to 83% in South East Asia (four countries); in other regions, sub-regional estimates show 79–100% skilled attendance (Table 4). Moreover, although the first pregnancy among young women is the riskiest, there is no evidence that adolescents were more likely to receive skilled attendance than older women with higher order pregnancies (Jejeebhoy et al., 2013). A comparison of data over time suggests increasing use of skilled attendance since the ICPD: by 8–12 percentage points in sub-Saharan Africa (20 countries) and South Asia (four countries) and by 38 percentage points in South East Asia (two countries; Table 5). Unmet need for contraception remains high – about 25% – among married girls aged 15–19 in sub-Saharan Africa (30 countries) and South Asia (five countries), and selected countries in Eastern and Southern Europe and Latin America and the Caribbean (three and seven countries, respectively). Of even greater concern is that the trend in unmet need since the ICPD shows almost no change (Table 5). Utilisation of HIV testing is also limited (Table 4). The limited agency of married girls and the failure of health care providers to recognise their needs, particularly those newly married or pregnant for the first time, prevent many from accessing contraceptives and other SRH services (Lim et al., 2010; Santhya & Jejeebhoy, 2014; Santhya, Jejeebhoy, Acharya, & Francis, 2011). Unmarried adolescents also face obstacles in acquiring contraceptives, including legal and regulatory barriers, lack of information about where to obtain contraceptives or how to use them, embarrassment about seeking a contraceptive and concerns about judgemental and unfriendly providers (Biddlecom, Hessburg, Singh, Bankole, & Darabi,

2007; Santhya et al., 2013; Tylee, Haller, Graham, Churchill, & Sancu, 2007). In some cases, unmarried youth are excluded in practice from services, even where policy is supportive (Tylee et al., 2007).

The need to make SRH services friendly to adolescents is increasingly recognised, including in the ICPD and subsequent intergovernmental agreements. The WHO advocates a 'quality of care' framework to make existing services accessible, acceptable, equitable, appropriate and effective for adolescents, rather than setting up new service-delivery points exclusively for adolescents (World Health Organization [WHO], 2012). A systematic WHO review of 16 country-level evaluations of the contribution that health services can make to preventing HIV transmission among adolescents and youth (12 in Africa, 3 in Asia, 1 in Latin America) indicates that three components are essential. First, service providers must be trained about the needs of adolescents and youth, how to communicate and counsel them effectively, and how to provide services in supportive, non-threatening ways. Second, facilities must be welcoming, services must be of good quality and acceptable to adolescents and youth, must protect their privacy and confidentiality and must be offered at subsidised rates or free of cost. Third, the more effective interventions also engage the community and make specific efforts to inform adolescents and youth about the availability of services for them (Dick et al., 2006).

Supportive environments

Although adolescents require safe and supportive families, safe and supportive schools and positive and supportive peers (Bruce, 2007; Viner et al., 2012), in many countries, the environment, including parent-child relationships and relationships between adolescents and their teachers or other potential adult mentors, falls short of meeting adolescents' needs and protecting their rights (Dick et al., 2006). Available evidence suggests that parents rarely provide children information or guidance on SRH matters (Biddlecom et al., 2007; Jejeebhoy & Santhya, 2011; International Institute for Population Sciences [IIPS] and Population Council, 2010). For example, in Burkina Faso, fewer than two-fifths of girls and one-tenth of boys reported that a parent had discussed these matters with them (Biddlecom et al., 2007). In India, hardly any (less than 1%) youth reported that a parent had discussed reproductive processes with them (International Institute for Population Sciences [IIPS] and Population Council, 2010). At the same time, DHS data show that in many countries of Asia and sub-Saharan Africa, fewer than three-fifths of adults support the provision of education about condoms to young people (Table 4). Programme precedents for engaging parents, religious leaders and community influentials and other gatekeepers are sparse and there is a need to create and test appropriate interventions in diverse sociocultural contexts (World Health Organization [WHO], 2007).

