

A young woman with dark hair pulled back, wearing a black sleeveless top with small white dots, is holding a baby. The baby is wearing a blue long-sleeved shirt and denim shorts. The woman is looking directly at the camera with a neutral expression. The background is a plain, light-colored wall.

MOTHERHOOD IN CHILDHOOD

The Untold Story

All photos by Pieter ten Hoopen/Plan International-UNFPA

Front cover: Portrait of Janet, 15 years old, with her son Manuel, 6 months old, in Colombia

Back cover: Portrait of Elienne, 15 years old, in Haiti

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happiness; of their shattered and new dreams – for themselves and their children. Explore the stories at childmothers.org.

Note that for protection and privacy reasons and to comply with ethical guidelines, names provided are not the real names of the girls or their families, and places of residence are not detailed.



Nargis, 16 years old, with her son Nayeem, 1.5 years old, in Bangladesh

EXECUTIVE SUMMARY

This report examines trends in adolescent childbearing using techniques that focus on the most vulnerable girls, such as child mothers, girls with repeat adolescent childbearing, and births that occur in dangerously quick succession. In using these new measures, it uncovers the untold story of more than 50 years of adolescent childbearing in the world's low- and middle-income countries.

The new measures reveal that the issue is not just about whether or not a girl gives birth in adolescence but if, when and how many births she experiences. That is, adolescent childbearing comprises three fundamental and interconnected fertility processes: (i) the timing of a first adolescent birth, (ii) the spacing between adolescent births and (iii) the quantity or total number of births to each adolescent mother.

This multifaceted process is most immediately shaped by factors such as the age of menarche and sexual debut, the frequency of sexual activity, the patterns of marriage and union formation, and the use and effectiveness of contraception. It is worth emphasizing that the majority of first births to

girls aged 17 years and younger, in 54 developing countries with data, occur within marriage or cohabiting unions. More distal determinants – such as girls' education – are also critical to the process and include gendered social, economic, cognitive and psychological factors at the individual, peer, family and community levels. Additionally, broader norms, values, inequalities, events, economic forces, and national laws, policies and priorities shape the adolescent fertility landscape.

It is important to note that this analysis examines births, not pregnancies, which are also critically important and treated in other publications. The trends in pregnancies can tell a very different story given differences in access to and the use of abortion across the globe.

Each year, adolescent girls aged 15 to 19 years in low- and middle-income countries have an estimated 21 million pregnancies, nearly half of which – 10 million – are unintended. More than a quarter of those 21 million – an estimated 5.7 million – end in abortion, the majority of which occur in unsafe conditions.



Courtney, child mother, in the United Kingdom

Across the globe, there are encouraging signs of declining levels of motherhood in childhood (17 years and younger) and in adolescence (19 years and younger). Nevertheless, in many ways, the pace of decline has been alarmingly slow – often declining by only a few percentage points per decade – and has not kept pace with declines in total fertility. Key findings from this technical report on the most recent trends across low- and middle-income countries include the following.

With a fuller understanding of the timing, spacing and quantity of the adolescent childbearing process – and eventually their proximate and distal determinants – policy and programming can better frame and target their approaches. Promising interventions include components of asset building for adolescent girls, support for families and parents, comprehensive sexuality education, health service provision, and community and policy engagement.

This report's findings on the prevalence of motherhood in childhood and repeat adolescent childbearing highlight that more needs to be done to design, implement and evaluate programmes that target the youngest starters and girls at risk of rapid and repeat adolescent births.

KEY FINDINGS



TIMING

Nearly one third of all women in low- and middle-income countries begin childbearing in adolescence (i.e., at age 19 years and younger).

Nearly half of first births to adolescents are to child mothers aged 17 years and younger and 6 per cent are to child mothers aged 14 years and younger.



QUANTITY

Additional childbearing in adolescence is common for child mothers. A girl with a first birth at the age of 14 years or younger has on average 2.2 births before she is 20 years of age. A girl with a first birth between the ages of 15 and 17 years has on average 1.5 births before she is 20.

Among girls with a first birth at 14 years of age or younger, nearly three quarters also have a second birth in adolescence, and 40 per cent of those with two births progress to a third birth before exiting adolescence.

Nearly half of girls with a first birth between the ages of 15 and 17 years have a second birth in adolescence, and 11 per cent of those with two births have a third birth in adolescence.

In line with child mothers' high rates of repeat births in adolescence, 50 per cent of all adolescent births are to girls who were 17 years or younger at the time of their first birth, while 8 per cent of all adolescent births are to girls who were 14 years or younger at the time of their first birth.



SPACING

Once an adolescent girl becomes a mother, she has a one-in-five chance of experiencing another adolescent birth within two years. Such short birth intervals come with considerable health risks.

More than half of all repeat births in adolescence occur within 23 months of a previous birth.



LIFETIME FERTILITY

Total fertility across the globe has fallen dramatically, but women who began childbearing in adolescence have had an average of 4.6 births by the time they are 40 years of age, while their peers who started childbearing after adolescence have had 3.4 births.

Adolescent births account for 16 per cent of all births.

REGIONAL DIFFERENCES

The report also reviews regional trends and highlights noteworthy patterns in selected countries. As a region, Northern Africa and Western Asia has seen some of the strongest declines in adolescent childbearing. The declines are broadly concentrated among the oldest adolescents, however, meaning that relatively little has changed for a vulnerable core of girls among whom child motherhood and repeat adolescent childbearing remain widespread. Central and Southern Asia has also seen some of the most dramatic declines in adolescent childbearing of any world region, particularly among child mothers. Nevertheless, the likelihood of repeat adolescent births occurring within dangerously short inter-birth intervals remains particularly high. Eastern and South-Eastern Asia's declines in child motherhood have outpaced those in all other regions. The declines among older adolescents have been more limited, however, meaning that this region's declines in aggregate adolescent childbearing are more modest than those seen in other Asian regions.

Latin America and the Caribbean has seen some of the strongest declines in repeat adolescent childbearing, but very little change in first births. That is, in the earliest decades, the region had some of the lowest levels of adolescent motherhood, but because there has been comparatively little change, it now has some of the world's highest levels of adolescent childbearing. Oceania has also seen a decline in repeat adolescent childbearing, particularly among the youngest girls. However, there has been little change in many other aspects of adolescent childbearing, and indeed some increase in first births in adolescence. Though Sub-Saharan Africa sees the highest levels of adolescent childbearing, and child motherhood in particular, it does not see repeat adolescent births happening within dangerously short intervals to the same degree as seen elsewhere. Finally, the middle-income countries of Europe remain strong outliers in the regional trends, with low levels of adolescent childbearing for the most part. The region did though experience a period of dramatic increase in adolescent childbearing and motherhood in childhood in early decades.

**REGIONAL DIFFERENCES
IN PATTERNS OF
MOTHERHOOD IN
CHILDHOOD - AND
THEIR CHANGE
OVER TIME - ARE
CONSIDERABLE**



1

INTRODUCTION

Adolescent childbearing
in a changing world

Why address adolescent
childbearing

A framework for understanding
adolescent childbearing

Child mothers

Summary of findings

**Portrait of Angelica, 13 years old,
with her son Lucner, 3 months old,
in Haiti**

INTRODUCTION

ADOLESCENT CHILDBEARING IN A CHANGING WORLD

Crisis finds a way of hitting hardest among the most vulnerable. With two years (and counting) of an unprecedented global pandemic, tens of millions of girls around the world have lost access to schooling² and are at even greater risk of child marriage and pregnancy than they were before.^{3,4} When a girl becomes pregnant, her present and future change radically, and rarely for the better.^{5,6} Even in contexts where a girl's pregnancy is seen as acceptable, or even desirable, it can carry serious and long-lasting consequences. In situations of crisis, moreover, a girl's pregnancy can herald overwhelming challenges and embody grave violations of her human rights.

Indeed, the need to understand adolescent childbearing trends is greater than ever. This report presents new analysis that highlights patterns among the youngest girls to uncover the untold story of adolescent childbearing. That is, the report highlights aspects of their childbearing experience that have remained understudied. The new measures are designed to focus on those who

are the most vulnerable, such as child mothers and girls with repeat adolescent childbearing, and to highlight how widespread these outcomes remain.

Concern about adolescent childbearing is not new. From the 1975 World Conference of the International Women's Year⁷ in Mexico, to the Programme of Action of the 1994 International Conference on Population and Development⁸ in Cairo, and the 2030 Agenda for Sustainable Development⁹ adopted in 2015 in New York, the world has recognized that high levels of adolescent childbearing represent a systemic failure to uphold the rights of girls, and that the consequences of adolescent childbearing are serious and wide-ranging.

Nevertheless, the world is rapidly transforming under a shifting global landscape. Important megatrends – major demographic, environmental, social and technological changes – are redefining the course of progress towards sustainable development and the full realization of sexual and reproductive health and rights for all.^{10,11} Within the context of these striking megatrends, concern about adolescent childbearing remains important and relevant.

Demographic shifts mean that an increasing share of the world's adolescent population is concentrated in low- and middle-income countries, where adolescent childbearing remains widespread.¹² Additionally, while the world's population is growing more slowly than at any point in the last 70 years, many low-income countries are among the fastest growing.¹³ In these settings, women who begin childbearing in adolescence have the largest families, sometimes double or triple the average family size of two to three children now found throughout much of the world otherwise.^{14,15}

**WHEN A GIRL BECOMES
PREGNANT, HER PRESENT AND
FUTURE CHANGE RADICALLY,
AND RARELY FOR THE BETTER**

Climate change, like conflict and displacement, brings increased economic and social precarity and turmoil. Its effects are borne unequally, with

adverse effects hitting some countries more than others, and, within countries, hitting some communities and families more than others.¹⁶ Climate change is disrupting family livelihoods and making it more difficult for girls to access school,¹⁷ thus leaving girls more vulnerable to child marriage and pregnancy. Not only can conflict and displacement make it difficult for girls to access health services (and schools), but conflict and displacement can increase girls' risks of sexual and reproductive violations and ill health.¹⁸ This includes maternal mortality and morbidity, sexually transmitted infections, unwanted pregnancies resulting from rape, and forced and child marriages that are meant to ease a family's economic load and food insecurity or protect girls from sexual violence.¹⁹ Under changing circumstances, entrenched gender norms can inhibit girls' and their families' abilities to adapt, which reinforces the use of practices such as child marriage as a coping strategy. In this context, the COVID-19 pandemic carries similar trappings of crisis insofar as it has disrupted girls' access to health services, pushed them out of school and increased their economic and social vulnerability.

Rapid urbanization means the world's adolescent population is increasingly concentrated in urban settings, which have long been the forerunners of social change. Within the urban sphere, changing gender norms and the delinking of sex, marriage and reproduction all influence

the changing context of adolescence, as well as adolescent sexual and reproductive health outcomes, including adolescent childbearing.^{20,21} In some places, urbanization means closer proximity to schools and clinics and larger

formal labour markets, with positive implications for adolescent sexual and reproductive health. However, in many urban settings in low- and middle-income countries, the growth of slums as well as the increasing urbanization of poverty and



Monde, 15 years old, lives with her son Raymond, 2 months old, her parents and her siblings in Zambia

marginalization are linked to a host of adverse sexual and reproductive health outcomes – including high rates of unwanted pregnancies – often with the urban poor seeing worse outcomes than their rural counterparts.²²

The explosion in the use of digital technologies has opened new channels of learning and social exchange, promising expanded access to information about sexual rights and health to a growing share of the world's adolescents. Unfortunately, digital technologies and online spaces have also opened new pathways to technology-facilitated gender-based violence, and the sexual exploitation and harassment of young people.^{23,24,25,26} Though adolescents are at the forefront of technology adoption across the globe,²⁷ the digital revolution's place within the story of adolescent pregnancy is only just beginning to be explored.²⁸ Additionally, access is highly uneven, and the gender dynamics of the digital divide highlight the obstacles adolescent girls face in accessing digital technologies.²⁹

Finally, inequalities within and across countries are high and rising. For adolescent childbearing, gender-based inequalities are decisive. The inequalities keep girls out of school, drive child marriage, limit girls' abilities to navigate safe and consensual sex, and restrict girls' life aspirations to narrowly defined roles.^{30,31} Indeed, many of the other megatrends are worsening existing

inequalities and deepening divides.³² For example, girls have more limited access to technology than do boys,³³ and young people's access to technology differs dramatically across countries.³⁴ Likewise, adolescent childbearing appears to be higher in countries with relatively large income inequality.³⁵ Finally, economic and climatic precarity are disproportionately concentrated among women and children,³⁶ with women and girls often being the first to feel the consequences of crisis and disruptions to livelihoods.³⁷ Indeed, adolescent childbearing and child marriage are tightly linked to poverty.^{38,39}

Against this backdrop, the need to understand adolescent childbearing remains as important as ever. To this end, this report presents new analysis that not only highlights patterns among the youngest vulnerable child mothers but takes a long-term perspective. In looking at adolescent childbearing, lessons and priorities for a changing future can be identified only by pinpointing areas of progress, stagnation and reversal. The new measures in this report aim to uncover the untold story of adolescent childbearing by giving a more complete and long-term picture of complex and dynamic trends.

It is critical to note that this analysis examines births, not pregnancies, and trends in adolescent pregnancies can differ considerably. Each year, adolescent girls aged 15–19 in low- and middle-

income countries have an estimated 21 million pregnancies, nearly half or 10 million of which are unintended. More than a quarter of those 21 million, an estimated 5.7 million, end in abortion, the majority of which occur in unsafe conditions.^{40,41}

WHY ADDRESS ADOLESCENT CHILDBEARING?

Over the years, evidence on the causes and consequences of adolescent childbearing has expanded, bringing with it a richer set of policy levers and a heightened sense of urgency in tackling the issue. Today, we know that adolescent pregnancy and childbearing take an enormous toll on girls, their families and their societies.

Adolescent childbearing is approached both as a matter of concern for public health and as one of individual rights and choice. It is well established that all couples and individuals have the right to freely and responsibly decide the number, spacing and timing of their children, and to have the information and means to do so.⁴² Every woman and girl has the right to bodily autonomy, which means that she must have the power and agency to make choices about her body – including about childbearing – free from violence and coercion.⁴³ The majority of first births to girls 17 and younger in 54 developing countries occur within marriage.⁴⁴ More than half of adolescent

pregnancies are intended, but even these pregnancies are often a reflection of constrained choice.⁴⁵ In some parts of the world, an ever-growing proportion of adolescent pregnancies are unintended.⁴⁶ Safeguarding bodily autonomy and well-being is especially critical for adolescents, not least because the development of their cognitive capacity for weighing risks and consequences is incomplete.⁴⁷

Individual physical health risks include both mortality and morbidity for adolescent mothers and their babies. Adolescence is generally a time of low mortality for females, but the incidence of and risks associated with childbirth make maternal mortality at these ages a leading cause of death for older adolescent females globally.^{48,49} The maternal mortality risk to adolescents aged 15 years and younger is particularly high.⁵⁰ Other risks include dangerous complications in pregnancy and delivery, and low birthweight, severe neonatal conditions and infant mortality.^{51,52} Finally, the mental health and social consequences of adolescent pregnancy are far-reaching. These include forced and child marriage,⁵³ greater partnership instability,^{54,55} higher levels of intimate-partner violence^{56,57} and a high incidence of mental ill health.^{58,59} Links between experiences of early sexual initiation, forced sex and sexual abuse are also concerning.^{60,61} Again, the youngest child mothers see the highest risk and consequences.^{62,63}



Lumilene, 15 years old, with her daughter Clairina, 6 months old, in Haiti

From a public health perspective, the societal costs of adolescent childbearing – and the intertwined processes of child and early marriage and union – are immense. This is not just because women who begin childbearing in adolescence access public benefits and social services more intensively over their lifetimes than women who begin childbearing after adolescence,⁶⁴ but also because of missed opportunities from truncated schooling careers and lower lifetime earnings.^{65,66} These costs are highest among the youngest child mothers – and last throughout adulthood.^{67,68} Additionally, disadvantage is passed to the next generation, with, for example, the lack of maternal education and poverty affecting children's life chances in innumerable ways.^{69,70,71}

A FRAMEWORK FOR UNDERSTANDING ADOLESCENT CHILDBEARING

There are two ways to prevent pregnancy: abstain from sex or use effective contraception, but these options are not always wholly within an adolescent girl's control. For example, in 54 developing countries with data, the majority of first births to girls under 18 in low- and middle-income countries occur within marriage or cohabiting union,⁷² wherein an adolescent girl must negotiate sexual activity and contraception with her husband or partner.⁷³ Too often, pregnancy results from intimate-partner or non-partner sexual

violence.^{74,75} Indeed, there are innumerable factors that influence the timing of sexual debut, the frequency of adolescent sexual activity and the prevalence of contraceptive use.^{76,77,78} Differences vary considerably across contexts and over time.

THE ISSUE IS NOT JUST ABOUT WHETHER AN ADOLESCENT BIRTH OCCURS OR NOT, BUT RATHER, IF, WHEN AND HOW MANY BIRTHS OCCUR TO AN ADOLESCENT MOTHER

Unpacking the drivers of adolescent pregnancy is not easy, but a framework can bring clarity by offering a basic architecture for understanding and categorizing interrelated determinants. Other UNFPA documents have offered comprehensive frameworks for understanding the more ancillary, or distal determinants of adolescent pregnancy.⁷⁹ At the macro level, these determinants include norms, values, inequalities, economic forces, natural, political and historical events, and national laws, policies and priorities. At the individual, family, peer, school and community level, they include gendered social, economic, cognitive and psychological factors that all influence a girl's likelihood of pregnancy and childbearing.

What is missing is a framework that gives structure to the more immediate, or proximate determinants of the *process* of adolescent pregnancy and childbearing, rather than the determinants of a single adolescent birth. Importantly, this framework must recognize that the issue is not just about whether an adolescent birth occurs or not, but rather, if, when and how many births occur to an adolescent mother. The framework in Figure 1 categorizes adolescent childbearing into three fundamental and interconnected fertility processes: (i) the timing of a first adolescent birth, (ii) the spacing between adolescent births and (iii) the quantity or total number of births to each adolescent mother. Timing, spacing and quantity are interrelated. The younger a girl is at her first birth, the more time she has left in adolescence for additional births. Likewise, births with short inter-birth intervals leave more time for additional adolescent childbearing and contribute to a higher number of total births to an adolescent mother.

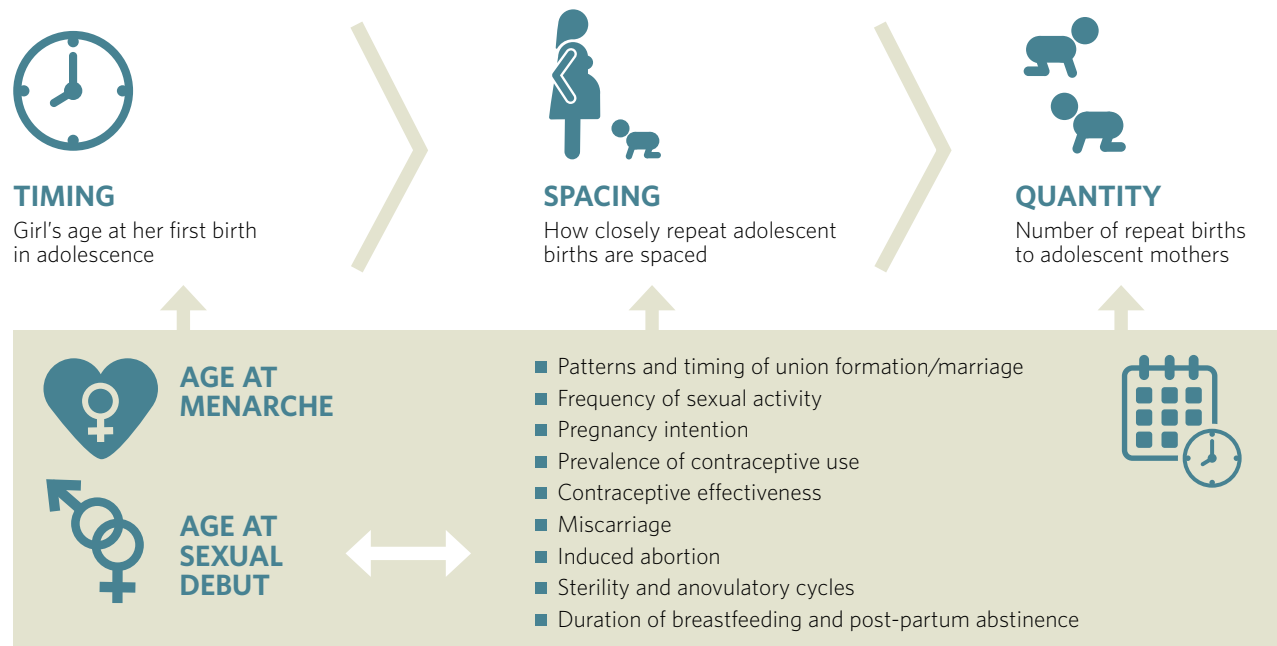
Timing, spacing and quantity are in turn immediately shaped by factors such as the age of menarche and sexual debut, the frequency of sexual activity, the patterns of marriage and union formation, and contraceptive use. Here again, the determinants are interrelated. Most but not all of the named determinants impact both first and subsequent adolescent births, and, importantly, they can impact first and subsequent

births differently. The age at sexual debut is influenced by patterns of union formation and vice versa. For example, in many contexts, early sexual debut leads to earlier union formation and cohabitation,^{80,81} which increases the likelihood of adolescent childbearing. In other contexts, marriage is the reason for a girl's sexual debut and is highly predictive of adolescent childbearing.⁸² Indeed, patterns and age of marriage and union formation are central to adolescent childbearing and its determinants. With regard to the frequency of sexual activity, married, cohabiting and

partnered adolescents have a higher frequency of sexual activity than their sexually active unpartnered peers.⁸³ More frequent sexual activity translates to higher pregnancy risk. Girls in unions have higher levels of intended and repeat adolescent births than their sexually active unpartnered peers.⁸⁴ At the same time, unintended pregnancies can precipitate marriage or union formation, which in turn can increase sexual activity, influence contraceptive use and expose girls to the risk of repeat adolescent childbearing.⁸⁵

Contraceptive use and effectiveness are also key determinants of timing, spacing and quantity in the adolescent childbearing process. As well as facing unique barriers to contraceptive access (such as social stigma and age restrictions), adolescents experience high contraceptive failure rates from improper and irregular use.^{86,87} Long-acting reversible contraception, which is less prone to user error, is helpful for adolescents because negotiating contraceptive use at each sexual encounter can be difficult – even for adolescents in formal unions.⁸⁸ Contraception is important for first and subsequent births, and barriers can differ depending on the birth order. For example, stigma against sexual activity among unmarried adolescents might make it difficult for adolescents to access contraception to prevent a first pregnancy, whereas once a girl becomes a mother, her use of sexual and reproductive health services may be less stigmatized – yet it may be restricted more for financial reasons or partner proscriptions.

