THE POWER OF CHOICE

REPRODUCTIVE RIGHTS AND THE DEMOGRAPHIC TRANSITION









UNFPA state of world population 2018

The State of World Population 2018

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Ensuring rights and choices for all

UNFPA state of world population 2018

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1

The global trend towards smaller families

page 12



2

A legacy of large families

page 28



3

Departures from the typical fertility transition

page 50



4

Many paths to one destination

page 68



5

Creating conditions for parenthood

page 92



6

Everyone has the right to choose

page 120


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Foreword

CHOICE CAN CHANGE THE WORLD. It can rapidly improve the well-being of women and girls, transform families and societies, and accelerate global development.

The extent to which couples and individuals have real choices about whether and when to have children, and how many children to have, also has a direct impact on fertility levels. Where people are able to make these decisions for themselves, they tend to choose smaller families. Where choices are constrained, they tend to have families that are either large or very small, sometimes with no children at all.

No country can yet claim to have made reproductive rights a reality for all. Choices are limited for far too many women. And this means that there are still millions of people who are having more—or fewer—children than they would like, with implications not only for individuals, but also for communities, institutions, economies, labour markets and entire nations.

For some, the pursuit of reproductive rights is thwarted by health systems that fail to provide essential services, such as contraceptives. For others, economic barriers, including poor-quality, low-paying jobs and an absence of childcare, make it next to impossible to start or expand a family. Underlying these and other obstacles is persistent gender inequality, which denies women the power to make fundamental decisions in life.

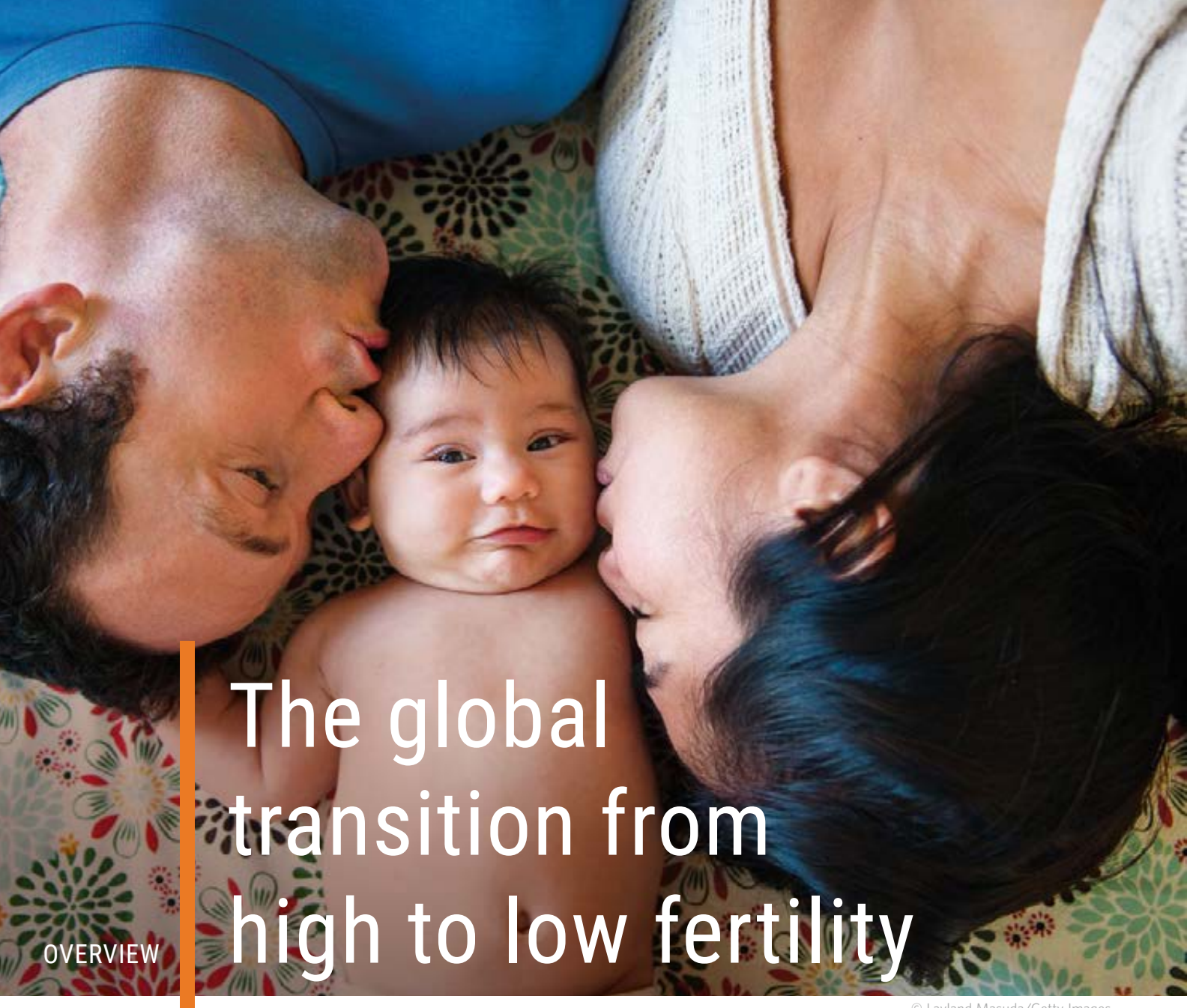
In the 1994 Programme of Action of the International Conference on Population and Development, governments committed to enabling people to make informed choices about their sexual and reproductive health as a matter of fundamental human rights. Now, almost 25 years later, this continues to require ensuring that individuals have access to the means to decide freely and responsibly the number, spacing and timing of their children.

The 2030 Agenda for Sustainable Development reinforces these principles by making reproductive health and rights a specific aim. In fact, reproductive rights are integral to realizing all the Sustainable Development Goals. THAT IS THE POWER OF CHOICE.

The way forward is the full realization of reproductive rights, for every individual and couple, no matter where or how they live, or how much they earn. This includes dismantling all the barriers—whether economic, social or institutional—that inhibit free and informed choice.

In the end, our success will not just come in reaching what we imagine is ideal fertility. The real measure of progress is people themselves: especially the well-being of women and girls, their enjoyment of their rights and full equality, and the life choices that they are free to make.

Dr. Natalia Kanem
Executive Director
UNFPA, the United Nations Population Fund



OVERVIEW

The global transition from high to low fertility

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Not so long ago, most people had large families: five children, on average. Where once there was one global fertility rate, today there are many, with differences wider than at any point in human history.

Family size, whether small or large, is intertwined with reproductive rights, which are tied to many other rights, such as those to health and education, adequate income, the freedom to make choices, and non-discrimination.

Where all rights are realized, people tend to thrive. Where they are not, people are not able to realize their potential, and fertility rates tend to be higher or lower than what most people really want.

Fertility matters

Fertility matters for individuals because it reflects the extent to which people have the power and the means to make their own choices about the number, timing and spacing of pregnancies. Fertility matters for societies because it can impede or accelerate progress towards greater prosperity, equitable and sustainable development, and well-being for all.

The global transition to lower fertility rates began with individuals, before the present era of national planning and health-care services. In European countries in the late nineteenth century and in English-speaking countries on other continents, changing economies presented new professional and job possibilities, motivating couples to have fewer children so that they could seize these opportunities. As more girls enrolled in school, literacy increased. News and information spread more broadly through society and contributed to a growing awareness that controlling one's fertility was within the realm of conscious choice.

People, particularly women, started to see that having fewer children could lead to better outcomes in many spheres of life.

Since then, wherever people have had information and options to control fertility, rates have tended to fall. In some parts of the world in the second half of the twentieth century, governments played a role in providing access to contraception. Some invested in the human capital of young people, and the expansion of jobs and other opportunities to create a constellation of economic and social circumstances that led to smaller family size. A few governments, intent on slowing population growth, resorted to coercion or aggressive campaigns to discourage or even forbid couples and individuals from having large numbers of children.

In 1994, 179 governments endorsed the Programme of Action of the International Conference on Population and Development. They committed to enabling people to make informed choices about their sexual and reproductive health as a matter of fundamental human rights that underpin thriving, just, sustainable societies. They agreed that progress depends on advancing gender equality, eliminating violence against women and ensuring women's ability to manage their fertility. Above all, governments agreed that matters of demographics, economic and social development, and reproductive rights are inextricably linked and mutually reinforcing.

Governments also agreed that reproductive rights may be realized when all couples and individuals have the information and means to responsibly decide the number, spacing and timing of their children. Decisions about whether, when or how often to become pregnant must be made free from any form of discrimination, coercion or violence.

A similar commitment is reflected in the more recent 2030 Agenda for Sustainable Development. Reproductive health and reproductive rights are specific aims under one of the 17 Sustainable Development Goals, and integral to realizing all the goals.



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Fertility varies—widely

Since the 1994 International Conference on Population and Development, reproductive health and rights have progressed steadily in many parts of the world. People have more information about their reproductive rights and choices, along with a greater capacity to demand their rights.

Remaining wide divergences in fertility between and within countries show that, although overall we have come far, there is still a long way to go towards the universal realization of reproductive rights.

Currently, based on fertility rates, most countries and territories fall into four broad categories. Each set faces national policy concerns about population trends. Each has people who, because rights are compromised in some way to some degree, are not fully empowered to decide freely and responsibly how many children they have.

The first category of countries has fertility closest to what it used to be worldwide: high. Much of sub-Saharan Africa and a half dozen other nations with a history of recent conflict or crisis have rates of more than four births per woman. High fertility can indicate a number of shortfalls in human rights. Typically, these countries are poorer, with limited access to health care and education. Entrenched gender discrimination discourages women's autonomy. Practices such as early marriage, which correlates with an early start to childbearing, can be widespread.

High fertility tends to make it harder for countries to improve services and develop so that people can find routes out of poverty. As ever-larger numbers of younger people begin streaming into the labour market, they are increasingly finding that the economy has not been robust enough to generate jobs for everyone.

In a second fertility category, fertility has declined significantly and then plateaued or, in some cases, even started to climb again. The reasons include disruptions in family planning programmes, and the aftermath of conflict and economic crisis.

A related third category of countries has seen steady declines in fertility that began in the 1960s, or in some cases as recently as the 1980s, and are continuing today. Most of these countries fall at a mid-level in terms of income, although a few are poorer, and a small number are wealthy.

Many countries in the third category have strong national family planning programmes and have made persistent efforts to realize reproductive rights, even where resources were tight. Differences in fertility rates can be wide, however, including between rural and urban areas, and between wealthier and poorer people. Latin America, which has a number of these countries, faces high rates of pregnancy among adolescents. Although most of these countries are not under particular pressure from population trends at the moment, they are ageing rapidly, facing a future where fewer people are in the workforce, and costs related to pensions and health care may be high.

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The fourth category of countries has had low fertility for a long time; they are mainly the more developed States in Asia, Europe and North America. They tend to have higher levels of education and income, and have gone further in realizing rights for women. Basic reproductive and other rights are mostly met. Gaps in affordable quality childcare, however, can make it difficult to balance work and family life, leading to people having fewer children than they want. With larger groups of older people and a shrinking labour force, these countries face potentially weaker economies in the near term.

What stands in the way?

Across the four categories of fertility, the barriers to people realizing their rights and making their own choices about family planning have some common roots, even if they take different forms and occur to different degrees. Broadly, institutional, economic and social factors can empower couples and individuals to realize their own reproductive goals and desires—or prevent them from doing so. Where couples and individuals are fully empowered, fertility tends to hover around two births per woman, the level considered sufficient to keep population sizes stable in the absence of migration.

Institutional barriers to free and responsible decisions about fertility include shortfalls in health care that limit choice in contraceptive use, as well as access to technology to assist reproduction for women who are past their peak reproductive years or otherwise unable to conceive. Poor-quality health services in some cases drive persistently high child mortality, which contributes to the tendency to have more children to make up for those lost during birth, or through illness and malnutrition.

Legal barriers to contraception remain in some countries, limiting access, for example, for those

who are not married or below a certain age. And even where laws permit unmarried women or adolescents to access contraception, judgmental service providers may refuse to dispense it.

Within education systems, comprehensive sexuality education is limited and, of poor quality in much of the world, depriving young people of the knowledge and skills to make informed choices.

Economic barriers include those that make reproductive health services unaffordable or that require a woman to work such long hours for low pay that she cannot find a way to start a family.



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Many intractable barriers to reproductive rights are forged by gender discrimination, which is why the Programme of Action of the International Conference on Population and Development puts so much emphasis on gender equality. A subordinate status for many women still means not knowing or fully understanding their rights, or how to claim them. It can mean not having the power and independence to say yes or no to getting pregnant. Institutionalized gender inequality, which can manifest in inadequate health-care services, may lead to women having more or fewer children than they really want.

Gender-based violence, prevalent in every society, further erodes autonomy and can result in forced pregnancy. Further, women everywhere perform more of the unpaid care work related to raising children than men do. This can mean dependence on male breadwinners, abandoned opportunities for paid work, and exhaustion that extracts a physical and mental toll.

Aligning behind the right to choose

In no place in the world today are all people fully empowered to realize their own fertility goals and reproductive rights. Barriers are larger in some places than others, and harder to resolve in some situations than others. Regardless, the universal character of reproductive rights, the international commitments to them, and the interrelationships between fertility and development mean that remaining barriers must fall, especially if we are to achieve the 2030 Agenda for Sustainable Development. Public policies, services and budgets need to be aligned so that every person and couple can realize their reproductive rights, including the right to plan their families.

The ways forward will vary by country, but some are common to all countries, starting with health systems that operate in line with



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reproductive rights, and provide high-quality, universally accessible reproductive health services. Health services need to provide a meaningful choice of contraceptives and fully educate women and men on these options and on the implications of planning a family for health and well-being. Service providers should aim to empower clients to make choices and should treat these choices with respect, including among adolescents, unmarried people, people with disabilities, and others for whom social norms continue to dictate stigma and discrimination.

Countries at all levels of fertility have groups whose reproductive rights are particularly compromised. They may be poor and rural. Or young. Or from a community that does not speak the national language used in health services. In many cases, these groups have the highest rates of unmet need for contraception and the highest rates of unwanted childbearing. Realizing their rights as an urgent priority should be the starting point towards universal realization.

Finally, since fertility affects, and is affected by, a variety of social, economic and institutional factors, most countries need to help people to have the number of children they want through policies to increase decent work, parental leave, affordable housing and readily available quality childcare, and to achieve gender equality, among other priorities.

Today's falling fertility has been driven by unprecedented capacity, knowledge and motivation to manage reproduction. People are claiming their right to make their own decisions about the number and timing of pregnancies, resulting in profound demographic changes and challenges. Governments and other institutional structures, however, are not yet doing enough to support, inform or enable these decisions, or to plan for economic or institutional ramifications.

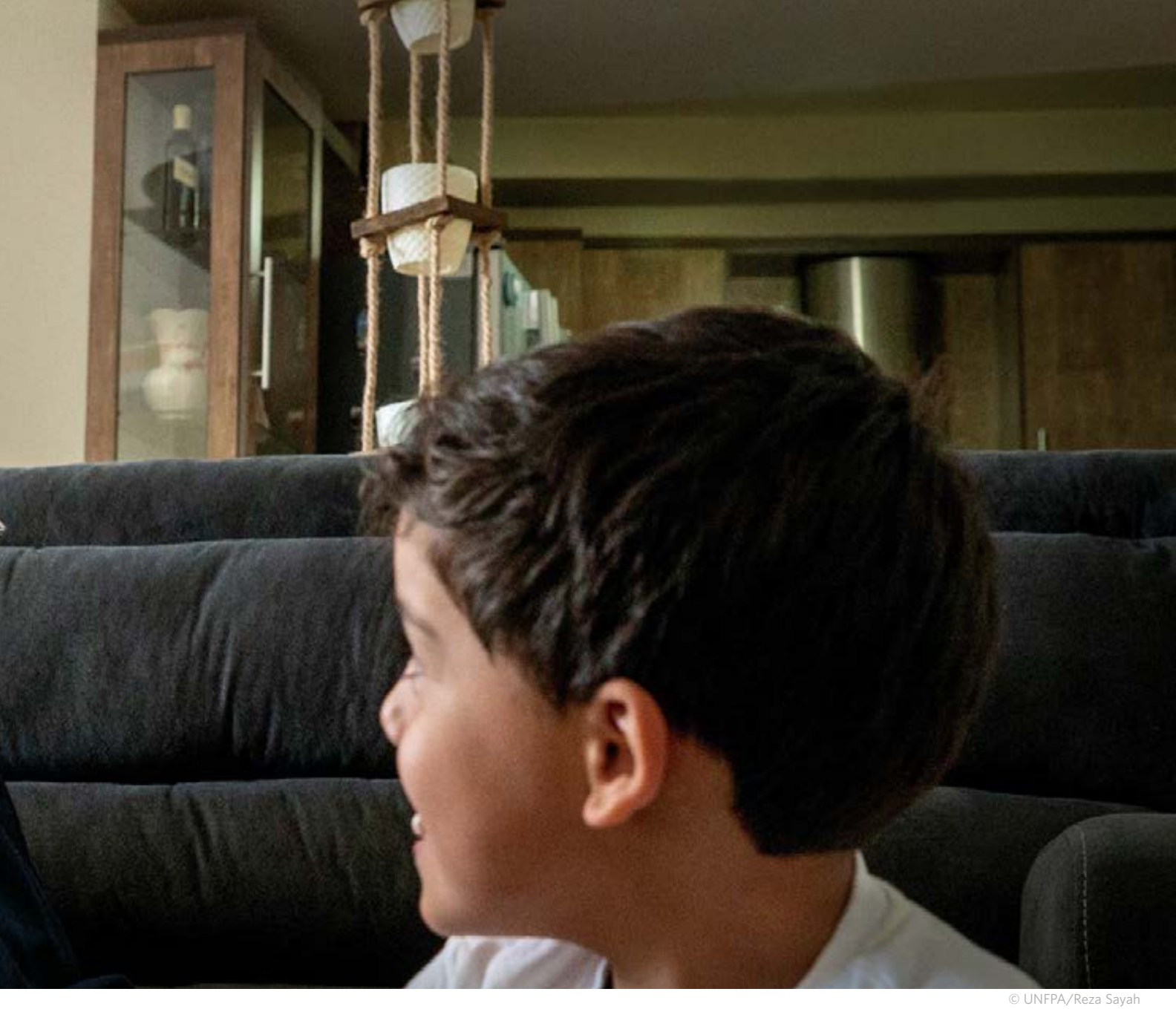
Most could do more by asking a basic question that should be central to public policymaking: Are people—men and women, in all locations, in all income categories, at all ages, and in all other groups—having the number of children they want? If the answer is no, reproductive rights are compromised, and commitments to universality remain unfulfilled.



CHAPTER 1

The global trend towards smaller families

In the past 150 years, and particularly since the 1960s, fertility rates have fallen in almost every country. From a past situation where all countries of the world had fertility rates of five or more children per woman, today a majority of countries with populations of 1 million or more have fertility rates of 2.5 or lower.



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The global transition from high fertility to low fertility began in Europe in the 1800s and then spread around the globe. By the early 1930s, fertility in many countries had dropped to about replacement level. Replacement-level fertility—a total fertility rate of 2.1—refers to the average number of births by each woman during her reproductive years that will keep a population at a constant size.

In some parts of the world, the fertility transition happened abruptly. In Australia, for example, married women born between 1851 and 1856 had an average of eight births. Women born a decade later, between 1861 and 1866, had an average of four.

What triggered the sudden and remarkable decline in fertility after millennia of high fertility?

Many factors, including changing work patterns, prosperity, better health and nutrition, greater survival rates of newborns and children, and wider access to education, especially for women, helped spur the transition in Europe. In a matter of a couple of decades, family size shrank. This occurred before most people had access to modern methods of contraception, and long before the term "reproductive rights" was used by policymakers and advocates everywhere.

Today, the notion of reproductive rights, especially the right of the individual to decide whether, when or how often to become pregnant, is taken for granted by hundreds of millions of people who have the power and the means to delay or prevent a pregnancy. Yet not long ago, the vocabulary of rights was absent from policies and research on demographic change, human reproduction or women's health. A dramatic shift in how countries approached these issues began after the Second World War and was officially marked 50 years ago at the United Nations International Conference on Human Rights, in Tehran. Delegates at that conference proclaimed that "parents have a basic human right to determine freely and responsibly the number and spacing of their children".

The right to plan families has been recognized explicitly or implicitly in at least 20 other international conventions or agreements, ranging from the 1974 World Population Plan of Action to the 1979 Convention on the Elimination of All Forms of Discrimination Against Women.

A global consensus on individual reproductive rights was reached in 1994, at the International Conference on Population and Development,

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where 179 governments agreed that population and development are inextricably linked, and that empowering women and meeting people's needs for education and health, including reproductive health, are necessary for both individual advancement and balanced development (UNFPA, 2012). Advancing gender equality, eliminating violence against women and ensuring women's ability to control their own fertility were acknowledged as cornerstones of countries' population and development policies.

The concept of reproductive rights is often thought of as the ability to directly control pregnancy and childbirth through contraception or other means (Starrs et al., 2018). But that definition fails to describe the full range of factors that can constrain an individual's decision to have one, many or no children.

A broader definition of reproductive rights encompasses social, economic and institutional circumstances and enablers that empower couples and individuals to realize their own reproductive goals and desires. Examples are systems and structures that enable women to enter and stay in the paid labour force if they decide to have children, and enforcement of laws prohibiting child marriage.

The extent to which individuals are able to exercise their reproductive rights has an impact on fertility at the individual and societal levels. This was as true a century ago as it is today: even though reproductive rights as defined here did not yet exist in name, people nevertheless aspired to them, and struggled to find ways to make their own decisions about the timing and spacing of pregnancies and family size.



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In the realm of conscious choice

Explanations for the fertility transition in Europe—and later transitions elsewhere—range from the classic demographic transition theory to economics-driven theories. According to demographic transition theory, fertility falls in response to changes in social life that are accompanied, and caused by, industrialization and urbanization. Economics-driven theories attribute fertility decline partly to the relative costs of children versus goods (Mason, 1997).

Regardless of the explanation, the change from high to low fertility represents a radical change in the behaviour of couples over time, with important implications both for couples themselves and for their societies. When this change is sustained and broadly adopted—and not just a short-term response to changes in economic or social circumstances—it reflects a fundamental shift in social norms.

According to demographer Ansley Coale, fertility can begin to fall in a sustained way only when three conditions are met (Coale, 1973). First, individuals must think of fertility as a component of their lives that they can control or influence through their actions. Although this may seem relatively straightforward today, the notion of fertility within "the realm of conscious choice" marked a revolutionary shift in the way individuals and couples viewed themselves, their families and their options in life. Second, individuals must see having fewer children as advantageous, thus providing the motivation to take action to "control fertility", or have fewer children. And third, reliable methods of preventing conception—and knowledge about their use—must be available.

Although each of these three conditions must exist in some combination for sustained fertility decline to occur, grasping the notion that it is possible to have the number of children one wants and having a clear motivation to do so are the most fundamental. Without these, the availability of methods to prevent pregnancy can have, at best, a limited impact on fertility. When these two preconditions are met, however, contraception can provide

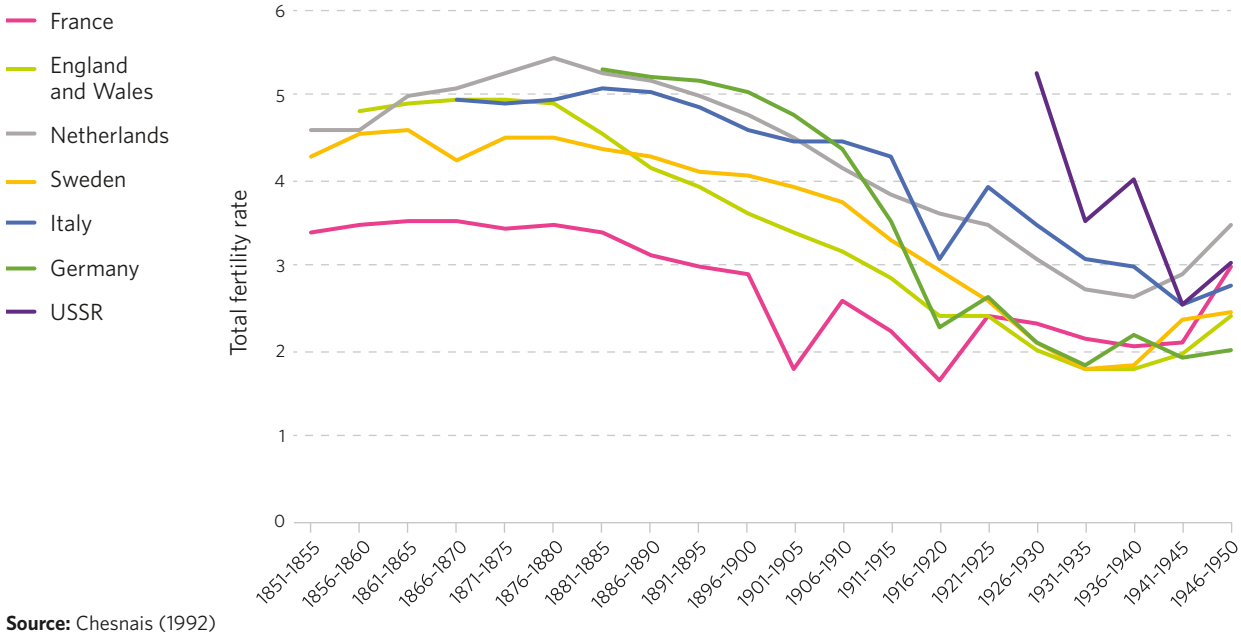
individuals and couples with a clear pathway to acting on their motivations, and can play a central part in helping couples and individuals realize their right to decide freely and responsibly whether, when or how often to have children. Today, an estimated 885 million women in developing regions want to prevent a pregnancy. About three quarters of them use a modern method of contraception, while about one quarter—214 million—still have an unmet need for contraception (Guttmacher Institute, 2017).

Start of the fertility transition: where there's a will, there's a way

The global transition away from high rates of fertility is broadly considered to have begun in the second half of the nineteenth century, first in France and then in the English-speaking and Northern European countries (Figure 1). Couples who were part of this very early transition towards lower fertility must have been highly motivated to have fewer children, because they succeeded—despite strong institutional forces that favoured procreation. As a result, pregnancy prevention during this period can be characterized by the expression "where there's a will, there's a way". An array of approaches were taken by couples. Many couples managed to avoid or delay having children by relying on withdrawal or abstinence, even though vulcanized rubber condoms and cervical caps were available in shops in countries where fertility had fallen in the second half of the nineteenth century.