The road ahead

Our review of evidence on the SRHR of adolescent girls in LMICs confirms that the SRHR situation of girls worldwide remains compromised. Changes over the period under study have however shown somewhat different regional trends in various aspects of SRHR. For example, in South and South East Asia, there have been declines in early marriage and early childbearing (6–7% and 6–10% points, respectively); in sub-Saharan Africa, there has been a small decline in multiple partner relations (4% points) and a substantial increase in condom use (18% points); and in Eastern and Southern Europe there has been a corresponding increase in condom use (15% points). In contrast, in Latin

America and the Caribbean, changes are observed in the opposite direction: for example, pre-marital sex increased considerably (14% points), but condom use and multiple partner relations remained unchanged and unintended pregnancy increased substantially. In other regions, trends did not suggest notable changes.

Our review has also highlighted interventions to enable their empowerment, protect their health and fulfil their human rights, and indicates that much remains to be done to increase age at marriage, reduce unintended pregnancy and early childbearing, and ensure that all girls have the information, health services and skills needed for SRH, including safe and consensual sex within and outside marriage. Although the core package of inputs needed – access to CSE, friendly services, safe spaces and a supportive environment – is increasingly recognised as for example in the case of India, as summarised in **Box 1**, it is not high enough on every country's priority list for funding and policy and programme development.

Box 1: ICPD+20: India renews its commitment to the young

Two momentous events that took place in early 2014 underline the Government of India's commitment to supporting the health and development of adolescents and youth: the launch of the National Youth Policy 2014 (Ministry of Youth Affairs and Sports [MOYAS], 2014) and the Rashtriya Kishor Swasthya Karyakram (RKSK, the National Adolescent Health Strategy; Ministry of Health and Family Welfare, Adolescent Health Division, 2014), respectively. Together, both recognise the vulnerabilities faced by the young, and notably girls, and provide a roadmap for programmes that address these vulnerabilities.

The National Youth Policy 2014 focuses on the population aged 15–29 and aims to address their multiple needs, or, in its words to 'empower youth to achieve their full potential'. One of the key objectives is the development of a strong and healthy generation and greater inclusiveness and social justice with special reference to girls and young women. While its vision does not explicitly discuss SRH, gender disparities and the vulnerabilities and rights of girls, it does argue for greater pregnancy related care for adolescents, access to health care facilities and health promoting education, and argues the inclusion of health and nutrition in school curricula.

The RKSK aims to 'enable all adolescents to realise their full potential by making informed and responsible decisions related to their health and well-being and by accessing the services and support they need to do so'. The strategy focuses on the '7Cs' framework: **coverage** (of adolescents aged under 20), **content** (non-communicable diseases, nutrition, mental health, violence, substance abuse and SRH), **community**-based outreach notably through peer educators, **clinic**-based facilities, delivered through a strengthened network of Adolescent Friendly Health Clinics, **counselling** (dedicated space within the health system), **communication** (messaging to raise awareness and develop pro-adolescent attitudes) and **convergence** (between various sectors and ministries). Notably, the strategy recognises that mechanisms must differ for girls and boys, for those in and out of school, and for those married and unmarried.

These opportunities highlight the nation's commitment to adolescents and youth. The challenge lies in the implementation of these commitments. While the persistence of child marriage is acknowledged, it is not clear that just behaviour change communication or peer education can by themselves result in the radical change required. While there is a recognition that awareness levels of adolescents

must be addressed through programmes in school and at community level, neither the programme nor the policy have called for CSE, and there remains thus the danger of programmes focusing on 'safer' topics such as nutrition, menstruation and pregnancy related care rather than sexual relations among the unmarried, condom and contraceptive use, informed contraceptive choice, unintended pregnancy and abortion and sexual violence. And while much rests on peer educators and Adolescent Friendly Health Clinics, the programme will have to counter available global evidence that is somewhat sceptical of the effectiveness of peer educators, and India's own evidence that fewer than ten percent of young people were aware of existing clinics and fewer than 1% had ever accessed services from these clinics (Santhya, Prakash, Jejeebhoy, & Singh, 2014). Finally, the call for convergence in both the policy and the strategy is commendable; a key first step should be in acting upon the synergies reflected in both these declarations of India's commitment to its young.