FIGURE 1. Proximate determinants of the adolescent childbearing process



Patterns of induced abortion and miscarriage influence how many adolescent pregnancies end in a live birth. Practices surrounding the duration of breastfeeding and post-partum abstinence have strong implications for the spacing of repeat adolescent births, particularly in contexts where modern contraceptive use is low.^{89,90}

All of these proximate and distal determinants interact in complex and unique ways across time

and geographies to produce distinct trends in the adolescent childbearing process. This report explores these trends by looking at patterns in the age at first adolescent births, patterns in the spacing of repeat adolescent births, and patterns in the quantity of repeat births to adolescent mothers.

CHILD MOTHERS

Among this report's strongest contributions is what it reveals about childbearing among younger adolescents. Adolescence comprises the ages 10 to 19 years, but there is an urgent need to focus on childbearing among those who are still children when they enter motherhood. Numerous international conventions delineate childhood as below the age of 18 years.⁹¹ This report takes this designation seriously, and considers all girls up through the age of 17 years as children, and refers to them as child mothers when they have experienced a birth. It does so without any intention to disempower adolescents or to minimize their individuality, dignity or worth. Instead, it does so in recognition that their status warrants special safeguarding, care and assistance to protect against exploitation and abuse, so that girls can use their adolescent years to build the skills and knowledge they need to lead productive and fulfilling adult lives, and to pass these benefits on to the next generation.

Adolescence spans 10 years of dramatic physical and cognitive change.⁹² Childbearing at different ages in adolescence underscores these considerable developmental differences. For example, motherhood at the age of 14 years carries vastly different risks, meaning and consequences than does motherhood at 19 years of age.⁹³ Likewise, there is a clear difference between a 16-year-old giving birth to her second child and an 18-year-old giving birth to her first child. Importantly, childbearing among the youngest adolescents is particularly concentrated among the poorest, least educated and rural populations, and the disparities seem to be increasing.⁹⁴ As such, the youngest vulnerable girls face compound disadvantages and are increasingly left behind.

Childbearing among the youngest adolescents is receiving increasing attention worldwide. The recent inclusion of the adolescent birth rate per 1,000 girls aged 10–14 years (alongside the rate per women aged 15–19 years) into Sustainable Development Goal 3.7 (ensuring universal access to sexual and reproductive health-care services by 2030) has placed the issue on many national agendas. Additionally, two key reports from the United Nations Population Division highlight the importance of examining differences in childbearing across adolescent age groups by estimating birth rates for adolescents aged 10–14, 15–17 and 18–19 years.^{95,96}

However, as a measure, the adolescent birth rate misses out on key aspects of the timing, spacing and quantity of early childbearing, and as such paints an incomplete picture. In focusing on the timing, spacing and quantity of adolescent childbearing, this report is able to tell a more complete story of the youngest child mothers. The added nuance can be decisive for policy and programming. Focusing resources and tailoring efforts to specific age groups and specific aspects of childbearing (such as reducing first births or spacing repeat births) can be pivotal for making inroads where declines have stagnated, and girls face impediments in exercising their reproductive rights and choices.

SUMMARY OF FINDINGS

Table 1 identifies the key measures this report uses to explore the timing, spacing and quantity of adolescent childbearing, with particular focus on child mothers. The table also summarizes the findings that are presented in the main body of this report alongside discussion of regional trends and country-specific highlights. The underlying data and methodological details of the measures are described in the next chapter.

TABLE 1. Summary of key measures and trends (representative of low- and middle-income countries, excluding China, 1960–2019)

Measure	Trend
Timing	
Proportion of women who begin childbearing in adolescence (at ages 19 years and younger).	Today, nearly one third of women begin childbearing before the age of 20 years. Sixty years ago, almost half of all women did so.
Proportion of first births in adolescence that are to child mothers aged 17 years and younger.	Just under half of first births to adolescents today are to child mothers aged 17 years and younger. Sixty years ago, nearly two thirds of first births to adolescents were to child mothers.
Proportion of first births in adolescence that are to child mothers aged 14 years and younger.	Today, 6% of first births to adolescents are to child mothers aged 14 years and younger. Sixty years ago, 14% of first adolescent births were in this age group.
Quantity	
Average number of adolescent births to child mothers.	A girl who has a first birth at age 14 years and younger today has on average 2.2 births before she exits adolescence, while girls with a first birth at ages 15–17 years have 1.5 adolescent births on average. Sixty years ago, girls 14 years and younger had 2.8 births, and girls 15–17 years had 1.9 births on average in adolescence.
Proportion of child mothers who progress to second births in adolescence.	Today, nearly three quarters of girls with a first birth at age 14 years and younger also have a second birth in adolescence (74%), while nearly half of girls with a first birth at ages 15–17 years have a second birth in adolescence (48%). Sixty years ago, these proportions were 85% and 67%, respectively.
Proportion of child mothers with two births who progress to third births in adolescence.	40% of girls with two births in adolescence whose first birth was at age 14 years and younger go on to have a third birth in adolescence today (60 years ago, it was 64%). 11% of those with two births in adolescence and a first birth between ages 15 and 17 years go on to have a third birth in adolescence (down from 26% 60 years ago).
Proportion of all adolescent births that occur to girls who start childbearing at ages 17 years and younger.	Given child mothers' high rates of repeat births in adolescence, their childbearing accounts for a disproportionately large share of all adolescent births. Specifically, 50% of all adolescent births were to girls who were 17 years of age and younger at the time of their first birth, down from 68% 60 years ago.
Proportion of all adolescent births that occur to girls who start childbearing at ages 14 years and younger.	Today, 8% of all adolescent births occur to girls who were 14 years and younger at the time of their first birth, down from 20% 60 years ago.
Spacing	
Rapid repeat birth probabilities.	Once an adolescent girl becomes a mother, she has a one-in-five chance of having another adolescent birth within two years. Sixty years ago, she had a one-in-three chance.
Rapid repeat birth proportions.	Today, more than half of all repeat births in adolescence occur within 23 months of a previous birth; 60 years ago, 60% of non-first adolescent births were rapid repeat births.
Lifetime fertility	
Completed fertility by motherhood entry age.	Total fertility across the globe has fallen dramatically over the past decades, but among women aged 40 years between 2015 and 2019, those who began childbearing in adolescence had an average of 4.6 births, while their peers who started childbearing after adolescence had 3.4 births. Women aged 40 years between 1980 and 1984 whose first birth was in adolescence had 6.4 children on average, while those who started after adolescence had 4.8 children.
Contribution of adolescent fertility to completed fertility by cohort.	Over the past half-century, adolescent births have accounted for 15–16% of all births, meaning that the contribution of adolescent fertility to total fertility has essentially stalled despite dramatic declines in total fertility.



2

DATA AND METHODS

Data

Birth cohort approach

Methods

**Portrait of Poko, 15 years old,
with her son Tiga, 3 years old,
in Burkina Faso**

DATA AND METHODS

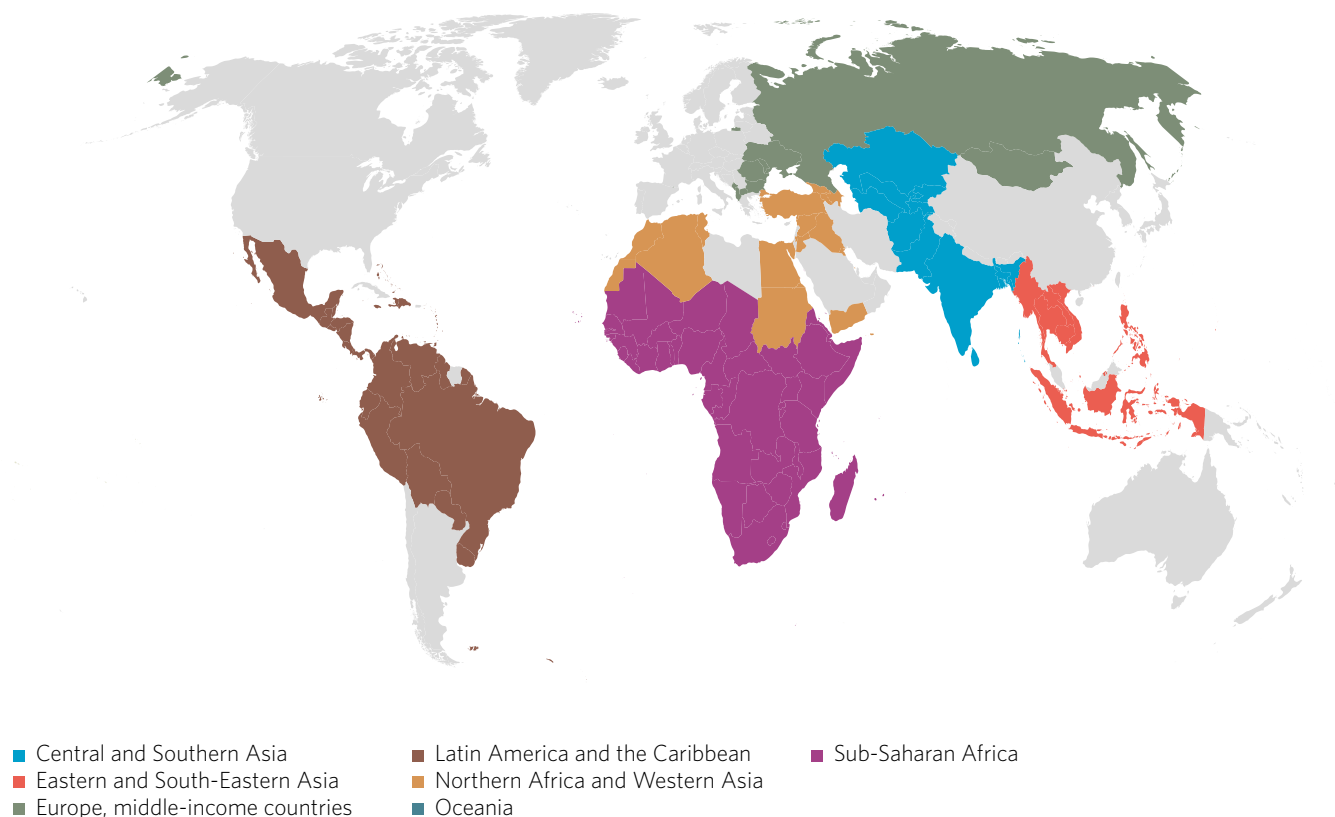
DATA

The data for this analysis come from a total of 408 Demographic and Health Surveys, Multiple Indicator Cluster Surveys, World Fertility Surveys, Generations & Gender Programme Surveys, and other national demographic and reproductive health surveys. See this report's supplementary material for details of surveys used in each country. Figure 2 identifies the countries included in the analysis, as well as their regional groupings, which follow the regional groupings used in the reporting of Sustainable Development Goal indicators.⁹⁷ Only low- and middle-income countries (as classified by the World Bank's 2022 groupings) were considered for analysis.⁹⁸

Data used included each woman's month and year of birth, the month and year of the survey, and the women's retrospective birth history. That is, the month and year of all her births up to the time of the survey.

As a first step, each country was analysed separately, with surveys from different years in the same country pooled together. The original

FIGURE 2. Map of study countries and regional groupings



Disclaimer: The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations. The term country as used in this publication also refers, as appropriate, to territories or areas.

survey weights were preserved so that the total influence of one survey was equal to its sample size and the estimates would be representative of the country's entire female population as a whole. In some World Fertility Surveys and Demographic and Health Surveys, birth history questions were asked only of ever-married women. These surveys are identified in this report's supplementary material, but are broadly confined to surveys conducted in the 1970s and 1980s in northern Africa and southern Asia. In these countries, unmarried women in surveyed households were added to the analysis so that country estimates considered all women, not just ever-married women, and would be representative of the entire female population as a whole. In so doing, they assumed that never-married women had never given birth, which is standard procedure for analysis of these data.⁹⁹

In a second step, aggregate measures were estimated by weighting country-specific estimates according to the size of the female population aged 15–19 years in the years that correspond to the adolescence of surveyed women. Aggregation was done at the regional level, as well as across all countries studied. For example, the estimates for women aged 20 years in 2015–2019 were weighted by population numbers from 2015, while estimates for women aged 20 years in 2010–2014 were weighted by population numbers from 2010.

Population numbers were taken from those in the World Population Prospects 2019.¹⁰⁰

Confidence intervals for the measures are not shown in the figures but are included in the data tables at the end of the report. The confidence intervals help to convey something of the uncertainty inherent in the estimates, given that (a) within countries, distinct surveys do not always yield consistent estimates for the same reference period, and that (b) across regions, the number of cases used to produce the estimates varies considerably.

BIRTH COHORT APPROACH

This report's analysis places a deliberate and careful focus on several key aspects of adolescent childbearing that are otherwise rarely examined. It aims to paint a more complete picture by producing measures that better reflect the lived experience of adolescents and girls worldwide throughout their entire adolescent years, not just the ages of 15–19 years. It does so by taking a birth cohort approach.

In the analysis, surveyed women who were aged 20 years or older at the time of survey were grouped into five-year cohorts (based on their year of birth), and their adolescent childbearing patterns were reconstructed using the births they reported to have experienced up through the age

of 19 years. Birth cohorts covered in the data, plus the number of cases in each cohort, are detailed in this report's supplementary material. The earliest cohorts include women born in 1940–1944 (who exited adolescence in 1960–1964), and the latest cohorts include women born in 1995–1999 (who exited adolescence in 2015–2019). Note that not every country has observations that span all six decades. Taken together, the countries covered in the analysis account for 96 per cent of the world's adolescent population (as measured using 2020 population figures) in low- and middle-income countries (excluding China). However, data coverage by birth cohort varies and is summarized in Table 2.

Data coverage in each region varies as well, as is summarized in Table 2. Note that in the middle-income countries of Europe (a total of seven countries), regional measures are not published for cohorts born in the 1990s because data for the Russian Federation and Ukraine are not available for then and together they represent 75 per cent of the adolescent population in the region's middle-income countries. Also worth noting is that data in Oceania's regional aggregates come from five countries (Kiribati, Papua New Guinea, Samoa, Tonga and Tuvalu), and the regional aggregates are published only for cohorts born in 1965 and later because of a lack of data in earlier cohorts. Fiji has data for the 1940–1954 cohorts, which are included in the aggregate measures for all

low- and middle-income countries, but not in Oceania’s regional aggregates, because no other country in Oceania had data for these cohorts and, as such, the measures would not have been representative.

By using a cohort approach, rather than a period approach, the measures are able to distinguish between first, second and third births to each individual adolescent; to track how closely any additional births to individual adolescents are spaced; to identify all births that occur throughout

all adolescent years (not just at ages 15–19 years); and to bring needed focus to women who began childbearing in childhood and are otherwise usually absent from period measures because the youngest adolescents are not surveyed about their childbearing. As such, the measures provide a rich and dynamic accounting of childbearing across all adolescence over the last six decades.

METHODS

Table 3 summarizes how the measures presented in this technical report were estimated. Again, all measures are first estimated for each five-year birth cohort in each country and weighted using survey weights. Estimates are then aggregated using population weights both for regional averages and averages across all countries studied. Throughout the following description of methods, mention of numbers of women always refers to the weighted number.

TABLE 2. Proportion of the adolescent population in low- and middle-income countries (excluding China) represented by data included in the analysis, by cohort and region

	Data coverage by birth cohort											
	1940-1944	1945-1949	1950-1954	1955-1959	1960-1964	1965-1969	1970-1974	1975-1979	1980-1984	1985-1989	1990-1994	1995-1999
Central and Southern Asia	91	94	94	92	93	94	94	93	90	91	92	91
Eastern and South-Eastern Asia	66	77	81	68	70	78	80	82	83	83	83	68
Europe middle-income countries	65	69	68	90	89	90	90	91	91	83		
Latin America and the Caribbean	84	85	87	88	84	85	82	83	83	81	48	38
Northern Africa and Western Asia	71	73	73	88	93	92	92	91	92	83	80	24
Oceania						76	80	80	80	81	82	84
Sub-Saharan Africa	60	72	85	95	99	99	99	99	99	99	96	83
World (excluding China and high-income countries)	77	83	85	87	88	91	90	91	90	89	82	72

TABLE 3. Methods for estimating reported measures

1	Proportion of the female population that began childbearing in adolescence (ages 19 years and below)	=	$\frac{\text{Number of women who had a birth at age 19 years and younger}}{\text{Total number of women}}$
2	Proportion of first adolescent births that occurred to child mothers aged 17 years and younger	=	$\frac{\text{Number of women whose first birth occurred at age 17 years and younger}}{\text{Number of women who had a birth at age 19 years or younger}}$
3	Proportion of first adolescent births that occurred to child mothers aged 14 years and younger	=	$\frac{\text{Number of women whose first birth occurred at age 14 years and younger}}{\text{Number of women who had a birth at age 19 years and younger}}$
4	Average number of adolescent births to child mothers aged 15-17 years at first birth	=	$\frac{\text{Total number of adolescent births to women whose first birth was at age 15-17 years}}{\text{Number of women who had a first birth at age 15-17 years}}$
5	Average number of adolescent births to child mothers aged 14 years and younger at first birth	=	$\frac{\text{Total number of adolescent births to women whose first birth was at age 14 years and younger}}{\text{Number of women who had a first birth at age 14 years and younger}}$
6	Proportion of child mothers aged 15-17 years at first birth who progress to a second birth in adolescence	=	$\frac{\text{Number of women with two or more births in adolescence whose first birth was at age 15-17 years}}{\text{Number of women who had a first birth at age 15-17 years}}$
7	Proportion of child mothers aged 14 years and younger at first birth who progress to a second birth in adolescence	=	$\frac{\text{Number of women with two or more births in adolescence whose first birth was at age 14 years and younger}}{\text{Number of women who had a first birth at age 14 years and younger}}$
8	Proportion of child mothers aged 15-17 years at first birth who progress to a third birth in adolescence	=	$\frac{\text{Number of women with three or more births in adolescence whose first birth was at age 15-17 years}}{\text{Number of women with two or more births in adolescence whose first birth was at age 15-17 years}}$
9	Proportion of child mothers aged 14 years and younger at first birth who progress to a third birth in adolescence	=	$\frac{\text{Number of women with three or more births in adolescence whose first birth was at age 14 years and younger}}{\text{Number of women with two or more births in adolescence whose first birth was at age 14 years and younger}}$
10	Proportion of all adolescent births that occur to girls who start childbearing in childhood	=	$\frac{\text{Total number of adolescent births to women whose first birth was at age 17 years and younger}}{\text{Total number of adolescent births}}$
11	Proportion of all adolescent births that occur to girls who start childbearing at ages 14 years and younger	=	$\frac{\text{Total number of adolescent births to women whose first birth was at age 14 years and younger}}{\text{Total number of adolescent births}}$
12	Likelihood of a rapid repeat birth to an adolescent mother		Probabilities estimated with Kaplan-Meier survivorship analysis (see description below)
13	Proportion of non-first adolescent births that are rapid repeat births	=	$\frac{\text{Number of non-first adolescent births that occurred within 23 months of a previous adolescent birth}}{\text{Total number of non-first adolescent births}}$
14	Completed fertility by age at first birth (in adolescence, after adolescence and all women)	=	$\frac{\text{Total number of births to women aged 40 years or older by motherhood entry age}}{\text{Total number of women aged 40 years or older by motherhood entry age}}$
15	Contribution of adolescent fertility to completed fertility	=	$\frac{\text{Total number of births to women aged 40 years or older that occurred before their 20th birthday}}{\text{Total number of births to women aged 40 years and older}}$

Much of the analysis focuses on conditional proportions, where the denominator describes the women at risk of an event. For example, only adolescents who have had a first birth are at risk of having a second birth in adolescence. The conditional proportion – in this case, the proportion of girls with one birth who progress to a second birth in adolescence – provides important information that would not be available from the proportion of women with two adolescent births. For example, in a country with a decline in first births in adolescence, the proportion of all women with a second birth will automatically decline. However, this does not necessarily mean that the incidence of second adolescent births is declining among those at risk of having a second adolescent birth. As such, the conditional proportions more accurately show the lived experience of child mothers and help to identify entrenched vulnerabilities.