Newer forms of contraception gave families more power to control their family size but may have been unaffordable for the average person (Coale, 1973). Some people therefore relied on inexpensive and home-made methods, such as sponges and quinine pessaries. At the

FIGURE 1 Total fertility rates, 1851–1950



Source: Chesnais (1992)

societal level, increases in the age of first marriage contributed to delays in the start of childbearing, particularly in combination with strong social disapproval of premarital sexual behaviour, as did periodic abstinence after giving birth. There is also evidence that some women who became pregnant resorted to abortion (McDonald and Moyle, 2018).

One important motivator to have fewer children in England, and later in Australia, in the early twentieth century was that the economic aspirations of young people had risen more rapidly than their aspirations could be achieved; in this context, many people could not afford to have large families (Seccombe, 1993; Moyle, 2015; McDonald and Moyle, 2018).

Another motivator for many women was the desire to be relieved of the burden of successive pregnancies and the risks that accompanied each pregnancy. While the risk of maternal death may have discouraged women from having numerous children, the relatively short life expectancy of men also contributed to smaller families: widows with many children faced economic hardship and were unlikely to remarry (Moyle, 2015).

A decline in infant and child deaths may have been another motivation for smaller families, although studies have not conclusively documented this connection (Van de Walle, 1986; Guinnane, 2011).

Europe's fertility transition coincided with the expansion of free compulsory education in the second half of the nineteenth century. With this expansion came greater enrolments of girls and the prevalence of female teachers as role models (Caldwell, 1980; McDonald and Moyle, 2018). Higher levels of educational attainment by girls are associated with lower fertility rates still today.

Education of girls helped raise the status of women in society and in households. It also provided girls and women with more autonomy and decision-making power, including power over household budgets. And because women oversaw spending, they understood the additional costs associated with having an additional child. Awareness of these costs may have contributed to a desire to have fewer children (McDonald and Moyle, 2018).

Access to education across society exposed people to ideas and knowledge, including knowledge about human reproduction, which enabled them to make their own decisions instead of relying solely on religious and other institutions to guide their behaviour.

At the same time, economies changed in ways that created opportunities and aspirations for advancement and paved the way for a larger middle class. New white-collar occupations emerged. The desire to seize these new opportunities motivated many to have smaller families; large numbers of children made it difficult to adapt to, and benefit from, the new economic landscape (Banks, 1954; Seccombe, 1993; Moyle, 2015).

Meanwhile, parents began to see an alternative future for their children, as education promised to unlock opportunities arising from economic change and declining child labour. Parents saw the merits of assuring a better life for a few children rather than spreading their resources thin across a large number of children (Becker and Lewis, 1973; Caldwell, 1976).

European societies were becoming more secular, resulting in diminished influence of religious institutions in decisions about contraception use and childbearing, and greater scope for individual choices in setting family size (Lesthaeghe and Wilson, 1986). A similar shift took place in Australia.

Urbanization, too, may have freed people to make their own decisions about timing and

spacing of pregnancies: in general, fertility declined in cities sooner and more rapidly than in towns or rural areas (Moyle, 2015). When people left smaller communities for urban areas, they also often left behind social pressures from relatives to have big families. However, there is some evidence that, in Western and Northern European countries, the absence of extended family had little or no impact on fertility: nuclear families had been common even before the fertility transition (Hajnal, 1965).

Knowledge was a critical precondition for smaller families (Coale, 1973). In the 1800s, new forms of communication, as well as the greater reach of existing forms, rapidly spread ideas across all strata of society and piqued interest in having fewer children (Lesthaeghe, 1977; Knodel and Van De Walle, 1986; Cleland and Wilson, 1987).

Rising levels of literacy at that time buoyed readership of newspapers, magazines and pamphlets. The influence of media on fertility has been documented in Australia (Moyle, 2015). Pamphlets describing methods of contraception were widely circulated in Australia, England and the United States. Some publishers of these pamphlets faced prosecution, but newspapers' reports about these prosecutions actually helped spread knowledge about contraception to even more people (McDonald and Moyle, 2018).

Informal communications also played an important role. In Australia, for example, information about contraception was often shared among individual women or through gatherings of groups of women. Women-only lectures on contraceptive methods were also delivered to crowds in large auditoriums in Melbourne in the 1890s (McDonald and Moyle, 2018).



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Fertility transition in Asia

The fertility transition in Asia began in the 1950s. Unlike the transition in Europe in the 1800s that occurred against the wishes of governments and institutions, the transition in Asia was facilitated by government encouragement to limit family size.

Some governments promoted family planning because of the belief that economic growth opportunities would arise if couples had fewer children (McDonald, 2018). The argument was that fewer births would, over time, result in a larger share of the population being of working age and a smaller share being under 18 years of age (Coale and Hoover, 1958). In this argument, children were seen as net consumers of a nation's capital. People of working age were seen as net producers. Without large numbers of children to support, nations could divert more resources to capital investment, and this investment would stimulate productive employment for the working-age population. More productive employment would help relieve the economic burdens of households, enabling them to spend more on educating each child. This linking of the fertility transition to economic growth later became known as a "demographic dividend" (Lee and Mason, 2006).

The fertility transitions in Asia contributed to the region's "economic miracle" in the 1980s and 1990s (Bloom and Williamson, 1998). But this miracle also depended on the countries' social and economic policies, and political institutions, which allowed them to realize the economic growth potential stemming from the fertility transition (Figure 2).

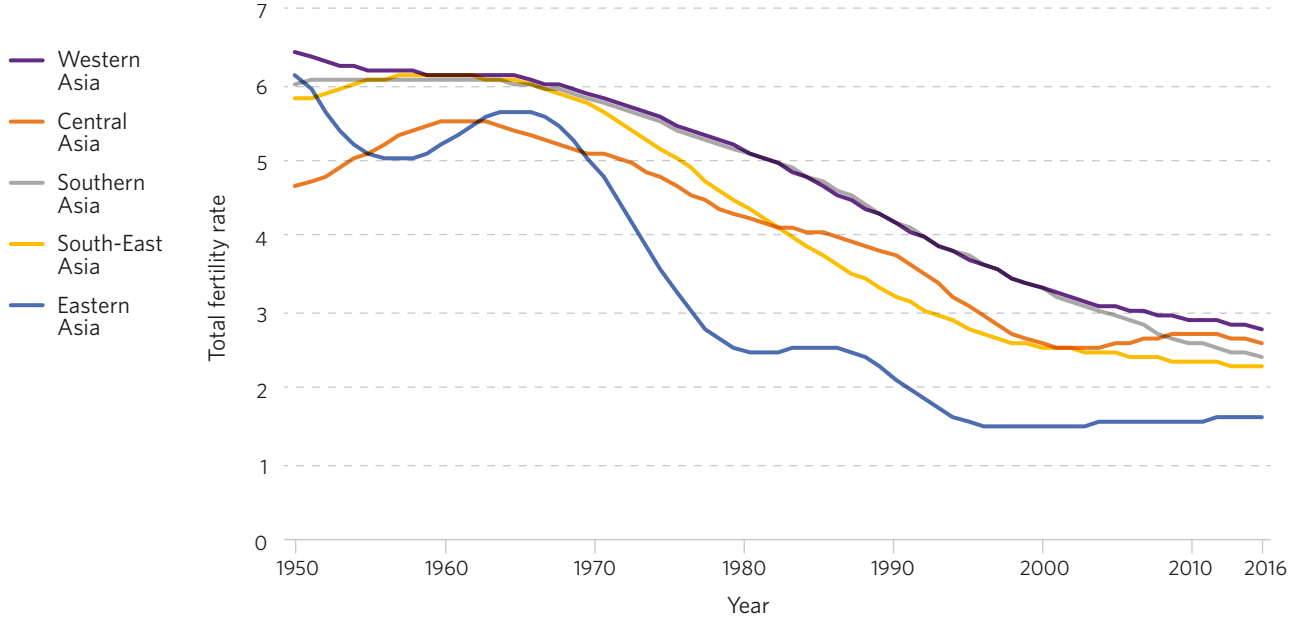
Rapid fertility declines in the Republic of Korea and Singapore, for example, occurred in tandem with heavy investments in education for girls and measures to increase women's participation in the labour force. High rates of urbanization in these countries also contributed to lower fertility.

Campaigns conducted as part of government-led family planning programmes emphasized the costs to families of large numbers of children, and the health benefits to both mothers and babies of having fewer children. Campaigns were directed primarily at women.

The speed with which individuals adopted family planning and the rapid fertility decline that ensued suggest a strong latent demand, or motivation, for smaller families. Motivations to have fewer children included a concern about the cost of having large families, and an interest in better maternal and child health.

Latent demand was apparent in countries such as Myanmar, where fertility fell even without government-led family planning initiatives. There, individuals relied on contraceptives from neighbouring Thailand and Bangladesh to limit family size.

FIGURE 2 Total fertility rates, regions in Asia, 1950–2016



Source: United Nations (2017)

In Bangladesh and Indonesia, fertility declined even in poor, rural areas in the 1970s and 1980s, as more women gained access to modern methods of contraception as a result of government-sponsored information campaigns and family planning services. In these areas, family planning may have contributed to women's empowerment and autonomy. For example, some women on their way to local family planning services were allowed to travel from their homes without being accompanied by male relatives (Simmons, 1996).

Some countries in the 1970s and 1980s established aggressive family planning programmes, which employed bonuses and penalties for meeting or missing targets for the number of users of contraception, or which resorted to forced sterilization of women and men from the poorest households. The overriding objective was to reduce rapid population growth and limit the number of children, not to uphold reproductive rights (Hull, 1991; Harkavy and Roy, 2007; Abbasi-Shavazi et al., 2009; Hayes, 2018). Other countries, such as Iran, took a more measured approach, with programmes that aimed to protect the right of the individual to decide whether, when and how often to have children, and at the same time lower overall population growth. Information, education and communications campaigns often promoted a two-child family size. This was the small, healthy, prosperous family to which couples were encouraged to aspire.

A number of other countries in the region pressured couples to have a maximum of two children, even though these countries backed the 1979 Convention on the Elimination of All Forms of Discrimination Against Women. Article 16 of the convention called on States to protect women's rights "to decide freely and responsibly on the number and spacing of their children".

Fertility transition in Latin America

Fertility decline in Latin America began in earnest in the 1960s, although it may have started even earlier in Argentina and Uruguay. Whereas Brazil, Costa Rica, Chile, Colombia, the Dominican Republic and Venezuela all saw rapid declines starting in the 1960s, others saw a slower initial decline followed by a more rapid one.

In contrast to Asia, most Latin American governments in the 1960s were largely unconcerned with population growth, although by the end of the 1960s most countries in the region had established national family planning programmes. It is clear, however, that fertility preferences had already changed by the time contraception became widely available. Contraception in Latin America thus was a facilitator, not the main driver, of fertility decline (Mundigo, 1992).

Survey data in the 1960s and 1970s showed that women were consistently reporting an ideal family size that was one to two births lower than the current fertility rate (CELADE and CFSC, 1972; United Nations, 1987). As a result, Latin American women and couples eagerly adopted contraception once it became available, resulting in very rapid declines in fertility throughout the region.

The motivations driving fertility decline were broadly similar to those in Europe and Asia. The rapid declines in infant and maternal mortality in the region before the fertility decline reduced the incentive to have many children, with parents being more assured of seeing their children live to be adults. Rapid economic changes both motivated and reinforced ongoing changes and social norms around childbearing; factors such as rapid electrification and urbanization were particularly important (Potter et al., 2002). The emergence of a manufacturing,

consumption-based economy in the region incentivized formal education, provided opportunities for women's entry into the paid labour force and accelerated the process of urbanization. Together, these factors resulted in circumstances that led couples to have fewer children.

In general, fertility throughout the region has been responsive to economic changes. For example, fertility declined noticeably during the economic crisis of the 1980s (Guzman, 1998). At the same time, Latin American women saw significant gains in their social status, giving them greater influence over all aspects of their lives, including reproduction, which contributed to a greater demand for family planning.

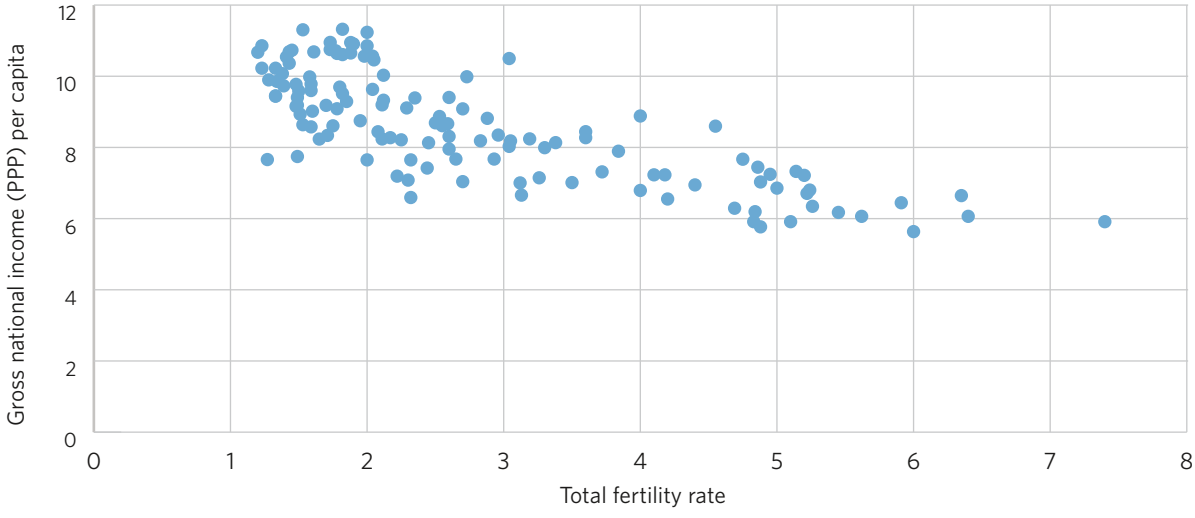
Global fertility today

Fertility rates are lower today than they were 50 years ago in all countries but one: Democratic Republic of the Congo. Globally, fertility is about 50 per cent lower now than in the mid-1960s. Fertility rates are expected to fall worldwide, to the point where no country is expected to have fertility of more than five births per woman by 2050 (United Nations, 2017). Within countries and regions, fertility rates continue to vary according to variables such as income levels, place of residence—rural or urban—and age group (Figure 3).

Before the start of the fertility transition in the 1800s, fertility levels were almost universally high, matching the very high levels of child mortality that had been prevalent throughout human history. Whereas fertility fell rapidly in Western and Northern European countries and later in English-speaking colonies, the timing of the decline in other parts of the world has varied for a number of reasons, including the speed of social and economic change, the timing of the decline in infant mortality and the availability of contraception.

Today, 43 countries with populations of at least 1 million have fertility of 4 or more births per

FIGURE 3 Correlation between gross national income per capita and total fertility rate, 2017





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woman, 30 have fertility that is falling but is still between 2.5 and 3.9 births, 33 have fertility that has dropped to about replacement level relatively recently, and 53 have fertility that has been at or below replacement level for many years.

Never before in human history have there been such extreme differences in fertility rates among groups of countries (Figure 4).

Each level of fertility has its own set of drivers and is accompanied by its own set of challenges, with implications for countries' societies, economies and institutions.

Implications of high fertility

High fertility leads to high rates of population growth and a disproportionate share of the population aged 15 years or younger.

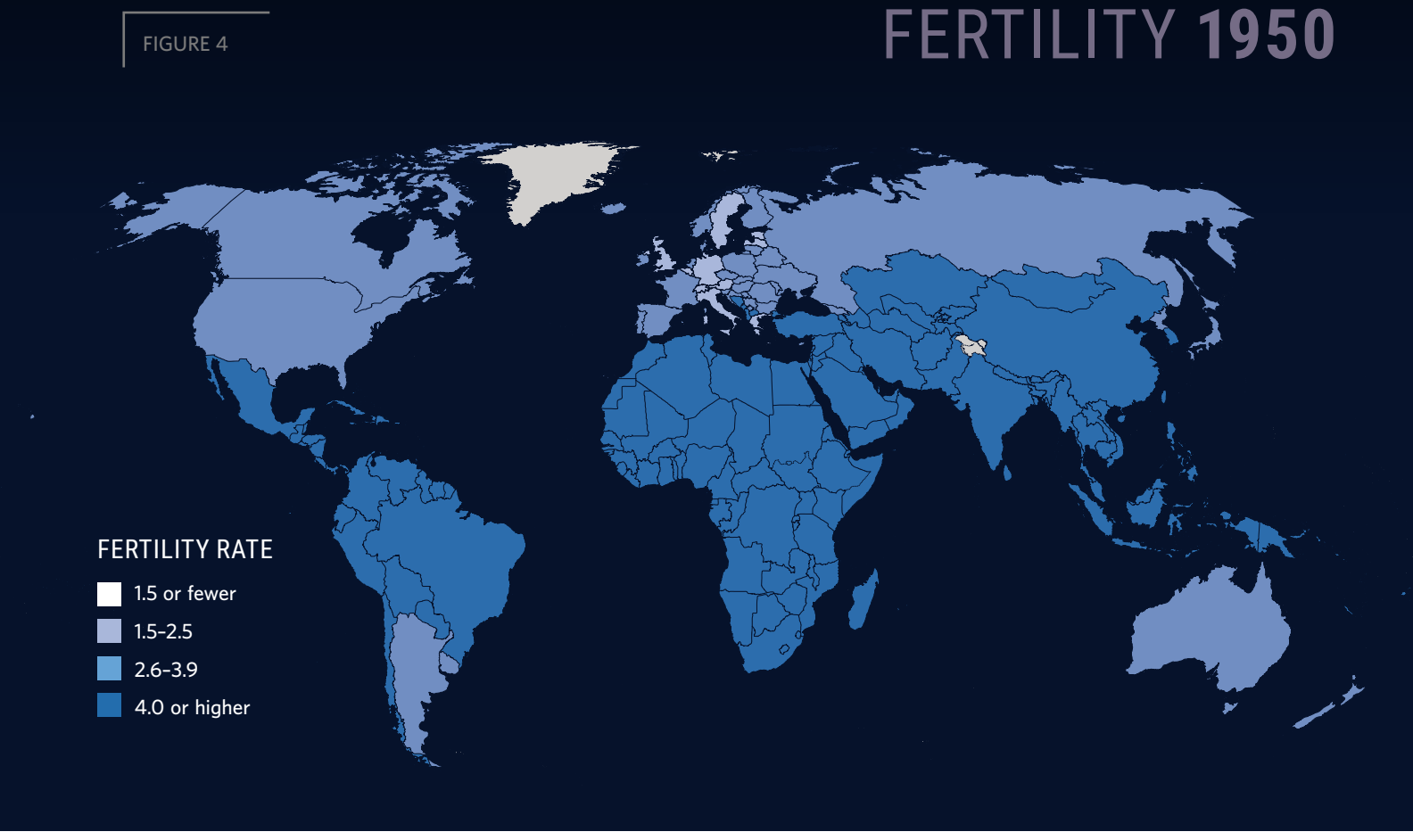
For example, Niger, the country with the highest fertility rate, has an annual population growth rate of 3.84 per cent. About one in two people is under the age of 15. At current growth rates, both the total population and the number of children aged less than 15 years would double every 18 years. Even if the fertility rate were to fall in the future, current and past high fertility produces a momentum for future population growth as the very large numbers of people aged less than 15 years move into the childbearing ages (United Nations, 2015).

Countries with high fertility typically face challenges in providing education for children, health care for all and employment opportunities for young workers. A dearth of jobs in rural areas can drive many young people to migrate to cities that already lack job possibilities. Countries with fertility rates of four or higher are expected to see their urban populations grow rapidly in the years ahead (United Nations, 2015b).

Implications of low fertility

Among countries with at least 1 million people, 22 have fertility rates below 1.5 births per woman. This rate is below the level needed to sustain the current size of a population

FIGURE 4

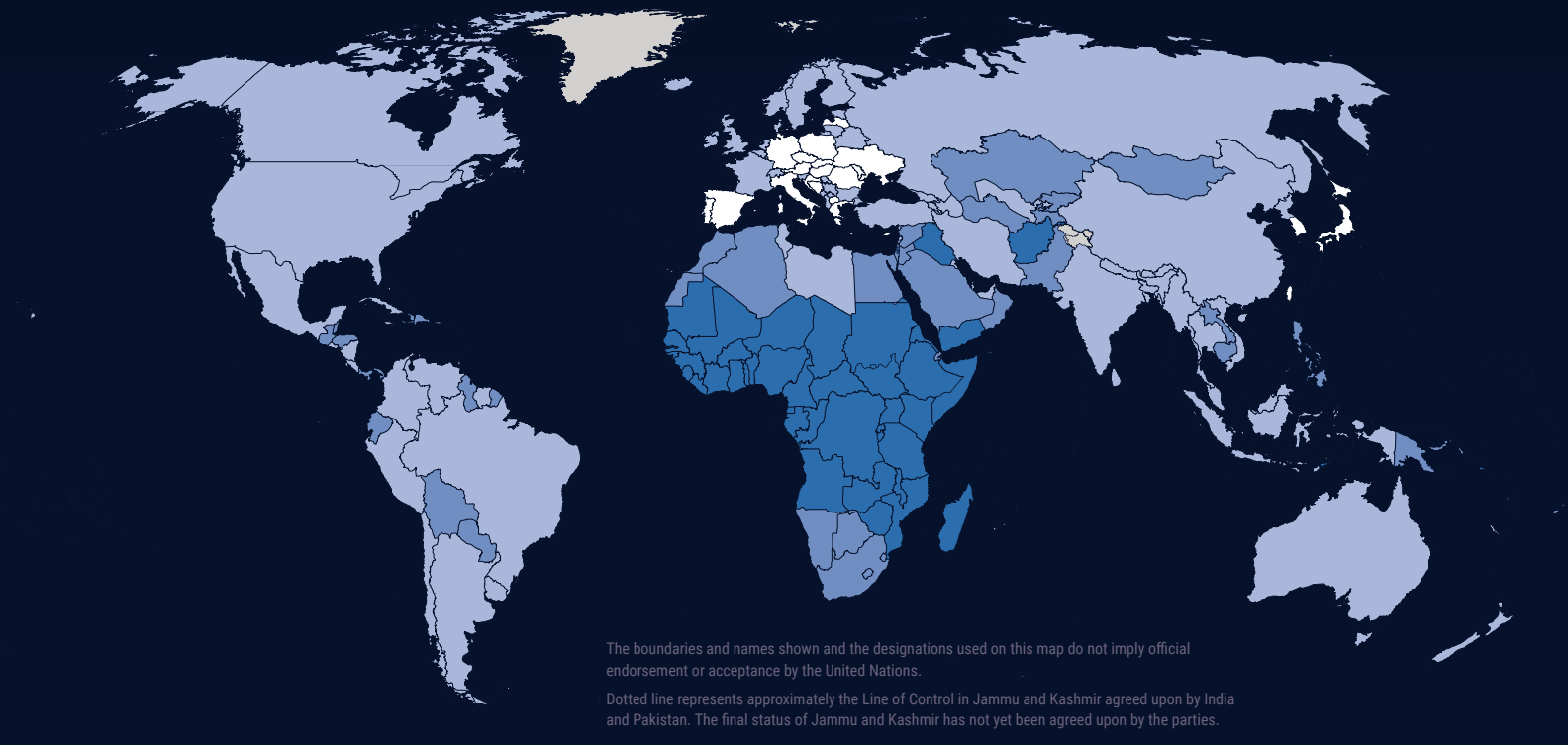


in the absence of immigration. In these countries, older people account for large shares of the population, and governments may face challenges in adequately funding social security systems and reorienting services, such as health, towards this changing demographic. Low fertility also means fewer children who will eventually enter the labour force, raising concerns about the future of economic growth. The shrinking share of young people in the labour forces in countries such as Japan, the Republic of Korea and Singapore also means fewer developers and adaptors of new technology. Countries with a shortage of young skilled workers may find themselves at a comparative economic disadvantage.

Government responses

Whether countries have very high or very low fertility rates, governments often see the trends as undesirable and have implemented policies to address them. Most countries with fertility of four or more births per woman have expressed an interest in reducing population growth rates, whereas almost all countries with fertility rates of 1.5 or lower want to increase the rates (Figure 5). Some of these countries, especially in Eastern Europe, are developing "demographic security" programmes to address low fertility. Countries with fertility rates between 1.5 and 2.5 are generally satisfied with their rates of population growth.

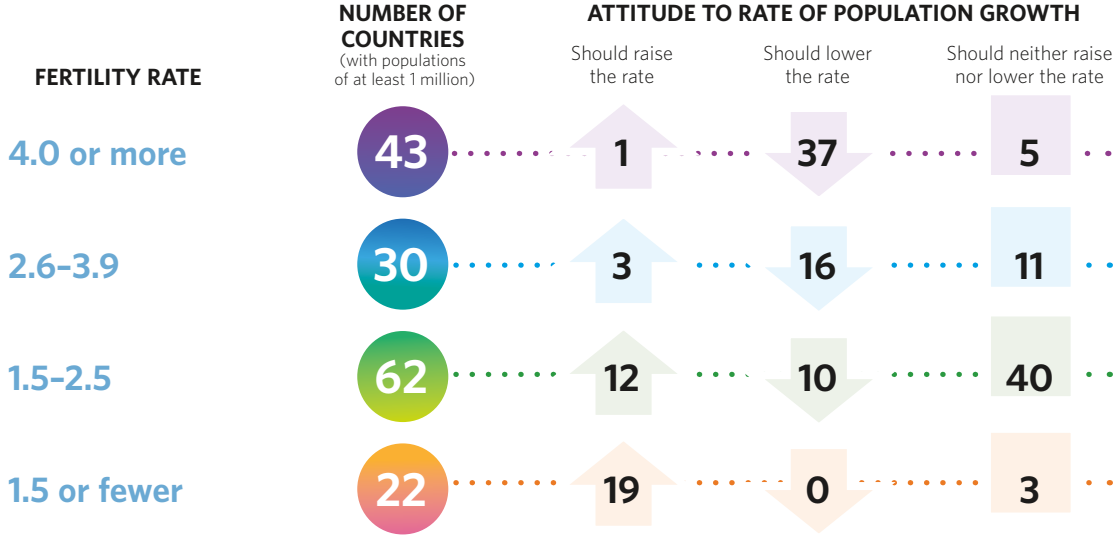
FERTILITY 2015



The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations.

Dotted line represents approximately the Line of Control in Jammu and Kashmir agreed upon by India and Pakistan. The final status of Jammu and Kashmir has not yet been agreed upon by the parties.

FIGURE 5 Government views about population growth rates, by fertility rate, 2010–2014



Sources: United Nations (2015a); United Nations (2017)

What individuals want

Around the world, many couples and individuals have the number of children they want. But there are also many who have more—or fewer—children than they desire.