Fortunately, achieving universal access to effective CSE has been recognised in regional and global intergovernmental agreements as a high priority and many governments are moving towards national policies and programmes. In these countries, what is required is not only funding and political support but also special efforts to overcome inhibitions about CSE provision. Attention needs to be paid to the design of curricula and teacher training materials, and their incorporation into schools and teacher training programmes, along with appropriate linkages to supportive counselling and health services and public education to ensure its acceptance. In countries where CSE is already widely available, as in some parts of Latin America, programmes may be further expanded to focus on healthy lifestyles, including prevention of risk factors for non-communicable diseases and mental health concerns.

Similarly, intergovernmental recognition has been given to the need for SRH services to be provided in settings and in ways that are acceptable to adolescents. Ministries of health, as well as health professional associations, among many others, need to learn more from adolescents about what qualities health services need to have and then revise training curricula, train and support health care providers to deliver SRH services and information without judgement and with respect for the human rights of adolescents and youth, adjust health facilities management and develop information and outreach to ensure that adolescents know when and where to seek care. At the same time, as girls' SRH is intimately linked with other dimensions of health, including nutrition and mental health, special efforts are called for to make services relating to all of these concerns easily available and accessible to girls.

Safe spaces programmes that enable disadvantaged girls to develop agency, skills and a future orientation, build peer networks and access trusted mentors must be implemented at scale. The environment must become supportive. Much remains to be done to train and orient teachers and health care providers to deliver health and rights promoting messages, services and supportive counselling for adolescents. Parents, religious leaders and community influentials also need orientation, including information about, for example, normal adolescent development, sex, substance use and availability of local resources, and help with communication skills. Efforts to create and test appropriate interventions in diverse sociocultural contexts are badly needed. Equally, policy makers and programme managers must ensure that adolescents participate in designing, implementing and monitoring programmes; although adolescents' voices are increasingly shaping the international

agenda, all countries, communities and families need to act to ensure that adolescents worldwide participate in decisions that affect their health, development, and rights.

Designing policies and programmes, as well as tracking the progress of nations in meeting the needs of adolescent girls, will require better data. Although evidence on the health and rights of adolescents has increased remarkably since the ICPD, much more age- and sex-disaggregated data are required from all countries on the situation of younger as well as older adolescents, boys as well as girls, other health needs including SRH of unmarried girls, sexual violence experienced by married and unmarried adolescents, mental health, and risk factors for non-communicable diseases. Rigorous evaluations of the impact of programmes on girls' life, including the scaling up of programmes in diverse contexts are badly needed.

Above all, it is imperative that girls and women matter more than they do now. There needs to be an enormous change in the way men and governments think about, behave towards and legislate for girls and women if any of these actions listed above are going to make a real difference. Such investments are imperative for public health, human rights and the health and wealth of nations.

Acknowledgements

We gratefully acknowledge the John D. and Catherine T. MacArthur Foundation, the William and Flora Hewlett Foundation and the Ford Foundation for covering the time spent by the authors in preparing this manuscript. We would also like to thank Shilpi Rampal, Komal Saxena and MA Jose for their support in preparing this manuscript. We are grateful to Adrienne Germain, Claudia Garcia-Moreno, Gita Sen and Mridula Shankar for their valuable comments on an earlier version of this manuscript.

Disclosure statement

No potential conflict of interest was reported by the author(s).

Funding

This work was carried out with the aid of a grant from Canada's International Development Research Centre.

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Appendix Table 1. List of countries for which nationally representative data were available on selected indicators related to adolescent girls' SRH for the period 2005 onwards.