To look at rapid repeat births in adolescence, or births that occur within 23 months of a previous birth (and before the mother's 20th birthday), the report estimates both the probability and proportion. The two measures have important differences, and merit a little more clarification than is provided in Table 3. The proportion is straightforward – it measures the proportion of all non-first births that occurred within 23 months of a previous birth to adolescents mothers. Specifically, it takes the number of non-first

adolescent births that occur within 23 months of a previous adolescent birth, divided by the total number of non-first adolescent births. However, the proportions do not account for the fact that many adolescent birth intervals are not closed by an additional birth before age 20 years. The probabilities correct for these open-ended intervals, and as such are important for better identifying whether the risk of rapid repeat births is changing for all adolescents, not just those adolescents who have multiple births in quick succession (which are identified in the proportions). To estimate the probabilities, the analysis uses a non-parametric Kaplan-Meier survivorship analysis, which handles censored birth intervals (birth intervals that are not closed by an additional birth in adolescence) by producing an adjusted population at risk before calculating probabilities of survivorship at the interval of 23 months.¹⁰¹ The survivorship analysis uses information from all non-first adolescent births and the number of months until either a next adolescent birth or the date of the woman's 20th birthday, whichever comes first.

It is important to note that research examining the health risks of short birth spacing uses a variety of cut-offs, usually finding that the shorter the interval, the higher the risk.¹⁰² Often, the focus is on the interval between pregnancies, rather than the intervals between births. This study looks at birth timing because most of the data do not

provide pregnancy information and because the 24-month inter-birth interval has strong evidence of particularly heightened risks.¹⁰³



Zainab, 15 years old, with her two children, Bilal, 2 years old, and Karima, 8 months old, in a refugee camp in Jordan



3

TIMING

The scale of the issue

Motherhood in childhood

The youngest child mothers

Portrait of Rabeya, 16 years old, with her husband and their daughter Kushum, 3 years old, in Bangladesh

TIMING

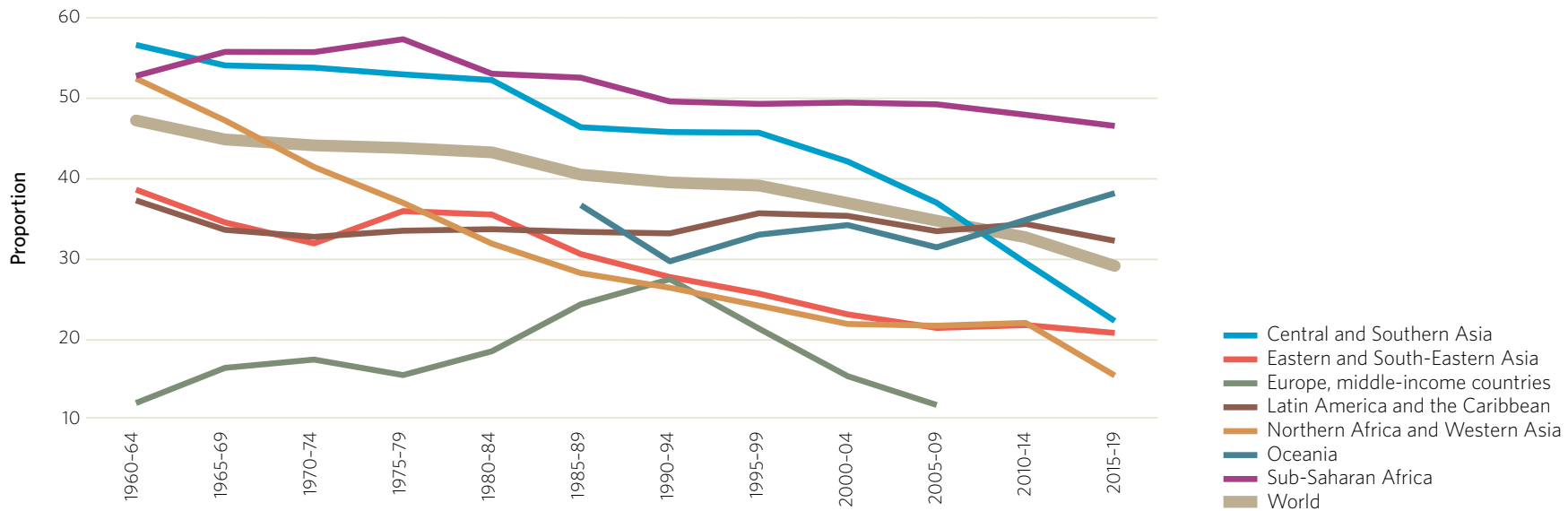
THE SCALE OF THE ISSUE

To begin, it is important to understand the scale of the issue of adolescent childbearing by looking at the proportion of women who experience it. Across low- and middle-income countries today,

nearly a third of all women begin childbearing in adolescence. Sixty years ago, almost half of all women had their first birth before the age of 20 years. The decline is encouraging but translates to only about three percentage points per decade (see Figure 3).¹⁰⁴

**TODAY, NEARLY
A THIRD OF ALL
WOMEN BEGIN
CHILDBEARING IN
ADOLESCENCE**

FIGURE 3. Proportion of women who begin childbearing in adolescence



Estimates exclude China and high-income countries

REGIONAL DIFFERENCES

Behind the rather steady, albeit slow decline across low- and middle-income countries, regional trends tell their own story. Regions fall roughly into two camps: strong declines in the proportion of women entering motherhood in adolescence in three regions and surprisingly little decrease over the past half-century in the remaining four regions.

In the three regions with substantial declines – Central and Southern Asia, Eastern and South-Eastern Asia, and Northern Africa and Western Asia – fewer than a quarter of women begin childbearing in adolescence most recently. Surprisingly, two of these regions saw the highest proportions of childbearing in adolescence 60 years ago (53–56 per cent of all women). A rapid acceleration in decline in Central and Southern Asia over the most recent decades is particularly noteworthy. However, the Northern Africa and Western Asia region has seen greater total declines than any other region.

In the remaining four regions with relatively little decrease, sub-Saharan Africa has by far the highest proportion most recently (46 per cent of women begin childbearing in adolescence), with very little change in

recent decades. Nevertheless, two other regions – Oceania and Latin America and the Caribbean – have seen even less decline. In fact, Oceania shows signs of recent increase. In these two regions, a third of women enter motherhood in adolescence today, which is little different from the proportion 60 years ago. These two regions have the highest proportions of adolescent childbearing most recently, after sub-Saharan Africa. Finally, in the middle-income countries of Europe, 12 per cent of women begin childbearing in adolescence most recently, which is the exact same proportion seen 60 years ago. However, the recent proportion actually represents a strong decline since the 1990s, after adolescent childbearing actually increased in the earliest decades.

Ultimately, adolescent childbearing remains remarkably widespread across the globe. Nearly one in three women in low- and middle-income countries today give birth before their 20th birthday. Though there are encouraging signs of decline in some places, others have seen little change.

**SUB-SAHARAN
AFRICA HAS THE
HIGHEST PROPORTION
OF WOMEN ENTERING
MOTHERHOOD IN
ADOLESCENCE**

COUNTRIES IN THE SPOTLIGHT

Across low- and middle-income countries, nearly one third of women begin childbearing in adolescence most recently, but there are several countries where the incidence remains high – with up to three quarters of women having a birth in adolescence. Of all countries analysed, Niger, Mozambique and the Central African Republic see the highest proportion of women beginning childbearing in adolescence most recently. In these countries, 73 per cent, 67 per cent and 66 per cent of women, respectively, have a first birth before their 20th birthday. Particularly worrying, the proportion has increased considerably over the decades studied, and the increase is among the largest seen in any country across the globe.

There are 18 countries where more than half of women still begin childbearing in adolescence most recently, which is higher than the average for all low- and middle-income countries from six decades ago. All of these countries are in sub-Saharan Africa, and outside this region, Bangladesh is the country with the highest proportion, with 48 per cent of women still entering motherhood in adolescence.

There are low- and middle-income countries with a comparatively low incidence of adolescent motherhood. That is, there are seven countries where fewer than 10 per cent of women begin

childbearing before the age of 20 years today. These are Algeria, Armenia, Bulgaria, Georgia, the Maldives, Tunisia and Ukraine. Among these

countries, the Maldives and Tunisia stand apart for also seeing some of the strongest declines of any countries analysed.



Keya, 14 years old, with her husband Jahangir, 21 years old, and their son Rahim, 2 months old, in Bangladesh

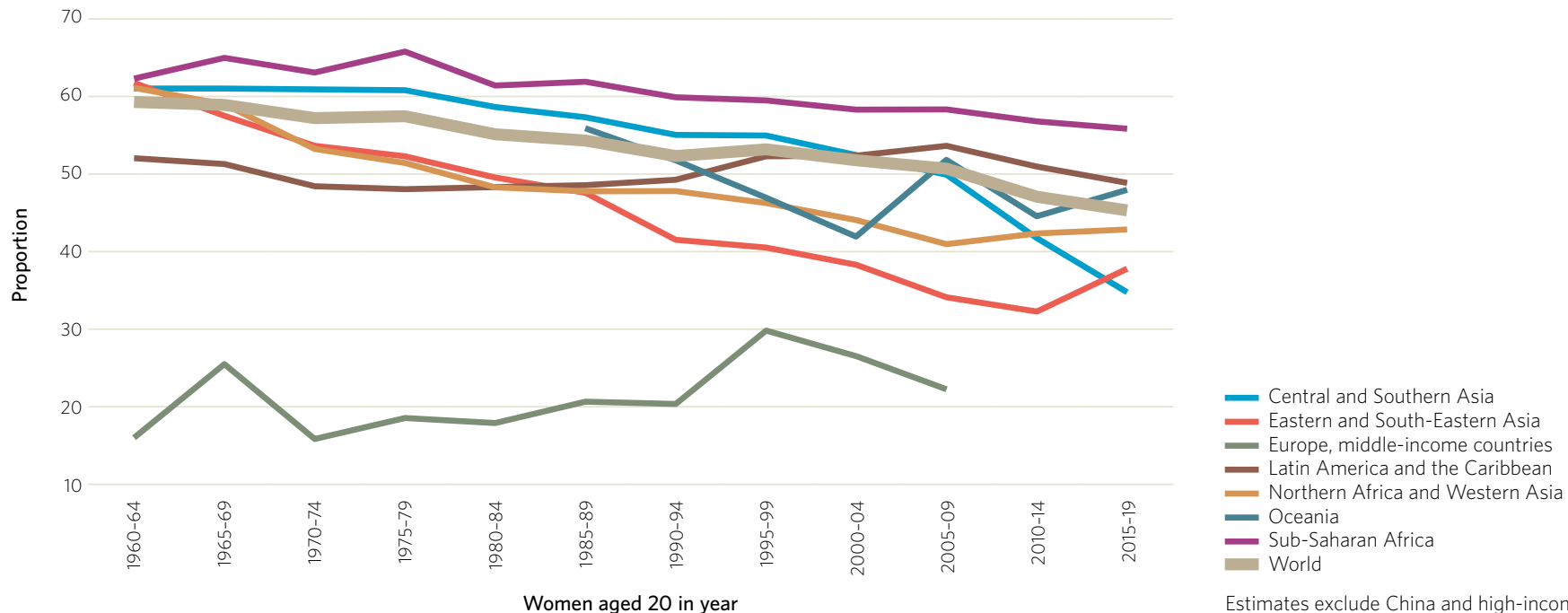
MOTHERHOOD IN CHILDHOOD

Equipped with a sense for how many women begin childbearing in adolescence, this section now trains a lens on child mothers. A considerable proportion of adolescents are 17 years old and younger at the time of their first birth. This means that, according to most international human rights conventions, these young first-time mothers are still children. To be specific, across low- and

middle-income countries, the proportion of first adolescent births that were to child mothers was 59 per cent six decades ago and 45 per cent most recently (see Figure 4). This does not refer to the proportion of all first births, but only those first births that occur in adolescence.¹⁰⁵ The decline corresponds to only two percentage points per decade. It is only within the most recent 15 years that fewer than half of all first births in adolescence were to child mothers.

**MOST RECENTLY,
45 PER CENT OF FIRST
ADOLESCENT BIRTHS
WERE TO CHILD
MOTHERS**

FIGURE 4. Proportion of first adolescent births that are to child mothers aged 17 years and younger



Estimates exclude China and high-income countries

REGIONAL DIFFERENCES

The underlying regional trends are telling, and the two-camp division seen previously is broadly repeated here. That is, the same three regions in Asia and Northern Africa that saw the greatest declines in the proportion of women beginning childbearing in adolescence have also seen the greatest declines in the proportion of first adolescent births that occur to child mothers. The remaining regions have seen exceptionally limited decline. In fact, though the proportion in the middle-income countries of Europe remains far lower than in any other region, it has seen an increasing incidence of motherhood in childhood.

Among the regions with the greatest decline in motherhood in childhood, Northern Africa and Western Asia's decline in motherhood in childhood has been more modest than that in the other regions of Asia. Recall that Northern Africa and Western Asia saw the greatest declines in the proportion of women entering motherhood in adolescence of any region, which indicates that trends among the youngest mothers in the region have remained relatively entrenched.

Among the regions with the least declines, Latin America and the Caribbean stands out for its pattern of stagnation in early decades, then a long period with an increasing incidence, followed by a slight decline in more recent years. As a result, Latin America and the Caribbean now joins Oceania and sub-Saharan Africa as the regions with the highest incidence of motherhood in childhood most recently. Sixty years ago, Latin American and the Caribbean had the lowest incidence after Europe's middle-income countries.

**LATIN AMERICA
AND THE CARIBBEAN
NOW JOINS OCEANIA
AND SUB-SAHARAN
AFRICA AS THE
REGIONS WITH THE
HIGHEST INCIDENCE
OF MOTHERHOOD
IN CHILDHOOD**

COUNTRIES IN THE SPOTLIGHT

Across low- and middle-income countries today, just under half of first adolescent births are to child mothers, but some countries see a much higher incidence. Chad and Guinea see the highest proportion of first adolescent births occurring to child mothers most recently, with nearly 70 per cent of first births in adolescence occurring to girls aged 17 years and younger. More than 14 countries, all in sub-Saharan Africa, still see more than 60 per cent of first adolescent births occurring to child mothers today. This is higher than the average across low- and middle-income countries from six decades ago. Included in these countries is Ghana, which otherwise has seen impressive declines in overall adolescent fertility. Though the number of women with a first birth before the age of 20 years is declining dramatically in Ghana, the share of these (diminishing) first adolescent births that occur to child mothers has remained effectively unchanged over the last half-century.

Outside sub-Saharan Africa, Brazil and Yemen are the countries with the highest proportion most recently. In both countries, 57 per cent of first adolescent births occur to child mothers. Both Brazil and Yemen have seen the proportion increase over time. In Brazil, the increase is a considerable 10 percentage points. However, most countries with the highest proportion today

are not the same as those that have the most increase over time. In fact, most countries with the highest proportions now have seen declines in first adolescent births in childhood. Instead, the countries that have seen the greatest increase in the proportion of adolescent births occurring to child mothers are concentrated in the middle-income countries of Europe (Albania, Bulgaria, Moldova and North Macedonia) and Western Asia (Azerbaijan and Georgia).

Meanwhile, countries with the lowest proportions today are heavily concentrated in Central Asia (Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan), where fewer than 11 per cent of first adolescent births are to child mothers. Here again, the countries with the lowest proportions today are not the same as those that have experienced the greatest declines. Instead, the most impressive declines have been seen in countries such as Bangladesh, Egypt, Eswatini, India, Indonesia and the Maldives.



Amira, 15 years old, with her husband Ahmed, 24 years old, and Amal, 12 days old, in a refugee camp in Jordan

THE YOUNGEST CHILD MOTHERS

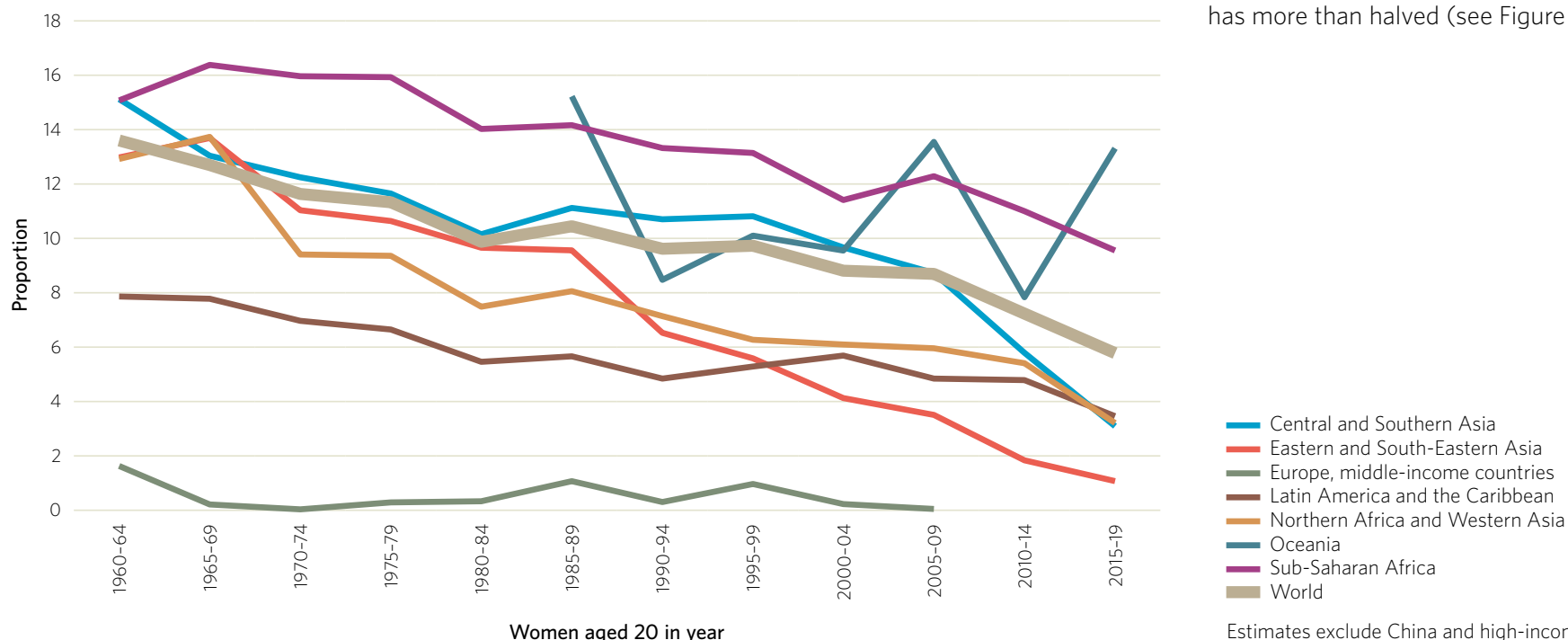
Among child mothers (again, adolescent mothers aged 17 years and younger), there is a group that merits particular attention. That is, girls who give birth at the age of 14 years and younger. These youngest child mothers are of particular interest not only for health and human rights concerns, but also because very little is known about them.

Most measures of adolescent childbearing do not include girls younger than 15 years, and as such, these youngest of child mothers have remained largely invisible. Though the Sustainable Development Goals (SDGs) recently adopted the measurement of the adolescent birth rate for females aged 10–14 years (in addition to the rate among those aged 15–19 years), data for the indicator are not yet available alongside

those for other SDG measures, though they are scheduled to be released soon. This report has been able to uncover trends among these girls by using women’s retrospective birth histories to reconstruct patterns representative of the globe’s low- and middle-income countries.

Sixty years ago, fully 14 per cent of adolescent first births were to girls aged 14 years and younger. **More recently, 6 per cent of adolescent first births were to girls aged 14 years and younger.** Although this decline corresponds to only about one percentage point per decade, the incidence has more than halved (see Figure 5).