The discrepancy between desired and actual family size exists for many reasons. In some cases, the differences are attributable simply to the fact that people may change their minds over time. The ideal number of children expressed by a woman in her early 20s may be very different by the time she reaches her late 30s. In other cases, the discrepancy may be attributed to an inability to become pregnant. And in still other cases, people may lack the means to reach their own fertility goals. In high-fertility developing countries, for example, many women are having more children than they want because of limited access to their preferred method of contraception, resulting in unintended pregnancies. Each year in developing countries, there are 89 million unintended pregnancies. About 43 per cent of pregnancies are unplanned.

In contrast, in high-income, low-fertility countries, actual fertility often falls short of average ideal family size, sometimes because of the difficulties women face in combining a career with having children, the lack of affordable childcare, or the greater amount of time spent on household work relative to men. Because people in these countries often marry later, women may have difficulty becoming pregnant, and assisted reproductive technology, such as in vitro fertilization, may not be readily available or affordable. Families have been smaller than desired for years in many European and East Asian countries, and this is now also occurring in the United States (Harknett and Hartnett, 2014; Gietel-Basten, 2018; Stone, 2018).

These differences suggest that in no part of the world are reproductive rights universally fulfilled, and that in every part of the world economic, social, institutional and other obstacles of varying magnitude stand between individuals and their preferred family size.

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Ideally, governments' preferences for higher or lower fertility are aligned with individuals' preferences for family size. For example, in a country where a couple wants to have fewer children, the government may have policies and services that empower them to do so. Such policies might include increasing access to the full range of modern methods of contraception.

In a country where a couple wants to have more children but does not for economic reasons, the government might make childcare more affordable or free.

A government can achieve its goals for lowering or raising fertility through measures that enhance individuals' rights and empower people to realize their own goals for family size. Decades of research has shown that, when women in high-fertility countries have the power and the means to make their own choices, they choose smaller families. The ability to make fundamental decisions about pregnancy and family size depends on far more than contraception. It also depends on the extent to which there is gender equality; on economics and geography; on levels of education; and on fulfilment of rights to education, security and freedom of expression.

Similarly, in low-fertility countries, governments can help individuals have more children through direct means, such as providing free or low-cost treatment for infertility, or through measures that would enable couples or individuals to overcome economic obstacles to starting or expanding families. Depending on the country, this might include affordable housing, quality childcare services, better-paid maternity and paternity leave, or arrangements for work-life balance.

Through actions across the life cycle that respect and reinforce rights, including reproductive rights, governments can address demographic concerns while enabling more people to realize their own goals.

Bolstering individual rights, achieving national goals

The extent to which an individual enjoys and exercises reproductive rights has a direct impact on fertility. In countries where reproductive rights are denied, fertility rates are generally high. In countries where reproductive rights are upheld, fertility rates are generally low. And in countries where rights are upheld but economic and other barriers impede full enjoyment of reproductive rights, fertility rates may be too low to sustain a stable population.

Each level of fertility is associated with challenges for individuals, communities and governments. High fertility may contribute to extreme poverty, high rates of maternal and child death, diminished human capital, and strains on institutions that provide services, such as education and health. Low fertility is associated with ageing populations, which raises concerns about a shrinking base to contribute to social security and social safety nets, and about prospects for future economic growth.

Before 1950, demographers had predicted that, as child death rates fell, fertility would fall in all countries to around the replacement level (Notestein, 1945). But 68 years later, this universal decline has not yet materialized. The reality is that many countries that have lower child mortality rates still have high fertility rates, and an increasing number of countries have fertility rates that are well below the replacement level.

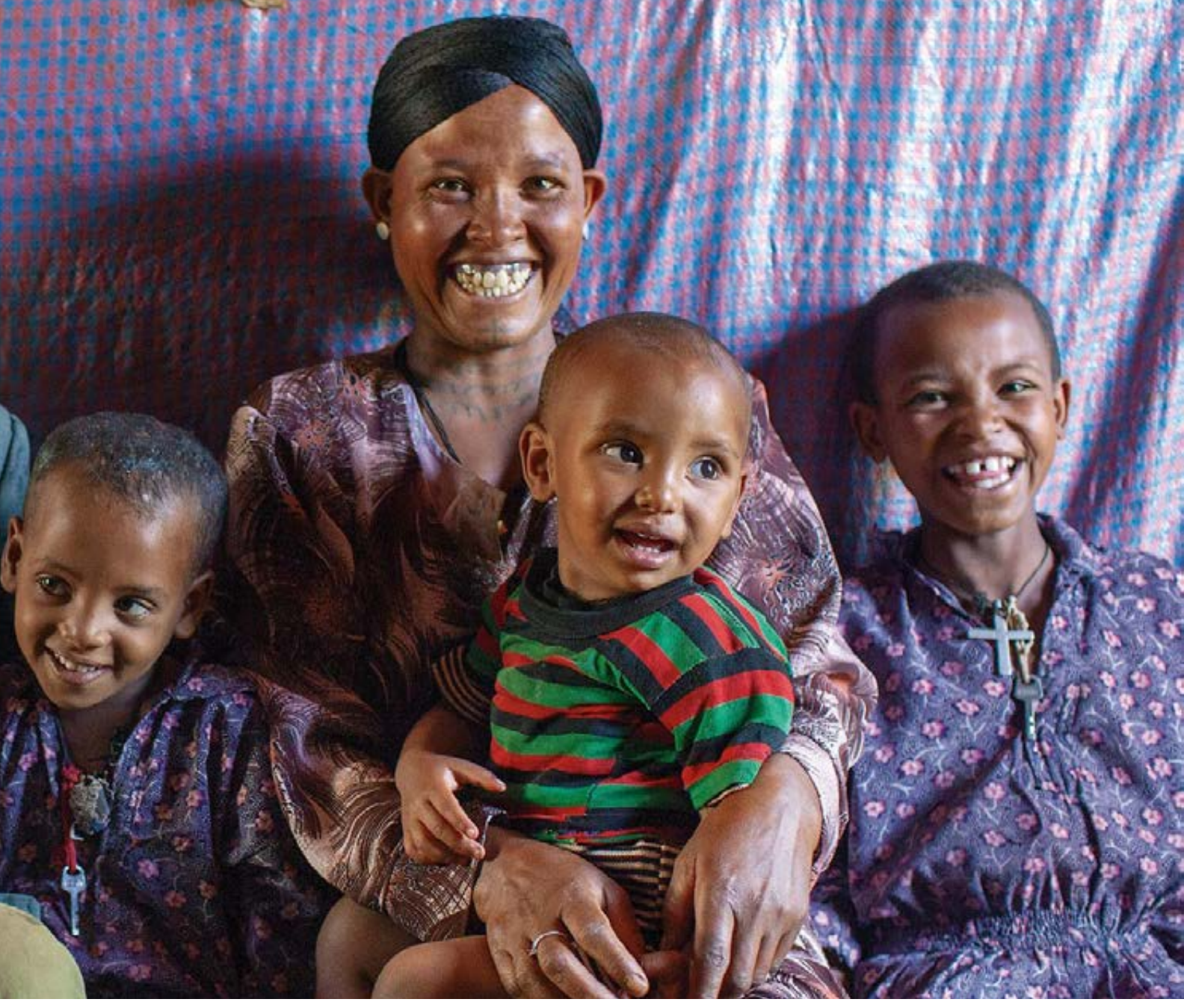
All else being equal, fertility trends are likely to follow the pathway they have been on. Changing this pathway will require actions to bolster rights and tear down any remaining obstacles to people achieving their own fertility desires.



CHAPTER 2

A legacy of large families

Of 43 parts of the world with fertility of four or more births per woman today, 38 are in Africa. Outside Africa, Afghanistan, Iraq, Palestine, Timor-Leste and Yemen have fertility of four or higher, and are exceptional in that they have experienced conflict or crisis in the past few decades (Figure 6).



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Although the fertility transition is under way in sub-Saharan Africa, it is progressing more slowly than in other regions. Fertility has dropped slightly throughout the region during the past 50 years, and significantly so in some parts of the continent, but since then has stalled in a number of countries.

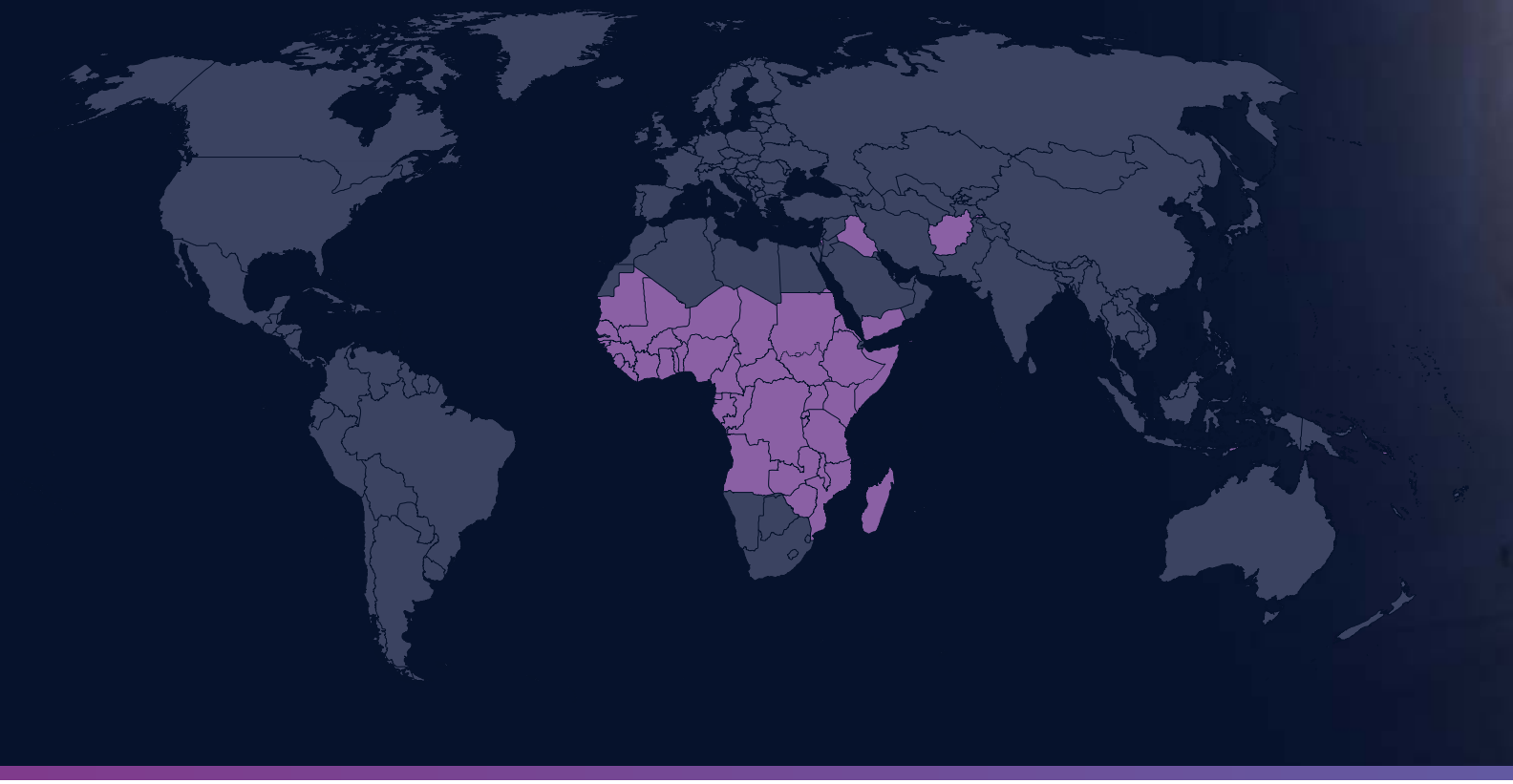
The transition is so slow and unpredictable that the United Nations since 2002 has had to repeatedly revise upward its population projections for most countries in the region (Casterline, 2017).

Because of continued high fertility, sub-Saharan Africa is expected to contribute more than half of the anticipated growth in world population from now until 2050—that is, 1.3 billion people out of the 2.2 billion that will be added worldwide. If these predictions

FIGURE 6

FERTILITY RATE

GREATER THAN **4** BIRTHS PER WOMAN



are correct, Africa's share of the world population will grow from 17 per cent in 2017 to 26 per cent in 2050.

Persistently high fertility means that the increase in the number of younger people in the years ahead will make it harder for countries to ensure access to quality education and health care, and for economies to generate sufficient opportunities to productively engage the many young people entering the labour market.

The extent to which individuals and couples are able to exercise their reproductive rights can determine whether fertility in the region remains high or decreases in the coming years. How governments support these rights will therefore have implications for countries' social and economic development.



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Trends and impact

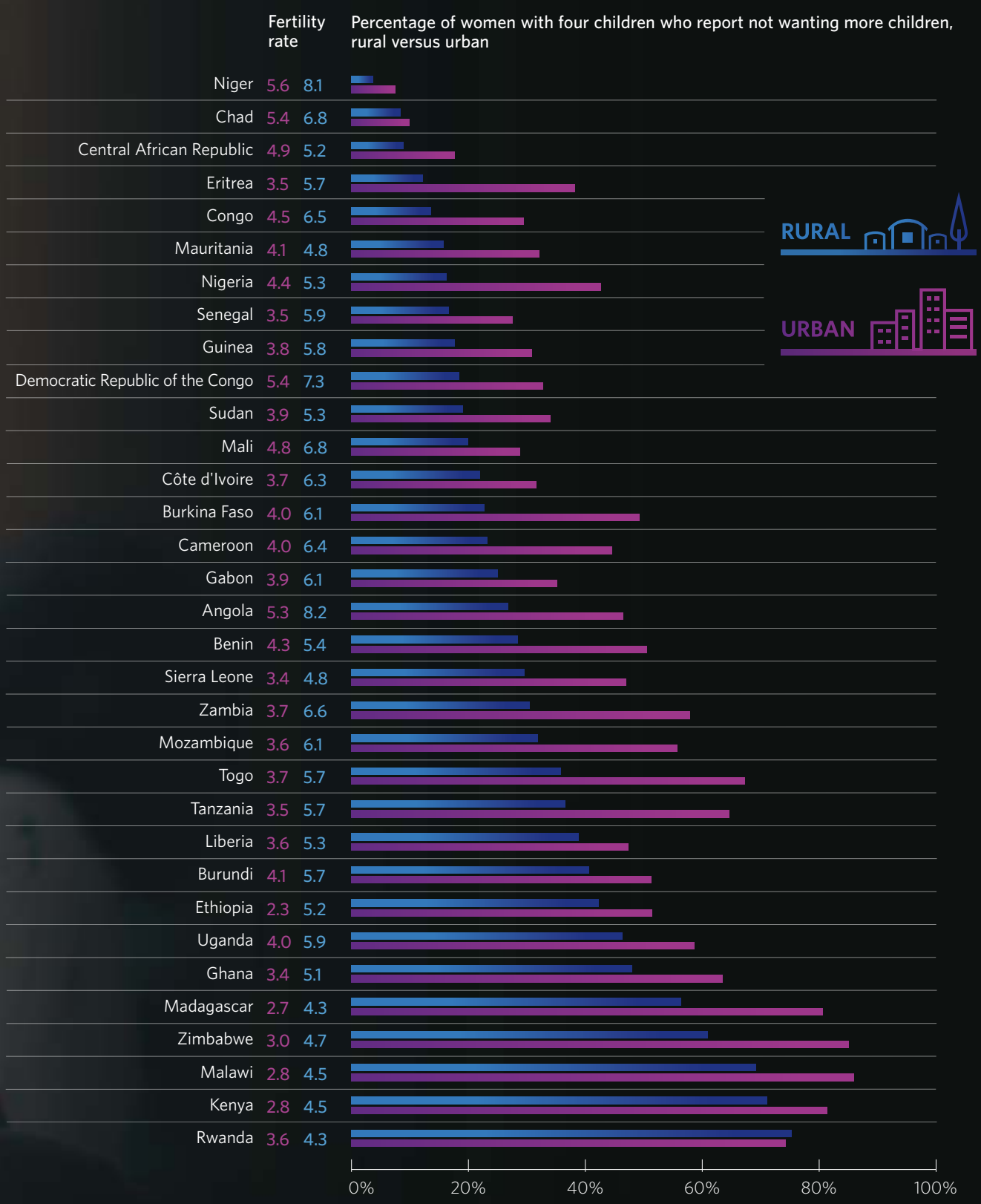
In 1950, Africa's average fertility was six or more births per woman. In the 1960s, fertility began decreasing in Southern and Northern Africa, reaching 2.6 and 3.2, respectively, by 2015. Meanwhile, fertility in the rest of sub-Saharan Africa started rising in the 1960s and into the 1970s. The fertility transitions in Eastern and Western Africa began in the 1980s and in Central Africa in the mid-1990s. The fertility rate for all of sub-Saharan Africa today is about 5.1 births per woman.

Throughout the region, fertility rates today are significantly lower in cities than in rural areas (Figure 7). In Ethiopia, for example, the total fertility rate is approaching replacement level in urban areas, whereas it is still above five births per woman in the rest of the country.



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Figure 7



Source: ICF



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Urbanization is a major driver of fertility reduction, and lower overall fertility rates should be expected as sub-Saharan Africa becomes more urban.

In the absence of high mortality or emigration rates, high rates of fertility mean faster population growth, which creates challenges for governments already struggling to meet the demand for education and health services, and to sustain development gains. Rapid population growth can also hamper progress towards the Sustainable Development Goals. Some countries may, for example, fall short of Goal 1 (to eliminate poverty by 2030), Goal 3 (to achieve good health and well-being), and other goals related to sustainable cities and decent work for all (Herrmann, 2015).

Declining fertility rates are leading to a shift in the age structure of sub-Saharan Africa's population, with a disproportionately large number of people who are young. Although this creates the potential for a "demographic dividend", the sheer number of young people entering working age means that the need for new employment opportunities will keep increasing. The current unemployment rate in sub-Saharan Africa is about 11 per cent, but youth unemployment tends to be much higher (ILO, 2016). In South Africa, for example, half of all active youth are unemployed. Furthermore, in poor countries that provide no or low unemployment benefits, underemployment is much more pervasive. This means that everybody



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is doing some work to try to make ends meet, but few hold productive and remunerative employment, and, despite working, most live in poverty.

High rates of unemployment, together with a high risk of poverty even when employed, and a lack of opportunities for high-quality jobs, can shape young people's decisions to migrate abroad permanently. An estimated 38 per cent of young people in sub-Saharan Africa today are inclined to move to other countries (ILO, 2016).

What buoys fertility?

The demographic trajectory of sub-Saharan Africa is partly the result of processes that unfolded during a century of colonial rule,

The current unemployment rate in sub-Saharan Africa is about 11 per cent, but youth unemployment tends to be much higher.

which brought disease, conflict and other forces that exacerbated already high mortality rates in the region (Caldwell, 1985; Dawson, 1987; Turshen, 1987; Coquery-Vidrovitch, 1988). Fertility needed to be high enough both to compensate for high mortality rates and to meet the huge demand for labour of a production system that had to satisfy the needs of European countries while continuing to produce staple foods (Cordell et al., 1987).

In response to this double driver of high fertility, communities developed norms, practices and social structures that prioritized childbearing and child survival (Meillassoux, 1977; Page and Lesthaeghe, 1981; Caldwell, 1982, 1985; Caldwell and Caldwell, 1987).

Achieving "reproductive success" during the colonial period often meant denying individuals and couples any autonomy in making decisions about whether, when or how often to have children. Marriage was mainly a contract not between individuals but between families, which condoned child marriage, polygamy and widow inheritance to maximize a woman's lifetime reproductive potential.

A large age gap between spouses reinforced inequitable gender norms, and made men's voices far more dominant than women's in decisions about childbearing and almost every other matter. In this context, a woman's status was in large part determined by her fecundity, and the number and age of her children. These norms have proven to be remarkably resilient, despite recent economic and social changes.

High fertility in sub-Saharan Africa is sustained today by a continued high demand for children and by inadequate means for individuals to limit family size (Casterline and Agyei-Mensah, 2017); specifically, there is a high unmet need for contraception.



FOCUS ON **NIGER**

"I want to plan my future."

Hassia, 19



A life skills programme in Niger empowers girls to make their own decisions

© UNFPA/Ollivier Girard

Hassia, 19, carries her 10-month-old baby Abdoulaziz in a pouch on her back. She concentrates on the chalkboard in front of her. She is learning to write in Zarma, the language of western Niger.

Around her are two dozen other girls and young women, several who are married or engaged. Most wear hijabs that are sky blue, a popular colour at the moment.

Hassia is one of the 64,000 adolescent girls enrolled in Niger's Illimin (the Hausa word for knowledge) programme this year. The programme, which helps adolescents acquire life skills and knowledge, and become more independent, is part of a broader effort to protect girls from child marriage and early pregnancy. More than two out of three girls in Niger are married before age 18. Once married, girls are typically expected to begin bearing

children. Niger has the world's second highest adolescent birth rate.

"Illimin is aimed at adolescent girls between ages 10 and 19 because they account for about one in seven births and about one in three maternal deaths in this country", UNFPA (United Nations Population Fund) Assistant Representative Hassan Ali explains. "The majority of girls this age in Niger cannot read or write", Ali adds. "They're the ones who are especially vulnerable to child marriage and early pregnancy, and stand to benefit the most from Illimin."

In addition to learning how to read and write, Hassia also learns about practical matters such as managing money, and acquires sewing, embroidery and other skills that may one day help her earn a living. But she also learns about nutrition, hygiene, her body, relationships, rights and contraception.

Through the programme, older "godmothers" from the community accompany girls to local clinics, where they can learn more about contraception and can receive it free of charge.

Hassia had not intended to become pregnant with Abdoulaziz. The 30-year-old man she was seeing at the time had assured her he was using protection. When she did become pregnant, he left her.

When Hassia was a child, her father died, and, soon after, her mother abandoned her and her younger sister, leaving them with no place to go

© UNFPA/Ollivier Girard



"I want my children to have a good education and to live a different life from mine."

but an orphanage. When she reached age 12, Hassia went to live with her grandmother. "She was the only person in my family I knew", Hassia says. "She wanted me to keep her company, so I agreed."

A couple of years later, Hassia started working as a domestic servant and contributed her earnings to her grandmother's household. But one day, her grandmother saw that her belly was becoming round. Realizing that Hassia was pregnant, her grandmother kicked her out of the house. A few months later, Hassia gave birth to her first child, Oumou, now 3.

"I was completely ignorant about sex", Hassia says. "In the orphanage, girls and boys were separated, so I never learned about the risks."

"Since going to Illimin, I feel a lot more positive", Hassia says. "I'm learning how to protect myself. I've made friends. We can talk about anything between ourselves, without fear. I want my children to have a good education and to live a different life from mine."

Hassia now uses a contraceptive implant, which she receives through a local clinic. "I want to plan my future", Hassia says. Fatouma Boubacar, 35, says the girls she mentors through Illimin emerge stronger, more aware and more self-confident: "By the end of the programme, girls like Hassia learn they have the power to say no." One girl she mentored was about to be forced into marriage by her parents. "She refused, and she was only 14."

Demand for children

The demand for children is higher on average in sub-Saharan Africa than in any other region.

The mean ideal number of children for women aged 15–49 varies greatly between countries and between social strata in countries. It ranges from 3.6 in Rwanda to 9.5 in Niger.

Women's mean desired number of children is below four only in Kenya (3.9), Malawi (3.9) and Rwanda (3.6). Married men typically prefer more children than married women. The exception is Rwanda, where women prefer an average of 3.6 children, compared with men, who prefer 3.1. In Burundi, men and women prefer the same number, 4.3. The number of children that married men prefer is highest in Chad, at 13.2.

The desire for larger families in the region is also evident among women who already have four children. In all but five East African countries, less than half of these women report not wanting any more children. The share of women who prefer not to have more than four children is larger in urban areas, except in Rwanda.

The norms and practices that drove high fertility in the past century are still common today in most rural areas. The demand for children today is affected by the level of dependence on the household economy and the reproductive norms that accompany this dependence. Factors that reduce this dependence include increasing formal education, success in creating wealth in the modern economy, and migration and exposure to other norms, particularly ones related to individual rights and gender roles.

Everywhere in the region, those who have at least a secondary education want—and have—fewer children than those with a primary education or less. Similarly, people with greater

Rwandan men leading the trend towards smaller families

Sociocultural norms and traditional practices stand as barriers to the fulfilment of reproductive rights and the acceleration of the demographic transition, a precondition to an eagerly sought demographic dividend. Changing norms and traditional practices relating to reproduction is no small proposition. But Rwanda's experience demonstrates that, with political will, national governments can bring about change in a relatively short time in ways that enhance reproductive rights.

After strife that culminated in the 1994 genocide, the leadership of Rwanda—continental Africa's most densely populated country—changed its approach to rapid population growth and a fertility rate that was once as high as 8.7 births per woman (Cohen, 1993).

The new approach revolved around making voluntary family planning more available and accessible to all, even in the remotest communities. The move led to an unprecedented increase in contraceptive prevalence among women who are married or in a union, from 10 per cent in 2005 to 45 per cent five years later.

The rapid increase partly resulted from government campaigns that helped shift attitudes about contraception from taboo to a national development priority (Solo, 2008). At the same time, campaigns also helped shift men's views about reproduction, family size and family planning.

One objective of Rwanda's reproductive health policy of 2003 was to strengthen men's participation in the national family planning programme.

A massive communication and social mobilization campaign, coupled with targeted efforts to raise men's awareness, were the key strategies (Republic of Rwanda, 2003). Meanwhile, politicians at all levels routinely cited the importance of family planning to help couples realize their own goals to have smaller families (May and Kamurase, 2009). Together, these actions supported rapid and broad-based adoption of family planning.

Findings from demographic and health surveys suggest that the country's family planning campaigns since 2005 have transformed Rwanda into sub-Saharan Africa's only country where the proportion of men who say they want no more children is higher than that of women, regardless of the number of children the women already have at all parity levels.

wealth prefer fewer children than those who are poorer (Figure 8). Demand for children today is also influenced by age: the younger generation generally prefers fewer children than their parents did.