Indicators	Sub-Saharan Africa (SSA, 51 countries)	Northern Africa (NA, 7 countries)	Central Asia (CA, 5 countries)	Southern Asia (SA, 8 countries)	South-Eastern Asia (SEA, 11 countries)	Western Asia (WA, 19 countries)	Eastern and Southern Europe (ESE, 26 countries)	Latin America and the Caribbean (LAC, 48 countries)	
Column 1	Column 2	Column 3	Column 4	Column 5	Column 6	Column 7	Column 8	Column 9	
<i>Initiation into sexual life in adolescence</i>									
Row 1	% of adolescents aged 15–19 who were married	Burundi, Ethiopia, Kenya, Madagascar, Malawi, Mozambique, Rwanda, Uganda, United Republic of Tanzania, Zambia, Zimbabwe, Cameroon, Congo, Democratic Republic of the Congo, Gabon, Sao Tome and Principe, Lesotho, Namibia, Swaziland, Benin, Burkina Faso, Côte d'Ivoire, Ghana, Guinea, Liberia, Mali, Niger, Nigeria, Senegal, Sierra Leone	Egypt		Afghanistan, Bangladesh, India, Maldives, Nepal, Pakistan	Cambodia, Indonesia, Philippines, Timor-Leste	Armenia, Azerbaijan, Jordan	Republic of Moldova, Ukraine, Albania	Dominican Republic, Haiti, Honduras, Bolivia (Plurinational State of), Colombia, Guyana, Peru
Row 2	% of girls aged 15–19 married before age 15	As in row 1 Column 2	Egypt	As in row 1 Column 5	As in row 1 Column 6	As in row 1 Column 7	As in row 1 Column 8	As in row 1 Column 9	
Row 3	% of women aged 20–24 married before age 18	As in row 1 Column 2	Egypt	As in row 1 Column 5	As in row 1 Column 6	As in row 1 Column 7	As in row 1 Column 8	As in row 1 Column 9	
Row 4	% of adolescents aged 15–19 who had experienced pre-marital sex	As in row 1 Column 2		India, Nepal	Cambodia, Timor-Leste, Viet Nam	As in row 1 Column 7 excluding Jordan	As in row 1 Column 8	As in row 1 Column 9	
Row 5	% of adolescents aged 15–19 who had pre-marital sex in the one year preceding the interview	As in row 1 Column 2		India, Nepal	As in row 4 Column 6	Azerbaijan	As in row 1 Column 8	As in row 1 Column 9	
Row 6	% of adolescents aged 15–19 who had sex before age 15 (before or within marriage)	As in row 1 Column 2		India, Nepal	As in row 4 Column 6	As in row 1 Column 7 excluding Jordan	As in row 1 Column 8	As in row 1 Column 9	

Appendix Table 1 (Continued)

Indicators		Sub-Saharan Africa (SSA, 51 countries)	Northern Africa (NA, 7 countries)	Central Asia (CA, 5 countries)	Southern Asia (SA, 8 countries)	South-Eastern Asia (SEA, 11 countries)	Western Asia (WA, 19 countries)	Eastern and Southern Europe (ESE, 26 countries)	Latin America and the Caribbean (LAC, 48 countries)
Column 1	Column 2	Column 3	Column 4	Column 5	Column 6	Column 7	Column 8	Column 9	
<i>Experience of sexual coercion and violence</i>									
Row 7	% of married girls aged 15–19 who ever experienced physical or sexual violence within marriage or cohabitation	As in row 1 Column 2 and Cape Verde but excludes Burundi, Ethiopia, Madagascar, Congo, Lesotho, Namibia, Swaziland, Benin, Guinea, Mali, Niger, Senegal, Sierra Leone	Egypt	Tajikistan	Bangladesh, India, Nepal	As in row 1 column 6 excluding Indonesia	Azerbaijan, Jordan	As in row 1 column 8 excluding Albania	As in row 1 column 9 excluding Honduras, Guyana
Row 8	% of married girls aged 15–19 who ever experienced sexual violence within marriage or cohabitation	As in row 7 Column 2	Egypt	Tajikistan	As in row 7 Column 5	As in row 7 Column 6	As in row 7 Column 7	As in row 7 Column 8	As in row 7 Column 9
<i>Unsafe sex</i>									
Row 9	% of sexually active 15–19 year-olds (unmarried or married) who had sex with multiple partners in the last year	As in row 1 Column 2			India, Nepal	As in row 4 Column 6	As in row 1 Column 7 excluding Jordan	As in row 1 Column 8	As in row 1 column 9 excluding Bolivia (Plurinational State of)
Row 10	% of sexually active 15–19 year-olds who had used a condom at last sex in the last year in a premarital relationship	As in row 1 Column 2 excluding Niger			India			As in row 1 Column 8	As in row 9 Column 9
Row 11	% of married adolescents aged 15–19 who reported current use of condom	As in row 1 Column 2	Egypt		As in row 1 Column 5	As in row 1 Column 6 and Viet Nam	As in row 1 Column 7 and Georgia	As in row 1 Column 8	As in row 1 Column 9 and Jamaica, El Salvador, Guatemala, Nicaragua, Paraguay
<i>Early and unintended pregnancy</i>									
Row 12	% of adolescent girls aged 15–19 who had initiated childbearing before age 15	As in row 1 column 2	Egypt		As in row 1 Column 5	As in row 1 Column 6	As in row 1 Column 7	As in row 1 Column 8	As in row 1 Column 9
Row 13	% of women aged 20–24 who had initiated childbearing before age 18	As in row 1 column 2	Egypt		As in row 1 Column 5	As in row 1 Column 6	As in row 1 Column 7	As in row 1 Column 8	As in row 1 Column 9