FIGURE 5. Proportion of first adolescent births that are to child mothers aged 14 years and younger



Estimates exclude China and high-income countries

REGIONAL DIFFERENCES

Regional trends emphasize the importance of looking at this age group separately from child mothers aged 15–17 years, as trends in the two age groups do not always align. For example, though middle-income countries in Europe have seen an increase in the incidence of motherhood in childhood, the survey data recorded almost no births among girls 14 years of age and younger. Of all regions, Eastern and South-Eastern Asia has seen the greatest decline in first adolescent births among girls aged 14 years and younger, and most recently, only 1 per cent of its first adolescent births occur in early adolescence. In effect, Eastern and South-Eastern Asia has been particularly successful in reducing motherhood among the youngest adolescents, even though Central and Southern Asia and Northern Africa and Western Asia have slightly outperformed it in terms of declines among older adolescents. In these two regions, 3 per cent of first adolescent births occur to girls aged 14 years and younger, compared to more than 10 per cent six decades ago.

Sub-Saharan Africa and Latin America and the Caribbean both saw the same percentage point decline in first adolescent births among girls aged 14 years and younger, though they had very different starting levels. In the earliest years, Latin America and the Caribbean had the lowest incidence after Europe's middle-income countries, but today it has the third highest. Sub-Saharan Africa's incidence remains among the highest alongside Oceania, though the trendline in Oceania is more uncertain given the smaller population size and more limited data.

Essentially, impressive declines in Eastern and South-Eastern Asia suggest that strong and targeted reductions among these most vulnerable girls are possible. Nevertheless, efforts must be redoubled in places where levels of child motherhood in girls aged 14 years and younger remain high or have seen little decline. These include sub-Saharan Africa, Oceania and Latin America and the Caribbean.

EASTERN AND SOUTH-EASTERN ASIA HAS SEEN THE GREATEST DECLINE IN FIRST ADOLESCENT BIRTHS AMONG GIRLS AGED 14 YEARS AND YOUNGER

COUNTRIES IN THE SPOTLIGHT

Across low- and middle-income countries, 6 per cent of first adolescent births today are to girls aged 14 years and younger, but there are individual countries where the incidence remains much higher. Most of the countries with the highest proportions of first adolescent births occurring to child mothers aged 14 years and younger are those that also have the most women entering motherhood in adolescence, and the highest proportions of first adolescent births occurring to girls aged 17 years and younger. These include the Central African Republic, Chad, Guinea, Niger and Sierra Leone, countries where more than 15 per cent of first adolescent births are to girls aged 14 years and younger most recently. But there are a number of countries that have a disproportionately high concentration of first adolescent births occurring to child mothers aged 14 years and younger relative to their incidence of overall adolescent childbearing. These include Ethiopia, Mauritania and Papua New Guinea, for example, where 14–18 per cent of all first adolescent births are to child mothers aged 14 years and younger. In other words, Ethiopia, Mauritania and Papua New Guinea see some of the world's highest proportions of first adolescent births to girls aged 14 years and younger, whereas their levels of first births to older adolescents are not among the world's highest.

In too many countries, the decline over the last half-century has been almost negligible. About a third of countries saw a decline of less than two percentage points in their proportion of first births to child mothers aged 14 years and younger over the decades analysed. In about half of these countries with little change, the incidence was already low (below 3 per cent in the earliest years), but in the other countries, the incidence averaged 10 per cent in the earliest cohorts.

There are a sizeable handful of countries where childbearing among girls 14 years and younger is almost non-existent today. In addition to Europe's middle-income countries, these countries include Armenia, Azerbaijan and Georgia in Western Asia, Indonesia, Mongolia and Viet Nam in Eastern and South-Eastern Asia, Kyrgyzstan, the Maldives, Tajikistan, Turkmenistan and Uzbekistan in Central and Southern Asia, and Tonga in Oceania. Most of these countries have long had very low levels of births to girls aged 14 years and younger, but Indonesia especially, plus the Maldives have seen striking declines over the last half-century. In fact, Indonesia's declines are some of the strongest seen.

Bangladesh and Mozambique also merit particular attention for having seen the two largest percentage point declines of any country studied in the proportion of first adolescent births that occur to girls aged 14 years and younger. Interestingly, both countries still have very high levels of adolescent childbearing otherwise, and while Bangladesh has simultaneously seen considerable declines among first births to girls aged 15–17 years, the proportion of first adolescent births that are to girls in this age group in Mozambique has increased over the decades analysed. Ultimately, the decline in these two countries suggests that consequential decline among the youngest vulnerable girls is possible, even in contexts with comparatively high levels of childbearing in adolescence. That is, Mozambique saw declines in the proportion of first births among girls aged 14 years and younger alongside increases among girls aged 15–17 years, while Bangladesh saw declines among girls aged 14 years and younger as well as girls aged 15–17 years.



4

QUANTITY

Additional births in adolescence

Child mothers' cumulative
adolescent childbearing

Portrait of Amira, 15 years old, with
her husband Ahmed, 24 years old,
and their children, Samer, 1 year
old, and Amal, 12 days old, in a
refugee camp in Jordan

QUANTITY

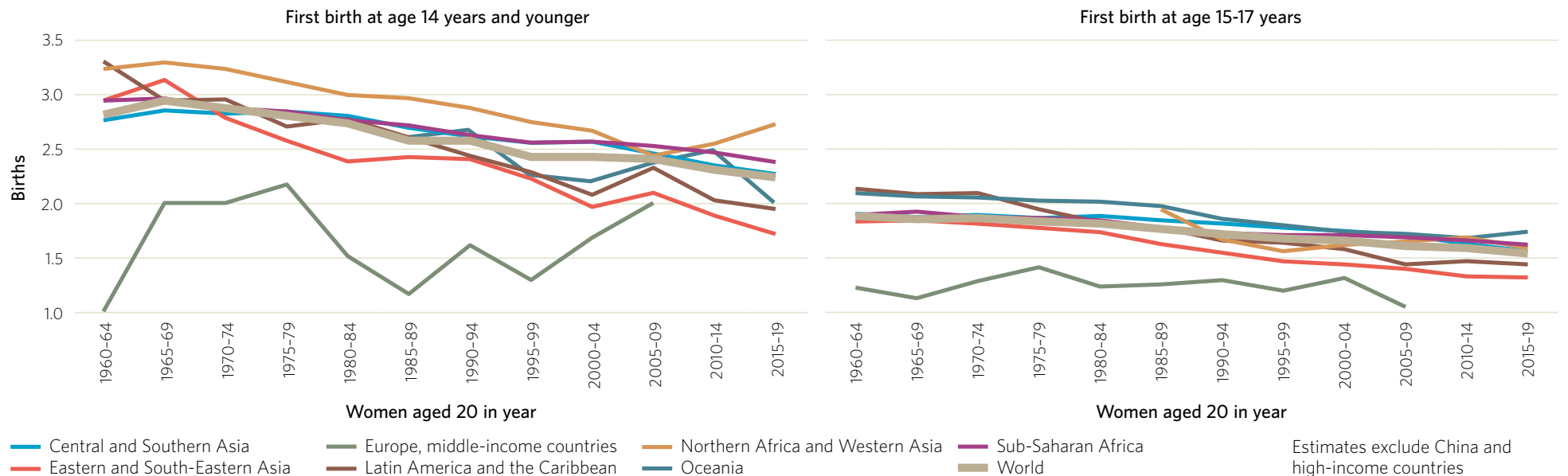
ADDITIONAL BIRTHS IN ADOLESCENCE

Ultimately, first births are only part of the story. It is remarkably common for child mothers to have additional births in adolescence.

The occurrence of repeat adolescent births is highly dependent on the timing of the first birth. The average number of adolescent births that occur to child mothers aged 14 years and younger at their first birth has been consistently higher than the average to those aged 15-17 years at their first birth (see Figure 6). Six decades ago, a child

mother with a first birth at the age of 14 years and younger had on average nearly three births before exiting adolescence. That average has now fallen to just over two births (2.8 to 2.2 births). Every child mother with a first birth at 15-17 years of age had 1.9 births on average 60 years ago and 1.5 births more recently.

FIGURE 6. Average number of adolescent births to child mothers



Nevertheless, the measure of average adolescent births masks a critical vulnerability of the youngest child mothers, which can be seen only when looking at the proportions of child mothers who progress to second and third births in adolescence. Essentially, the youngest child mothers have seen almost no change in their incidence of second births; the decline in the average is due to declines in third births in adolescence. Specifically, the proportion of child mothers with a first birth at 14 years of age and younger who had a second birth before exiting adolescence has remained alarmingly high. Six decades ago, 85 per cent, and, most recently, **74 per cent of girls with a first birth at the age of 14 years and younger have a second before their 20th birthday.** Among child mothers with a first birth at age 15-17 years who went on to have a second birth before exiting adolescence, the decline has been more substantial, though the incidence remains high, falling from 67 per cent six decades ago to 48 per cent more recently (see Figure 7).

**THE YOUNGEST CHILD
MOTHERS HAVE SEEN
ALMOST NO CHANGE
IN THEIR INCIDENCE
OF SECOND BIRTHS**

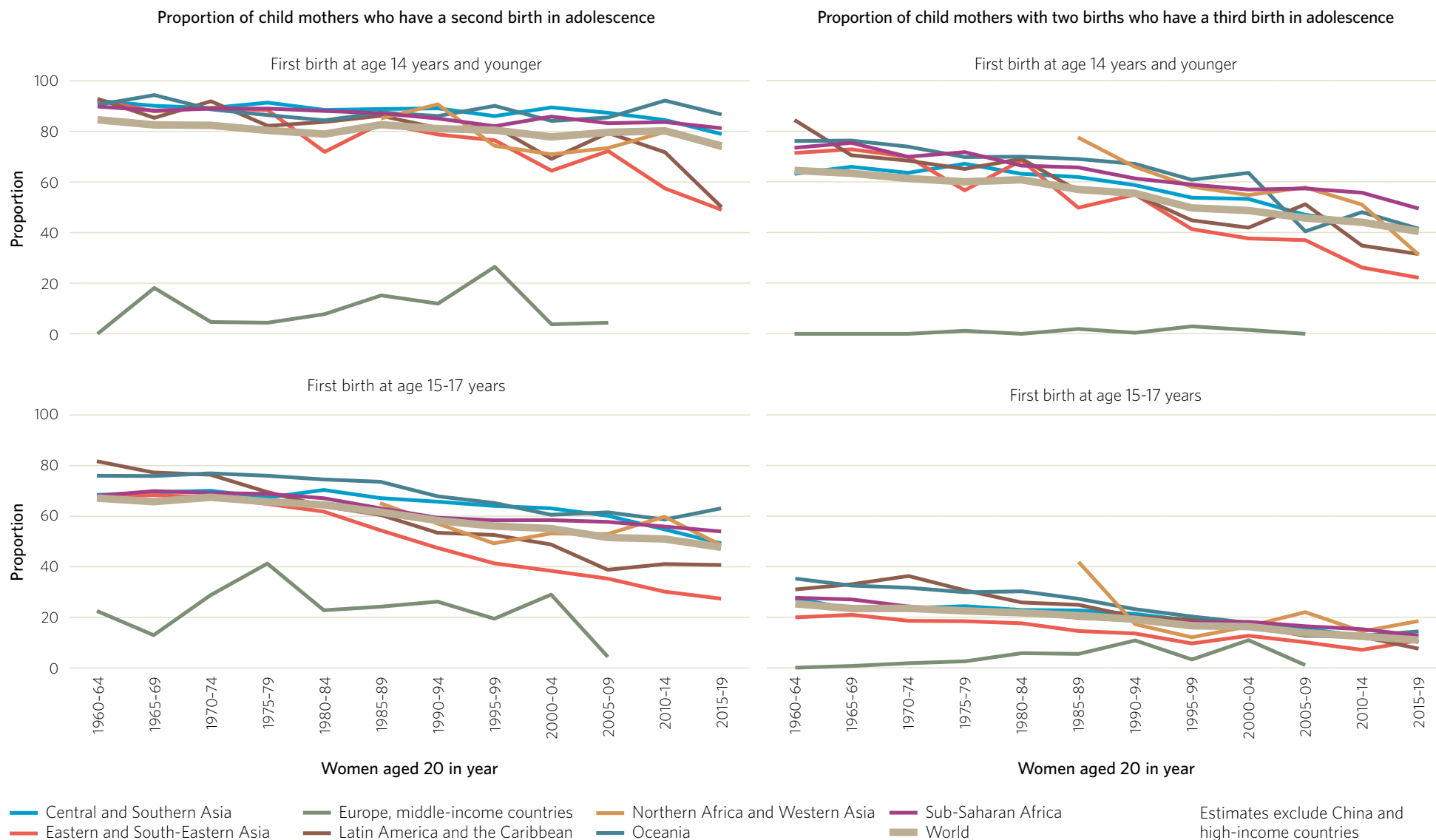
Repeat adolescent childbearing does not stop at two births. There remains a risk of progressing to a third birth in adolescence, particularly among the youngest starters. Six decades ago, 64 per cent, and, **most recently, 40 per cent of adolescents with two births, and whose first birth occurred**

at 14 years of age and younger, progressed to a third birth before exiting adolescence. Among adolescents with two births and a first birth at age 15-17 years, the proportion who went on to have a third birth fell from 26 per cent to 11 per cent.¹⁰⁶



Janet, 15 years old, with her son Manuel, 6 months old, in Colombia

FIGURE 7. Repeat childbearing in adolescence



REGIONAL DIFFERENCES

In looking at average adolescent births to child mothers, the region of Northern Africa and Western Asia stands out for its high number. Across almost all of the six decades studied, its average is higher than that of any other region, both for girls with a first birth at age 15–17 years and at age 14 years and younger. Recall that Northern Africa and Western Asia has otherwise seen impressive declines in the proportion of women beginning childbearing in adolescence and childhood. Nevertheless, it appears that among the increasingly selective group of girls who do enter motherhood in childhood in the region, their risk of additional births in adolescence remains particularly high.

With regard to the proportions of child mothers experiencing second births in adolescence, what is particularly remarkable – and worrying – about these trends is how similar the likelihood has remained across regions. The middle-income countries of Europe are clear outliers, with comparatively minimal repeat childbearing in adolescence, particularly among the youngest, but otherwise, the regions cluster tightly together, especially in the earliest decades. In essence, though regions have very different proportions of women who enter motherhood in childhood,

once a child mother does give birth, the strong likelihood that she will have a second birth in adolescence has been largely the same no matter where she has lived.

Nevertheless, two regions have made inroads into reducing additional adolescent childbearing to child mothers in recent decades. That is, Eastern and South-Eastern Asia and Latin America and the Caribbean show steeper declines in their incidences of repeat adolescent childbearing. However, among the youngest child mothers, the accelerated decline has occurred only within the last few decades.

Eastern and South-Eastern Asia's substantial declines in first adolescent births to child mothers (seen previously) are made doubly impressive by the region's strong declines in second adolescent births – a pattern that is not matched by other Asian and North African regions that otherwise also had strong declines in first adolescent births to child mothers.

The distinction between first and additional births in adolescence also makes the case of Latin America and the Caribbean stand out. As a region, it has lagged behind others

in reducing first births in adolescence and childhood, but it is outpacing most other regions in its decline in the occurrence of repeat adolescent births. Whereas 60 years ago it had among the highest ratios of repeat adolescent childbearing, it now has among the lowest. Meanwhile, 60 years ago, Latin America and the Caribbean's ratios of first births in adolescence were among the lowest of any region, and more recently they are among the highest.

Finally, the declines in the risk of third births are much greater than the declines in the risk of second adolescent births. Indeed, the incidence of third births among adolescent mothers whose first birth was at age 15–17 years has more than halved.

COUNTRIES IN THE SPOTLIGHT

There is a dramatic shift in country rankings for additional adolescent childbearing compared with previous measures. That is, the highest risk of repeat births in adolescence across low- and middle-income countries is not concentrated in countries with the highest incidence of first births in adolescence in general or sub-Saharan Africa in particular. Instead, countries such as Afghanistan, Iraq, Pakistan, Palestine, Somalia, Sudan and Timor-Leste see the highest risk of repeat childbearing in adolescence. Additionally, there has been almost no change in the risk over time in these countries. They still generally see more than three adolescent births on average to those whose first birth was at the age of 14 years and younger and about two births on average to those whose first birth was at age 15-17 years.

Nevertheless, a few sub-Saharan African countries merit mention. Nigeria, Africa's most populous country, sees some of the region's (and the world's) highest rates of additional adolescent childbearing, even though its other indicators are closer to the regional averages. At the other end of the spectrum, Rwanda and South Africa see some of the lowest risks of repeat adolescent childbearing. The low levels in Rwanda come after impressive declines over the past decades, which are among the strongest of any country.

In both countries, child mothers see 1.3 or fewer adolescent births on average.

Elsewhere, Bangladesh, El Salvador and Kiribati see some of the world's lowest levels of additional adolescent childbearing – on average around 1.6 adolescent births to the youngest child mothers and 1.3 births to those with a first birth at age 15-17 years. The case of Bangladesh is particularly interesting because it has seen some of the strongest declines in additional

adolescent childbearing simultaneously with some of the strongest declines in first adolescent births to child mothers, as described previously. Nevertheless, its overall adolescent fertility levels remain comparatively high due to its high starting point (high levels in the earliest decades) and displacement of adolescent childbearing among child mothers to childbearing among 18- and 19-year-olds (that is, increase in adolescent first births in older adolescence).



Ana, 15 years old, with her daughter Karen, 4 months old, in Colombia

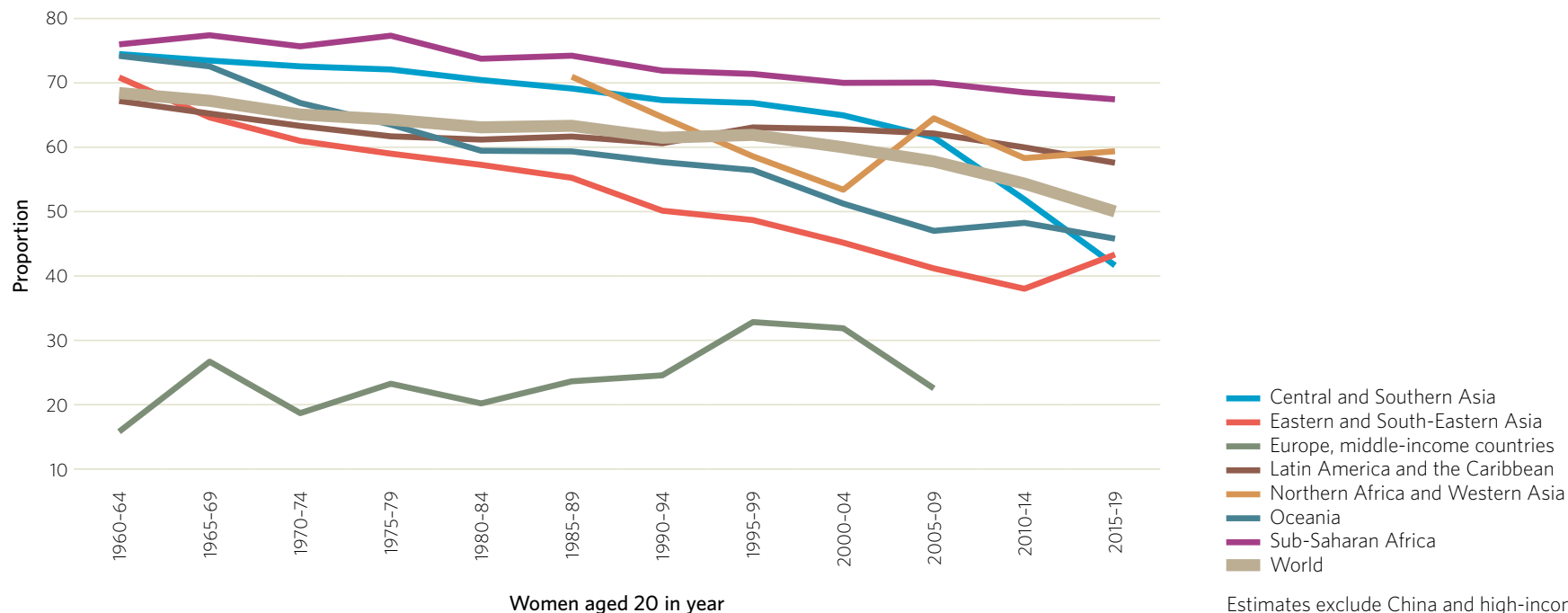
CHILD MOTHERS' CUMULATIVE ADOLESCENT CHILDBEARING

The preceding measures highlight how common it is for child mothers – both those with a first birth at 14 years and younger and at age 15–17 years – to have additional births in adolescence. Here, the report zooms out again to all adolescent births to explore how child mothers' cumulative childbearing has accounted for the majority of

births that occur in adolescence across low- and middle-income countries. Specifically, six decades ago, 68 per cent, and, most recently, 50 per cent of all adolescent births were to girls who were children at the time of their first birth (see Figure 8). In three regions where declines have been most limited – sub-Saharan Africa, Oceania, and Latin America and the Caribbean – the majority of adolescent births continue to occur to girls who started childbearing in childhood.