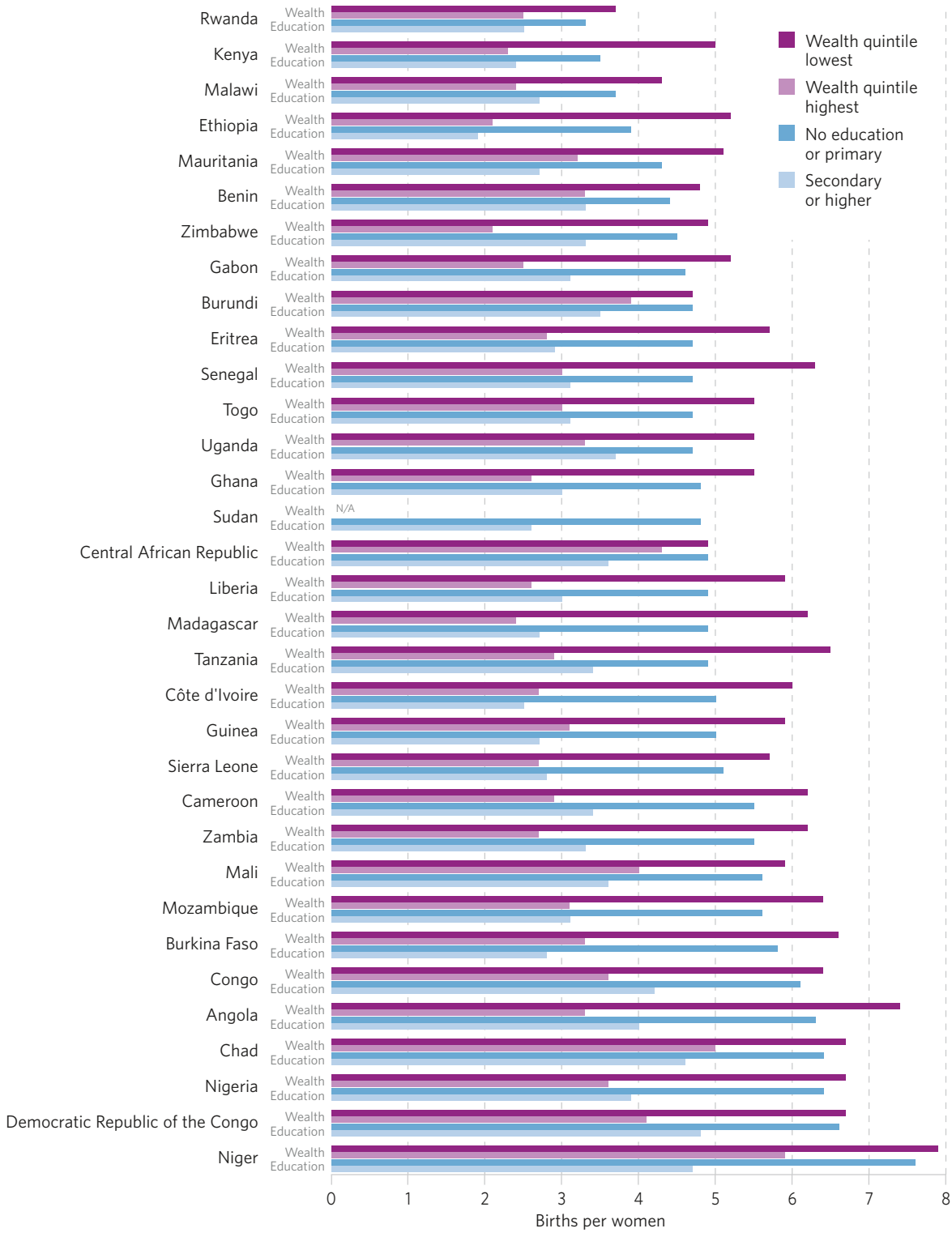
Child mortality

High rates of child death—or an elevated risk of losing a child—lead many in sub-Saharan Africa to have larger families.

Despite major gains in child survival rates over the past two decades, child mortality persists. In many parts of the region, child mortality is at levels that were prevalent in Europe more than a century ago.

The region continues to have the highest rates of child mortality in the world, with the risk of a child dying before reaching 5 years of age roughly 15 times the rate in high-income countries (UNICEF, 2017). Pneumonia, the single largest

FIGURE 8 Wanted total fertility rates, by education level and wealth quintile



N/A, not available.

Source: ICF

More than 1 million babies die each year in their first four weeks of life, reflecting in part the weakness of existing maternal and child health programmes in the region.

killer of children under the age of 5, is responsible for 22 per cent of deaths. It is followed by malaria, which is responsible for 15.3 per cent of deaths of children in sub-Saharan Africa.

In 2015, 90 per cent of the estimated 212 million malaria cases worldwide and 92 per cent of the 429,000 malaria deaths occurred in sub-Saharan Africa. The most dangerous and deadly malaria parasite, *Plasmodium falciparum,* is endemic in much of the region (WHO, 2016).

More than 1 million babies die each year in their first four weeks of life, reflecting in part the weakness of existing maternal and child health programmes in the region.

Unmet need for family planning

Women and couples in the region continue to struggle to control their reproductive lives. Access to, and use of, modern contraception is low relative to other regions.

An estimated 21 per cent of women in the region want to avoid a pregnancy but are not using a modern contraceptive method and thus have an "unmet need" for family planning (Guttmacher Institute, 2017). Meanwhile, 19.7 million—or 38 per cent—of the region's pregnancies each year are unintended. Modern contraceptive use among women who are married or in a union in the region is more prevalent in urban areas than in rural areas (Figure 9).

Reasons for the unmet need for contraception in sub-Saharan Africa—and other developing regions—include the absence of a preferred method of contraception or an unreliable supply of it, concerns about safety and side effects, cost, opposition from family members, laws that limit access for young or unmarried people, and judgmental or unskilled service providers (Sedgh et al., 2016b).

Child marriage

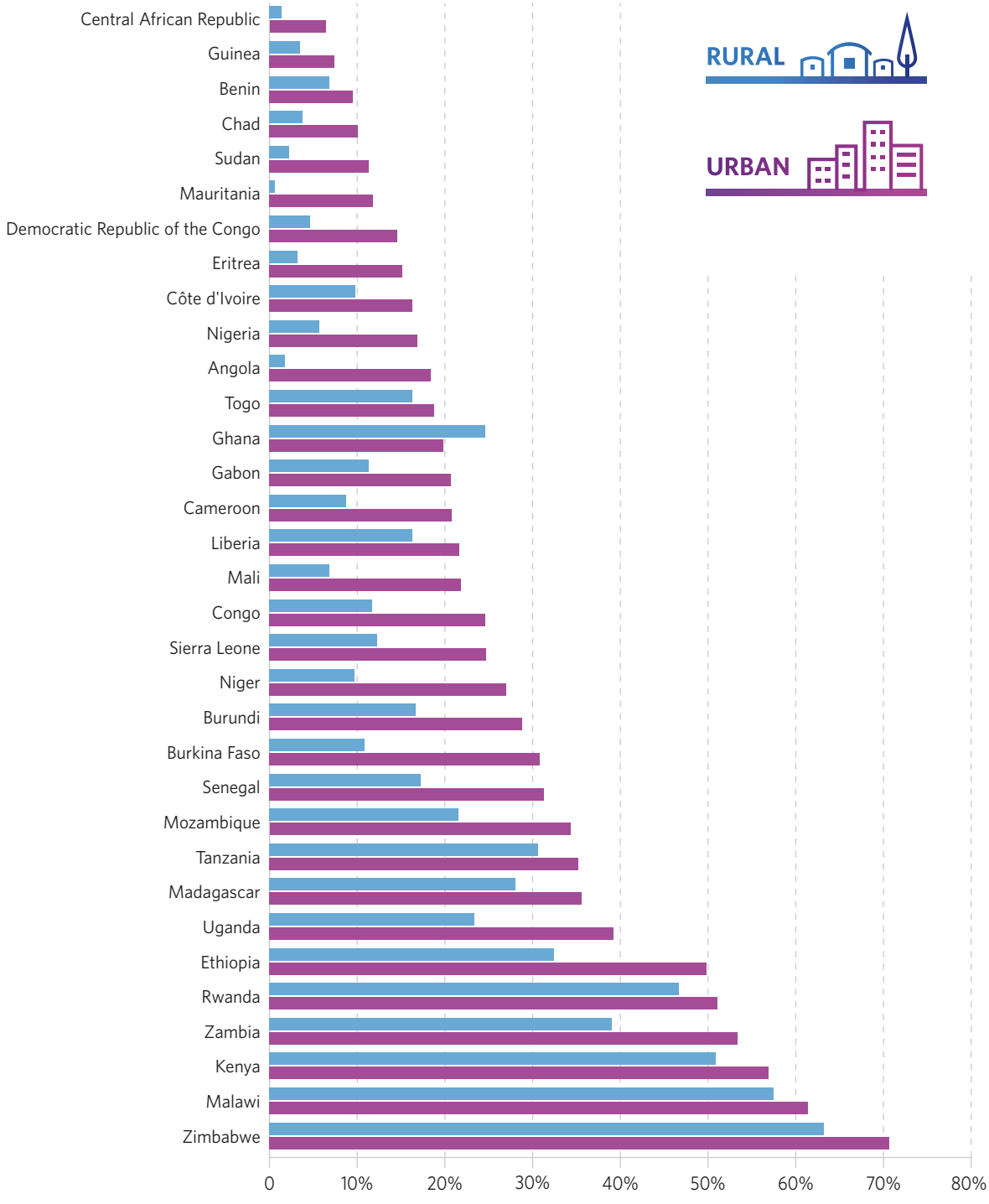
Child marriage disproportionately affects girls. In sub-Saharan Africa, an estimated 38 per cent of women are married by the age of 18, and 12 per cent by the age of 15 (UNICEF, 2018). Within the region, the highest rate is in Niger, where 76 percent of girls marry by the age of 18.

Most of the world's births to adolescents—95 per cent—occur in developing countries, and 9 in 10 of these births occur within marriage or a union. According to the World Health Organization, pregnancy complications—such as haemorrhage, sepsis and obstructed labour—and complications from unsafe abortions are the top causes of death among girls aged 15–19.

Child marriage and the early childbearing associated with it also have negative socioeconomic effects by disrupting girls' education and thus closing off future opportunities for paid work outside the home. Related consequences include underemployment and reduced earnings in adulthood (Lee, 2010; Herrera and Sahn, 2015; Wodon et al., 2017).

In a broad sense, child marriage denies girls a say in decisions that affect their lives, adversely affects women's empowerment and contributes to

FIGURE 9 Percentage of married women using a modern contraceptive method, rural versus urban



Source: ICF



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the transmission of gender inequalities across generations (Hindin, 2012). Furthermore, child brides are more vulnerable to abuse, a problem that is accentuated by large age differences between them and their partners. Married girls also have little or no power to access family planning information and services.

Shaping Africa's future through a demographic dividend

An estimated 60 per cent of the region's population is below the age of 25. Sub-Saharan Africa's large and growing populations of young people present a time-bound opportunity for accelerated economic growth through a demographic dividend, for which the African Union has developed a roadmap (African Union Commission, 2017).

A demographic dividend is the potential for economic growth that results from shifts in a population's age structure when the share of the working-age population is relatively larger than that of the non-working-age population. This shift takes place when mortality rates start falling but fertility rates remain high, resulting in a very large population of youth, both absolutely and relative to the population of older people. As these young people reach the age where they begin to work, the sheer number of workers in the population relative to those who are dependants can give economies a temporary, but significant, boost in growth (Lee and Mason, 2006).

However, the size and impact of the demographic dividend depend on how much investment is made in the human capital of these youth. If they are empowered, educated and employed, they can help countries realize the dividend; if they are not, they will themselves be dependent on support.

Because much of sub-Saharan Africa is starting demographic transitions, the time is right for increased and targeted investments in education and health, including reproductive health, to empower the region's large and expanding youth populations to seize economic opportunities that arise in the coming years.

Realizing a demographic dividend also depends on the effective operation of labour and capital markets, and governance that creates an environment that is attractive to local and foreign private investments. Efforts to strengthen the supply side of labour through investments in human capital must be complemented by strong economic growth, which increases the demand for labour. Both conditions are essential to absorb people in productive and remunerative employment, or create meaningful opportunities for entrepreneurship.

If maximized, the demographic dividend would accelerate economic growth and poverty reduction. Some of these results are already being realized. After the "lost decades" of the 1980s and 1990s, economic conditions have improved significantly in sub-Saharan Africa, and the continent as a whole was able to almost double its per capita gross domestic product (GDP) between 2000 and 2016 (Figure 10).

The only country that experienced economic decline in this 16-year period was Zimbabwe. Two countries, Ethiopia and Rwanda, tripled their per capita GDP. A challenge for all countries in the region is to sustain or accelerate economic growth to keep up with demand for services, such as education and health, and jobs that will rise as populations grow. Despite progress in many of the poorest countries, they are falling further behind the more developed countries.

The magnitude of the demographic dividend depends in part on the pace of fertility decline, which in turn depends on the extent to which the sexual and reproductive health and rights of women and girls are protected, and the extent to which women have the power, information and means to make their own decisions about whether, when and how often they become pregnant.

FIGURE 10

Per capita gross domestic product

(purchasing power parity; current international dollars)

COUNTRY/AREA	2000	2016	PER CAPITA GDP 2016/2000
Angola	2,781	6,499	2.34
Benin	1,321	2,168	1.64
Burkina Faso	829	1,720	2.07
Burundi	598	778	1.30
Cameroon	1,987	3,286	1.65
Central African Republic	649	699	1.08
Chad	787	1,991	2.53
Congo	3,551	5,719	1.61
Côte d'Ivoire	2,336	3,720	1.59
Democratic Republic of the Congo	419	801	1.91
Gabon	14,095	18,108	1.28
Ghana	1,791	4,294	2.40
Guinea	896	1,311	1.46
Ethiopia	490	1,735	3.54
Kenya	1,690	3,156	1.87
Liberia	665	813	1.22
Madagascar	1,145	1,506	1.32
Malawi	686	1,169	1.70
Mali	1,160	2,117	1.83
Mauritania	2,181	3,854	1.77
Niger	597	978	1.64
Nigeria	2,258	5,867	2.60
Rwanda	623	1,913	3.07
Senegal	1,512	2,568	1.70
Sierra Leone	723	1,473	2.04
Sudan	1,812	4,730	2.61
Tanzania	1,174	2,787	2.37
Togo	1,012	1,491	1.47
Uganda	846	1,849	2.19
Zambia	1,667	3,922	2.35
Zimbabwe	2,038	2,006	0.98
Sub-Saharan Africa	**1,900**	**3,711**	**1.95**

Source: World Bank (2017)

Greater access to formal education is a major driver of fertility decline; the longer girls remain in school, the less likely they are to be married—and pregnant—in childhood. Educated women are also in a better position to break the barriers to decent, paid employment later in life.

The demographic dividend envisioned by the African Union in 2017 may not be fully realized in the context of persistent gender discrimination and inequality, which leave many women and girls disempowered and disenfranchised.

The future

Fertility decline in sub-Saharan Africa will not accelerate unless the norms that sustain high fertility change more rapidly. This includes changes to the social and economic systems that evolved in response to high mortality, especially those related to gender roles in society.

Urbanization and modernization of African economies have resulted in alternative opportunities for women's economic success outside the household economy. At the same time, urbanization, higher levels of education for girls and women, and declining infant and child mortality have helped gradually reduce the demand for large families.

Further and more rapid reductions in fertility will depend on how empowered individuals and couples are to make their own decisions about family size. In most African countries, family planning programmes are not sufficiently developed to provide quality services to those who need them most, particularly poor urban and rural populations. Making quality family planning services more widely and consistently available could result in an increasing demand for these services and, in turn, lower fertility.



FOCUS ON **KENYA**

"We want our children to have a better life than we had."

Sharrow, 32



Kenyans want smaller families so they may give their children better lives

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Sharrow became pregnant soon after she married Stanley, even though the couple had planned to wait a couple of years before starting a family.

After their son Christiano was born, they agreed to focus their attention on giving him the best life possible. And that meant using family planning to prevent another pregnancy.

People in Kenya prefer to have fewer children and take better care of the ones they have, according to Dan Okoro, a sexual and reproductive health specialist in the UNFPA office in Nairobi. More and more couples are choosing to use family planning to prevent, delay or space pregnancies.

Since the 1970s, when a Kenyan woman had an average of more than eight births, family size has

been shrinking. Today, a woman has an average of just under four births in her lifetime. Greater access to free or low-cost contraception and information about its use are partially credited for the reduction in fertility.

Family planning is increasingly used by sexually active young women. "Taboos surrounding family planning are generally a thing of the past", says Rachel Muthui, a volunteer at the UNFPA-supported youth health centre, Family Health Option Kenya. "Young women now feel empowered and are able to make their own decisions."

"Family planning services are also helping teenage girls avoid pregnancy and complete their education, equipping them to get good jobs", Muthui adds. "Teenage girls who become pregnant usually leave school early, and that hurts their chances for jobs and good incomes in the future. That's why girls need to know about family planning options before they become sexually active", she explains.

Nationally, 6 in 10 married women use a modern method of contraception. But in some rural areas, only about

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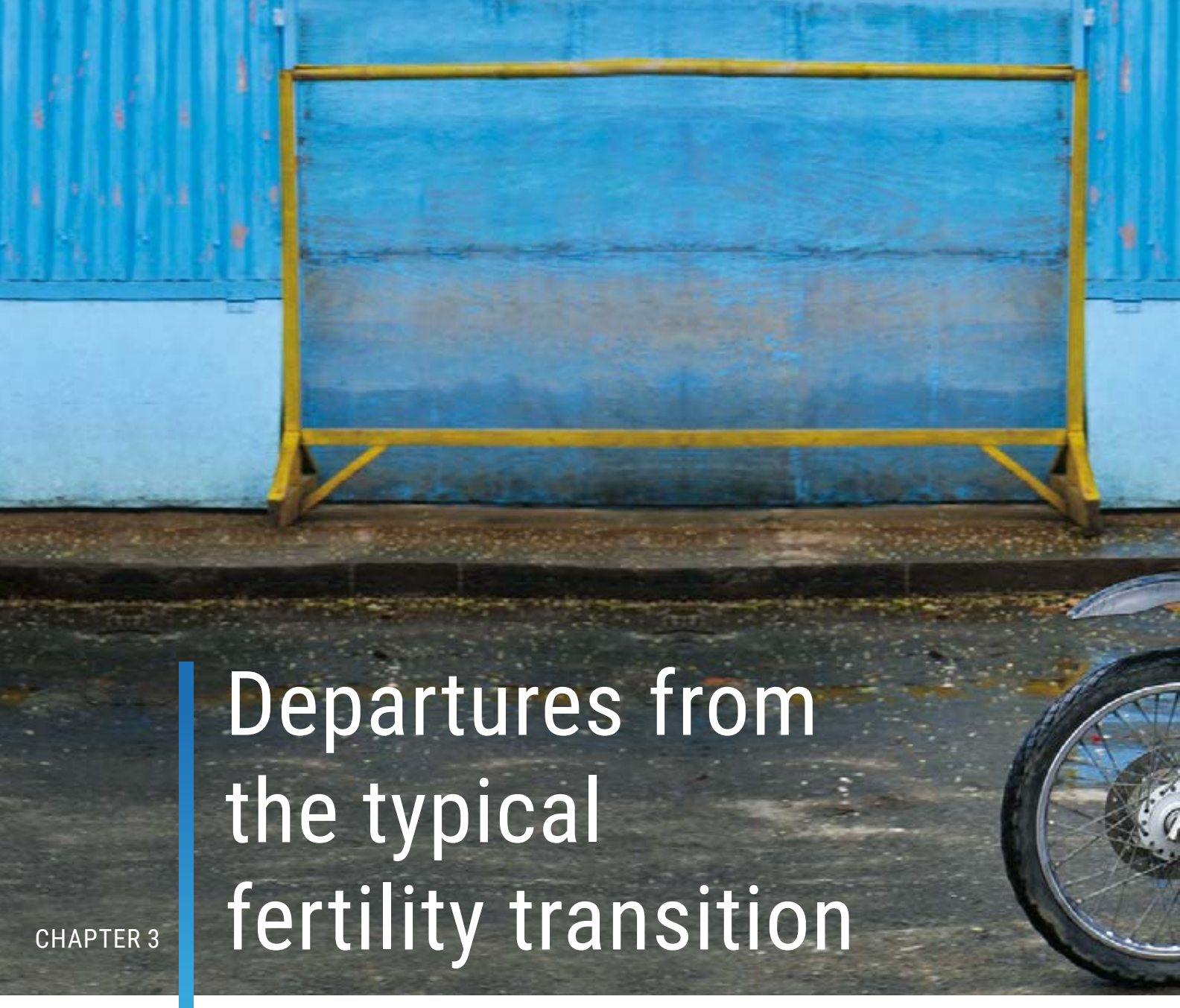
1 in 20 uses a modern method. Part of the problem is the lack of services in remote areas. But another part in some communities is women's lack of power to make their own decisions about preventing pregnancy, coupled with too little information about contraceptive options, according to Josephine Kibaru-Mbae, Director-General of the National Council for Population and Development.

Sharrow and Stanley used family planning for seven years—until their son finished primary school—before having their second child, Tina, last year. Before Tina was born, the couple had managed to put away enough money to send their son, now 8, to a good secondary school. Sharrow is again using family planning, and plans to return to school and start her own catering business.

"We want our children to have a better life than we had", Sharrow says. "I will do what I can to help them achieve their dreams."



Sharrow and Stanley used family planning for seven years—until their son finished primary school—before having their second child.



CHAPTER 3

Departures from the typical fertility transition

Fertility normally begins falling as socioeconomic development progresses, according to conventional demographic transition theory (Notestein, 1953; Easterlin, 1975). As countries become more industrialized, educated and urban, the costs associated with having children rise and the benefits of having large families fall.



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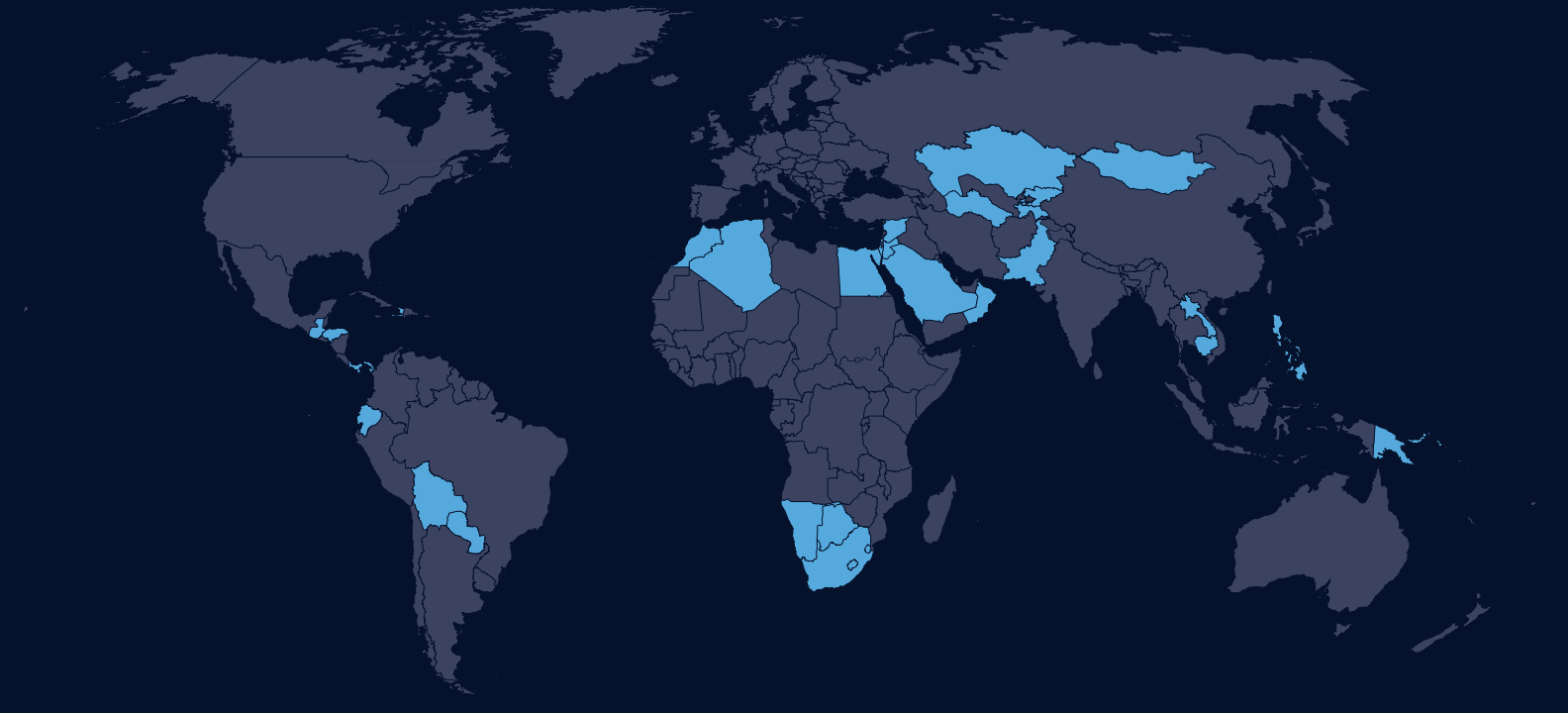
The combination usually leads to a desire to have fewer children. Once a country has begun a fertility transition, it usually continues, with the fertility rate falling to around the replacement level: 2.1 births per woman.

Although this typical path to lower fertility has been seen in most countries, different patterns have emerged in countries that today have fertility of between 2.5 and 3.9 births per woman (Figure 11). In some of these countries, the pace of a long-running fertility decline has slowed; in others, fertility has risen again after years of decline. In the former group of countries, slowing declines are sometimes attributable to government cutbacks in family planning programmes. In the latter group, fertility rebounds have usually occurred once an economic or other crisis has ended.

FIGURE 11

FERTILITY RATE

BETWEEN **2.5** AND **3.9** BIRTHS PER WOMAN



All these countries saw significant declines in fertility in the 1990s, but rates started moving in different directions after 2000, with clear differences by region and subregion (Figure 12). In five countries of South and South-East Asia, for example, average fertility rates dropped steadily from 5.3 to 3.1 between 1990 and 2015. Over that same period, the average fertility rate in seven countries of Latin America and the Caribbean also dropped continuously from 4.6 to 2.7. In Southern Africa, fertility rates declined during the 1990s, but the pace slowed substantially after 2000, falling from an average of 3.7 to 3.0 births per woman between 2000 and 2015. Arab States and Central Asian countries had declining fertility in the early 2000s and then rebounded.

Although 30 countries have fertility rates between 2.5 and 3.9, this chapter covers only the 15 for which Demographic and Health Surveys conducted in 2000 or later have yielded data

FIGURE 12

Trends in average total fertility rates, 15 countries, grouped by region, 1990–2015



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on unwanted and mistimed fertility, unmet need for contraception and fertility levels by education: Bolivia, Cambodia, Egypt, Guatemala, Honduras, Jordan, Kyrgyzstan, Lesotho, Morocco, Namibia, Pakistan, the Philippines, Swaziland, Tajikistan and Turkmenistan. The chapter does not address fertility trends in countries with incomplete or only recent data, or countries with economic, demographic or other circumstances that are significantly different from the 15 countries analysed.