Appendix Table 1 (Continued)

Indicators		Sub-Saharan Africa (SSA, 51 countries)	Northern Africa (NA, 7 countries)	Central Asia (CA, 5 countries)	Southern Asia (SA, 8 countries)	South-Eastern Asia (SEA, 11 countries)	Western Asia (WA, 19 countries)	Eastern and Southern Europe (ESE, 26 countries)	Latin America and the Caribbean (LAC, 48 countries)
Column 1	Column 2	Column 3	Column 4	Column 5	Column 6	Column 7	Column 8	Column 9	
Row 14	% of married girls aged 15–19 who had two or more children	As in row 1 column 2	Egypt		As in row 1 Column 5	As in row 1 Column 6	As in row 1 Column 7	As in row 11 column 8	As in row 1 Column 9
Row 15	% of births in the five years preceding the interview to women aged <20 that were unintended	As in row 1 column 2	Egypt		As in row 1 Column 5 excluding Afghanistan	As in row 1 Column 6	As in row 1 Column 7 and Georgia	As in row 1 Column 8	As in row 11 Column 9
<i>Sexually transmitted infections/HIV</i>									
Row 16	HIV prevalence among adolescents aged 15–19	As in row 1 Column 2 excluding Madagascar, Namibia, Ghana, Niger, Nigeria			India	Cambodia, Viet Nam			Dominican Republic, Haiti
Row 17	% of sexually experienced adolescents aged 15–19 who reported having an STI and/or STI symptoms in the past one year	As in row 1 Column 2 and Cape Verde	Egypt	Tajikistan	As in row 1 Column 5 excluding Afghanistan, Pakistan	As in row 1 Column 6 and Lao People's Democratic Republic	Armenia	As in row 1 column 8	As in row 1 column 9
<i>Anaemia and malnutrition</i>									
Row 18	% of adolescent students aged 13–15 who were underweight	Malawi, Mauritius, Swaziland, Benin, Ghana, Mauritania	Algeria, Egypt, Morocco		Pakistan	Cambodia, Malaysia, Philippines, Vietnam	Iraq, Kuwait, Lebanon, Syrian Arab Republic, United Arab Emirates		Barbados, Jamaica, Trinidad and Tobago, Belize, Costa Rica, Guatemala, Honduras, Bolivia (Plurinational State of), Peru, Suriname, Uruguay
Row 19	% of adolescent girls aged 15–19 who were moderately or severely anaemic	As in row 1 Column 2 excluding Kenya, Zambia, Namibia, Benin, Liberia, Nigeria	Egypt		As in row 7 Column 5	Cambodia, Timor-Leste	As in row 1 Column 7	As in row 1 column 8 excluding Ukraine	As in row 1 Column 9 excluding Dominican Republic, Colombia

Appendix Table 2. List of countries for which nationally representative data were available on selected indicators related to adolescent girls' SRH for the periods 1990–1999 and 2005 onwards.