MOST RECENTLY, HALF OF ALL ADOLESCENT BIRTHS WERE TO GIRLS WHO WERE CHILDREN AT THE TIME OF THEIR FIRST BIRTH

FIGURE 8. Proportion of all adolescent births that occur to girls who start childbearing in childhood



Estimates exclude China and high-income countries

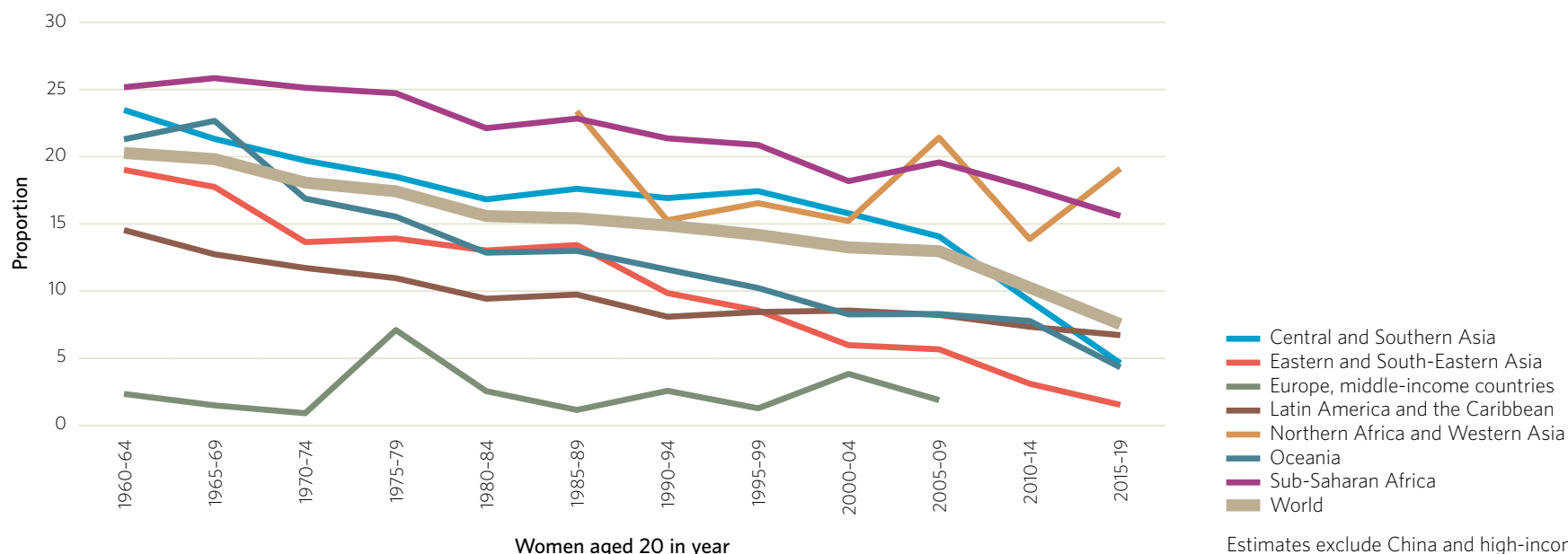
The youngest child mothers – those whose first birth occurred at the age of 14 years and younger – merit their own in-depth look. Across low- and middle-income countries, 20 per cent of all adolescent births occurred to girls who started childbearing in early adolescence six decades ago, while today that proportion is at 8 per cent (see Figure 9). Here again, trends in sub-Saharan Africa, Oceania, and Latin America and the Caribbean are concerning because they see comparatively

limited decline. Sub-Saharan Africa and Oceania merit additional concern for the persistence of their high levels of cumulative childbearing among girls who start childbearing at the youngest ages as compared with other regions.

To summarize, because child mothers see such a high incidence of additional births in adolescence, their cumulative childbearing before the age of 20 years accounts for

a disproportionately large proportion of all adolescent births. Specifically, half of all adolescent births are to girls who started childbearing in childhood, with nearly one 10th of all adolescent births occurring to girls who started childbearing at age 14 years and younger.

FIGURE 9. Proportion of all adolescent births that occur to girls who start childbearing at age 14 and younger



Estimates exclude China and high-income countries

COUNTRIES IN THE SPOTLIGHT

Across low- and middle-income countries, 50 per cent of adolescent births are to girls who started childbearing in childhood, but several countries see a much higher incidence. Specifically, there are 10 countries that still see at least three quarters of all adolescent births occurring to girls who were children at the time of their first birth. These are Chad, the Central African Republic, Comoros, Guinea, Mali, Mauritania, Niger, Nigeria, South Sudan and Sudan. In 13 additional countries, at least two thirds of all adolescent births still occur to girls who were children at the time of their first birth. All but two of these (Afghanistan and Yemen) are sub-Saharan African countries. Additionally, only in sub-Saharan Africa are there countries where more than a quarter of all adolescent births occur to girls who were 14 years and younger at the time of their first birth (Central African Republic, Chad, Comoros, Ethiopia, Guinea and Mauritania). Nevertheless, a handful of countries in other regions have uncharacteristically high proportions relative to their neighbours. For example, in the Dominican Republic, Guatemala and Lao People's Democratic Republic, more than two thirds of all adolescent births still occur to girls who were children at the time of their first birth. Afghanistan, Bolivia, Papua New Guinea, Sudan and Yemen see 15 per cent or more of all adolescent births

occurring to girls who were 14 years and younger at the time of their first birth. Additionally, Bulgaria, Moldova and North Macedonia, which are in the region with by far the lowest

proportion, see more than half of all adolescent birth occurring to girls who are aged 15–17 years at the time of their first birth most recently.



Lumilene, 15 years old, with her daughter Clairina, 6 months old, in Haiti



5

SPACING

Rapid repeat births in adolescence

Portrait of Nargis, 16 years old, with her son Nayeem, 1.5 years old, in Bangladesh

SPACING

RAPID REPEAT BIRTHS IN ADOLESCENCE

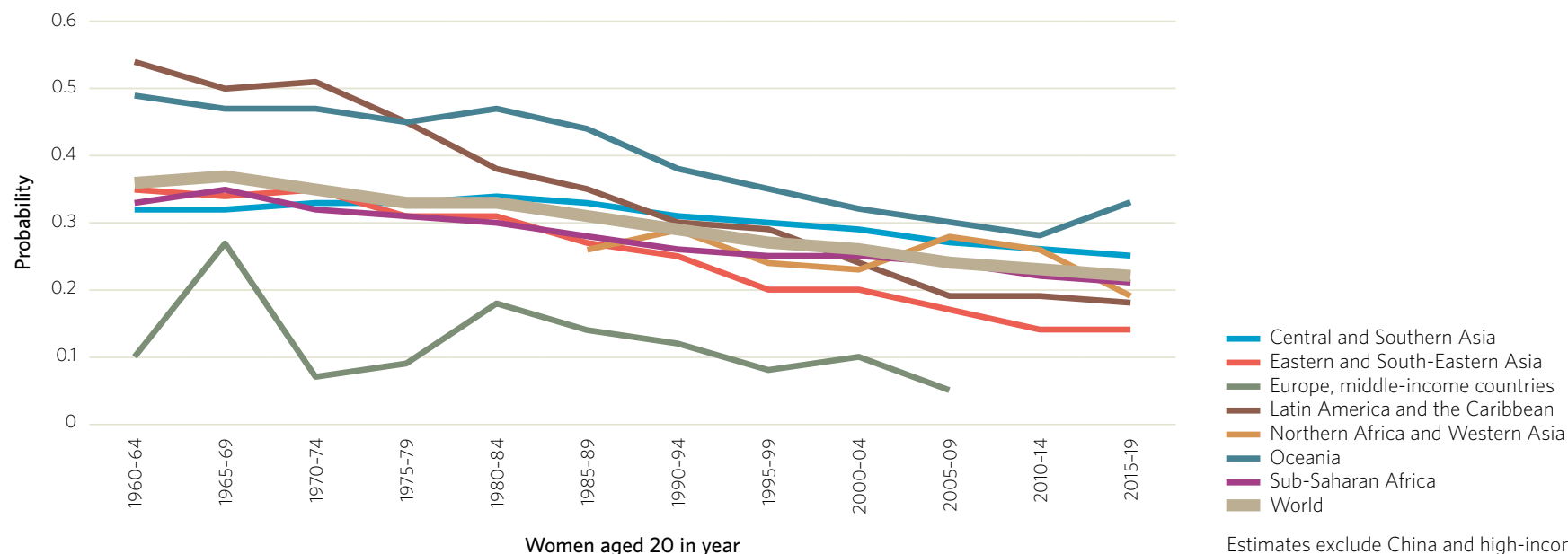
Having examined aspects of timing and quantity in adolescent fertility thus far, the report now turns to the aspect of spacing – focusing on births that happen in dangerously short succession. Births to mothers that occur within less than

24 months of a previous birth are of grave concern. Known as rapid repeat births, these births come with severe health risks to infants in low- and middle-income countries.¹⁰⁷

Here the report looks at the incidence of rapid repeat births to adolescent mothers. Most

recently, **an adolescent mother has a one-in-five chance of having another adolescent birth within two years.** Six decades ago, once a woman became a mother in adolescence, irrespective of her age or the birth order, she had a one-in-three chance of having another adolescent birth within 23 months (see Figure 10).

FIGURE 10. Likelihood that an adolescent mother has a rapid repeat birth before turning 20



Estimates exclude China and high-income countries

REGIONAL DIFFERENCES

The middle-income countries of Europe remain outliers, where it is both relatively uncommon for adolescents to have additional births in adolescence and, among those who do have additional adolescent births, it is uncommon for them to occur within 23 months of a previous adolescent birth. Recall that rates of motherhood in childhood are low in Europe's middle-income countries, which means that most adolescent mothers are aged 18 or 19 years at the time of their first birth and have little time for additional childbearing in adolescence.

Otherwise, Latin America and the Caribbean and Northern Africa and Western Asia saw rapid repeat birth probabilities to adolescent mothers that were dramatically higher than in other regions in the earliest decades. In those two regions, adolescent mothers had a one-in-two chance of experiencing a rapid repeat birth before turning 20 years of age, while in the remaining regions (except Europe's middle-income countries), adolescent mothers had a one-in-three chance. However, declines in Latin America and the Caribbean have outpaced those in other regions so that, most recently, it has among the lowest probabilities, alongside

Eastern and South-Eastern Asia. Northern Africa and Western Asia, on the other hand, remains the region with the highest likelihood of rapid repeat births to adolescent mothers. In this region, adolescent mothers still have a one-in-three chance of a rapid repeat birth.

**NORTHERN AFRICA
AND WESTERN ASIA
REMAINS THE REGION
WITH THE HIGHEST
LIKELIHOOD OF
RAPID REPEAT BIRTHS
TO ADOLESCENT
MOTHERS**

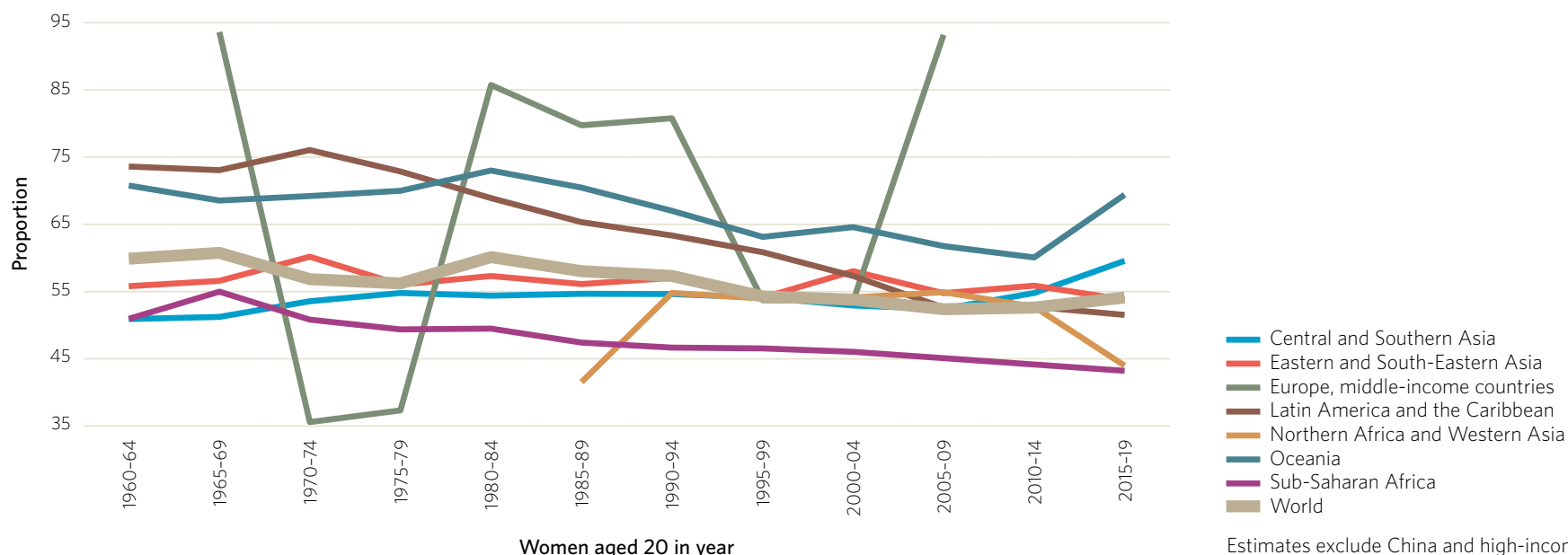
The likelihood of a rapid repeat birth in adolescence differs from the proportion of adolescent births that are rapid repeat births. The likelihood takes account of the fact that not all adolescent birth intervals are closed by another birth before the adolescent mother's 20th birthday. Nevertheless, the proportion also conveys important information about the scale of the phenomenon. In a sense, the likelihood better conveys information about the risk to individual

adolescents within the regions, and the proportion better conveys information about the prevalence across a region's population of adolescent mothers with more than one birth. **Across low- and middle-income countries today, more than half of all repeat births in adolescence occurred within 23 months of a previous birth.** Sixty years ago, fully 60 per cent of repeat adolescent births were rapid repeat births (see Figure 11).

Note that this proportion does not refer to the proportion of all adolescent births, but rather to all non-first adolescent births. A first birth cannot be a rapid repeat birth, of course.

To conclude, not only have this report's measures shown that child mothers see high rates of additional childbearing, but that additional adolescent births often come in dangerously rapid succession.

FIGURE 11. Proportion of all non-first adolescent births that are rapid repeat births



Estimates exclude China and high-income countries

REGIONAL DIFFERENCES

In looking at rapid repeat births, it is worth noting that sub-Saharan Africa – which otherwise has such a high incidence of adolescent childbearing, of motherhood in childhood and of additional births to adolescent mothers – has the lowest proportion of non-first adolescent births that occur within 23 months of a previous birth. Additionally, the region's likelihood of a rapid repeat birth to adolescent mothers is slightly below the world average (likely to be influenced by the long-standing traditions in sub-Saharan Africa of extended breastfeeding and post-partum abstinence among women more generally – a pattern that is gradually weakening among the more educated and higher socioeconomic groups, who have greater access to and higher demand for modern contraception, particularly for spacing).^{108,109,110} This suggests that although many child mothers in sub-Saharan Africa have several births in adolescence, the incidence of these occurring within the dangerously short inter-birth interval of 23 months is not as high as it is among girls at risk in other regions.

The contrast between likelihood and proportion in the middle-income countries of Europe is also telling. The region sees by far the lowest likelihood of rapid repeat births to adolescent mothers, which is likely to be a reflection of how few adolescents give birth in childhood. However, among the small numbers of girls who do have more than one birth in adolescence, a high proportion of these births occur within 23 months of a previous birth. It is this low incidence that underpins the dramatic swings in the region's estimated proportions, which reflect the greater uncertainty in the measures for the middle-income countries of Europe.

**NOT ONLY DO CHILD
MOTHERS SEE HIGH
RATES OF ADDITIONAL
CHILDBEARING,
BUT ADDITIONAL
ADOLESCENT BIRTHS
OFTEN COME IN
DANGEROUSLY RAPID
SUCCESSION**

COUNTRIES IN THE SPOTLIGHT

Armenia, Jordan and Palestine see some of the highest likelihoods of rapid repeat births (probabilities of between 0.43 and 0.50), which is more than double the average of 0.22 across low- and middle-income countries most recently. However, Algeria, Tunisia and Turkey – which are also in Northern Africa and Western Asia, the region with the highest likelihoods – see comparatively low levels today and strong declines over time (probabilities between 0.08 and 0.24). Elsewhere, many of the countries with the highest incidence of additional childbearing in adolescence also have the highest likelihoods of rapid repeat births, such as Afghanistan, Pakistan, Somalia and Timor-Leste, where probabilities are above 0.38.

Brazil and Colombia have experienced some of the strongest declines. The decline in Brazil has come despite its relatively high (and increasing) proportion of first adolescent births that occur to child mothers. Most recently, its probability of a rapid repeat birth to adolescents is 0.16. Colombia, on the other hand, sees some of the lowest likelihoods, with the most recent probability at 0.10.

Bangladesh, Indonesia and the Maldives offer three particularly interesting examples. These countries have the lowest likelihoods, except for the Russian Federation, and have seen particularly

strong declines. Incidentally, they have also seen some of the strongest declines in first births to child mothers, particularly first births to girls aged 14 years and younger.

Finally, while the Russian Federation has long had a very low incidence of rapid repeat births in adolescence, other countries in the region see

much higher likelihoods. That is, Albania, Bulgaria, Moldova, North Macedonia, Romania and Ukraine see probabilities between 0.17 and 0.30 most recently. In Ukraine, it appears the likelihood has increased over time. Nevertheless, the regional average is low because the Russian Federation accounts for such an overwhelming proportion of the adolescent population.