All these countries saw significant declines in fertility in the 1990s, but rates started moving in different directions after 2000.

Mistimed births, unplanned pregnancies

As agreed by 179 governments at the 1994 International Conference on Population and Development, individuals and couples have a right to decide whether, when or how often to have children. Many women in the countries where fertility declines have stalled or reversed—and virtually every other country of the world—face challenges in exercising this right. These challenges are reflected in unplanned pregnancies, unwanted fertility, mistimed births and abortions.

Unwanted fertility

Fertility, or a birth, is considered unwanted if it occurs after a woman has reached her desired family size (Rutstein and Rojas, 2006). Data collected through the international Demographic and Health Surveys Program show that the average level of unwanted births ranges among the 15 countries covered in this chapter, from a high of 1.7 in Swaziland to a low of 0.2 in Kyrgyzstan and Turkmenistan (Figure 13).

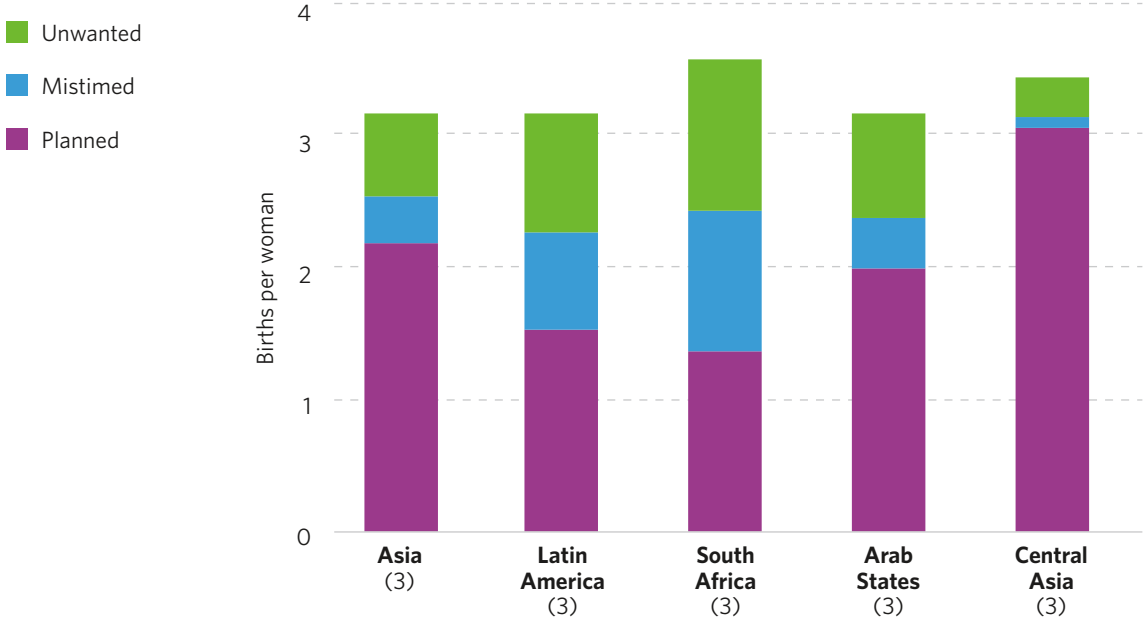
Mistimed births

A mistimed birth is a wanted birth that takes place earlier than intended. Among the 15 countries, the average level of mistimed births ranges from a high of 1.4 in Namibia to a low of 0.06 in Turkmenistan.

Abortion

Reliable and complete statistics on abortion—whether safe or unsafe, legal or illegal—are unavailable for the 15 countries covered in this chapter. Still, the Guttmacher Institute estimates that the share of pregnancies that end in abortion in Southern Africa, South America and Central Asia is 24 per cent, 34 per cent and 26 per cent, respectively.

FIGURE 13 Unwanted, mistimed and planned fertility, 15 countries in 5 regions



Unmet need for contraception

The main direct cause of unplanned pregnancies in the 15 countries covered in this chapter—and globally—is that some women who do not want to get pregnant are not using contraception. These women are considered to have an unmet need for contraception (Westoff and Bankole, 1995).

The level of unmet need varies widely among societies. Data collected through the Demographic and Health Surveys Program show that the unmet need in the 15 countries examined here ranges from a high of 25 per cent in Swaziland to a low of 11 per cent in Honduras (Figure 14).

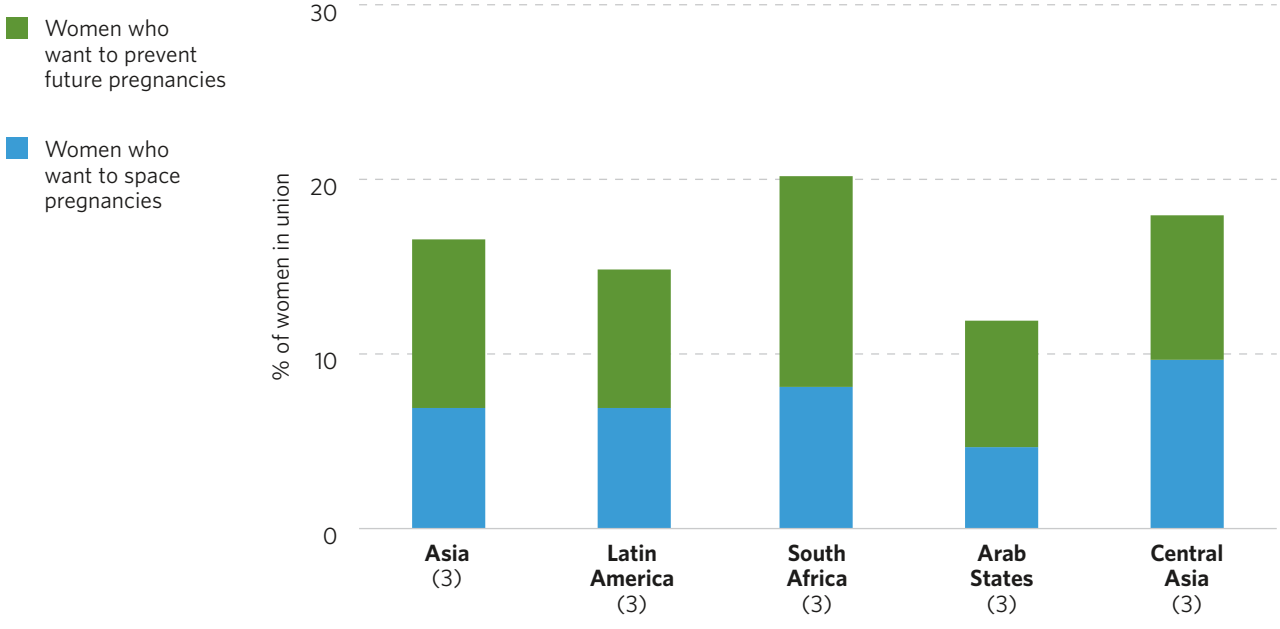
Some women with an unmet need for contraception want to space out their pregnancies, while others have their preferred number of children and want to prevent future pregnancies.

As in many countries, a range of social, health and economic factors pose barriers to women and men who wish to use contraception (Bongaarts et



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FIGURE 14 Percentage of women who have an unmet need for contraception, 15 countries in 5 regions



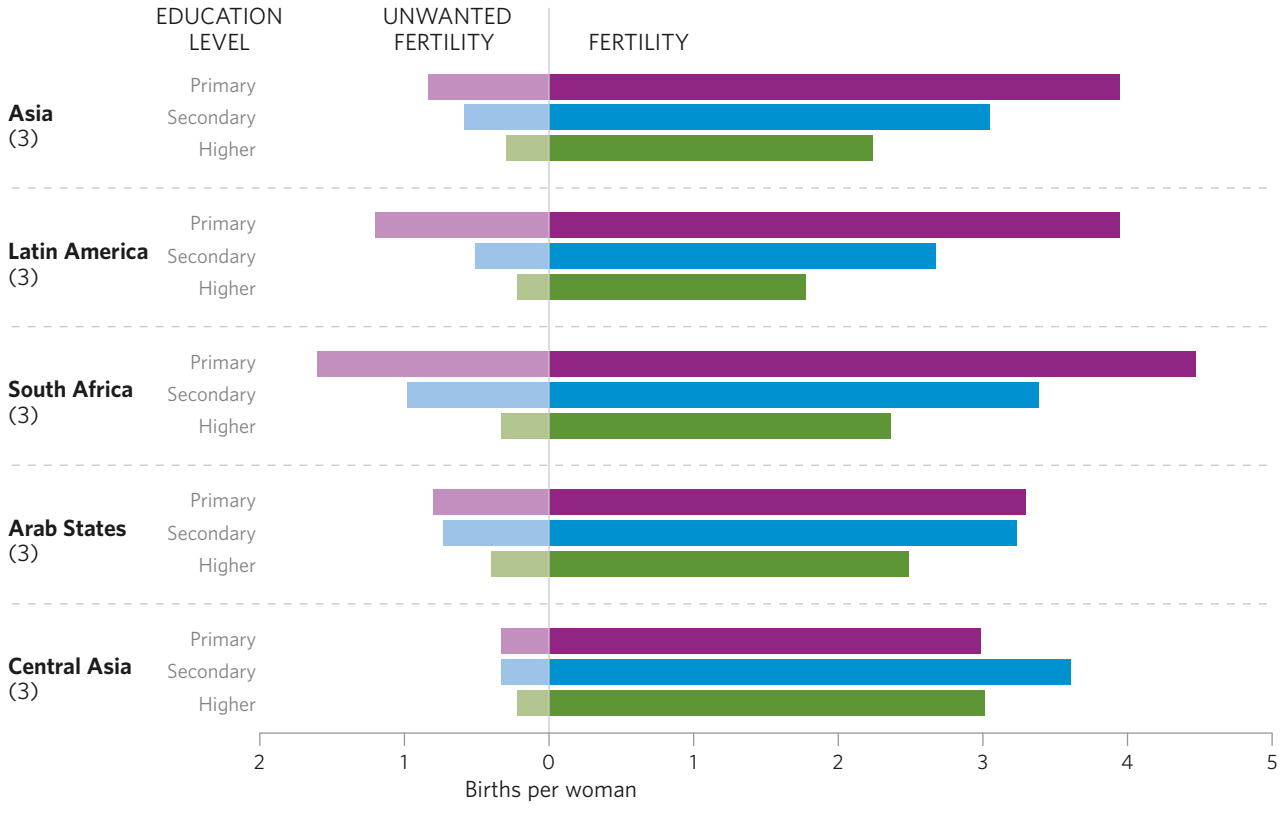
al., 2012; Sedgh and Hussain, 2014). Obstacles include lack of knowledge about contraceptive methods or providers, costs of methods and services, concerns about health and side effects, and concerns about social acceptability. Health concerns are among the most frequently reported reasons for not intending to use contraception. In the 15 countries with recent Demographic and Health Surveys, the highest proportion of women citing health and side effects was in the Philippines (26 per cent). Gender inequality, manifested in husbands overruling wives' decisions to use contraception, is another powerful obstacle.

Socioeconomic factors

As is the case in most other countries, fertility in the 15 countries in this chapter is generally lower among women with higher levels of education (Figure 15). Among these 15 countries, the three in Latin America and the Caribbean have the largest differences in fertility between women with the highest and lowest levels of education. This finding partly reflects higher levels of socioeconomic inequality.

More highly educated women have better newborn and child survival rates, tend to marry later, and have greater autonomy in reproductive

FIGURE 15 Fertility and unwanted fertility by education level, 15 countries in 5 regions



Source: ICF; DHS and USAID (2018)



Helping Bolivia's teenagers prevent pregnancy

© Sanne de Wilde for UNFPA/NOOR

"You can see that young women here in Punata are becoming stronger and more empowered."

Duveiza, 23

Duveiza Alcozer Villaroel, 23, sits at the head of a table where Punata's youth council is gathered.

A bright banner in the background reads "Juventudes de Punata unidos por nuestros derechos". It describes exactly what is happening here: Punata's adolescents are speaking up for their rights.

Punata, situated near Lake Allalay ("very cold" in the Quechua language), is the capital of Cochabamba, the commercial centre of this region in Bolivia. It has 35,000 inhabitants, of whom almost a third are young people.

In 2012, Bolivia passed a law that established youth councils to give young people a voice in the country's policies and governance. The first such council was in Punata.

"There's a lot of work to be done here in Punata, especially in the area of adolescent pregnancy", says Villaroel, director of the youth council. "We'd better get started."

Villaroel says teenagers in her community get pregnant because they don't know about sex or how to prevent a pregnancy, and are too afraid to ask. "I can identify with them", she says. "I became pregnant at 19."

"The day you find out you are pregnant is a day you never forget", she says. "It's like a cold shower."

Getting young people to talk about sex is key to helping teenagers avoid getting pregnant before they're ready. Many feel embarrassed or ashamed to ask questions, and many others feel too awkward to go to a clinic to get contraception.

Youth councils such as the one in Punata are helping bring conversations about sex, pregnancy and contraception out into the open,

© Sanne de Wilde for UNFPA/NOOR



and this is giving girls more power over their lives.

Luigi Burgoa from UNFPA says that four or five years ago, young people didn't talk about contraception. But since the establishment of youth councils, all that has changed. "You can see that young women here in Punata are becoming stronger and more empowered", he says.

Villaroel says she loves her son, who is now 4, but nevertheless wants to do everything in her power to help teenagers have children only when they are ready, and avoid the stress and stigma that often come with pregnancy at that age. She and members of the youth council go to markets and places where young people gather to distribute leaflets about sex and contraception, to help them understand how to avoid pregnancy.

"Sometimes, young people feel embarrassed and run away when they see our flyers", she says. Other times, they "shrug uncomfortably when they see words like condom or implant".

When Villaroel became pregnant, she was in her last year of school. "It was extremely difficult, but I managed to finish and graduate. My child came with me wherever I went."

"I had many aspirations", Villaroel adds. "Sometimes as a mother, you are forced to choose between yourself and your work. I was determined to find a balance, I wanted to work and reach my full potential to make my child proud of me."

decision-making, all of which correlate with lower fertility. Women with more education also have higher incomes and thus may have to forego earnings to have children. More highly educated women typically also have better knowledge about, and access to, contraception and a better understanding of its benefits, and are thus more inclined to use it.

Government-sponsored family planning programmes have a larger impact on fertility of the poor and less educated by increasing their options about the number and timing of pregnancies. Whereas wealthier, more highly educated women have the resources to realize their own fertility goals, the poor face formidable economic obstacles in accessing contraception and must therefore rely on free services offered by national programmes. Where there are stronger national family planning programmes, there is generally lower unwanted fertility. Among the 15 countries covered in this chapter, the Arab States and countries in Asia have stronger programmes. In these countries, the differences in unwanted fertility by education level are smallest.

Plateaus and rebounds

Once the fertility transition begins, fertility normally falls until it approaches replacement level. Countries where this steady decline in fertility stalled or reversed include Algeria, Egypt, Kazakhstan, Kyrgyzstan, Morocco, Namibia, Panama, Tajikistan and Turkmenistan.

Economic shocks, wars and famines can lead couples to temporarily avoid pregnancies. Algeria's fertility, for example, fell to about replacement level in the 1990s, coinciding with conflict in the country. By 2010, after conflict had ended, fertility rebounded to almost three births per woman.

As another example, the economic crisis that hit Central Asian countries in the early 1990s was

accompanied by reductions in fertility (Figure 16). Once the economic crisis subsided in the early 2000s, fertility rebounded. As economic conditions continued to improve, fertility resumed its decline.

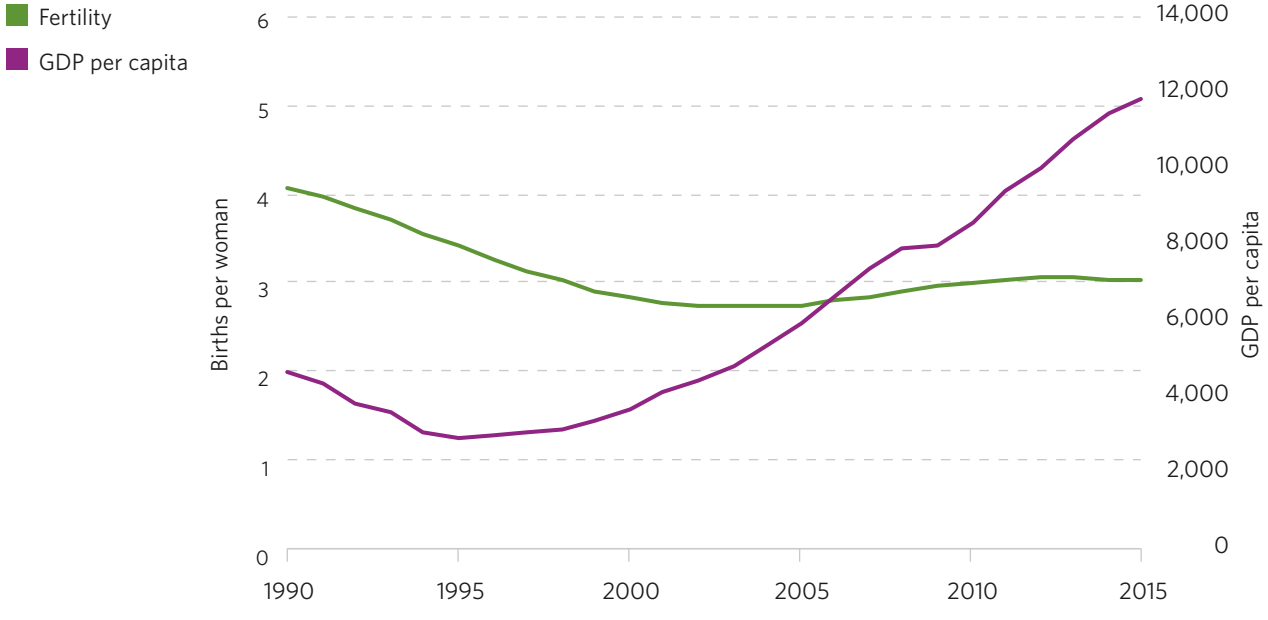
In these four Central Asian countries, unmet need for modern contraception may also buoy fertility. Almost one in five women has an unmet need for contraception in Tajikistan and Kyrgyzstan, stemming partly from limited family planning services (particularly in rural areas), a limited range of contraceptive options, high cost, and limited power to make decisions about contraceptive use.

Unmet need is higher among married women aged 15–24 than among those aged 25–49. In Kyrgyzstan, for example, between 1997 and 2012, unmet need among young married women increased 8.6 percentage points, while use of contraception fell sharply from 45.5 per cent to 19.3 per cent.

Despite the availability of youth-friendly health services in some countries, schools generally do not offer comprehensive sexuality education that is aligned with guidelines from UNFPA and UNESCO (the United Nations Educational, Scientific and Cultural Organization). In addition, child marriage persists, and child brides have limited or no access to reproductive health services, including family planning. A major obstacle faced by child brides is husbands' and in-laws' opposition to contraception.

A decrease in fertility may occur for reasons other than crisis. For example, fertility may decline temporarily when large numbers of women choose to delay pregnancy so that they may complete a secondary or university

FIGURE 16 Trends in gross domestic product per capita (purchasing power parity) and fertility, average of four Central Asian countries



Source: United Nations (2017) and World Bank (2017)

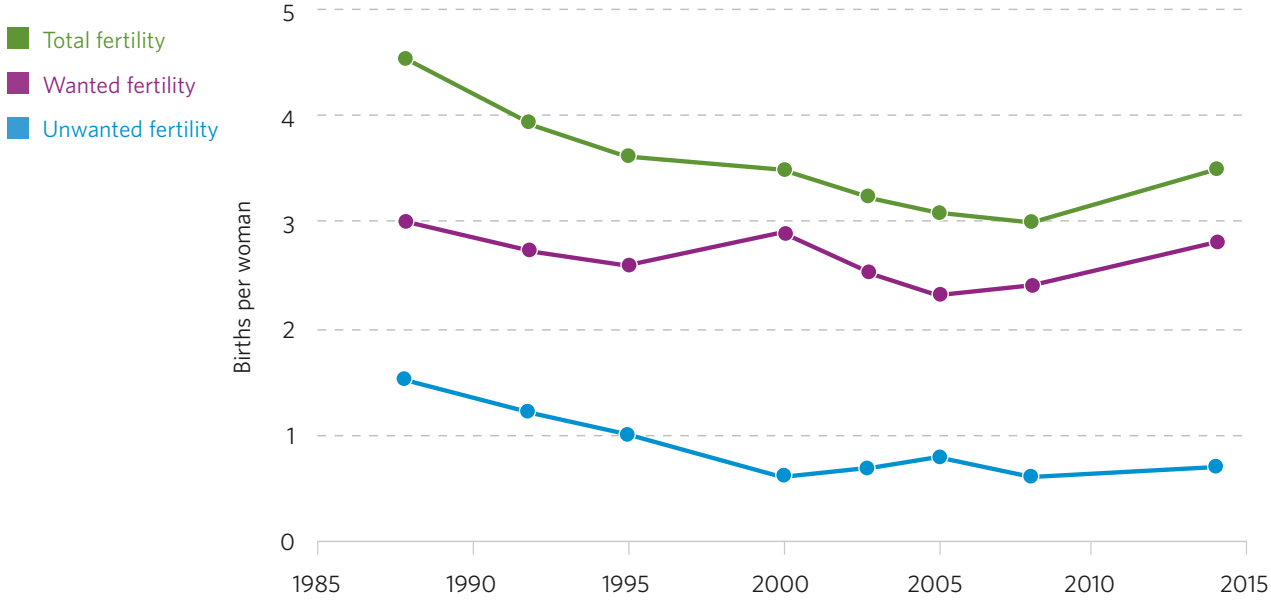
education, or start a career. Once this cohort of women completes higher education and has embarked on careers, they may then decide to start families, resulting in higher fertility.

Cutbacks in family planning programmes may also slow fertility declines or cause fertility to rise (Blanc and Tsui, 2005). Fertility in Egypt, for example, declined steadily from 4.5 births per woman in 1988 to 3.0 in 2008, before rebounding to 3.5 in 2014 (Figure 17). Before 2008, the Government had invested heavily in family planning, with support from foreign donors. These investments, which made services available throughout the country, resulted in widespread knowledge about contraception, and a near universal awareness that modern methods of contraception could empower individuals and couples to have fewer children.

Between 2000 and 2007, international assistance for family planning in Egypt averaged $33 million annually. Starting in 2008, however, the assistance plummeted to a low of $3 million per year in 2011 and 2012, weakening the programme.

The Government increased its own funding to fill the gap, but the amount was not sufficient to restore programmes and services to pre-2007 levels. Reduced funding affected service delivery and information campaigns. Also, before 2007, the country's two main television channels had aired information campaigns for free. In recent years, viewership has shifted to new privately owned channels, which do not provide free air time for these campaigns. As a result, fewer people are receiving information about the benefits of family planning, contributing to a rebound in fertility.

FIGURE 17 Trends in fertility in Egypt, 1988–2014



Source: ICF; DHS and USAID (2018)

Where the fertility transition ends

Fertility trends in a number of countries have not followed the traditional fertility transition paths. After declining for decades, fertility in some countries has either plateaued or increased.

In some cases, the departure from the typical path is attributable to the effects of conflict or economic shocks. In others, limited access to the full range of family planning methods and services, particularly in poor and rural communities, may be responsible for fertility that remains constant or rises.

But just because countries in this group do not follow the typical path through the fertility transition, it does not mean that they have not completed their fertility transitions. In some countries, it is possible that the fertility transition does not end at replacement level—2.1 births per woman—but at a higher rate, between 2.5 \and 3.0 births per woman. For example, Morocco's fertility, about 2.5 today, has changed little since 2000.

Just because countries do not follow the typical path through the fertility transition, it does not mean that they have not completed their fertility transitions.



FOCUS ON **EGYPT**

"After Mahmoud was born, I went on family planning again."

Um Ahmed, 32



"We want what's best for the ones we have"

© UNFPA/Roger Anis

"We have three children", says Mohamed. "And we want to give all of them a good future."

Mohamed, 37, and Um Ahmed, 32, married 16 years ago in Luxor, Egypt, where they were both born and raised. About a year into the marriage, Um Ahmed gave birth to their daughter Mariam, and two years later to their son Ahmed.

"After that, we decided we didn't want any more children and started using family planning", Mohamed explains. "We wanted to make sure the two children we had got a good education and were healthy."

But for the next five years, Mohamed's father pressured the couple to have more children, and finally they relented, giving birth to their third child, Mahmoud. "After

Mahmoud was born, I went on family planning again", Um Ahmed says.

His job in construction had enabled Mohamed to provide a living for his family until about five years ago, when the flood of foreign visitors to Luxor's historic sites diminished to a trickle, weakening the city's economy and leaving Mohamed with no way to earn a living. The couple and their youngest son moved to Cairo, while the two older children stayed behind with family so they could continue their education.

Today, Mohamed works as a porter in an apartment building in Nasr City, Cairo's most densely populated neighbourhood, and lives in modest quarters in the basement. He devotes part of his earnings to fees for his son's school, which has small classes and well-trained teachers. His son says his favourite subject is mathematics and thinks about becoming a doctor when he grows up.

"Three children are more than enough", Mohamed says. His wife agrees: "We want what's best for the ones we have."

Most want three children

Three is the number of children an average Egyptian wants, according to Magued Osman, chief executive officer of the Baseera Egyptian Centre for Public Opinion Research. But that average masks regional, rural and urban differences in ideal family size, ranging from a little more than two children in Alexandria to nearly five in Matruh Governorate in the north-western corner of the country.

And there are discrepancies between the number of children people want and the number they actually have. While the average desired number of children nationwide is 3.0, the number they have is 3.5.

© UNFPA/Roger Anis



Women's empowerment, inclusive economic development and access to family planning can enable individuals and couples to make their own decisions about family size.

"How many children you want depends on where you live, how you live and whether you were socialized to have at least one boy", says Germaine Haddad, UNFPA assistant representative in Cairo. How many you actually have can depend on pressures from family, gender bias in inheritance laws, and income. And it often depends on access to modern contraception and accurate information about its safe use.

Informed choices

Inaccurate information about the side effects of contraception causes one in three Egyptian women to stop using it within the first year, and that leads to unintended pregnancies.

"Women need information", says Dr. Wafaa Benjamin Basta, an obstetrician and gynaecologist who has a private practice but also provides services to clients through a city teaching hospital.