Indicators	Sub-Saharan Africa (51)	Northern Africa (7)	Central Asia (5)	Southern Asia (8)	South-Eastern Asia (11)	Western Asia (19)	Eastern and Southern Europe (26)	Latin America and the Caribbean (48)
Column 1	Column 2	Column 3	Column 4	Column 5	Column 6	Column 7	Column 8	Column 9
Row 1 % of adolescents aged 15–19 who were married	Kenya, Madagascar, Malawi, Mozambique, Rwanda, Uganda, United Republic of Tanzania, Zambia, Zimbabwe, Cameroon, Namibia, Benin, Burkina Faso, Côte d'Ivoire, Ghana, Guinea, Mali, Niger, Nigeria, Senegal	Egypt		Bangladesh, India, Nepal, Pakistan	Indonesia, Philippines	Jordan		Dominican Republic, Haiti, Bolivia (Plurinational State of), Colombia, Peru
Row 2 % of girls aged 15–19 married before age 15	As in row 1 Column 2	Egypt		As in row 1 Column 5	As in row 1 Column 6	Jordan		As in row 1 Column 9
Row 3 % of women aged 20–24 married before age 18	As in row 1 Column 2	Egypt		As in row 1 Column 5	As in row 1 Column 6	Jordan		As in row 1 Column 9
Row 4 % of adolescents aged 15–19 who had pre-marital sex in the one year preceding the interview	As in row 1 column 2 excluding Malawi							As in row 1 Column 9 and Honduras
Row 5 % of sexually active 15–19 year-olds (unmarried or married) who had sex with multiple partners in the last year	As in row 1 Column 2 excluding Madagascar, Malawi, Mozambique, Rwanda, Namibia, Ghana, Mali, Niger, Nigeria, Senegal							Dominican Republic
Row 6 % of sexually active 15–19 year-olds who had used a condom at last sex in the last year in a pre-marital relationship	As in row 1 Column 2 excluding Malawi, Rwanda, Namibia, Niger, Senegal							Dominican Republic, Colombia
Row 7 % of married adolescents aged 15–19 who reported current use of condom	As in row 1 Column 2	Egypt		As in row 1 Column 5	As in row 1 column 6 and Viet Nam	Jordan	Republic of Moldova, Ukraine	As in row 1 Column 9 and Jamaica, El Salvador, Guatemala, Honduras, Nicaragua, Paraguay
Row 8 % of women aged 20–24 who had initiated childbearing before age 18	As in row 1 Column 2	Egypt		As in row 1 Column 5	As in row 1 Column 6	Jordan		As in row 1 Column 9
Row 9 % of married girls aged 15–19 who had two or more children	As in row 1 Column 2	Egypt		As in row 1 Column 5	As in row 1 Column 6	Jordan		As in row 1 Column 9
Row 10 % of births in the five years preceding the interview to women aged <20 that were unintended	As in row 1 Column 2	Egypt		As in row 1 Column 5	As in row 1 Column 6	Jordan	Republic of Moldova, Ukraine	As in row 7 Column 9

Appendix Table 3. List of countries for which nationally representative data were available on selected indicators related to challenges in meeting adolescent girls' SRH for the period 2005 onwards.