Mulenga, 14 years old, with her daughter Felicity, 5 weeks old, in Zambia



6

LIFETIME FERTILITY

Completed fertility

Share of all births that occur
in adolescence

**Portrait of Rosario, 15 years old,
in Colombia**

LIFETIME FERTILITY

COMPLETED FERTILITY

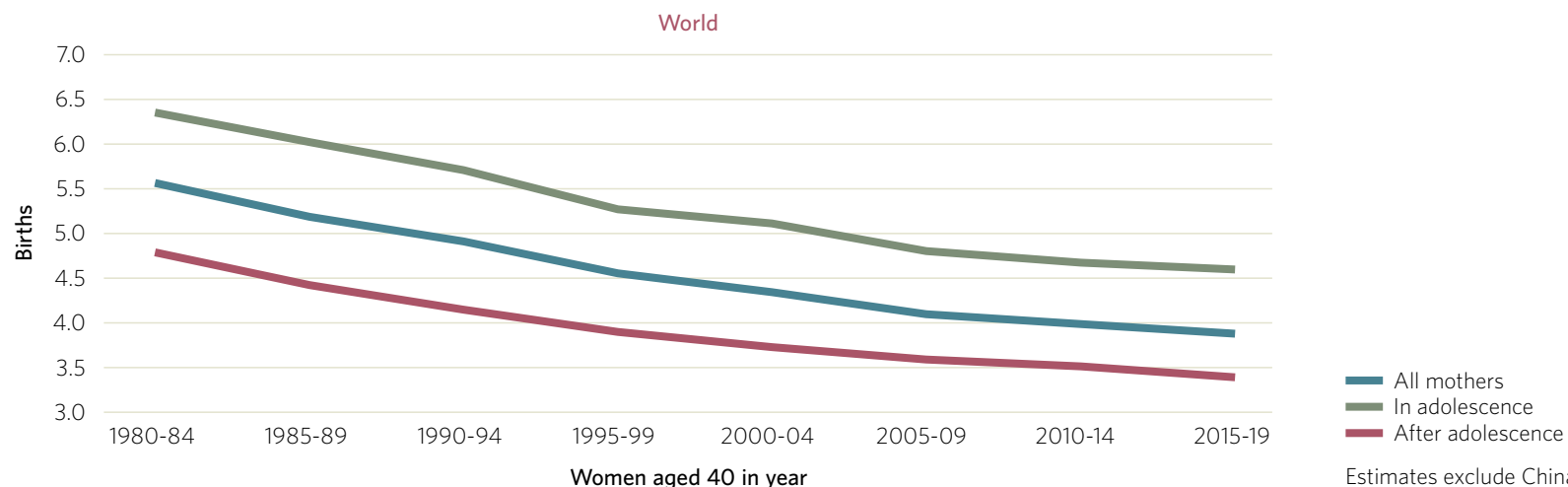
One final, critical aspect of the process of adolescent childbearing that merits exploration is the impact it has on fertility patterns over a woman's lifetime. Women who have their first birth in adolescence end up having more births over their lifetime than women who start at the age of 20 years or later. The difference is striking in and of itself, but even more unexpected is that

the difference has persisted over time despite substantial declines in completed fertility.¹¹¹

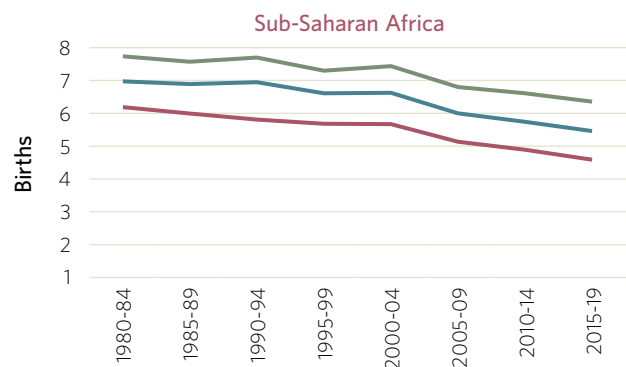
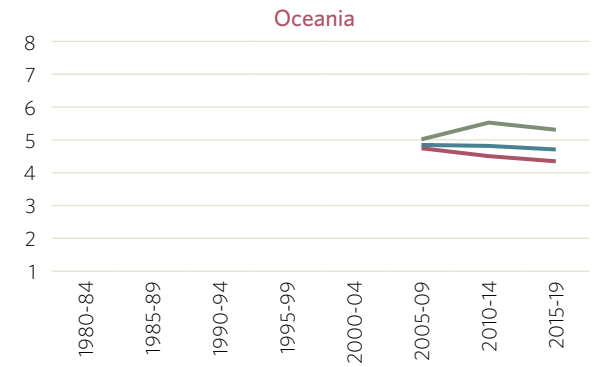
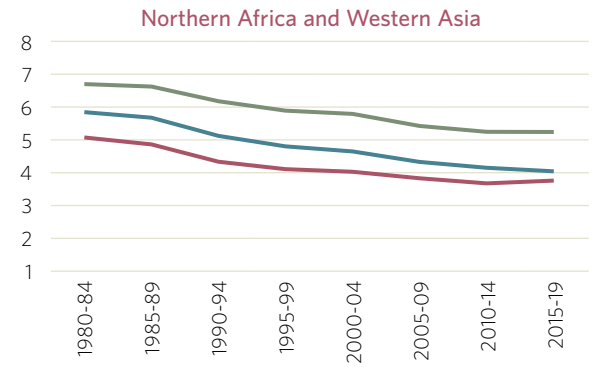
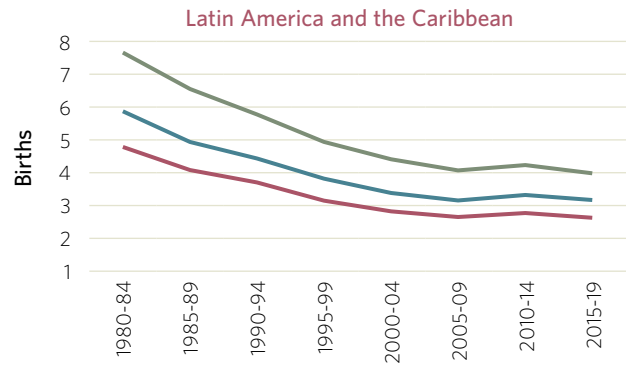
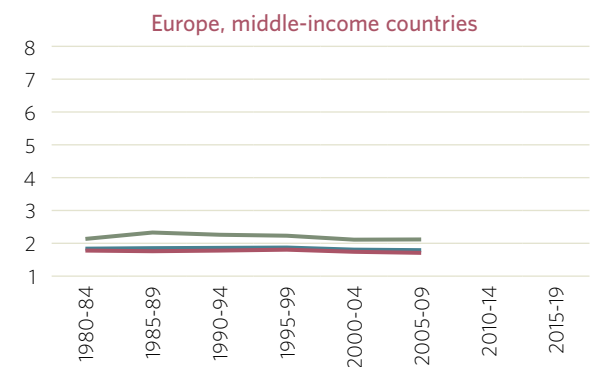
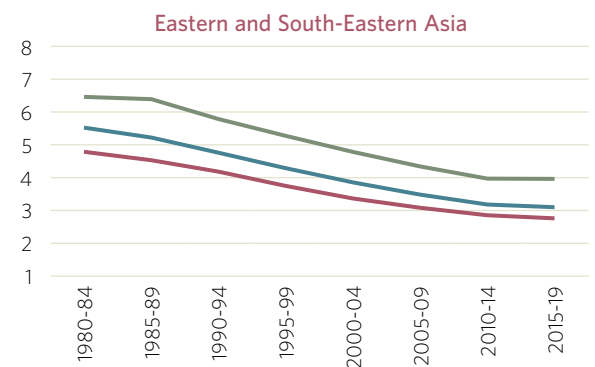
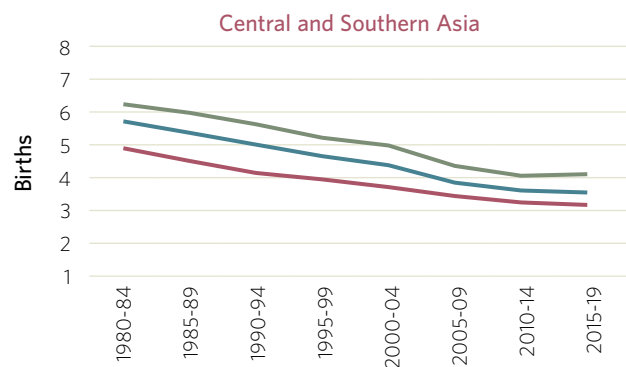
To be specific, women across low- and middle-income countries aged 40 years in 1980-1984 who began childbearing in adolescence had on average 6.4 children by this age. Their peers who began childbearing at the age of 20 years or later had on average 4.8 children - a 1.6-child difference.

Most recently, women aged 40 in 2015-2019 who entered motherhood in adolescence had 4.6 births, while their peers who entered motherhood after adolescence had 3.4 births - a 1.2-child difference (see Figure 12).

FIGURE 12. Completed fertility by motherhood entry age



Estimates exclude China and high-income countries



— All mothers
 — In adolescence
 — After adolescence

Estimates exclude China and high-income countries

Women aged 40 in year

Women aged 40 in year

Women aged 40 in year

REGIONAL DIFFERENCES

Regional differences are considerable. Six decades ago, Latin America and the Caribbean had the largest difference, with 2.9 more births on average to adolescent mothers than to non-adolescent starters (7.7 and 4.8 births, respectively). Most recently, that difference has fallen to 1.4 births. In the earliest years, sub-Saharan Africa had the highest completed fertility among women (7.8 and 6.2 births among adolescent and non-adolescent starters, respectively), but the difference of 2.6 births was not as high as in Latin America and the Caribbean. Nevertheless, sub-Saharan Africa now has the largest difference – 1.8 births – which is also a larger difference than that seen in the earliest years (1.6 births).

After sub-Saharan Africa, North Africa and Western Asia has the largest difference most recently (1.5 births), and the region has seen relatively little change over time, with a 1.6-birth difference in the earliest years. Eastern and South-Eastern Asia's difference has declined from 1.7 to 1.2 births, while Central and Southern Asia has declined from 1.3 to 0.9 births. Oceania also sees less than a one-birth gap most recently (0.9 births). The middle-income countries of Europe have consistently seen the lowest completed fertility of any region and the smallest difference between women who start childbearing in and after adolescence. Most recently the difference is 0.5 births.

**WOMEN WHO HAVE
THEIR FIRST BIRTH IN
ADOLESCENCE END UP
HAVING MORE BIRTHS
OVER THEIR LIFETIME
THAN WOMEN
WHO START AFTER
ADOLESCENCE**

SHARE OF ALL BIRTHS THAT OCCUR IN ADOLESCENCE

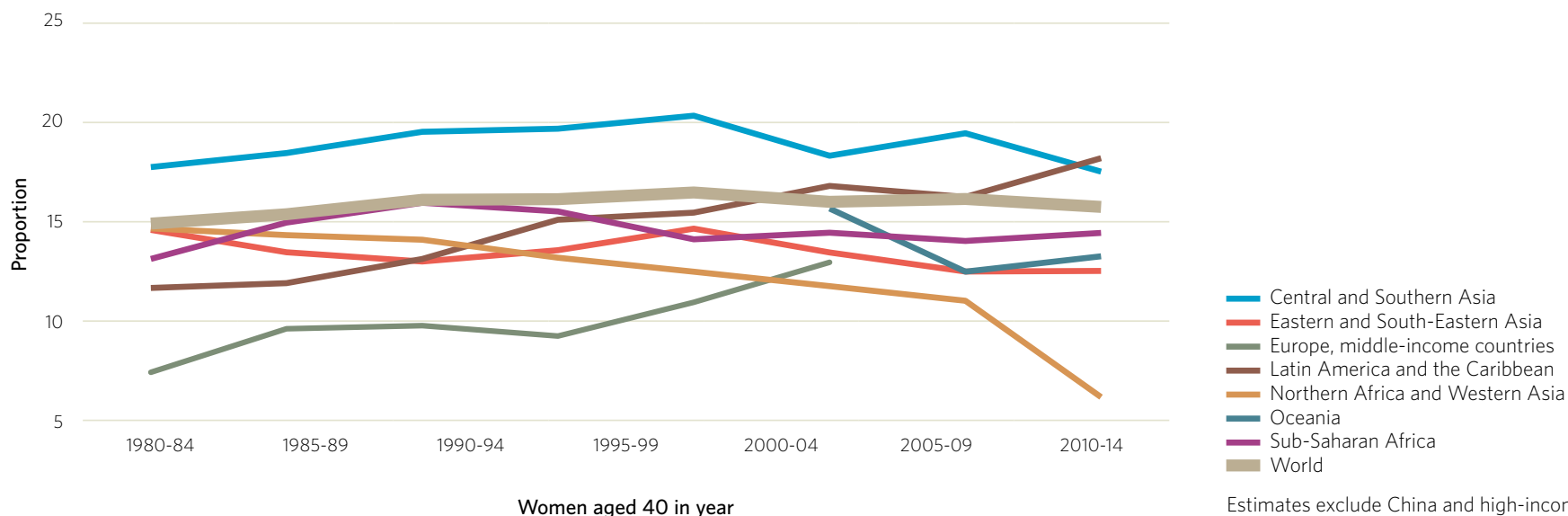
Although both total fertility and adolescent childbearing have declined over the last half-century, declines in completed fertility have outpaced declines in adolescent births. Particularly in the earliest decades, the proportion of all births that occurred in adolescence increased. More recent decades have seen a slight decline, such that there is now little difference between the most recent and earliest cohorts analysed

(see Figure 13). In the earliest years analysed, 15 per cent of all births that occurred to women aged 40 years and older took place during adolescence. Most recently, 16 per cent of all births occurred in adolescence.

In summary, women who enter motherhood in adolescence have more births over their lifetime than women who begin childbearing after adolescence, and the share of completed fertility that occurs in adolescence has changed very little across low- and middle-income countries.

**MOST RECENTLY,
16 PER CENT OF ALL
BIRTHS OCCURRED
IN ADOLESCENCE**

FIGURE 13. Contribution of adolescent fertility to total fertility by cohort



Estimates exclude China and high-income countries

REGIONAL DIFFERENCES

Latin America and the Caribbean and the middle-income countries of Europe have seen the most dramatic increases over time. With 18 per cent of all births occurring in adolescence, Latin America and the Caribbean now has the highest proportion of any region, after recently surpassing Central and Southern Asia. In the earliest years, Latin America and the Caribbean had the lowest proportion after Europe's middle-income countries. In stark contrast, Northern Africa and Western Asia has seen the most dramatic decline of any region. In the earliest years analysed, 15 per cent of all births occurred to adolescents, compared to only 6 per cent today.

Several regions have seen less change. Though sub-Saharan Africa has higher adolescent fertility than any other region, it also has higher completed fertility, and, as such, the contribution of adolescent fertility to total fertility in the region is below the world average, though with some indication that in more recent years the proportion is growing. On the other hand, Eastern and South-Eastern Asia has historically had among the lowest completed fertility and lowest adolescent fertility of any region. While the proportional contribution of adolescent fertility is not far different from that in sub-Saharan Africa, recent trends suggest adolescent fertility's contribution is declining in this region.

**DECLINES IN
COMPLETED FERTILITY
HAVE OUTPACED
DECLINES IN
ADOLESCENT BIRTHS**

COUNTRIES IN THE SPOTLIGHT

Across low- and middle-income countries today, 16 per cent of all births occurred in adolescence. Nevertheless, in seven countries most recently, 20 per cent or more of all births to women aged 40 years and older occurred in adolescence. These countries are Bangladesh, Colombia, the Dominican Republic, El Salvador, Ethiopia, Gabon and Nepal. In seven countries with the lowest proportion most recently, 7 per cent or less of all births to women aged 40 years and older occurred in adolescence. These countries are Algeria, Burundi, Rwanda, Timor-Leste, Tonga, Tunisia and Turkmenistan.

Colombia and Haiti saw the greatest increase of any country studied, with an increase of 11 percentage points between the earliest and most recent years. Colombia now sees Latin America and the Caribbean's highest proportion (and, indeed, one of the highest proportions of any country studied), with 23 per cent of all births to women aged 40 years having occurred in adolescence. Meanwhile, Haiti has always had the region's lowest proportion, with 13 per cent of all births to women aged 40 years having occurred in adolescence most recently. Incidentally, Haiti has among the highest completed fertility in the region, and Colombia among the lowest.

Several sub-Saharan African countries see declines in their proportion that are as strong as those seen in Northern Africa and Western Asia, the region with the strongest declines in the contribution of adolescent fertility to completed fertility. Among those countries with the strongest declines in

sub-Saharan Africa are Chad, the Democratic Republic of the Congo and Mozambique, with declines of about 5 percentage points. Within Northern Africa and Western Asia, Algeria and Egypt have seen the largest percentage point declines, with declines of about 4 percentage points.



Janet, 15 years old, with her son Manuel, 6 months old, in Colombia



7

CONCLUSION

Portrait of Muna, 14 years old, with her daughter Rim, 3 months old, in a refugee camp in Jordan

CONCLUSION

Across the globe, there are encouraging signs of declining levels of motherhood in childhood and adolescence. (To be clear, adolescence is the ages of 10 to 19 years, and motherhood in childhood describes girls who are 17 years and younger when they give birth.) Nevertheless, in many ways, the pace of decline has been alarmingly slow – often by only a few percentage points per decade – and has not kept pace with declines in total fertility. Additionally, underlying regional trends indicate that, in some places, patterns today are not much different from what they were more than half a century ago.

This report has focused on telling a more complete story of adolescent childbearing – one that considers the multidimensional aspects of fertility timing, spacing and quantity over the long term. In exploring these critical but often overlooked aspects, it dives deep into dynamic patterns and uncovers important findings about motherhood in childhood, repeat adolescent childbearing, and births that occur in dangerously quick succession (rapid repeat births) or within 23 months of a previous birth. In essence, motherhood in childhood remains alarmingly common, and the youngest child mothers have both the highest

levels of additional adolescent childbearing and have seen comparatively little change over time. As such, the fertility of the youngest adolescents continues to account for a disproportionately large proportion of all adolescent childbearing. It

is critical to note that this analysis has examined births, not pregnancies, and trends in adolescent pregnancies can tell a very different story given differences in access to and use of abortion across the globe.



Kiswendsida, 15 years old, with her daughter Koudbi, 1 month old, in Burkina Faso

REGIONAL SUMMARIES

This report's analysis also reveals important regional nuances. For example, Northern Africa and Western Asia has seen the greatest declines in adolescent childbearing along several indicators. However, the strongest declines in the region have been in first births and among adolescents aged 18 and 19 years. Child motherhood and (rapid) repeat childbearing, in contrast, have seen much less change. In fact, the region has some of the highest levels of child motherhood and (rapid) repeat adolescent childbearing. As such, it appears that despite the region's impressive declines in overall levels of adolescent childbearing, little has changed for a vulnerable core of adolescent mothers among whom child motherhood and repeat adolescent childbearing remains widespread.

In Central and Southern Asia, declines in overall levels of adolescent childbearing have also been among the most dramatic of any world region (with the estimates dominated by trends in India). Declines in the few most recent decades – particularly among child mothers – are unprecedented. Nevertheless, there has been relatively little change in the likelihood of rapid repeat births to adolescent mothers such that the region now has

among the highest likelihoods most recently. In the earliest decades, it had among the lowest likelihoods.

At first glance, Eastern and South-Eastern Asia's declines seem less impressive than those of its neighbours in the other Asian regions. However, declines in child motherhood in the region have outpaced all others. This includes declines in first births and additional births to girls aged 15–17 years and 14 years and younger. As such, the declines in the region are particularly noteworthy in that they suggest it is possible to see dramatic change among the youngest and most vulnerable child mothers, even if declines among older adolescents are not as strong.

The long-term perspective in Latin America and the Caribbean is critical because it reveals a concerning lack of decline in many aspects of adolescent childbearing. In the earliest decades, the region had some of the lowest levels of adolescent motherhood among low- and middle-income countries, but because there has been less change compared with other regions, it now has some of the world's highest levels of adolescent childbearing. This is particularly

**THE YOUNGEST CHILD
MOTHERS HAVE THE
HIGHEST LEVELS OF
REPEAT ADOLESCENT
CHILDBEARING
AND HAVE SEEN
COMPARATIVELY
LITTLE CHANGE
OVER TIME**

the case when looking at the proportion of women with a first birth in adolescence and at births among child mothers aged 15–17 years. However, the story is much different when looking at additional births to adolescent mothers. In this case, the region has seen some of the strongest declines in (rapid) repeat adolescent births.

In Oceania, a lack of change along many indicators, and indeed some increase in first births in adolescence, are also of concern. Because of the lack of decline, the region now sees some of the highest levels of adolescent motherhood of any region. However, there are some encouraging signs of decline in repeat adolescent childbearing, with the strongest declines among the youngest.

The middle-income countries of Europe remain strong outliers in the regional trends, with low levels of adolescent childbearing for the most part. However, the region saw a dramatic increase in adolescent first births in the earliest decades before levels declined again. Unfortunately, this suggests that gains are not irreversible. Furthermore, and particularly concerning, there was an increase in motherhood in childhood (among those aged 15–17 years but not those 14 years and younger), which did not appear to decline

again when overall adolescent fertility fell to previous levels.

Finally, sub-Saharan Africa stands apart for seeing by far the highest levels of adolescent fertility along most indicators, particularly for indicators of motherhood in childhood. However, the region did not always see the highest levels in the earliest decades, and its levels today appear comparatively high because the region has seen little change over the decades. The incidence of rapid repeat births in adolescence is relatively low, however, meaning that even though repeat childbearing in adolescence is very widespread in the region, it does not happen within the dangerously short inter-birth interval of 23 months or less to the same degree as seen elsewhere.

**THE FERTILITY OF THE
YOUNGEST CONTINUES
TO ACCOUNT FOR
A DISPROPORTIONATELY
LARGE SHARE OF
ALL ADOLESCENT
CHILDBEARING**

Ultimately, the new measures shown in this report have only limited meaning insofar as they are broad aggregations. Every region has countries that diverge strongly from the patterns of their neighbours. In some cases, specific countries show troubling intensification despite regional trends showing decline. Indeed, there are many countries where the incidence of motherhood in childhood remains extraordinarily high and reductions have been exceptionally insufficient. In other cases, countries can show impressive reductions while regional trends show stagnation. Oceania's trends, for example, are dominated by Papua New Guinea, while other countries in the region see much, much lower levels of adolescent childbearing and very different trends over time. Likewise, in sub-Saharan Africa, there are a number of countries with impressive declines in adolescent childbearing despite regional trends indicating otherwise.

Additionally, while this report offers a fuller understanding of measures of the timing, spacing and quantity of the adolescent childbearing process, it has not explored the underlying proximate and distal determinants of the fertility trends that underpin the changes and differences seen in adolescent childbearing trends across regions and over time. Critical to unpacking the trends seen in this report and designing programmes to target them is a better understanding of how both the proximate and distal determinants of adolescent childbearing are

related to changes in adolescent fertility timing, spacing and quantity. For proximate determinants, this includes understanding changes in adolescent sexual debut and activity, marriage and unions, and access to and use of contraception, for example. For more distal determinants, dramatic



Lumilene, 15 years old, with her daughter Clairina, 6 months old, in Haiti

changes in female education over the last half-century are a prime candidate for underlying changes. Indeed, programmes that keep girls in school prove to be, time and again, incredibly effective at reducing adolescent childbearing.¹¹² Nevertheless, other important factors underlying changing adolescent childbearing patterns include changing gender norms, expanding employment opportunities, reducing extreme poverty, and many other possibilities.