"Some women don't know they have choices", Basta says. "I help women make their own health-care decisions based on sound and accurate information."

"Most women I see are concerned about side effects. But many of these concerns aren't based on facts. That's why the pill isn't popular in Egypt: women mistakenly assume it'll cause weight gain or give them breast cancer."

Even though all modern methods of contraception are available through her private clinic, most of her clients choose intrauterine devices, Basta explains. An increasing number of clients are young married women who want to delay pregnancy while they finish their education or start a career.

Women who come to her private practice generally aim to have one child, or a maximum of two. But women she sees at the teaching hospital typically say they want five or six children. These women, she says, see children as potential caregivers as parents grow old. They also see children as a source of family stability and wealth.



© UNFPA/Roger Anis

"I help women make their own health-care decisions based on sound and accurate information."

Dr. Wafaa Benjamin Basta

Birth rates rising

Government and United Nations statistics show that larger families are more common in poorer, rural communities. But large families also correlate with higher rates of child marriage. In Cairo, where about two children per family are common, child marriages account for less than 3 per cent of all marriages. In rural Matruh Governorate, where four or more children are common, child marriages account for about 21 per cent of all marriages.

Today's 3.5 fertility rate in Egypt is above the 3.1 rate recorded in 2009. Some officials attribute the increase to weaker family planning programmes, which were funded by one major international donor country until about 2006. At that time, Egypt's economy started growing rapidly, with annual per capita GDP nearly doubling from about $1,400 in 2000 to about $2,600 in 2010. The country's economic "graduation" resulted in the phase-out of donor funding.

Today, 12.5 per cent of women in Egypt have an unmet need for modern methods of contraception. The rate is even higher in rural parts of the country.

Family planning information campaigns were also scaled back after 2006. In 2005, 80 per cent of respondents to a Demographic and Health Survey said they had heard or seen messages about family planning in the preceding year. A similar survey in 2014 showed that only 20 per cent had received such messages.

Comprehensive sexuality education is not offered in schools. Messages about family planning—and basic information about reproduction—must therefore come from other sources. Through a UNFPA-supported peer education programme, Y-Peer, young people inform other young people about sexually transmitted infections, domestic violence, human rights, relationships and pregnancy.

Mohamad Hassan, 22, a medical student at Al Azhar University in Cairo, volunteers for the Y-Peer programme. He says that 80 per cent of the people who come to his workshops ask for basic information about anatomy.

Population poised to double

At current growth rates, Egypt's population of 95 million is expected to increase to 119 million by 2030 and could more than double to 200 million by 2100. About 6 in 10 respondents to a 2014 Demographic and Health Survey responded "yes" to a question about whether the country has a "population problem".

In 2014, the Government launched a national strategy for population and development that aims to slow population growth by supporting couples' right to decide whether, when or how often to have children.

According to Hussein Sayed of Cairo University's Faculty of Economics and Political Science, the national strategy, which he helped develop, is all about rights, including reproductive rights. A key feature of the strategy is reducing the unmet

"We want to secure a better life for the two we have. The most important thing is for them to get a good education."

Rasha

need for family planning by half by 2030, particularly in rural areas and urban slums, where services are scarce and the choice of contraceptive methods is limited.

The strategy also tackles illiteracy among girls, to open up their opportunities to enter the paid labour force. Measures include providing cash assistance to poor families on the condition that they keep their girls in school. At the same time, the Government has made education compulsory until the age of 18.

Other actions are designed to promote economic growth, and create jobs and livelihoods for the country's poor.

Women's empowerment, inclusive economic development and access to family planning together can enable individuals and couples to make their own decisions about family size.

A better life for their children

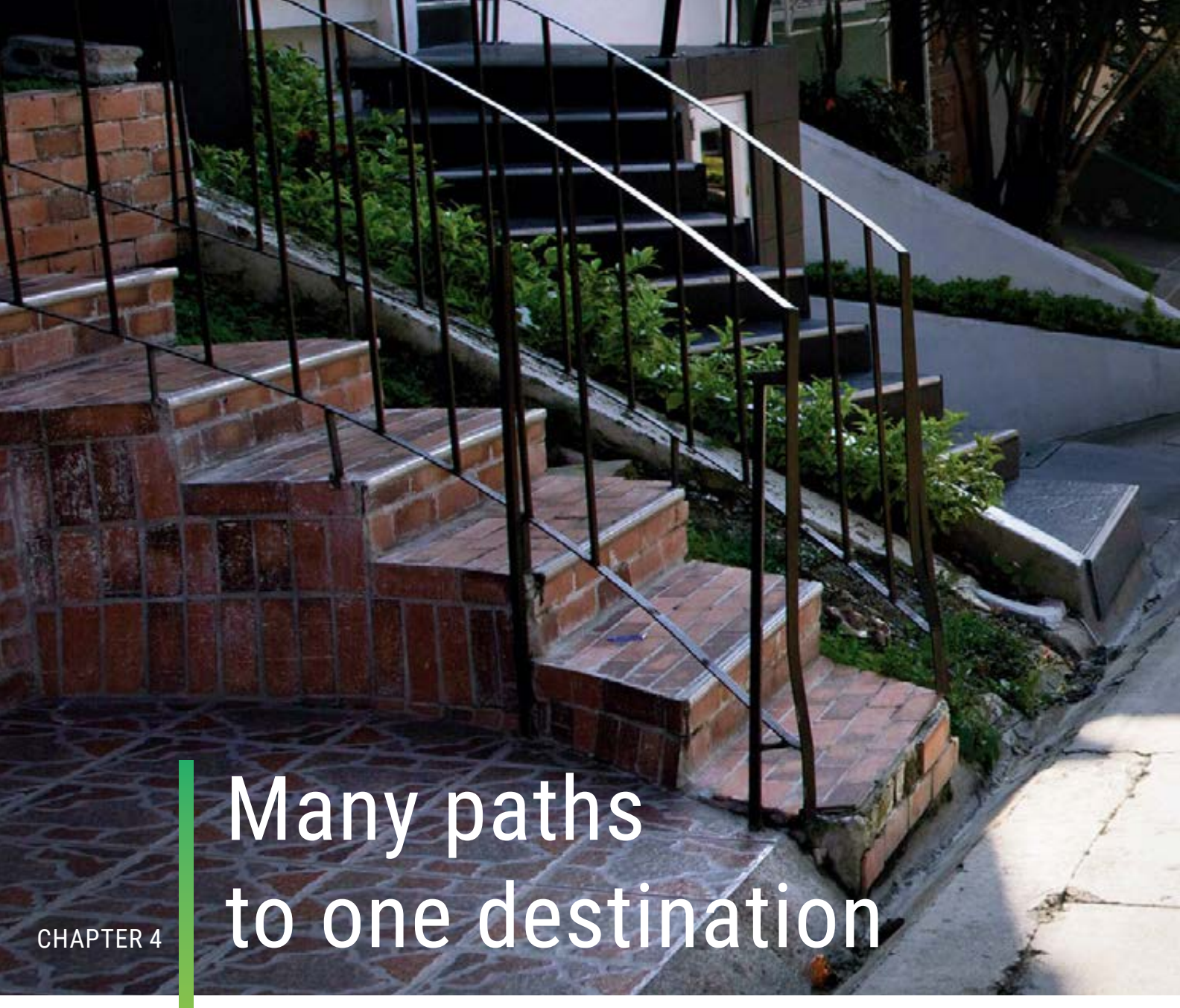
Ahmed and Rasha met 10 years ago at the office where he worked in purchasing and logistics and she worked in data entry. The two dated and soon decided they were a match. They married the following year and had their first child, Mohamed.

Ahmed continued working while Rasha stayed home to care for their child. Four years later, their second child, Raghad, was born. Already when they were engaged to be married, the couple had decided together that they would only have two children. "We don't need more children", Rasha says. "We want to secure a better life for the two we have. The most important thing is for them to get a good education."

Ahmed says he wants to raise their children to have good manners and good principles, and to be well educated. "I want them to have what they need in life to be able to make good choices about their futures."

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CHAPTER 4

Many paths to one destination

In 33 countries, fertility rates have fallen only recently to between about 1.7 and 2.5 births per woman. This group comprises Arab States and countries from Latin America, the Caribbean and Asia. It includes India, with a population of more than 1.3 billion, and Qatar, with only 2.6 million people.



© Paul Smith/Panos Pictures

And it includes high-income countries such as Bahrain, low-income countries such as Nepal, and countries with incomes somewhere in the middle (Figure 18).

Not only is this group geographically and economically diverse, it is also diverse in the paths followed towards current fertility rates, and in the challenges individuals and couples face in exercising their right to decide whether, when and how often to have children.

Fertility trends

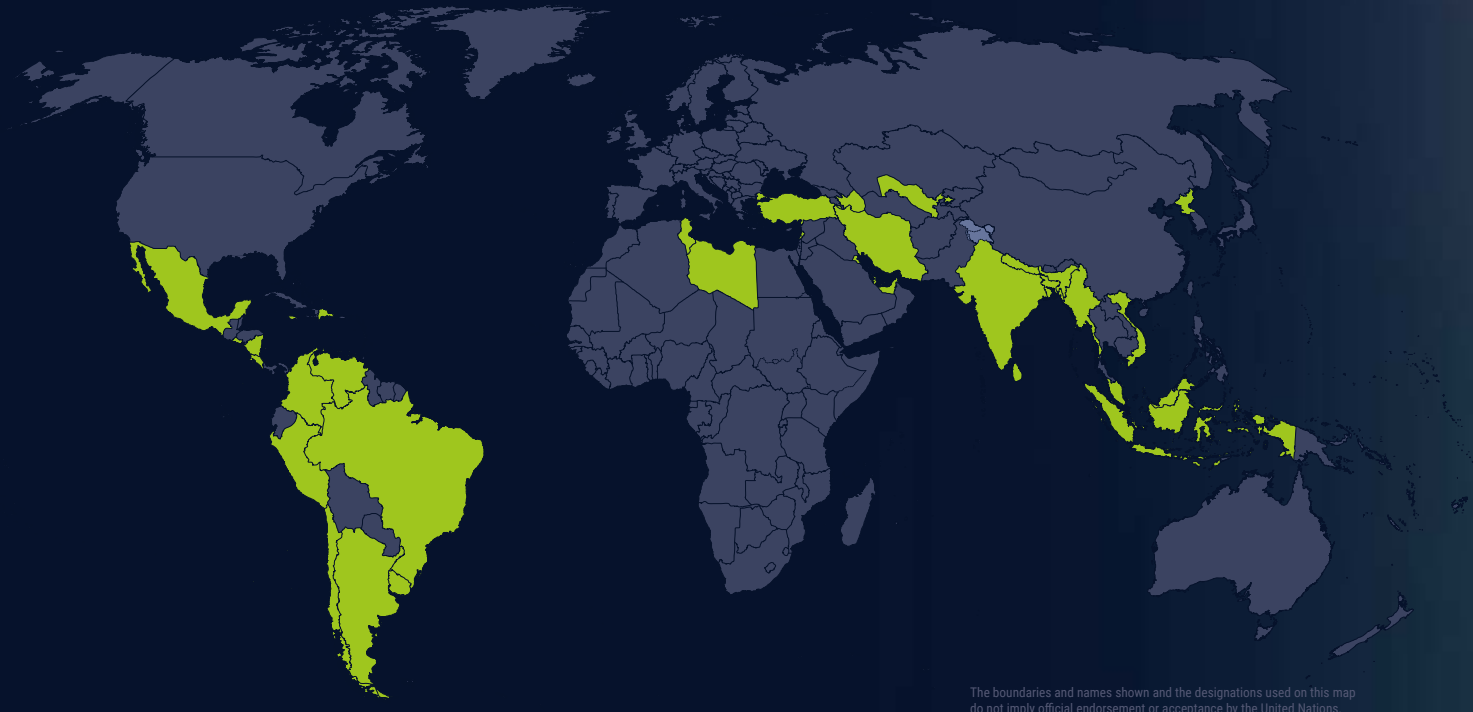
In about a third of the 33 countries covered in this chapter, fertility was high in the 1980s but then dropped rapidly to current rates, at or around replacement level. These countries are Bangladesh, El Salvador, Iran, Mexico, Nepal, Nicaragua, Peru and several Arab States.

In the others, the fertility transition generally started earlier, in the 1960s, after which fertility continued falling gradually to today's rates. This

FIGURE 18

FERTILITY RATE

BETWEEN **1.7** AND **2.5** BIRTHS PER WOMAN



The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations.

Dotted line represents approximately the Line of Control in Jammu and Kashmir agreed upon by India and Pakistan. The final status of Jammu and Kashmir has not yet been agreed upon by the parties.

group includes Latin American countries such as Brazil and Chile, Asian countries such as Sri Lanka and Malaysia, and Mediterranean countries such as Turkey and Lebanon.

India and Myanmar are unlike the rest of the group in that they have had slow but steady declines in fertility that began after the 1960s. Argentina and Uruguay are different because they had lower fertility than any of the other countries before the 1960s.

Bangladesh, El Salvador, Nepal, India, Myanmar and Nicaragua are also unusual because they today have fertility rates that are near replacement level, despite having lower per capita incomes than other countries with replacement-level fertility. In most other parts of the world, such low fertility is achieved only at higher levels of income. These countries and others, however, have made gains in human development, reflected in improved health,



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higher attainment of education and decreases in child mortality.

Transitions in Arab States, Asia and beyond

Fertility declined rapidly in the 1990s in Iran, Libya, Nepal and the United Arab Emirates. Fertility declined even earlier in Bangladesh, Indonesia, Kuwait, Lebanon, Sri Lanka and Tunisia.

Fertility varies by place of residence (city or rural), income and level of education, particularly of females.

Bangladesh, India, Indonesia, Iran and Turkey all saw substantial declines in infant and child mortality, partly because of wider reach of health-care systems, economic development, reduced poverty, and increased female enrolments in primary and secondary education (Khuda et al., 2001; Abbasi-Shavazi et al., 2009; James, 2011; Hull, 2012, 2016; Jones, 2015; Guilmoto, 2016; Yüceşahin et al., 2016). Lower infant and child mortality eliminated one of the drivers of larger family size in these countries. These countries also had strong national family planning programmes, which contributed to lower fertility (Hull and Hull, 1997; Akin, 2007; Abbasi-Shavazi et al., 2009; Hayes, 2012; Jones, 2015; Khuda and Barkat, 2015).

India deserves special mention: although average total fertility for the whole country is 2.3 births per woman, it is above 3.0 in the states of Uttar Pradesh, Bihar and Madhya Pradesh, and below replacement level in Maharashtra and West Bengal, and the four southernmost states. States with fertility below replacement level account for 50 per cent of the country's population (James, 2011). Many districts in India have fertility below replacement level, while about half have fertility of 3.0 or more births per woman (Mohanty et al., 2016).

© Robert Wallis/Panos Pictures



Fertility in urban India fell to below replacement level in 2007.

India's varied fertility rates do not clearly correlate with income levels and are likely influenced by a multitude of factors. The states of Kerala and Tamil Nadu, for example, experienced major fertility declines, despite limited economic growth. These states have comparatively less gender and economic inequality, and have also experienced rapid social development (Visaria, 2009; Pande et al., 2012). Neighbouring Sri Lanka also experienced fertility declines despite slower economic growth (Jayasuriya, 2014).

Fertility in the countries considered in this chapter varies by place of residence (city or rural), income and level of education, particularly of females. Fertility is generally higher among women with less education than among women with at least a secondary education (Figure 19). In the countries where there is less of a correlation between lower fertility and more education, voluntary family planning programmes have been in place for many years and have reached a cross-section of the population. And in some of these countries, fertility is lower because of recourse to abortion.

FIGURE 19 Fertility differentials by education among women aged 30-34, selected countries with fertility around replacement level, most recent available data (upper secondary = 1.00)

COUNTRY	NO EDUCATION	INCOMPLETE PRIMARY	COMPLETED PRIMARY	LOWER SECONDARY	UPPER SECONDARY	POST-SECONDARY
Bahrain	3.08	1.70	1.53	0.86	1.00	1.09
Bangladesh	1.41	1.39	1.26	1.15	1.00	1.05
India	2.18	1.50	1.54	1.37	1.00	1.25
Indonesia	1.06	1.15	1.18	1.12	1.00	1.14
Iran	1.80	1.80	1.80	1.24	1.00	0.83
Kuwait	1.57	1.57	1.57	1.18	1.00	0.89
Lebanon	1.57	1.57	1.57	1.18	1.00	0.89
Libya	2.12	1.69	1.45	1.26	1.00	1.03
Malaysia	1.26	1.24	1.20	1.03	1.00	0.82
Myanmar	2.06	1.94	1.61	1.28	1.00	0.72
Nepal	2.06	1.74	1.39	0.99	1.00	0.96
Qatar	1.43	1.43	1.43	1.18	1.00	0.90
Sri Lanka	1.66	1.39	1.28	1.11	1.00	0.95
Tunisia	1.57	1.57	1.57	1.18	1.00	0.89
Turkey	2.55	1.70	1.50	1.02	1.00	0.76
United Arab Emirates	1.57	1.57	1.57	1.18	1.00	0.81
Uzbekistan	1.11	1.11	1.11	1.09	1.00	0.81

Source: Lutz et al. (2014)

Fertility is generally higher among women with less education than among women with at least a secondary education.

In Bangladesh, India, Indonesia and Iran, a transition to smaller families is also attributed to greater support for reproductive rights. In Iran, for example, extension of reproductive health services into rural areas, along with increased options for contraceptive methods, enabled more people to make their own decisions about the number and timing of pregnancies. In Bangladesh, non-governmental organizations played an important role in improving reproductive health and making sure women have the power and means to decide whether, when and how often to become pregnant. In Indonesia in the late 1990s, community-based family planning services extended the reach of the national family planning programme (Hull and Hull, 1997).

Although many of these countries have strong national family planning programmes, many individuals and couples face obstacles in accessing services. One such obstacle is a limited range of contraceptive options.

Fertility and the role of marriage

In South Asian countries, some Arab States, and some other populous countries such as Indonesia, Iran and Turkey, marriage and its



FOCUS ON **IRAN**

"In our hearts, we knew we wanted a child. "

Sara, 35



Overcoming economic obstacles to start a family

© UNFPA/Reza Sayah

Sara Ghorbani says the biggest joy in her life is her son. But she remembers the time when motherhood was still a distant dream.

Two years into her marriage, Sara's husband Fouad lost his job at a time when the Iranian economy was suffering from severe stagnation, inflation and unemployment.

"At first, I was against having a child", said the 35-year-old beautician, who lives with her husband in a two-bedroom apartment just outside the capital Tehran. "I kept saying, it's hard. We weren't sure if we could care for a child or provide the proper upbringing."

But the couple never gave up the dream of having a child and decided they would no longer wait for things to improve.

"In our hearts, we knew we wanted a child. That thought never left our minds", Sara says.

"We decided if we want it, we can make it happen."

Five years ago, Sara and Fouad became proud parents to a baby boy named Caren. The couple says that raising a child has been the biggest challenge of their lives, but they have never been happier.

"Sure, it's hard, but it becomes habit", Sara says. "It's like God gives us the energy and stamina."

"When I look at Caren and how he's growing, I really enjoy it", said Fouad. "I wanted a child before I got too old. That's why I've never regretted this."

Sara and Fouad are happy with their decision to have one child. The Government would be happy if Sara and Fouad had more. That's because, for the past three decades, Iran's married couples are having fewer children, and analysts say the trend is threatening the country's economy.

"It makes us very concerned", says Dr. Ali Reza Marandi, a professor of paediatrics and Iran's former Health Minister. "Low fertility rates can cause severe damage to a country's future."

© UNFPA/Reza Sayah



During the 1980s, Iran faced a very different problem. Population experts say that married couples then were having too many children.

Marandi led a successful campaign to reduce Iran's growing fertility rate, which stood at nearly seven births per woman—the highest level recorded in the country. Under a government-funded family planning campaign, average family size dropped from nearly seven children to less than two by 2003.

Today, Iran's total fertility rate is 2.01 births per woman, slightly below 2.1, the level considered necessary to maintain a stable population size.

Marandi says that future economic growth depends on couples having more children—otherwise, there may not be enough young workers entering the labour force or contributing to programmes and services for the elderly.

"Those who produce in an economy are the young people. If the young continue to decrease and the elderly continue to increase, we may reach a point, in just a few years, when we will not be able to feed and care for the elderly", Marandi says.

In 2014, the Government launched an advertising campaign urging young couples to have more babies. Outdoor billboards posted throughout Tehran read, "More children, happier life". Iran's Supreme Leader called on Iranians to have "four or five children" to contribute to the development of the country.

Since the campaign, Iran's total fertility rate has increased slightly, but analysts and Government officials say they still face challenges.

Iran's married couples are having fewer children, and analysts say the trend is threatening the country's economy.

Many young Iranian women are postponing plans to marry to get an education instead. An increasing number of men say they cannot afford to get married and are waiting for the economy to improve.

Many Iranians who do marry choose to pursue careers instead of having children.

Sara and Fouad both hold full-time jobs to provide for their son, and they still worry about the future of Iran's economy, but they say they are proof that, even when circumstances are not ideal, you can get married, have children and live a happy life.

"I think whenever you want something, you can make it happen. The important thing is you have to want it", said Sara.

"The fact that we have a child who comes from me, this is a wonderful thing. It takes away the entire day's troubles."

timing have a considerable impact on family size, since childbearing outside marriage in these countries is rare. Childbearing in these countries usually begins soon after marriage. Although the average age at marriage has been increasing in these countries, child marriage remains common, especially in Bangladesh, India, Indonesia and Nepal (Figure 20). Child marriage is a violation of rights under the Convention on the Elimination of All Forms of Discrimination Against Women, which these four countries have ratified.

In all these countries, unintended pregnancies contribute to higher fertility rates. If unwanted fertility were eliminated through means such as increasing access to contraception, average fertility rates would drop by more than half a child per woman (Figure 21).

In Bangladesh, both wanted and unwanted fertility have declined steadily since the mid-1990s. This is a reflection of an overall desire to have fewer children, and the impact of policies and services that empower individuals and couples to make their own decisions about family size. Wanted and unwanted fertility have also fallen in Nepal.

In India between 2005 and 2015, unwanted fertility fell sharply, from 0.8 to 0.4 children, reflecting a trend of couples having the means to prevent pregnancy and having their preferred number of children. In Indonesia between 1987 and 2015, wanted and unwanted fertility declined marginally, suggesting that the desired family size in that country has changed little and that family planning programmes are enabling couples to have the number of children they want.

FIGURE 20 Singulate mean age at marriage, and proportion ever married at ages 15–19 and 30–34, selected countries

COUNTRY	MEAN AGE AT MARRIAGE FOR FEMALES	YEAR	PERCENTAGE OF FEMALES WHO ARE, OR HAVE BEEN, MARRIED	
			AGES 15–19	AGES 30–34
Bangladesh	19.2	2012	35.5	99.2
India	20.7	2011	21.5	97.3
Indonesia	21.8	2012	13.3	95.5
Iran	23.5	2011	21.4	84.5
Kuwait	27.5	2005	5.0	67.3
Malaysia	25.7	2010	4.1	82.1
Myanmar	23.6	2014	13.0	79.2
Nepal	20.7	2014	24.5	97.1
Sri Lanka	23.6	2006	9.2	89.2
Tunisia	28.5	2012	1.3	66.3
Turkey	24.2	2013	6.7	88.0
United Arab Emirates	25.3	2005	6.8	85.3
Uzbekistan	22.4	2002	5.1	98.2

Source: United Nations (2017a)

FIGURE 21 Wanted and unwanted fertility in selected countries with total fertility rates close to replacement level

COUNTRY	TOTAL FERTILITY	WANTED FERTILITY	UNWANTED FERTILITY	YEAR*
Azerbaijan	2.0	1.8	0.2	2006
Bangladesh	2.3	1.7	0.6	2014
India	2.2	1.8	0.4	2015/16
Indonesia	2.6	2.2	0.4	2012
Myanmar	2.3	2.0	0.3	2016
Nepal	2.3	1.7	0.6	2016
Turkey	2.2	1.6	0.6	2003

*Most recent Demographic and Health Survey

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The transition in Latin America and the Caribbean

Demographic changes have been dramatic in Latin America and the Caribbean since the 1950s. The demographic transition in most countries in the region is advanced, with low infant mortality and replacement-level fertility rates, which were reached over the course of 40 or fewer years. Before that, some countries had fertility of six children per woman. Hence, many older women today have reproductive histories that are vastly different from those of their daughters entering their reproductive years.

Twelve Latin American countries, accounting for 85 per cent of the region's population, have fertility rates between 1.8 and 2.5 births per woman.

These countries share histories of colonization, languages, religion and political systems. Their economies are largely driven by exports of agricultural products, minerals and fossil fuels. The majority still struggle to provide quality education and health services, including reproductive health services, to all segments of their populations.

They are also highly urbanized, with more than four in five people living in cities. Life expectancy at birth is 75.2 years, and the overall infant mortality rate is 16.6 per 1,000 live births. An increasing share of the population is over the age of 60.