Indicators	Sub-Saharan Africa (51)	Northern Africa (7)	Central Asia (5)	Southern Asia (8)	South-Eastern Asia (11)	Western Asia (19)	Eastern and Southern Europe (26)	Latin America and the Caribbean (48)
Column 1	Column 2	Column 3	Column 4	Column 5	Column 6	Column 7	Column 8	Column 9
<i>Access to health promoting information and comprehensive sexuality education</i>								
Row 1	% of adolescents aged 15–19 who displayed comprehensive awareness of HIV/AIDS	Burundi, Ethiopia, Kenya, Madagascar, Malawi, Mozambique, Rwanda, Uganda, United Republic of Tanzania, Zambia, Zimbabwe, Cameroon, Congo, Democratic Republic of the Congo, Gabon, Sao Tome and Principe, Lesotho, Namibia, Swaziland, Benin, Burkina Faso, Côte d'Ivoire, Ghana, Guinea, Liberia, Mali, Niger, Nigeria, Senegal, Sierra Leone		India, Nepal	Cambodia, Timor-Leste, Viet Nam	Armenia, Azerbaijan	Ukraine, Albania	Dominican Republic, Haiti, Honduras, Bolivia (Plurinational State of), Colombia, Guyana, Peru
Row 2	% of currently married adolescents aged 15–19 who were aware of modern contraceptive methods	As in row 1 column 2	Egypt	As in row 1 Column 5 and Afghanistan, Bangladesh, Maldives, Pakistan	Cambodia, Indonesia, Philippines, Timor-Leste	As in row 1 Column 7 and Jordan	As in row 1 Column 8 and Republic of Moldova	As in row 1 Column 9
Row 3	% of currently married adolescents aged 15–19 who could name a source of condom	As in row 1 column 2		As in row 1 Column 5	As in row 1 Column 6	As in row 1 Column 7	As in row 2 Column 8	As in row 1 Column 9
Row 4	% of currently aged 15–19 year-olds who had heard family planning messages on television or radio	As in row 1 column 2	Egypt	As in row 1 Column 5 and Bangladesh, Maldives, Pakistan	As in Row 2 Column 6	As in row 2 Column 7	As in row 2 Column 8	As in row 1 Column 9 excluding Dominican Republic

Appendix Table 3 (Continued)

Indicators	Sub-Saharan Africa (51)	Northern Africa (7)	Central Asia (5)	Southern Asia (8)	South-Eastern Asia (11)	Western Asia (19)	Eastern and Southern Europe (26)	Latin America and the Caribbean (48)
Column 1	Column 2	Column 3	Column 4	Column 5	Column 6	Column 7	Column 8	Column 9
Row 5	Number of countries that provided life skills-based HIV education in at least 50% of schools in the last academic year	As in row 1, Column 2 and Comoros, Djibouti, Eritrea, Central African Republic, Chad, Botswana, South Africa, Cape Verde, Togo but excludes Madagascar, Malawi, Mozambique, Rwanda, Uganda, United Republic of Tanzania, Zambia, Sao Tome and Principe, Namibia, Benin, Senegal, Sierra Leone	Kazakhstan, Kyrgyzstan, Tajikistan, Uzbekistan	As in row 1 Column 5 and Afghanistan, Bangladesh	As in row 1 column 6 and Lao People's Democratic Republic, Malaysia, Singapore	Azerbaijan, Oman, Yemen	As in row 1 Column 8 and Belarus, Bulgaria, Czech Republic, Republic of Moldova, Romania, Russian Federation, Croatia, Montenegro, Portugal but excludes Albania	As in row 1 Column 9 and Antigua and Barbuda, Bahamas, Barbados, Cuba, Dominica, Grenada, Jamaica, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines, Belize, Costa Rica, El Salvador, Guatemala, Nicaragua, Argentina, Brazil, Ecuador, Suriname, Uruguay, Venezuela (Bolivarian Republic of) but excludes Bolivia (Plurinational State of)
<i>Safe spaces for the most vulnerable girls</i>								
Row 6	% of adolescent girls aged 15–19 who had some say in decisions related to own health care	As in row 1 Column 2 excluding Madagascar, Malawi, Zambia, Congo, Democratic Republic of the Congo, Sao Tome and Principe, Namibia, Swaziland, Ghana, Liberia, Niger, Nigeria, Sierra Leone	Egypt	Bangladesh, Nepal	Cambodia, Indonesia	Armenia, Jordan	Republic of Moldova	As in row 1 column 9 excluding Dominican Republic, Guyana
Row 7	% of adolescent girls aged 15–19 who believed that a man is justified in beating his wife if she refuses to have sex with him	As in row 1 Column 2	Egypt	As in row 1 Column 5 and Bangladesh, Maldives	Cambodia, Indonesia, Philippines, Timor-Leste	As in row 1 column 7	As in row 2 Column 8	As in row 1 Column 9
<i>Access to SRH services</i>								
Row 8	% of live births in the last 5 years to women aged <20 years that were attended by health care professionals	As in row 1 column 2 and Angola,	Egypt	As in row 2 Column 5	As in row 2 Column 6	As in row 1 Column 7 and Jordan	As in row 2 Column 8	As in row 1 Column 9