This report's analysis is an invaluable step in identifying priorities, but it is at the country level, and indeed the subnational level, that a collection of measures on adolescent childbearing timing, spacing and quantity can best guide policy and programmes. Importantly, regional groupings often mask divergent trends across countries. In some regions, trends are dominated by a small handful of countries. For example, patterns in Central and Southern Asia are largely driven by India's adolescent childbearing trends, while Oceania's trends are dominated by Papua New Guinea. In all regions, individual countries see considerably different levels of adolescent childbearing and patterns of change over time, offering rich and important opportunities for future analyses. Indeed, each country has its own unique mix of trends and need for targeted action. Other UNFPA documents have reviewed promising and proven interventions in greater detail, which are summarized in the framework in Figure 14.¹¹³

FIGURE 14. Framework for addressing adolescent pregnancy

Intervention components

- Policy engagement**
 - Eliminate age and marital status requirements to access contraception
 - Eliminate gender-unequal laws (e.g. marriage age)
 - Enact laws raising the minimum age of marriage to 18
 - Make political commitment to addressing adolescent pregnancy through laws and policies
 - Support secondary/post-primary education to improve literacy
 - Support social protection programmes (e.g. families/vulnerable girls to stay in school through conditional/unconditional cash transfers)
- Community engagement**
 - Support stakeholder dialogue/community mobilization in support of adolescent sexual and reproductive health and rights (in conjunction with health service delivery)
 - Reduce local barriers to contraceptive access and comprehensive sex education
 - Reduce barriers to school retention (e.g. uniform and school fees, conditional cash transfers)
 - Provide mentoring/social support to adolescents
 - Initiate community dialogue on ending child marriage
 - Ensure compliance with laws raising minimum age of marriage to 18
- Health services provision**
 - Assure availability of contraception, including condoms, hormonal and long-acting reversible methods, and emergency contraception
 - Train local health providers
 - Consider vouchers to enhance health service utilization
- Comprehensive sex/working with peers/partners**
 - Provide comprehensive sex education (skills-building, counselling, referral to services)
 - Contraception education (education, distribution, skills-building)
 - Support participatory learning action methodologies to address norms that reinforce gender violence, discriminatory gender norms
- Parents/family support**
 - Parent communication/counselling programmes
 - Conditional/unconditional cash transfer programmes
 - Address gender discriminatory norms and practices in families
- Adolescent girl/asset-building**
 - Life skills development
 - Education/Literacy
 - Recreational activities
 - Social support/mentors/safe spaces
 - Career counseling/Link to livelihoods
 - Economic empowerment

Intermediate outcomes

(determinants by key stakeholders)

- National policymakers**
 - Legal and policy barriers reduced and contraceptive availability increased for adolescents
 - Laws banning child marriage/sexual violence enforced
 - Incentivize school attendance (especially post-primary level)
- Community programme managers**
 - Adolescent attachment to one or more trusted adults in community increased
 - Community norms that normalize/perpetuate child marriage, early pregnancy, sexual violence, gender bias altered
 - Schools and youth-led and community organizations engaged to support girls' rights and prevent adolescent pregnancy
 - Socioeconomic alternatives allowing girls to delay or avoid marriage before age 18 encouraged and supported
 - Comprehensive social support services for adolescents increased
- Providers (health and education/schools)**
 - Teachers/school administration encourage school enrolment/retention
 - Comprehensive sexuality education provided through different settings
 - Health providers deliver information, skills and contraception that support informed and responsible sexual decision-making
 - Adolescent access to sexual and reproductive health services increased
- Peers and partners**
 - Harmful peer norms about sex, sexuality, masculinities, gender roles and contraception changed
 - Peer knowledge about sexual and reproductive health improved
 - Men/young men as partners are engaged to promote gender equality and respect in relationships
- Parents/families**
 - Parental (or trusted adult figure) connectedness to adolescents increased
 - Parent-child communication about sexual and reproductive health improved
 - Harmful family norms and attitudes around gender, sex, child marriage, girls' schooling changed
 - Family norms that reinforce gender inequalities altered
- Adolescent girl**
 - Improve knowledge about sexual and reproductive health and rights, contraception and adolescent pregnancy
 - Improve self efficacy/negotiation skills
 - Reduce involvement in other risky health behaviours
 - Improve future aspirations and opportunities
 - Improve school enrolment, attendance, educational attainment
 - Improve school connectedness

Desired outcomes

- ADOLESCENT BEHAVIOURS**
-  **Increase consistent use of contraception**
 -  **Reduce marriage before age 18**
 -  **Delay sexual initiation**
 -  **Reduce coerced sex**

DESIRED GOAL 

Reduce Adolescent Pregnancy

Source: UNFPA (2015). *Girlhood, Not Motherhood: Preventing Adolescent Pregnancy*. New York.

As indicated in Figure 14, initiatives that have proven effective in reducing adolescent childbearing include cash transfers to keep girls in school, mentoring, comprehensive sexuality education, life skills training and a variety of other multisectoral and comprehensive approaches. Promising initiatives include certain types of legislation and policy prioritization, health services and contraception access, community outreach, enhancing parent-adolescent communication, and partner violence prevention, to name a few.^{114,115} A small but growing number of programmes target the youngest adolescents, and cash transfer and schooling programmes are critical for this group.¹¹⁶ Additionally, programmes that address gender equity and gender socialization among very young adolescents appear promising.¹¹⁷ For reducing additional births in adolescence the evidence is exceptionally limited; however, mentorship has proven effective in the United States¹¹⁸, and initiatives that take advantage of the presence of adolescent mothers already at the site of services for post-partum or post-abortion care, for example, are promising in settings where girls are able to access services.¹¹⁹ This report's findings on the prevalence of motherhood in childhood and repeat adolescent childbearing highlight that more needs to be done to find and test programmes that target the youngest starters and girls at risk of (rapid) repeat adolescent births.

Adolescent pregnancy is often – although not always – driven by a lack of meaningful choice, limited agency, and even force. It is fuelled by structural gender inequality, discrimination, and harmful social and gender norms that dictate and sustain negative practices, beliefs and attitudes around gender roles and adolescent sexuality (particularly adolescent girls' sexuality). Limited economic opportunities and material deprivation, low-quality or inaccessible education, and the absence of quality services for sexual and reproductive health and for protection from violence are also critical drivers. Nevertheless, there is hope. With every girl who stays in school,

with every boy who discovers the importance of gender equity and with every family that finds a way out of poverty comes the hope of a brighter future. As the world grows more effective at enabling girls to meaningfully choose their own life course – to use their adolescent years to equip themselves with the tools and knowledge they need to lead fulfilling lives and cope positively with crisis – motherhood in childhood will grow increasingly rare. Our world is rapidly transforming under a shifting global landscape. By expanding girls' opportunities, capabilities and aspirations, we expand their bodily autonomy, and the promise and power of each new generation to come.



Aïssa, 15 years old, with her daughter Fati, 13 months old, in Burkina Faso



A

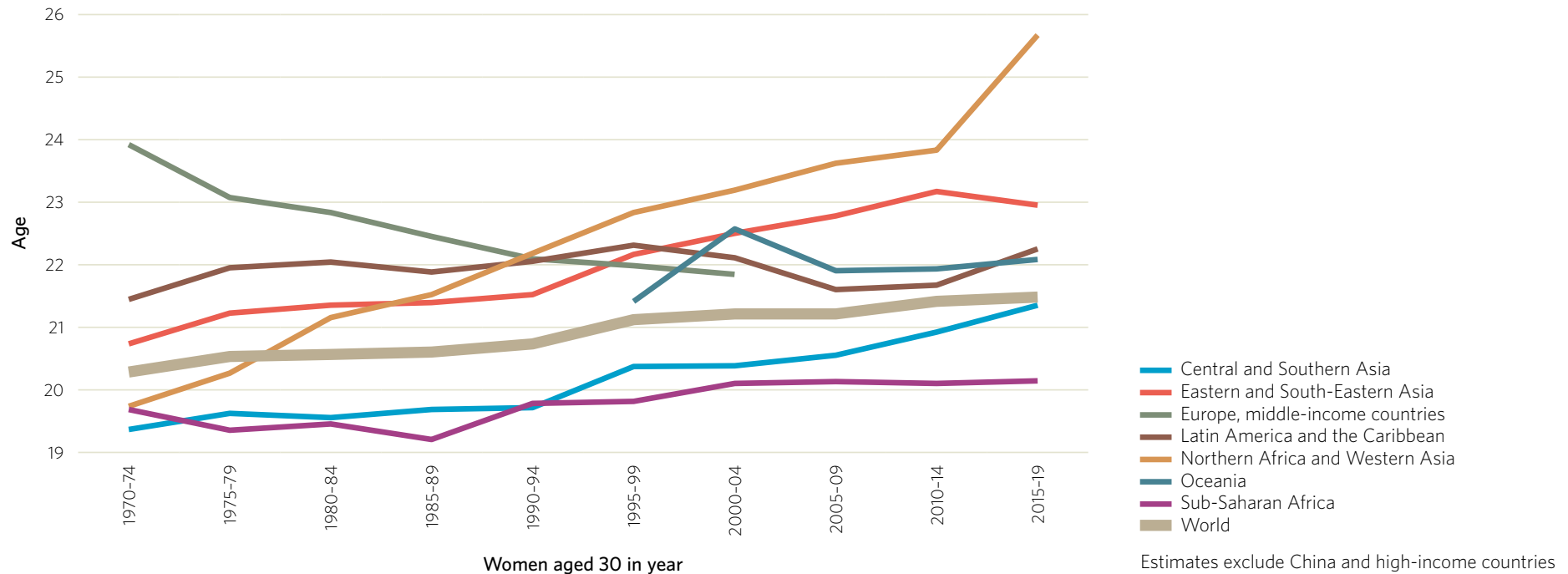
APPENDIX

Portrait of Taonga, 15 years old,
with her daughter Margaret,
4 months old, in Zambia

MEDIAN AGE AT FIRST BIRTH

The median age at first birth has increased by 1.1 years across low- and middle-income countries, moving from 20.3 years old in the earliest years analysed, to 21.5 most recently.

FIGURE A. Median age at first birth



REGIONAL DIFFERENCES

Despite the trend of increasing median age at first birth across low- and middle-income countries, regional trends in postponing childbearing have been uneven, with some regions seeing sharp increases and others seeing very little change over the last six decades.

Northern Africa and Western Asia saw a six-year increase, the largest of any region. This dramatic change in median age helps to clarify the region's impressive reductions in first births in adolescence over the same period. However, recall that the region still has one of the highest incidences of repeat childbearing in adolescence. Also dramatic is the decline in the middle-income countries of Europe, where the median age fell from 24.2 to 22.1 years over the decades analysed.

Sub-Saharan Africa has both the lowest median age of any region and the least increase over the years, moving from 19.7 to 20.1 years for the median age at first birth. In recent decades, the lack of change in age is particularly pronounced and mirrors the lack of decline in the proportion of women entering motherhood in adolescence.

Latin America and the Caribbean also merits mention. Over the long term, the median age has increased, from 21.4 to 22.2 years, but there is a period of noticeable decline in median age that only recently reversed.

**MEDIAN AGE AT FIRST
BIRTH HAS INCREASED
BY 1.1 YEARS OVER
THE LAST FIVE DECADES**

COUNTRIES IN THE SPOTLIGHT

In looking at changes in median age at first birth, it is important to note that most middle-income countries in Europe saw much less dramatic declines than the nearly two-year decrease occurring in the Russian Federation and Ukraine. In North Macedonia, the median age at first birth increased.

Nevertheless, there are about 30 countries in total that saw a lower median age at first birth in the most recent years compared with what was seen in the earliest years analysed. Prominent among these are Angola, Georgia, Malawi, Somalia and South Sudan (though data in South Sudan are unreliable), where median age also fell by two years or more between the earliest years and most recent years analysed. Additionally, many more countries saw intermittent periods of declining median age, but these declines were eventually reversed such that women most recently had a higher median age at first birth than women in the earliest years analysed.

Outside Northern Africa and Western Asia, countries with the strongest increases include Bangladesh, Comoros, the Democratic Republic of the Congo, the Republic of The Gambia, Ghana, Indonesia, the Maldives, Rwanda, Senegal and Sudan, where the median age increased by at least 2.5 years between the earliest and most recent groups of women.



Amira, 15 years old, mother of two, in a refugee camp in Jordan

ENDNOTES

- 1 The analysis replicates peer-reviewed methods first used to explore long-term trends in adolescent childbearing in West Africa. Garbett, A., B. Perelli-Harris, and S. Neal (2021). The Untold Story of 50 Years of Adolescent Fertility in West Africa: A Cohort Perspective on the Quantum, Timing, and Spacing of Adolescent Childbearing. *Population and Development Review*, 47(1): 7-40. <https://doi.org/10.1111/padr.12384>.
- 2 World Bank, UNESCO and UNICEF (2021). *The State of the Global Education Crisis: A Path to Recovery*. Washington D.C., Paris and New York. <https://unesdoc.unesco.org/ark:/48223/pf0000380128>.
- 3 UNFPA (2020). Impact of the COVID-19 Pandemic on Family Planning and Ending Gender-based Violence, Female Genital Mutilation and Child Marriage. Interim Technical Note. New York. <https://www.unfpa.org/resources/impact-covid-19-pandemic-family-planning-and-ending-gender-based-violence-female-genital>.
- 4 UNICEF (2021). *COVID-19: A Threat to Progress Against Child Marriage*. New York. <https://data.unicef.org/resources/covid-19-a-threat-to-progress-against-child-marriage>.
- 5 UNFPA (2013). *Motherhood in Childhood - Facing the Challenge of Adolescent Pregnancy. State of the World Population 2013*. New York. <https://doi.org/10.18356/c8fe40ff-en>.
- 6 UNFPA (2015). *Girlhood, Not Motherhood: Preventing Adolescent Pregnancy*. New York. https://www.unfpa.org/sites/default/files/pub-pdf/Girlhood_not_motherhood_final_web.pdf.
- 7 United Nations (1976). *Report of the World Conference of the International Women's Year*. New York. <https://digitallibrary.un.org/record/586225?ln=en#record-files-collapse-header>.
- 8 United Nations (2014). *Programme of Action of the International Conference on Population Development: 20th Anniversary Edition*. New York. <https://www.unfpa.org/publications/international-conference-population-and-development-programme-action>.
- 9 United Nations (2015). *The 2030 Agenda for Sustainable Development*. New York. <https://sdgs.un.org/publications/transforming-our-world-2030-agenda-sustainable-development-17981>.
- 10 United Nations, Department of Economic and Social Affairs (2021). *Report of the UN Economist Network for the UN 75th Anniversary: Shaping the Trends of Our Time*. New York. <https://www.un.org/development/desa/publications/wp-content/uploads/sites/10/2020/09/20-124-UNEN-75Report-1.pdf>.
- 11 Starrs, Ann M., et al. (2018). Accelerate progress—sexual and reproductive health and rights for all: report of the Guttmacher-Lancet Commission. *The Lancet*, 391(10140):2642-2692. [https://doi.org/10.1016/S0140-6736\(18\)30293-9](https://doi.org/10.1016/S0140-6736(18)30293-9).
- 12 Ibid.
- 13 United Nations, Department of Economic and Social Affairs, Population Division (2019). *World Population Prospects 2019: Highlights (ST/ESA/SER.A/423)*.
- 14 Garbett, A., B. Perelli-Harris, and S. Neal (2021). The Untold Story of 50 Years of Adolescent Fertility in West Africa: A Cohort Perspective on the Quantum, Timing, and Spacing of Adolescent Childbearing. *Population and Development Review*, 47(1): 7-40. <https://doi.org/10.1111/padr.12384>.
- 15 UNFPA (2018). *The Power of Choice - Reproductive Rights at the Demographic Transition. State of the World Population 2018.*, New York. <https://doi.org/10.18356/ff31c49d-en>.
- 16 United Nations, Department of Economic and Social Affairs (2017). Climate Change and Social Inequality. DESA Working Paper No. 152 (ST/ESA/2017/DWP/152).

- 17 UNEP, UN Women, UNDP and UNDP (2020). *Gender, Climate & Security: Sustaining Inclusive Peace on the Frontlines of Climate Change*. <https://www.unep.org/resources/report/gender-climate-security-sustaining-inclusive-peace-frontlines-climate-change>.
- 18 UNFPA (2015). *Shelter from the Storm - A transformative agenda for women and girls in a crisis-prone world. State of the World Population 2015.*, New York. <https://doi.org/10.18356/b793d926-en>.
- 19 Neal, S., N. Stone and R. Ingham (2016). The impact of armed conflict on adolescent transitions: a systematic review of quantitative research on age of sexual debut, first marriage and first birth in young women under the age of 20 years. *BMC Public Health* 16, 225. <https://doi.org/10.1186/s12889-016-2868-5>.
- 20 Starrs, Ann M., et al. (2018). Accelerate progress—sexual and reproductive health and rights for all: report of the Guttmacher-Lancet Commission. *The Lancet*, 391(10140):2642-2692. [https://doi.org/10.1016/S0140-6736\(18\)30293-9](https://doi.org/10.1016/S0140-6736(18)30293-9).
- 21 Mensch, Barbara S., Monica J. Grant and Ann K. Blanc (2006). The Changing Context of Sexual Initiation in Sub-Saharan Africa. *Population and Development Review*, 32(4): 699-727. <http://www.jstor.org/stable/20058924>.
- 22 Mberu, B., J. Mumah, C. Kabiru and J. Brinton (2014). Bringing Sexual and Reproductive Health in the Urban Contexts to the Forefront of the Development Agenda: The Case for Prioritizing the Urban Poor. *Maternal and Child Health Journal*, 18(7):1572-1577. <https://doi.org/10.1007/s10995-013-1414-7>.
- 23 UNFPA (2021). *Technology-facilitated Gender-based Violence: Making All Spaces Safe.*, New York. <https://www.unfpa.org/publications/technology-facilitated-gender-based-violence-making-all-spaces-safe>.
- 24 United Nations Office on Drugs and Crime (2015). *Study of the Effects of New Information Technologies on the Abuse and Exploitation of Children*. Vienna. https://www.unodc.org/documents/Cybercrime/Study_on_the_Effects.pdf.
- 25 UNICEF (2020). *The Sale & Sexual Exploitation of Children: Digital Technology*. New York <https://www.unicef-irc.org/publications/pdf/Post-Consultation-Brief-Sale-Sexual-Exploitation-of-Children-Digital-Tech.pdf>.
- 26 Plan International (2020). *Free to Be Online? Girls' and young women's experiences of online harassment. The State of The World's Girls 2020*. London. <https://plan-international.org/publications/freetobeonline>.
- 27 United Nations Office of the Secretary-General's Envoy on Youth (n.d.). #YouthStats: Information and Communication Technology. New York, <https://www.un.org/youthenvoy/information-communication-technology>.
- 28 Girl Effect, Women Deliver (2020). *Going Online for Sexual and Reproductive Health: Meaningfully Engaging Adolescent Girls and Young Women for Smarter Digital Interventions*. <https://womendeliver.org/wp-content/uploads/2020/08/Going-Online-for-Sexual-and-Reproductive-Health.pdf>.
- 29 United Nations General Assembly (2020). Road Map for Digital Cooperation: Implementation of the Recommendations of the High-level Panel on Digital Cooperation. Report of the Secretary-General. A/74/821.
- 30 Raj, A. (2010). When the mother is a child: the impact of child marriage on the health and human rights of girls. *Archives of Disease in Childhood* 95:931-935.
- 31 Azevedo, J.P., M. Favara, S.E. Haddock, L.F. Lopez-Calva, M. Müller and E. Perova (2012). Teenage pregnancy and opportunities in Latin America and the Caribbean: On teenage fertility decisions, poverty and economic achievement. Technical report. Washington, D.C.: World Bank Group.
- 32 United Nations, Department of Economic and Social Affairs (2021). *Report of the UN Economist Network for the UN 75th Anniversary: Shaping the Trends of Our Time*. New York. <https://www.un.org/development/desa/publications/wp-content/uploads/sites/10/2020/09/20-124-UNEN-75Report-1.pdf>.
- 33 UNICEF (2021). *What we know about the gender digital divide for girls: A literature review*. New York. <https://www.unicef.org/eap/media/8311/file/What%20we%20know%20about%20the%20gender%20digital%20divide%20for%20girls:%20A%20literature%20review.pdf>.