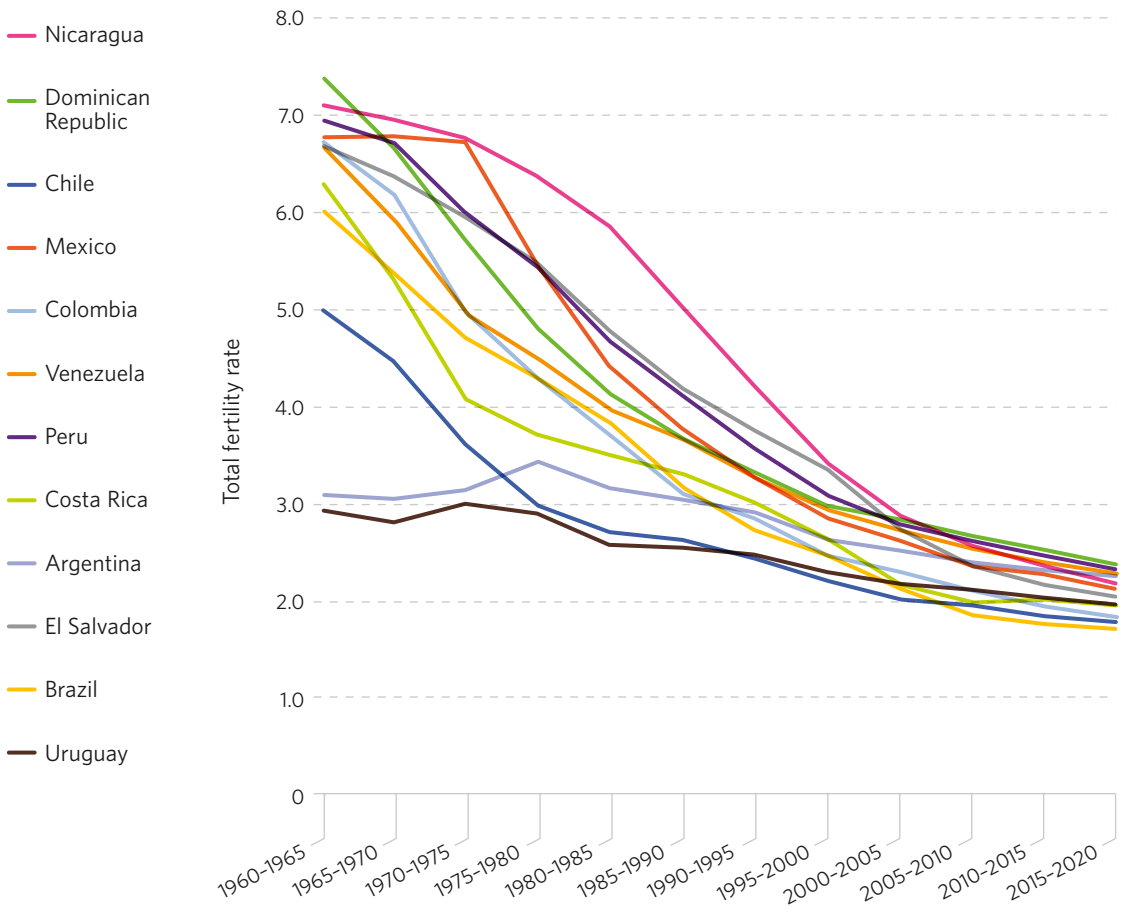
These countries are ethnically diverse: some have large populations of indigenous people, and others have Afrodescendants.

Although the pathways to the fertility transition in these countries were similar, the initial level, timing and pace varied (Figure 22). Argentina and Uruguay, for example, had relatively low

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FIGURE 22 Total actual and projected fertility rates, 12 Latin American and Caribbean countries, 1960–2020



Source: United Nations (2017)

fertility in the 1960s and mostly sustained that rate into the 1980s. Other countries—Brazil, Chile, Colombia, Costa Rica, the Dominican Republic and Venezuela—underwent the transition rapidly in the 1960s but have since seen a slower reduction in fertility. Some countries—El Salvador, Mexico, Nicaragua and Peru—saw little fertility decline in the 1960s but then rapid decline two decades later.

Fertility rates differ by place of residence and educational attainment (Figure 23). In Brazil, for example, fertility is around one birth among women who have completed at least a secondary education and three for the least educated. A similar correlation between educational attainment and having fewer children exists elsewhere in Latin America, and many of the most educated are choosing not to have children (Rosero-Bixbyi et al., 2009).

In the 12 Latin American and Caribbean countries covered in this chapter, fertility rates among adolescents aged 15–19 and young people aged 20–24 are higher than rates for these age groups in other parts of the world with similar

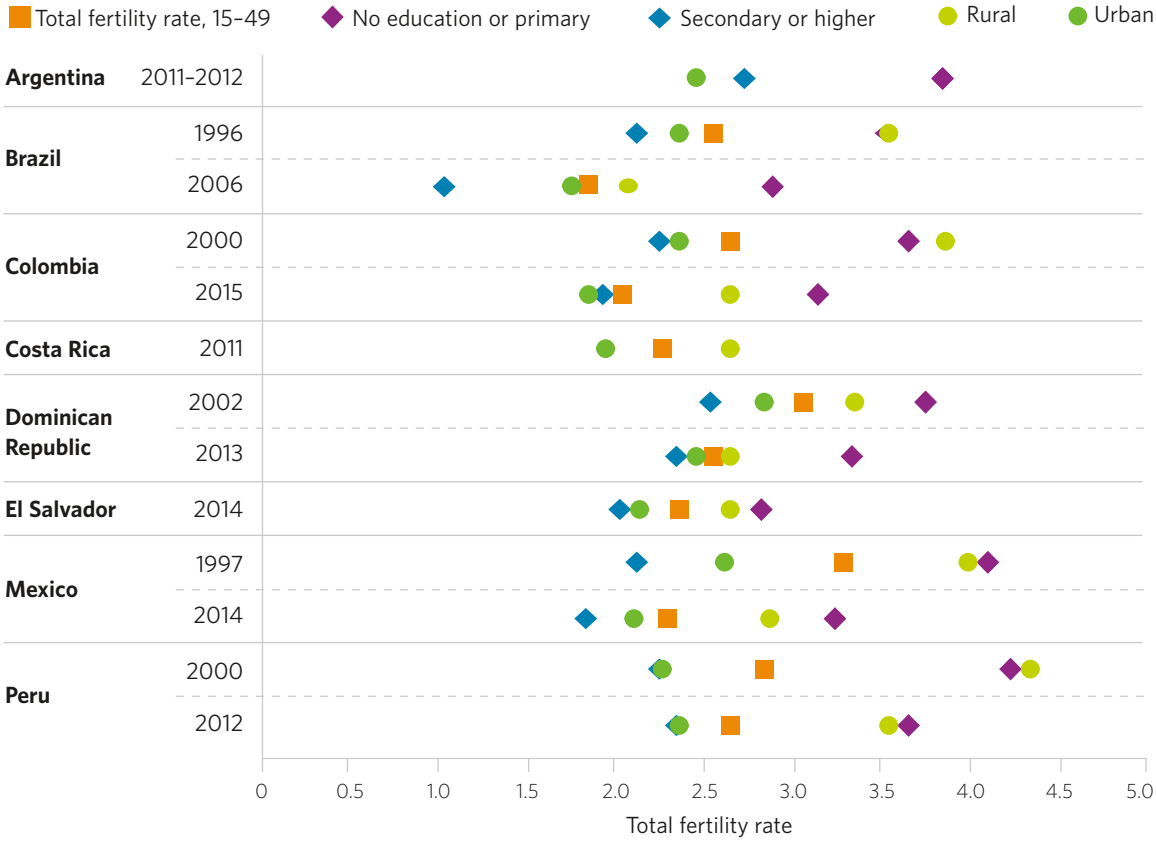


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total fertility rates (Figure 24). Additionally, adolescent fertility compared with total fertility is higher in Latin American countries than in other countries (Rodriguez and Cavenaghi, 2014).

Childbearing in these 12 countries starts soon after first sexual intercourse, and first unions often take place close to, or after, a pregnancy—often unintended. Because many women have their first child earlier in life and most women prefer smaller families, a common pattern of reproduction is to end childbearing sooner in life. But doing this effectively requires no contraceptive failure for a long period. Earlier pregnancies lead

FIGURE 23 Total fertility rates, urban and rural, by education level, selected Latin American countries



Sources: DHS, USAID (2018), except Brazil 2006 (National Demographic and Health Survey)

many poor women to forego higher education and may exclude them from better-paying jobs, perpetuating or exacerbating poverty.

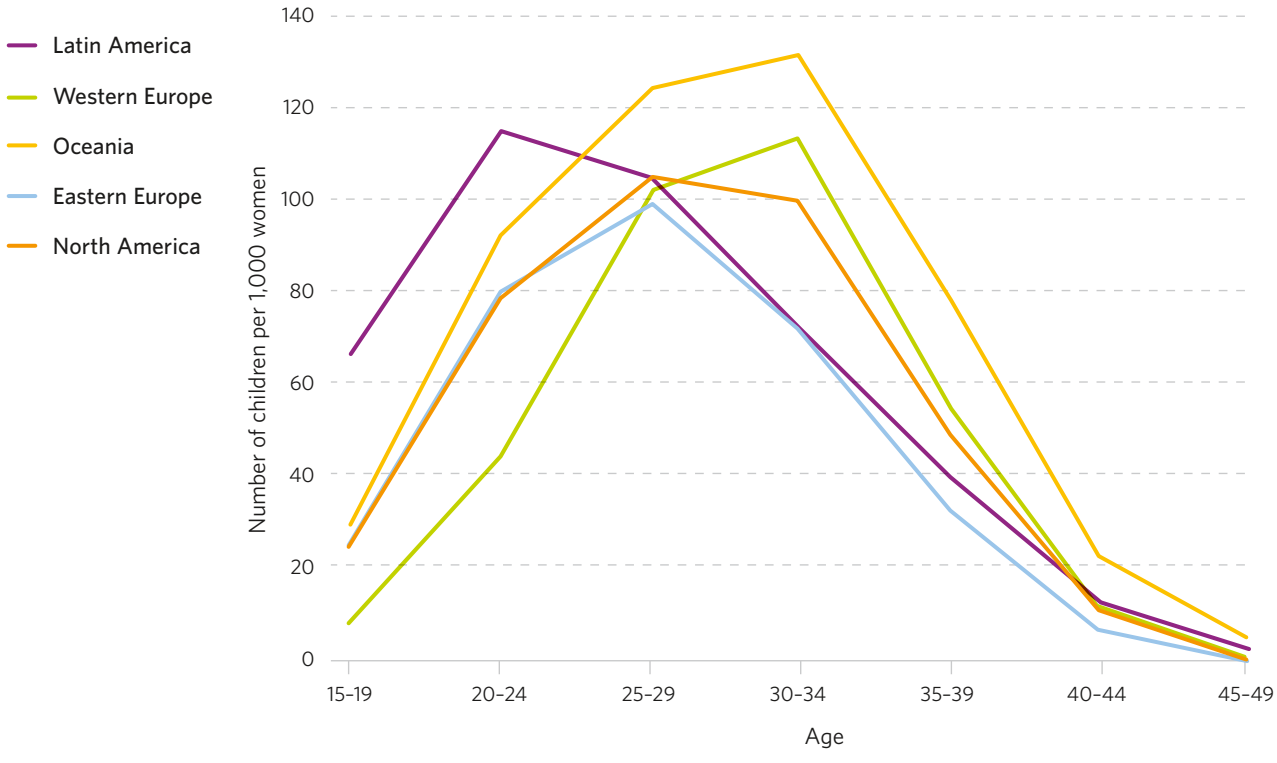
Wanting smaller families

In the 1960s, governments generally saw no downside to high fertility and the population growth that would result from it. Some saw population growth as a way to occupy and develop territory. This approach was reflected in mottoes such as "bringing landless men to a man-less land" (Alves and Martine, 2017).

Although some governments wanted couples to have more children, individuals generally wanted fewer. Already in the 1960s, when fertility in Latin America and the Caribbean as a whole was about six births per woman, there was a desire to have smaller families (CELADE and CFSC, 1972; Simmons et al., 1979; Rodriguez et al., 2017).

In the 1970s, studies from some Latin American countries showed that observed fertility was about five births per woman, but desired fertility was about four (United Nations, 1987). In other countries, many women wanted to stop having children after they gave birth to their second or third child (CEPAL, 1992). Research shows that, in many instances, women,

FIGURE 24 Age-specific fertility rates, selected regions, 2010–2015

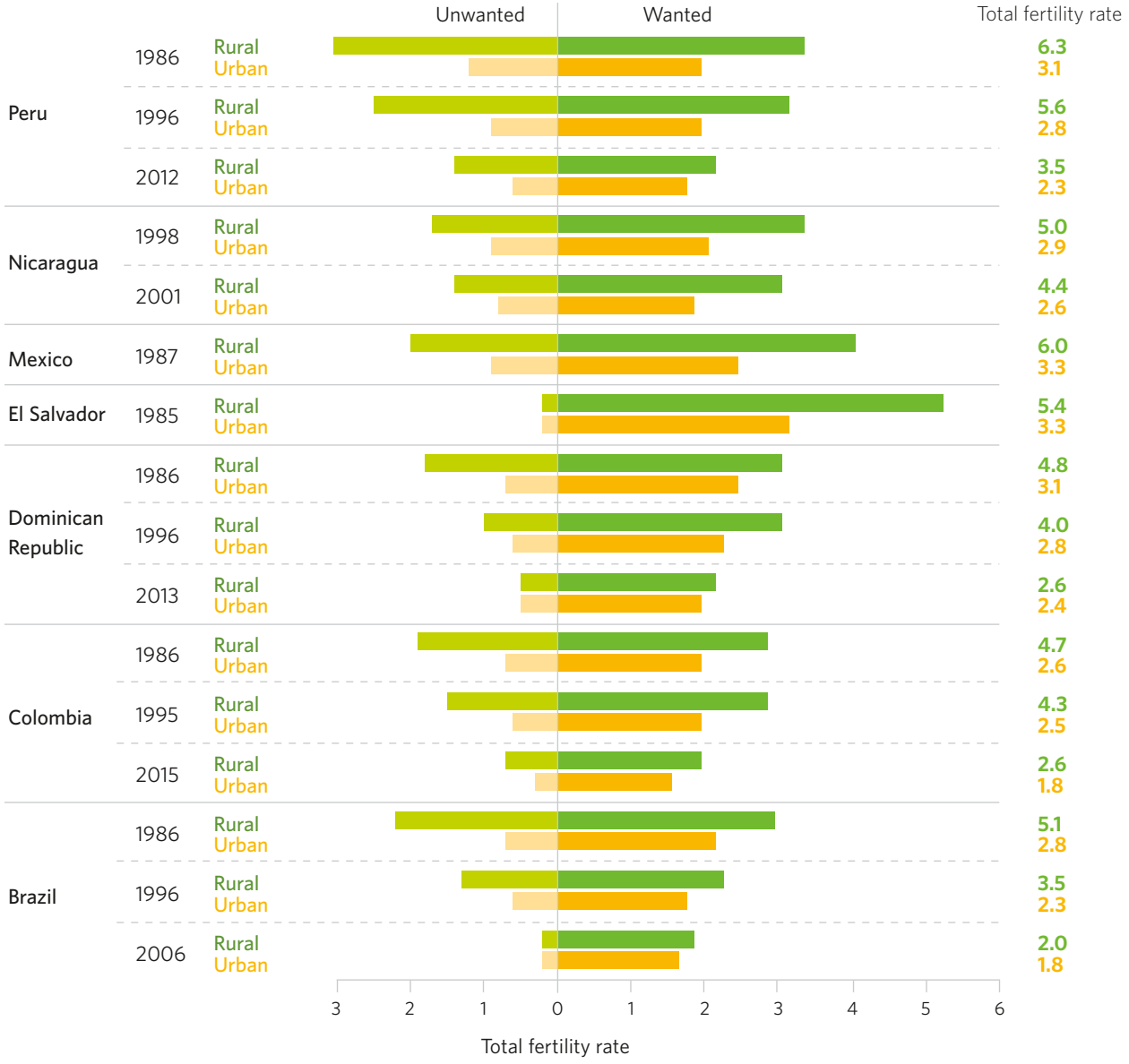


Source: United Nations (2017)

mainly in rural areas, were having more children than they wanted (Figure 25). Poor women and women in rural areas or from indigenous communities have also preferred smaller families but have lacked the information, power and means to prevent or delay pregnancy (Miró and Potter, 1980; Welti Chanes, 2006; Rodriguez-Vignoli and Cavenaghi, 2017).

More recent data show that, although about 50 per cent of births in Latin America and the Caribbean are wanted at the time they occurred, others are wanted later and some are not wanted

FIGURE 25 Wanted and unwanted fertility rates, urban and rural, selected countries in Latin America and the Caribbean



Sources: DHS, USAID (2018), except Brazil 2006 (National Demographic and Health Survey)

at all. This means that a significant share of pregnancies are unintended and unplanned (Figure 26), and that many individuals and couples are unable to exercise their right to decide freely on the number and timing of pregnancies.

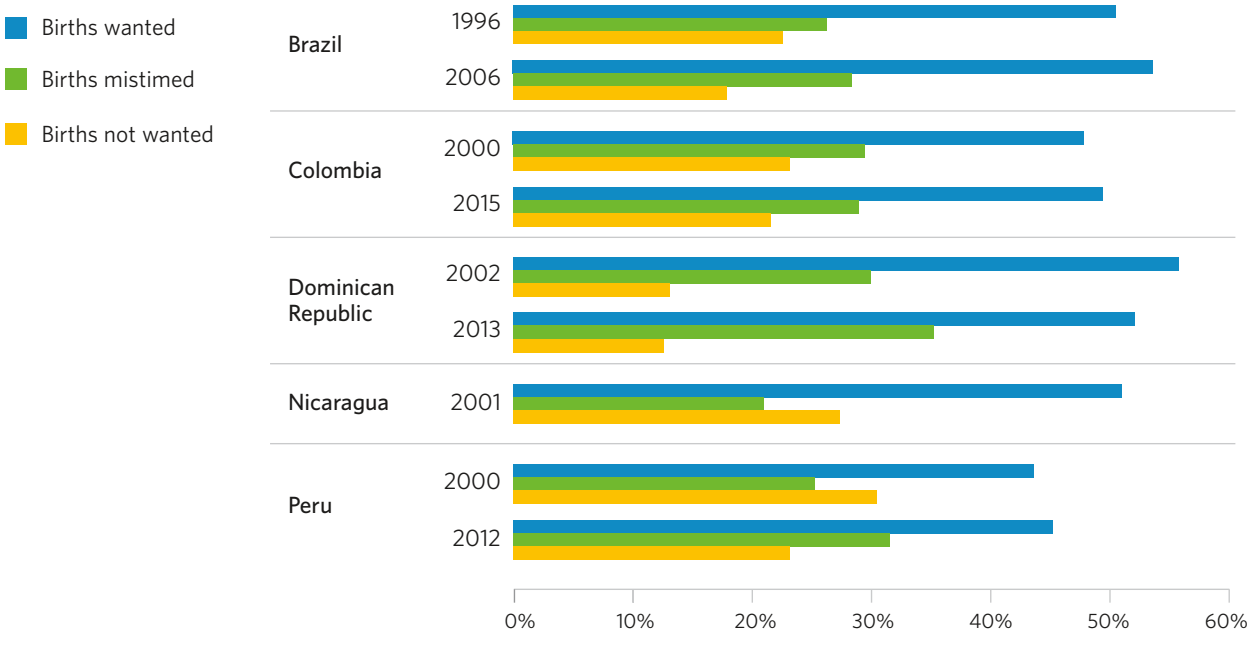
Meanwhile, women in the region typically bear disproportionate responsibility for child-rearing. This gender-unequal norm, along with limited childcare options, means that women who want both to hold jobs and to have children may find themselves resorting to low-paying, part-time options rather than pursuing full-time careers in higher-paying fields. For some, the opportunity costs are too high, resulting in a decision to forego having children altogether. A lack of affordable assisted reproductive technology, such as in vitro fertilization, is another obstacle that some women face in realizing their fertility goals.

The power and the means

Some governments initially opposed family planning programmes and joined forces with religious institutions to discourage their implementation (Taucher, 1979). Also, mainly before the 1994 International Conference on Population and Development, some feminist groups were against family planning programmes in the region because they saw the spread of contraceptives as a means to control women's bodies against their will (Alves and Correa, 2003).

In 1959, Mexico became the first of the 12 countries in this group to start a national family planning programme. In the following three years, Chile, Honduras, Uruguay and Venezuela also introduced programmes. Nicaragua and Peru followed suit in 1968.

FIGURE 26 Percentage of births that are wanted, unwanted or mistimed, in 5 countries



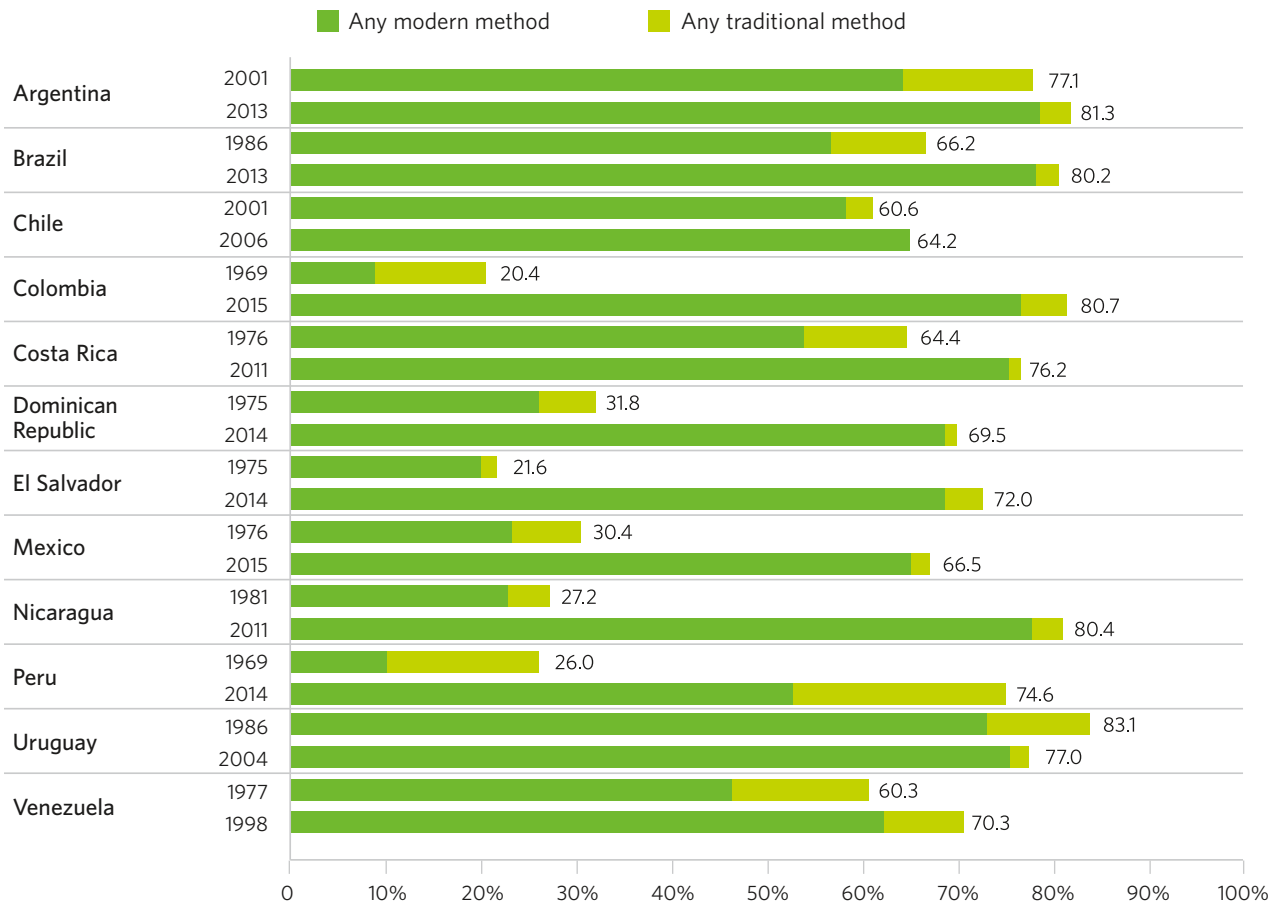
Sources: DHS, USAID (2018), except Brazil 2006 (National Demographic and Health Survey)

Despite opposition to government-led family planning programmes in some countries over the years, contraceptive use has become widespread and is available through private providers (Figure 27). In countries such as Chile, Mexico and Peru, contraception is also available through national family planning programmes.

Widespread use of contraception in Argentina and Uruguay even before the 1960s explains the comparatively low fertility rates in these countries for the past 50 years (Martinez-Alier and Masjuan, 2004). Early on, women in Argentina and Uruguay relied on barrier methods, such as condoms, but many also underwent often unsafe abortions, which accounted for 37 per cent and 25 per cent, respectively, of maternal deaths in these countries. Unintended pregnancies ending in abortion were often the result of inconsistent or no use of contraception (CEPAL, 1992).

Family planning programmes did not drive fertility decline in the region, but rather

FIGURE 27 Prevalence of modern and traditional contraceptive methods among women who are married or in a union in 12 countries, two recent estimates



Source: DHS, USAID (2018)

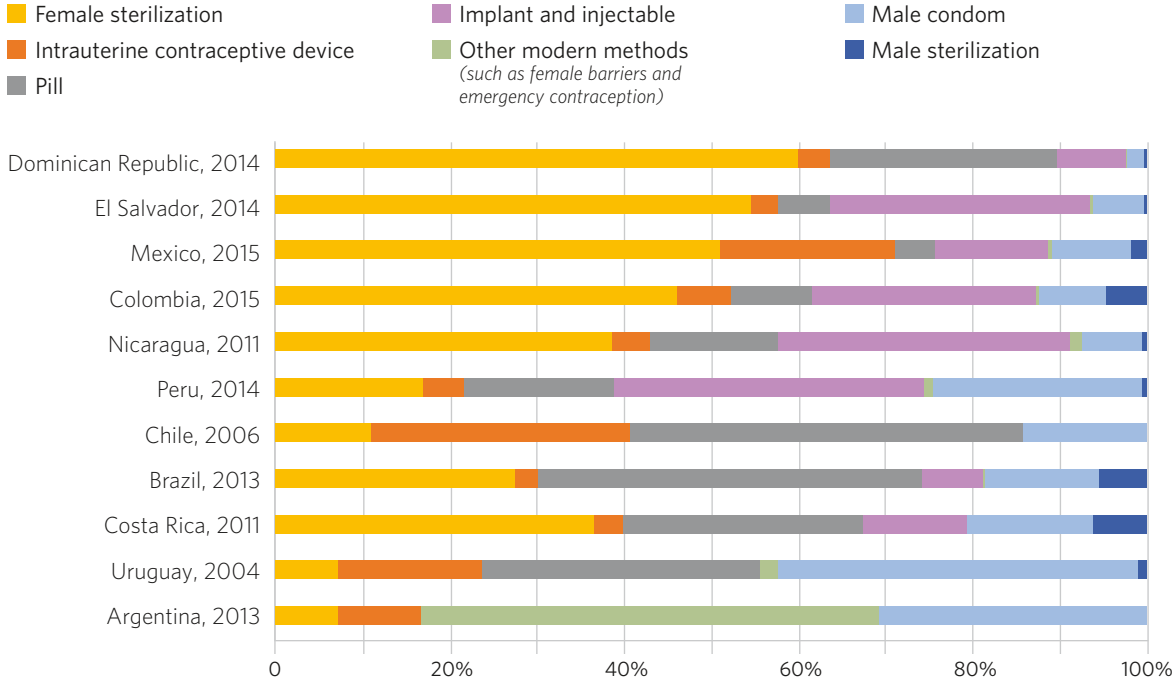
accelerated a decline that was already under way among the most privileged. If women had not already had a strong desire to have fewer children, fertility would have remained higher for longer, and the decline would have been much slower (Martine et al., 2013).