Appendix Table 3 (Continued)

Indicators	Sub-Saharan Africa (51)	Northern Africa (7)	Central Asia (5)	Southern Asia (8)	South-Eastern Asia (11)	Western Asia (19)	Eastern and Southern Europe (26)	Latin America and the Caribbean (48)
Column 1	Column 2	Column 3	Column 4	Column 5	Column 6	Column 7	Column 8	Column 9
Row 9 % of currently married adolescent girls aged 15–19 who reported unmet need for contraception	As in row 1 Column 2	Egypt		As in row 4 Column 5	As in row 2 Column 6	As in row 1 Column 7 and Jordan	As in row 2 Column 8	As in row 1 Column 9
Row 10 % of currently married adolescent non-users who reported contact with family planning service providers in the past one year	As in row 1 Column 2 excluding Congo, Gabon, Liberia	Egypt		Maldives, Nepal	As in row 2 Column 6	As in row 1 Column 7 and Jordan	As in row 1 Column 8	As in row 1 Column 9
Row 11 % of sexually active adolescents aged 15–19 who had an HIV test in the last 12 months and knew the test result	As in row 1 Column 2 excluding Malawi			As in row 1 Column 5	Cambodia, Viet Nam	Armenia	As in row 2 Column 8	As in row 1 Column 9 excluding Bolivia (Plurinational State of), Peru
<i>Supportive environments</i>								
Row 12 % of adults aged 18–49 who favoured provision of education about condoms to young people	As in row 1 Column 2				Cambodia, Viet Nam	Armenia	As in row 2 Column 8	As in row 11 Column 9

Appendix Table 4. List of countries for which nationally representative data were available on selected indicators related to challenges in meeting adolescent girls' SRH for the periods 1990–1999 and 2005 onwards.

Indicators		Sub-Saharan Africa (51)	Northern Africa (7)	Central Asia (5)	Southern Asia (8)	South-Eastern Asia (11)	Western Asia (19)	Eastern and Southern Europe (26)	Latin America and the Caribbean (48)
Column 1	Column 2	Column 3	Column 4	Column 5	Column 6	Column 7	Column 8	Column 9	
Row 1	% of currently married adolescents aged 15–19 who were aware of modern contraceptive methods	Kenya, Madagascar, Malawi, Mozambique, Rwanda, Uganda, United Republic of Tanzania, Zambia, Zimbabwe, Cameroon, Namibia, Benin, Burkina Faso, Côte d'Ivoire, Ghana, Guinea, Mali, Niger, Nigeria, Senegal	Egypt		Bangladesh, India, Nepal, Pakistan	Indonesia, Philippines	Jordan		Dominican Republic, Haiti, Bolivia (Plurinational State of), Colombia, Peru
Row 2	% of live births in the last 5 years to women aged <20 years that were attended by health care professionals	As in row 1 column 2	Egypt		As in row 1 column 5	As in row 1 column 6	Jordan		As in row 1 column 9 excluding Haiti
Row 3	% of currently married adolescent girls aged 15–19 who reported unmet need for contraception	As in row 1 column 2	Egypt		As in row 1 column 5	As in row 1 column 6	Jordan		As in row 1 column 9
Row 4	% of currently married adolescent non-users who reported contact with family planning service providers in the past one year	As in row 1 column 2 excluding Kenya, Malawi, Mozambique, Rwanda, Namibia, Ghana, Mali, Senegal	Egypt		Nepal	As in row 1 column 6			As in row 1 column 9 excluding Haiti