- 34 UNICEF (2020). *How Many Children and Young People Have Internet Access at Home? Estimating digital connectivity during the COVID-19 pandemic*. New York. <https://www.unicef.org/reports/how-many-children-and-young-people-have-internet-access-home-2020>.
- 35 Guttmacher Institute (2015). *Adolescent Pregnancy and Its Outcomes Across Countries*. Fact Sheet August 2015. New York. <https://www.guttmacher.org/fact-sheet/adolescent-pregnancy-and-its-outcomes-across-countries>.
- 36 UNEP, UN Women, UNDP and UNDPFA (2020). *Gender, Climate & Security: Sustaining Inclusive Peace on the Frontlines of Climate Change*. Nairobi. <https://www.unep.org/resources/report/gender-climate-security-sustaining-inclusive-peace-frontlines-climate-change>.
- 37 UN Women (2020). *From Insights to Action: Gender Equality in the Wake of COVID-19*. New York. <https://doi.org/10.18356/f837e09b-en>.
- 38 Santelli, J., X. Song, S. Garbers, V. Sharma and R. Viner (2016). Global trends in adolescent fertility, 1990-2012, in relation to national wealth, income inequalities, and educational expenditures. *Journal of Adolescent Health*, 60(2017):161-168. <http://dx.doi.org/10.1016/j.jadohealth.2016.08.026>.
- 39 UNFPA (2012). *Marrying Too Young: End Child Marriage*. New York. <https://www.unfpa.org/sites/default/files/pub-pdf/MarryingTooYoung.pdf>.
- 40 Sully, E.A., et al. (2020). *Adding It Up: Investing in Sexual and Reproductive Health 2019*. New York: Guttmacher Institute. https://www.guttmacher.org/sites/default/files/report_pdf/adding-it-up-investing-in-sexual-reproductive-health-2019.pdf
- 41 Sully, E.A., et al. (2020). *Adding It Up: Investing in Adolescents' Sexual and Reproductive Health in Low- and Middle-Income Countries* <https://www.guttmacher.org/sites/default/files/factsheet/adding-it-up-investing-in-sexual-reproductive-health-adolescents.pdf>
- 42 UNFPA (2004). *ICPD Programme of Action*. Adopted at the International Conference on Population and Development, Cairo, 5-13 September 1994.
- 43 UNFPA (2021). *My Body is My Own - Claiming the Right to Autonomy and Self-Determination*. *State of the World Population 2021*. New York. <https://doi.org/10.18356/9789216040178>.
- 44 UNFPA (2022). *Seeing the Unseen: The Case for Action in the Neglected Crisis of Unintended Pregnancy*. *State of the World Population 2022*. New York.
- 45 Sully, E.A., et al. (2020). *Adding It Up: Investing in Adolescents' Sexual and Reproductive Health in Low- and Middle-Income Countries* <https://www.guttmacher.org/sites/default/files/factsheet/adding-it-up-investing-in-sexual-reproductive-health-adolescents.pdf>
- 46 Vignoli, J.R. (2017). Deseabilidad y planificación de la fecundidad adolescente en América Latina y el Caribe: Tendencias y patrones emergentes. *Notas de Población*, 44(104):119-144.
- 47 Dixon-Mueller, R. (2015). How young is "too young"? Comparative perspectives on adolescent sexual, marital, and reproductive transitions. *Stud Fam Plann*. 39(4):247-262. doi: 10.1111/j.1728-4465.2008.00173.x. PMID: 19248713.
- 48 Laski, Laura (2015). Realising the Health and Wellbeing of Adolescents. *British Medical Journal*, 351(Suppl1): 15-18. <https://doi.org/10.1136/bmj.h4119>.
- 49 World Health Organization (2017). *Global Accelerated Action for the Health of Adolescents (AA-HA!): guidance to support country implementation*. Summary. (WHO/FWC/MCA/17.05). Licence: CC BY-NC-SA 3.0 IGO. <https://apps.who.int/iris/bitstream/handle/10665/255418/WHO-FWC-MCA-17.05-eng.pdf>.
- 50 Nove, Andrea, Zoë Matthews, Sarah Neal and Alma Virginia Camacho (2015). Maternal Mortality in Adolescents Compared with Women of Other Ages: Evidence from 144 countries. *The Lancet Global Health*, 2(3):e155-e164. [https://doi.org/10.1016/S2214-109X\(13\)70179-7](https://doi.org/10.1016/S2214-109X(13)70179-7).
- 51 Ganchimeg, T., E. Ota, N. Morisaki, M. Laopaiboon, P. Lumbiganon, J. Zhang, B. Yadamsuren, M. Temmerman, L. Say, O. Tunçalp, J.P. Vogel, J.P. Souza, R. Mori and World Health Organization (2014). Multicountry Survey on Maternal Newborn Health Research Network. Pregnancy and childbirth outcomes among adolescent mothers: a World Health Organization multicountry study. *BJOG*, 121 Suppl 1:40-48. doi: 10.1111/1471-0528.12630. PMID: 24641534.

- 52 Kravdal, Ø. (2018). New evidence about effects of reproductive variables on child mortality in sub-Saharan Africa. *Popul Stud (Camb)*, 72(2):139-156. doi: 10.1080/00324728.2018.1439180. Epub 2018 Mar 9. PMID: 29521576.
- 53 Raj, A. (2010). When the mother is a child: the impact of child marriage on the health and human rights of girls. *Archives of Disease in Childhood*, 95:931-935. DOI: 10.1136/adc.2009.178707.
- 54 Azevedo, J.P., M. Favara, S.E. Haddock, L.F. Lopez-Calva, M. Müller and E. Perova (2012). Teenage pregnancy and opportunities in Latin America and the Caribbean: On teenage fertility decisions, poverty and economic achievement. Technical report. Washington, D.C.: World Bank Group.
- 55 Clark, Shelley, and Sarah Brauner-Otto (2015). Divorce in Sub-Saharan Africa: Are Unions Becoming Less Stable? *Population and Development Review*, 41(4): 583-605. <https://www.jstor.org/stable/24638576>.
- 56 Urdinola, B.P., and C. Ospino (2015). Long-term consequences of adolescent fertility: The Colombian case. *Demographic Research*, 32:1487-1518.
- 57 Yount, K.M., A. Crandall, Y.F. Cheong, T.L. Osypuk, L.M. Bates, R.T. Naved and S.R. Schuler (2016). Child Marriage and Intimate Partner Violence in Rural Bangladesh: A Longitudinal Multilevel Analysis. *Demography*, 53(6):1821-1852.
- 58 Ahmed, Sadaf, Saima Khan, Malka Alia, and Shamooun Noushad (2013). Psychological Impact Evaluation of Early Marriages. *International Journal of Endorsing Health Science Research*, 1(2): 84-86.
- 59 Gage, Anastasia Jessica (2013). Association of Child Marriage with Suicidal Thoughts and Attempts among Adolescent Girls in Ethiopia. *Journal of Adolescent Health* 52(5): 654-656. <https://doi.org/10.1016/j.jadohealth.2012.12.007>.
- 60 UNICEF (2017). *A Familiar Face: Violence in the lives of children and adolescents*. New York.
- 61 Stock, J., M. Bell, D. Boyer and F. Connell (1997). Adolescent pregnancy and sexual risk-taking among sexually abused girls. *Family Planning Perspectives*, 29(5):200-203, 227.
- 62 Urdinola, B.P., and C. Ospino (2015). Long-term consequences of adolescent fertility: The Colombian case. *Demographic Research*, 32:1487-1518.
- 63 Yount, K. M., A. Crandall, Y.F. Cheong, T.L. Osypuk, L.M. Bates, R.T. Naved and S.R. Schuler (2016). Child Marriage and Intimate Partner Violence in Rural Bangladesh: A Longitudinal Multilevel Analysis. *Demography*, 53(6):1821-1852.
- 64 Hoffman, S.D., and R.A. Maynard (2008). *Kids Having Kids: Economic Costs and Social Consequences of Teen Pregnancy*, second edition. Washington, D.C.: The Urban Institute.
- 65 Wodon, Q., C. Male, A. Nayihouba, A. Onagoruwa, A. Savadogo, A. Yedan, J. Edmeades, A. Kes, N. John, L. Murithi, M. Steinhaus and S. Petroni (2017). Economic Impacts of Child Marriage: Global Synthesis Brief. Washington, D.C.: The World Bank and International Center for Research on Women.
- 66 Delprato, Marcos, Kwame Akyeampong, Ricardo Sabates and Jimena Hernandez-Fernandez (2015). On the Impact of Early Marriage on Schooling Outcomes in Sub-Saharan Africa and South West Asia. *International Journal of Educational Development*, 44: 42-55. <https://doi.org/10.1016/j.ijedudev.2015.06.001>.
- 67 Wodon, Q., C. Male, A. Nayihouba, A. Onagoruwa, A. Savadogo, A. Yedan, J. Edmeades, A. Kes, N. John, L. Murithi, M. Steinhaus and S. Petroni (2017). Economic Impacts of Child Marriage: Global Synthesis Brief. Washington, D.C.: The World Bank and International Center for Research on Women.
- 68 Herrera Almanza, Catalina, and David E. Sahn (2018). Early Childbearing, School Attainment, and Cognitive Skills: Evidence From Madagascar. *Demography*, 55 (2): 643-668. doi: <https://doi.org/10.1007/s13524-018-0664-9>.
- 69 Mensch, B.S., E.K. Chuang, A.J. Melnikas and S.R. Psaki (2019). Evidence for causal links between education and maternal and child health: systematic review. *Tropical Medicine & International Health*, 24(5), 504-522. <https://doi.org/10.1111/tmi.13218>.
- 70 Harding, Jessica F., Pamela A. Morris and Diane Hughes (2015). The Relationship Between Maternal Education and Children's Academic Outcomes: A Theoretical Framework. *Journal of Marriage and Family*, 77(1):60-76. <https://doi.org/10.1111/jomf.12156>.

- 71 Cuartas, J. (2021). The effect of maternal education on parenting and early childhood development: An instrumental variables approach. *Journal of Family Psychology*. <https://doi.org/10.1037/fam0000886>.
- 72 UNFPA (2022). *Seeing the Unseen: The case for action in the neglected crisis of unintended pregnancy. State of World Population 2022*. New York. https://www.unfpa.org/sites/default/files/pub-pdf/EN_SWP22%20report_0.pdf
- 73 Croft, T., et al. (2018). *Guide to DHS Statistics*. Rockville, Maryland, USA: ICF. See DHS-7 Tabulation plan: Table 15.12, Ability to Negotiate Sexual Relations with Husband.
- 74 World Vision International (2019). *The Violent Truth about Teenage Pregnancy: What children say*. Monrovia, California, USA and Uxbridge, UK. <https://www.wvi.org/publications/report/it-takes-world/violent-truth-about-teenage-pregnancy>.
- 75 Holmes, M., H. Resnick, D. Kilpatrick and C. Best (1996). Rape-related pregnancy: Estimates and descriptive characteristics from a national sample of women. *American Journal of Obstetrics & Gynecology*, 175(2):320–325. [https://doi.org/10.1016/S0002-9378\(96\)70141-2](https://doi.org/10.1016/S0002-9378(96)70141-2).
- 76 Guttmacher Institute (2015). Adolescent Pregnancy and Its Outcomes Across Countries. Guttmacher Institute Fact Sheet. New York. <https://www.guttmacher.org/fact-sheet/adolescent-pregnancy-and-its-outcomes-across-countries>.
- 77 MacQuarrie, Kerry L.D., Lindsay Mallick and Courtney Allen (2017). Sexual and Reproductive Health in Early and Later Adolescence: DHS Data on Youth Age 10–19. *DHS Comparative Reports*, No. 45. Rockville, Maryland, USA: ICF.
- 78 Bongaarts, J., B.S. Mensch and A.K. Blanc (2017). Trends in the age at reproductive transitions in the developing world: The role of education. *Population Studies*, 71(2): 139–154.
- 79 UNFPA (2015). *Girlhood, Not Motherhood: Preventing Adolescent Pregnancy*. New York. https://www.unfpa.org/sites/default/files/pub-pdf/Girlhood_not_motherhood_final_web.pdf.
- 80 Alves, J.E. and S. Cavenaghi (2009). Timing of childbearing in below re-placement fertility regimes: How and why Brazil is different? XXVI IUSSP International Population Conference Presentation.
- 81 Heaton, T.B., R. Forste and S.M. Otterstrom (2002). Family transitions in Latin America: First intercourse, first union and first birth. *International Journal of Population Geography*, 8(1):1–15.
- 82 MacQuarrie, Kerry L.D., Lindsay Mallick and Courtney Allen (2017). Sexual and Reproductive Health in Early and Later Adolescence: DHS Data on Youth Age 10–19. *DHS Comparative Reports*, No. 45. Rockville, Maryland, USA: ICF.
- 83 Clark, Shelley (2004). Early Marriage and HIV Risks in Sub-Saharan Africa. *Studies in Family Planning*, 35(3): 149–160. <https://doi.org/10.1111/j.1728-4465.2004.00019.x>.
- 84 MacQuarrie, Kerry L.D., Lindsay Mallick and Courtney Allen (2017). Sexual and Reproductive Health in Early and Later Adolescence: DHS Data on Youth Age 10–19. *DHS Comparative Reports* No. 45. Rockville, Maryland, USA: ICF.
- 85 Smith-Greenaway, Emily, and Shelley Clark (2018). Women's Marriage Behavior Following a Premarital Birth in Sub-Saharan Africa. *Journal of Marriage and Family*, 80(1): 256–270. <https://doi.org/10.1111/jomf.12433>.
- 86 Rodríguez Vignoli, J. (2014). Fecundidad adolescente en América Latina: Una actualización. In *Comportamiento Reproductivo y Fecundidad En América Latina: Una Agenda Inconclusa*, No. 3, pp. 33–67. Córdoba: Asociación Latinoamericana de Población.
- 87 Flórez, C.E., and V.E. Soto (2007). Fecundidad adolescente y desigualdad en Colombia. *Notas de Población*, 83:41–74.
- 88 Rodríguez Vignoli, J. (2014). Fecundidad adolescente en América Latina: Una actualización. In *Comportamiento Reproductivo y Fecundidad En América Latina: Una Agenda Inconclusa*, No. 3, pp. 33–67. Córdoba: Asociación Latinoamericana de Población.

- 89 Bénéfio, Kofi D. (1995). The Determinants of the Duration of Postpartum Sexual Abstinence in West Africa: A Multilevel Analysis. *Demography*, 32: 139-157. <https://doi.org/10.2307/2061737>.
- 90 Casterline, John B., and Colin Odden (2016). Trends in Inter-Birth Intervals in Developing Countries 1965-2014. *Population and Development Review*, 42(2): 173-194. <https://doi.org/10.1111/j.1728-4457.2016.00134.x>.
- 91 United Nations (1989). Convention on the rights of the child. Treaty No. 27531. United Nations Treaty Series, 1577, pp. 3-178. https://treaties.un.org/doc/Treaties/1990/09/19900902%2003-14%20AM/Ch_IV_11p.pdf.
- 92 Patton, G.C., et al. (2016). Our future: a Lancet commission on adolescent health and wellbeing. *The Lancet*, 387(10036), 2423-2478.
- 93 Dixon-Mueller, R. (2008). How young is "too young"? Comparative perspectives on adolescent sexual, marital, and reproductive transitions. *Stud Fam Plann*. 39(4):247-262. doi: 10.1111/j.1728-4465.2008.00173.x. PMID: 19248713.
- 94 Melesse, D.Y., et al. (2021). Inequalities in early marriage, childbearing and sexual debut among adolescents in sub-Saharan Africa. *Reproductive Health*, 18, 117. <https://doi.org/10.1186/s12978-021-01125-8>.
- 95 United Nations, Department of Economic and Social Affairs, Population Division (2020). *Fertility among very young adolescents aged 10-14 years* (ST/ESA/SER.A/448).
- 96 United Nations, Department of Economic and Social Affairs, Population Division (2020). *World Fertility 2019: Early and later childbearing among adolescent women* (ST/ESA/SER.A/446).
- 97 United Nations (2022). SDG Indicators: Regional groupings used in Report and Statistical Annex. <https://unstats.un.org/sdgs/indicators/regional-groups>.
- 98 World Bank (2022). World Bank Country and Lending Groups. <https://datahelpdesk.worldbank.org/knowledgebase/articles/906519-world-bank-country-and-lending-groups>.
- 99 Measure DHS and ICF International (2006). *Guide to DHS Statistics: Demographic and Health Surveys Methodology*. Calverton, Maryland, USA: ORC Macro.
- 100 United Nations, Department of Economic and Social Affairs, Population Division (2019). World Population Prospects 2019, Online Edition. Rev. 1.
- 101 Hosmer, D., S. Lemeshow and S. May (2008). *Applied Survival Analysis: Regression Modeling of Time-to-Event Data*, second edition. John Wiley & Sons. <https://doi.org/10.1002/9780470258019>.
- 102 World Health Organization (2007). *Report of a WHO Technical Consultation on Birth Spacing*. Geneva. https://apps.who.int/iris/bitstream/handle/10665/69855/WHO_RHR_07.1_eng.pdf.
- 103 Cleland, J., A. Conde-Agudelo, H. Peterson, J. Ross and A. Tsui (2012). Family Planning, Contraception and Health. *The Lancet*, 380:149-156. [https://doi.org/10.1016/S0140-6736\(12\)60609-6](https://doi.org/10.1016/S0140-6736(12)60609-6).
- 104 Changes in median age at first birth are an important component in the decline in childbearing in adolescence. Over the last half-century, the median age at first birth has increased by 1.1 years across low- and middle-income countries, moving from age 20.3 in the earliest years analysed to 21.5 most recently. See details in Appendix A.
- 105 Estimates of the proportion of all first births that occur to child mothers indicate that six decades ago, more than a quarter of all women began childbearing by the age of 17 years, and 13 per cent do so more recently. In sub-Saharan Africa, where the proportion is the highest, more than a quarter of women still experience motherhood in childhood most recently. The proportion of women who begin childbearing by the age of 14 years has fallen from 6 per cent to 2 per cent over the past six decades. In most regions, the proportion is 1 per cent or less most recently, but sub-Saharan Africa and Oceania still see 4 per cent of women giving birth at the age of 14 years or younger.

- 106 Estimates of the proportion of all women with more than one birth in adolescence indicate that 60 years ago, over a fifth of women had two or more births in adolescence (22 per cent). Most recently, 7 per cent of women do. Regional differences are dramatic, with up to 28 per cent (Northern Africa and Western Asia) of women with two or more births in adolescence in the earliest years and up to 16 per cent (sub-Saharan Africa) of women in recent years. In the earliest years analysed, 7 per cent of women across low- and middle-income countries had three or more births in adolescence. Most recently, that proportion has fallen to 1 per cent.
- 107 Molitoris, J., K. Barclay and M. Kolk (2019). When and Where Birth Spacing Matters for Child Survival: An International Comparison Using the DHS. *Demography*, Aug;56(4):1349-1370. doi: 10.1007/s13524-019-00798-y. PMID: 31270780; PMCID: PMC6667399.
- 108 Towriss, Catriona A., and Ian Timaeus (2018). Contraceptive use and lengthening birth intervals in rural and urban Eastern Africa. *Demographic Research*, 38:2027-2052
- 109 Westoff, Charles F., and Dawn Koffman (2010). Birth Spacing and Limiting Connections. *DHS Analytical Studies*, No.21. Calverton, Maryland, USA: ICF Macro.
- 110 Van Lith, L.M., M. Yahner and L. Bakamjian (2013). Women's growing desire to limit births in sub-Saharan Africa: meeting the challenge. *Global Health, Science and Practice*, 1(1), 97-107. <https://doi.org/10.9745/GHSP-D-12-00036>.
- 111 The total fertility rate – a measure slightly different from the types of measures used in this report – has declined from 5.0 to 2.5 in the same period (Source: United Nations, Department of Economic and Social Affairs, Population Division (2019). *World Population Prospects 2019*, Online Edition. Rev. 1).
- 112 Hindin, Michelle J., Amanda M. Kalamar, Terri-Ann Thompson and Ushma D. Upadhyay (2016). Interventions to Prevent Unintended and Repeat Pregnancy among Young People in Low- and Middle-Income Countries: A Systematic Review of the Published and Gray Literature. *Journal of Adolescent Health* 59(3): S8-S15. <https://doi.org/10.1016/j.jadohealth.2016.04.021>.
- 113 UNFPA (2015). *Girlhood, Not Motherhood: Preventing Adolescent Pregnancy*. New York. https://www.unfpa.org/sites/default/files/pub-pdf/Girlhood_not_motherhood_final_web.pdf.
- 114 Ibid.
- 115 World Health Organization (2011). *WHO Guidelines on Preventing Early Pregnancy and Poor Reproductive Health Outcomes Among Adolescents in Developing Countries*. Geneva. <https://www.ncbi.nlm.nih.gov/books/NBK304954>.
- 116 UNFPA (2015). *Girlhood, Not Motherhood: Preventing Adolescent Pregnancy*. New York. https://www.unfpa.org/sites/default/files/pub-pdf/Girlhood_not_motherhood_final_web.pdf.
- 117 Ibid.
- 118 Ibid.
- 119 Hindin, Michelle J., Amanda M. Kalamar, Terri-Ann Thompson and Ushma D. Upadhyay (2016). Interventions to Prevent Unintended and Repeat Pregnancy among Young People in Low- and Middle-Income Countries: A Systematic Review of the Published and Gray Literature. *Journal of Adolescent Health*, 59(3): S8-S15. <https://doi.org/10.1016/j.jadohealth.2016.04.021>.



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