Obstacles to preferred family size

The current high prevalence of modern contraception in the region, except in Peru—where one in three women uses a traditional method—tells only part of the story about contraceptive access. While some forms of contraception are widely used, the full range of contraceptive options is neither used nor available in all countries (Figure 28). In general, the choices are mostly limited to two or three in each country. Women and men who cannot access their preferred method, or do not have information about the range of methods, may choose an alternative that is inappropriate for their circumstances or no method at all, and be at greater risk for unintended pregnancy.

As per capita incomes rose in the region, international development assistance to some countries tapered off, resulting in reduced funding for national family planning programmes. Despite cutbacks in these countries, women from higher-income households still had access to contraceptive methods through private providers. Poorer women, however, had to make do with whatever methods were available or forego contraception altogether. Countries such as Brazil offered certain methods of contraception, such

FIGURE 28 Contraceptive methods among married or in-union women of reproductive age in 11 countries, most recent data available



Source: United Nations (2017)

as sterilization, to women who had just delivered by caesarean section in a public health facility. Intrauterine devices are less prevalent in most of Latin America because they are not provided or administered through public clinics, and generally not recommended by doctors in private clinics.

Adolescents commonly encounter obstacles to accessing contraception, contributing to higher rates of teenage pregnancy. Compounding this problem is limited access to comprehensive sexuality education, which would provide age-appropriate information about reproduction, and address broader issues of gender and rights. Early sexual debut, unprotected sex, high contraceptive failure rates and early unions also contribute to high rates of adolescent fertility in the region (Rodriguez-Vignoli, 2017).

Teenage pregnancy is more common among poorer households, but this trend may be attributed more to unmet need for contraception than to a desire to start having children earlier in life. Girls from wealthier households have better information about sexual and reproductive health, and greater access to contraceptive services; they may even have access to safer, although illegal, abortion services (Rodriguez-Vignoli and Cavenaghi, 2017). In some countries, minors, whether poor or rich, have limited access to emergency contraception and might need parental permission to access modern methods of contraception, such as the pill.

Lower fertility and the future

The rapid decline in fertility to below or near replacement level in countries covered in this chapter presents new challenges. Population ageing, for example, is one challenge common to all. Governments are already exploring or implementing policies that will help economies, health systems and labour forces adapt to larger proportions of people who are older.

Declining fertility over time in some countries is another challenge because it means that fewer young people are entering the labour force. But this trend can also be an opportunity for investments in education in fields such as science, technology, engineering and mathematics to better equip the young people who are of working age to drive the new global economy.

Enabling people to effectively realize their reproductive rights remains a major challenge for these countries. The number of unintended pregnancies is high. Although contraception is available in most places, the choice of methods is limited. Unmarried young people are often excluded from family planning services, either by law or by practice. Millions of pregnancies continue to end in abortion, many of which are unsafe and jeopardize women's health and lives.

Having the information, the power and the means to freely decide the number, timing and spacing of pregnancies is a right. The extent to which this right is upheld affects decisions about family size and thus fertility rates. Upholding reproductive rights is a worthy objective in and of itself. But it can also unlock other rights and enable countries to advance social and economic development.

For example, empowering individuals and couples in countries with large and emerging youth populations, such as those in some Arab States and Asian countries, to realize their desires for fewer children or to have children later in life can lead to a demographic shift that can result in a demographic dividend, which can fuel economies and reduce poverty.

Ensuring that all groups have equal access to sexual and reproductive health services can also help reduce economic inequalities in Latin America and many other parts of the world (UNFPA, 2017).



Across three generations, family size moves from many to two

FOCUS ON **BRAZIL**

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"By the time the midwife came, my baby was already born."

Tereza, 87

Born and raised in the rural area of Santa Maria do Suaçuí town, in Minas Gerais, Tereza Correia de Melo got married in 1949, at the age of 18, and soon became pregnant. She noticed the changes in her body but didn't understand what was really happening. "I didn't even know that if I slept with a man I would have a baby", Tereza, now 87, remembers.

Back then, Tereza's town lacked services that would have helped her make informed decisions about contraception and pregnancy. Over her lifetime, she became pregnant 22 times, gave birth to 15 children and had 7 abortions. Fourteen of her deliveries were at home.

"Sometimes I was alone and, by the time the midwife came, my baby was already born", Tereza says.

Only her fifteenth delivery was in a hospital, in a rural area near São Paulo, where she had moved. There, she saw a doctor for the first time and learned about contraception, which she did not think she would need because she was already 46. But she did not want to take any chances and had sterilization surgery the following year.

Tereza's daughter, Margarete Rodrigues de Barros Oliveira, 45, said her mother's experience with so many pregnancies led her to take charge of her reproductive life. Margarete's sister also had more children than she had planned for: "She was a very sad single mother with six kids. I just didn't want that for myself."

To prevent an unintended pregnancy, Margarete and her partner used condoms, which were available at the local health centre where she works as a nursing assistant. At the centre, Margarete learned not only about contraception, but also about preventing sexually transmitted infections.

Margarete was 32 when she finished nursing school. That year, she and her partner decided they were ready to start their family. "I calculated my fertile days and we had sex. After 10 days, I knew I was pregnant." They decided to have their second child seven years later and then to have no more. Instead, the couple wanted to provide the best life possible for the children they had. Margarete started using the pill but then switched to an injectable contraceptive and then later on to an intrauterine device. "But we still use condoms, just to be sure", she says.

Aretha Inês Aparecida Ferreira Bento, 38, also decided she wanted two children. Born in São Paulo, she planned both her pregnancies, the first of which happened five years into her marriage. She stopped taking the pill, calculated her ovulation days and was pregnant within a month.

"We've always considered the financial aspects of having babies."

Aretha Inês Aparecida Ferreira Bento, 38, Brazil



During her pregnancy, she continued working at her job in public policy at her community's city hall. And soon after delivering a girl, she and her husband decided to have a second child. "We've always considered the financial aspects of having babies", Aretha says. "We could afford only two, so my husband Reginaldo had a vasectomy."

Aretha says she learned about pregnancy and contraception by reading books, and talking to friends and health-care providers. "I have no recollection of my mother talking to me about sex."

Aretha's mother, Angela Maria Dario Ferreira, 64, confirms that she never talked to her daughter about sex. And she says her own mother never talked to her about it. Without knowledge about sex and pregnancy, she became pregnant for the first time in 1972, when she was 18, single and still in school. She became pregnant three more times after finishing high school, two years after the first pregnancy. At the hospital where she now works, she learned about and received contraception. She never became pregnant again.

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CHAPTER 5

Creating conditions for parenthood

Fertility has been below replacement level—fewer than 2.1 births per woman—for years, if not decades, in 53 countries and territories (figures 29 and 30). Of these places, Taiwan, Province of China today has the world's lowest fertility rate: 1.1 births per woman.



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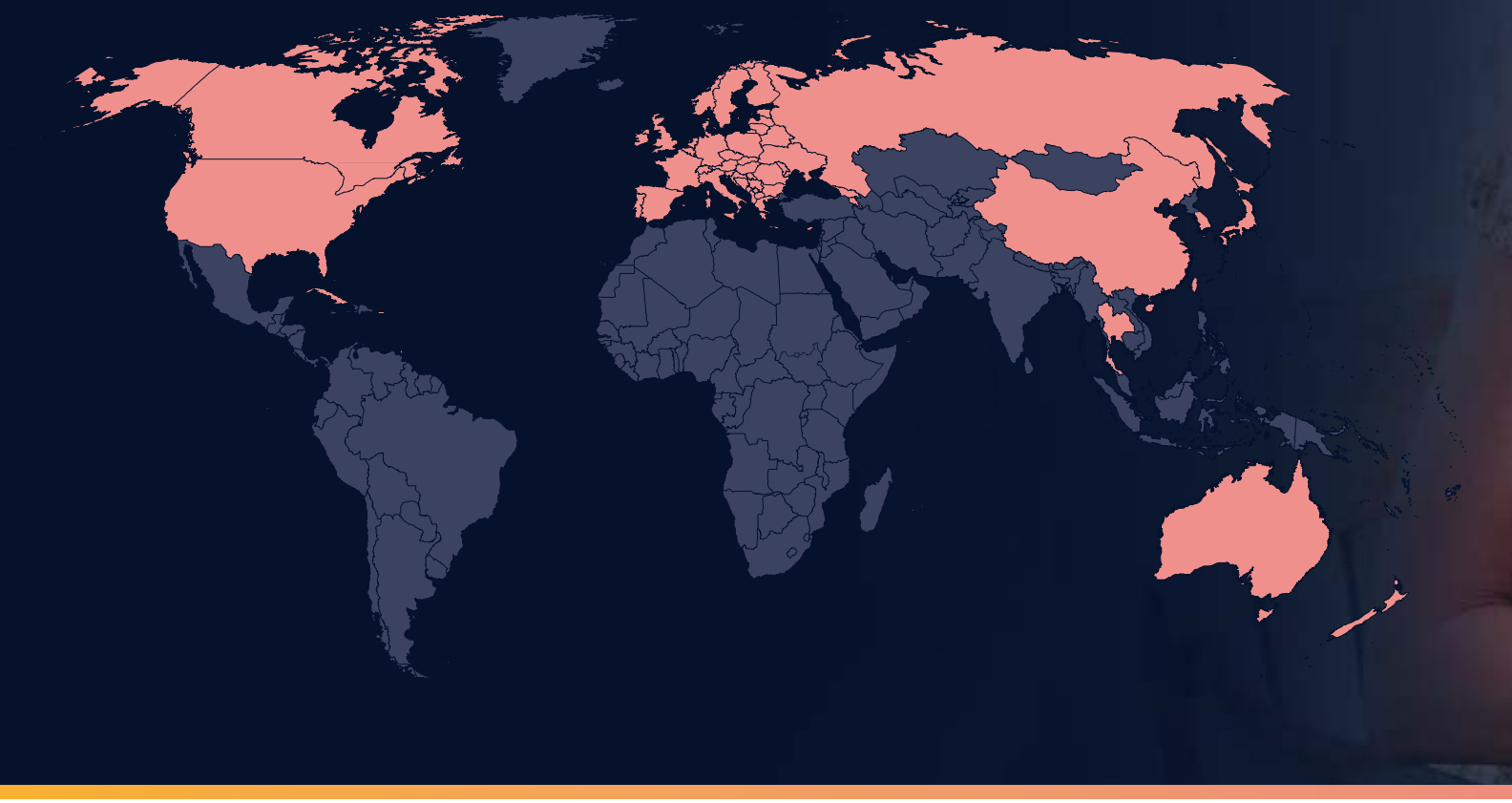
The phenomenon of low fertility in this group of countries and territories has generally coincided with a rise in educational attainment and greater attention to equal rights for women. In a number of higher-income countries with low fertility, for example, more than half of young people enrol at university. Women aged 25–34 now outnumber men in attainment of higher education across all developed countries that are members of the Organisation for Economic Co-operation and Development (OECD, 2017).

The shift from large to small family size across these countries and territories has allowed parents to invest more time and resources in the health, skills and well-being of their children. It has empowered women to complete their education, enter the labour force and build

FIGURE 29

FERTILITY RATE

FEWER THAN 2.1 BIRTHS PER WOMAN



careers before considering starting families. It has therefore enabled women to become economically independent (Goldin, 2006).

Low fertility is a clear manifestation of the fact that women, men and couples have become effective in preventing pregnancies and spacing births, but it is also a manifestation of lingering difficulties women and men face when starting a family or planning their next child. As a result, women in low-fertility countries say they are not having as many children as they would prefer. Obstacles to starting or expanding families include financial, housing and labour market constraints, and inadequate options to combine career and family life.

The challenges confronting countries with low fertility include an increasing share of older people in their populations and higher associated

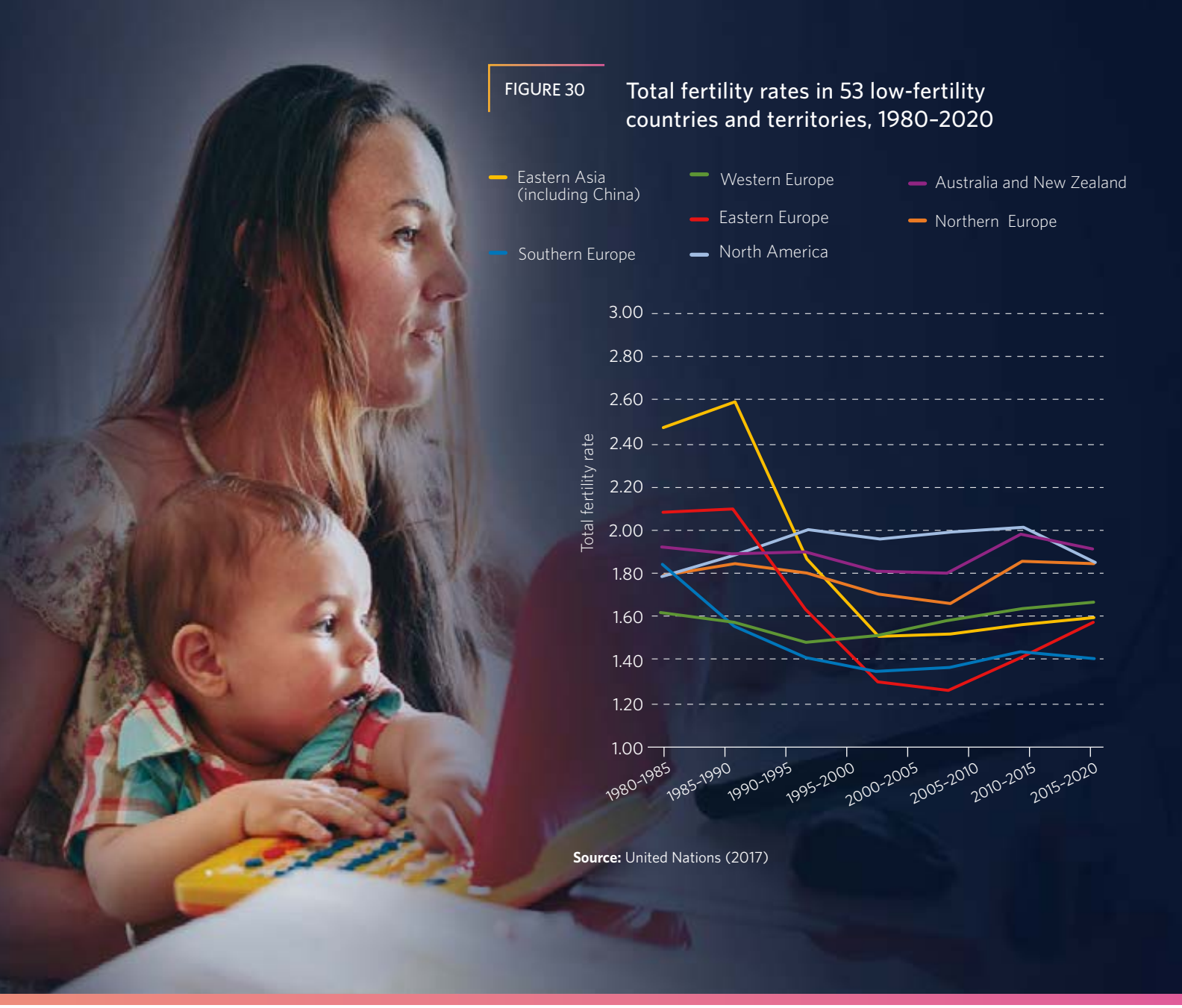


FIGURE 30 Total fertility rates in 53 low-fertility countries and territories, 1980–2020

Source: United Nations (2017)

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health-care costs, a shrinking labour force and potentially weaker economies. Some European and East Asian countries see low fertility as a threat to their economic security and are attempting to reverse the trend through policies aimed at supporting families that choose to have more children. Some countries in Eastern and South-Eastern Europe see low fertility—and smaller population size—as a threat to national security.

Two in three governments of more developed countries consider fertility to be too low and are pursuing policies to increase it (United Nations, 2015). Some countries have responded to shrinking populations with policies to attract migrants, especially younger people who can fill gaps in labour forces.

While respect for reproductive rights contributed to fertility decline in most of these

countries and territories, removing remaining obstacles to reproductive rights may enable more people to have the number of children they want.

Trends

Fertility decline in many European countries began in the late nineteenth century. By the 1970s, the fertility transition had occurred in Australia, Japan, and all highly developed countries in Europe and North America. Fertility in China fell sharply in the 1970s in response to policies to promote later and less frequent childbearing, and the introduction of the country's 1979 family planning policy, which generally limited couples to one child. Countries such as Cuba, the Republic of Korea and Thailand joined the expanding group of countries with fertility below replacement level in the 1980s and 1990s. At around the same time, countries of Southern, Eastern and Central Europe with low fertility saw their total fertility rates fall even further, sometimes as low as 1.3 births per woman, and stay at that level for decades (Kohler et al., 2002; Goldstein et al., 2009). The five countries or territories with the world's lowest total fertility rates are in East Asia and South-East Asia. In the largest cities in China, fertility was as low as 0.8 in the 1990s and 2000s (Guo and Gu, 2014).

The low-fertility countries covered in this chapter have a wide variation in fertility. Some studies suggest that a long-term "great divergence in fertility" across more developed countries has taken place (McDonald, 2006; Rindfuss et al., 2016; Billari, 2018). The contrast between the countries and regions with moderately low fertility (1.7–2.2) and those with very low fertility (1.6 or lower) is evident in Figure 31, which uses both the total fertility rate and completed cohort fertility (see box later in chapter) as summary measures of fertility.



FOCUS ON **BELARUS**

"We'd eventually like to have two or three kids, but not right now."

Olga, 30



Family-friendly policies aim to remove obstacles to having children

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"We'd eventually like to have two or three kids, but not right now", says Olga, on a stroll through a Minsk park with her husband Andrey and 3-year-old daughter Yulia one late April day. The apartment the three share with Andrey's parents is too small to have a bigger family, Olga explains. "I think it would be good if each child had its own room", she says. "It's a pity we cannot afford it". Olga, 30, and Andrey, 35, are not unlike other couples in Belarus' capital who want two or more children but end up having only one or sometimes two because of economics. The average wage is about $430 a month. Meanwhile, the cost of living for a family of four is about $1,600 a month, and that does not include rent or childcare.

Olga works in procurement for a state-owned medical supplies company, and Andrey leads a dance group. Despite two incomes, the couple has trouble making ends meet.

Relieving the financial burden

In 2002, the Government launched a Demographic Security Programme to relieve the financial burden of starting or expanding families and reverse an overall decline in the country's population size. The trend towards smaller families in Belarus began decades ago. In the early 1980s, women had on average 2.1 children, enough to maintain the size of the population. But today the average is 1.7. Government officials see the shrinking population as a risk to the financial health of the social safety net, and to the strength of the economy and labour market.

Under the 2002 programme, the Government provides couples with financial support when they have children. When a woman such as Olga becomes pregnant and checks in with a public health clinic for a free antenatal check-up, she receives about $100. When she gives birth, she receives an additional payment of about $1,000. Full-pay maternity leave begins two months before delivery and lasts another two months after giving birth. From then on, the Government pays a monthly family allowance of about $150 for up to three years of parental leave, which either the mother or father may take.

Housing assistance is available too. However, preference is given to families who already have at least three children. The programme has helped couples such as Olga and Andrey start a family, but has not removed all the obstacles along the path to a larger family in a home of their own.

Although two of three young people today say they want to have two children, the reality is that the number of families with one child is increasing quickly. One important reason for the discrepancy is economic hardship.

In 2016, the Government embarked on a national survey to explore how gender inequality

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may prevent women and men from having the number of children they want. The findings show that measures to relieve women's disproportionate responsibility for household work enable women to balance family and work life, and expanding free or affordable childcare would enable more women to join or stay in the paid labour force, earn better wages and boost household income—these measures could tear down other barriers to larger families.

Gender inequality manifests in other ways. The majority of women who have children take advantage of the full three years of parental leave. But when they return to work, they typically find they have lost ground in wages and career opportunities, compared with their male counterparts. Although men are eligible to take parental leave, they almost never do. Only about 1 in 100 men stays home to raise children.



"Young people need accurate information about sexuality."

Anastasiya, 22

"Our role is to make it OK to talk about these things."

Dzmitry, 24

Access to contraception

Not all women and men are eager to have children. For those who want to avoid or delay pregnancy, contraception is available at low cost. The majority of couples are using a modern method, mostly condoms, but also the pill and intrauterine devices.

Adolescents, too, have access to condoms and the pill, by prescription and with parental approval. But for many adolescents, contraception of any sort, even at a low cost, is unaffordable. Even when adolescents have the money, their access may be blocked by judgmental service providers and pharmacies.

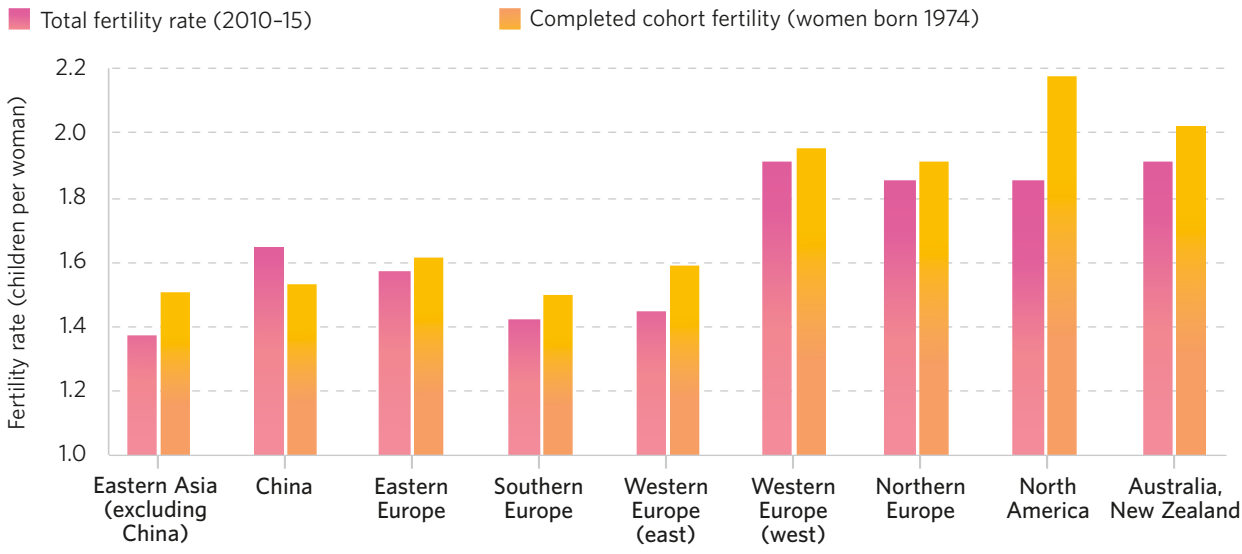
Overall, teenage pregnancy is decreasing, according to Aliaksandr Davidzenka of UNFPA in Belarus. "Young people are starting sex later, and those who are having sex are having safer sex, and this also means fewer abortions."

But finding out about contraception and safer sex is not always easy for Belarus' teenagers because comprehensive sexuality education is not offered in schools. Volunteer peer educators who are part of the Y-Peer network established by UNFPA visit schools and community centres throughout the country to fill the information void.

Y-Peer coordinator Anastasiya Kamysh, 22, says young people need accurate information about sexuality. "When we talk to young people about HIV, we also talk about condoms and about how condoms can help prevent pregnancy", she says.

Another coordinator, Dzmitry Karol, 24, says Y-Peer sessions also cover topics such as gender-based violence. "Our role is to make it OK to talk about these things", Karol says. "And we hope that the people who come to our workshops share their knowledge with their friends."

FIGURE 31 Total fertility rate in 2010–15 and completed cohort fertility among women born in 1974, 53 countries



Sources: Wittgenstein Centre (2016); United Nations (2017); Human Fertility Database (2018); Yoo and Sobotka (2018)

This figure shows that there is a distinct gap between the regions with very low fertility (East Asia and Eastern Europe, Southern Europe and the eastern part of Western Europe) and those with moderately low fertility (Northern Europe, the western part of Western Europe and the English-speaking countries). Countries with very low fertility represent 2.2 billion people—that is, almost 30 per cent of the world's population, of which 1.4 billion people are in China.

Average levels of fertility are important for countries, but, for individual women and men, what is important is the actual number of children they have. Many of the countries with moderately low fertility have high proportions of women who have no children but also high proportions with three or more children. Some also have low proportions with one child. These include Australia, Finland, the Netherlands and the United Kingdom. The United States also has relatively high proportions of women with three or more children.

In contrast, Eastern European countries have high proportions of women with one child but low proportions with no children, reflecting a low acceptance of childlessness. Very low average fertility in Southern Europe and Germany is an outcome of both high childlessness and a high share of women with one child. Finally, Japan has the highest rate of childlessness of any country, with 3 out of 10 women childless by the age of 40.

Overall, average fertility is not correlated with the proportion of women who have two children, but it is highly correlated with the proportion who have three or more children (Figure 32).

In the countries and territories covered by this chapter, increasingly, women are giving birth later in life and outside marriage (Billari and Kohler, 2004; Sobotka, 2017).

In countries such as Italy, Japan, the Republic of Korea and Spain, women's average age at first birth has surpassed 30, up from 24–26 in the 1970s (Figure 33). This trend parallels a trend

FIGURE 32 Completed cohort fertility and the number of children ever born among women born in 1974 in selected low-fertility countries and territories



	Cohort fertility	CHILDLESS	1 CHILD	2 CHILDREN	3+ CHILDREN
United States	(2.16)	11	20	34	35
Australia	(1.93)	18	15	38	29
France	(1.93)	14	19	39	28
Sweden	(1.89)	15	15	46	24
United Kingdom	(1.84)	20	18	36	26
Finland	(1.82)	22	16	36	26
Czechia	(1.78)	11	22	52	16
Netherlands	(1.74)	19	17	42	22
Republic of Korea	(1.73)	10	21	57	12
Canada	(1.73)	20	19	39	22
Serbia	(1.70)	15	21	50	15
Austria	(1.60)	22	22	38	18
Russia	(1.57)	11	39	37	13
Taiwan, Province of China	(1.55)	19	24	43	14
Belarus	(1.54)	13	36	40	12
Ukraine	(1.50)	13	41	37	10
Germany	(1.48)	24	25	37	15
Italy	(1.41)	23	26	38	13
Japan	(1.38)	30	20	35	15
Spain	(1.30)	26	29	37	8

0% 20% 40% 60% 80% 100%

Sources: Human Fertility Database (2018); national statistical offices, 2018
Note: Data are computed up to age 40
Photo, left to right: © anouchka/Getty Images, © Maskot/Getty Images, © Giacomo Pirozzi, © Michele Crowe/www.theuniversalfamilies.com

towards fewer teenage pregnancies, particularly in the United States and Eastern Europe (Figure 34). In much of Europe and East Asia, adolescents account for as few as 3 per cent of all births.

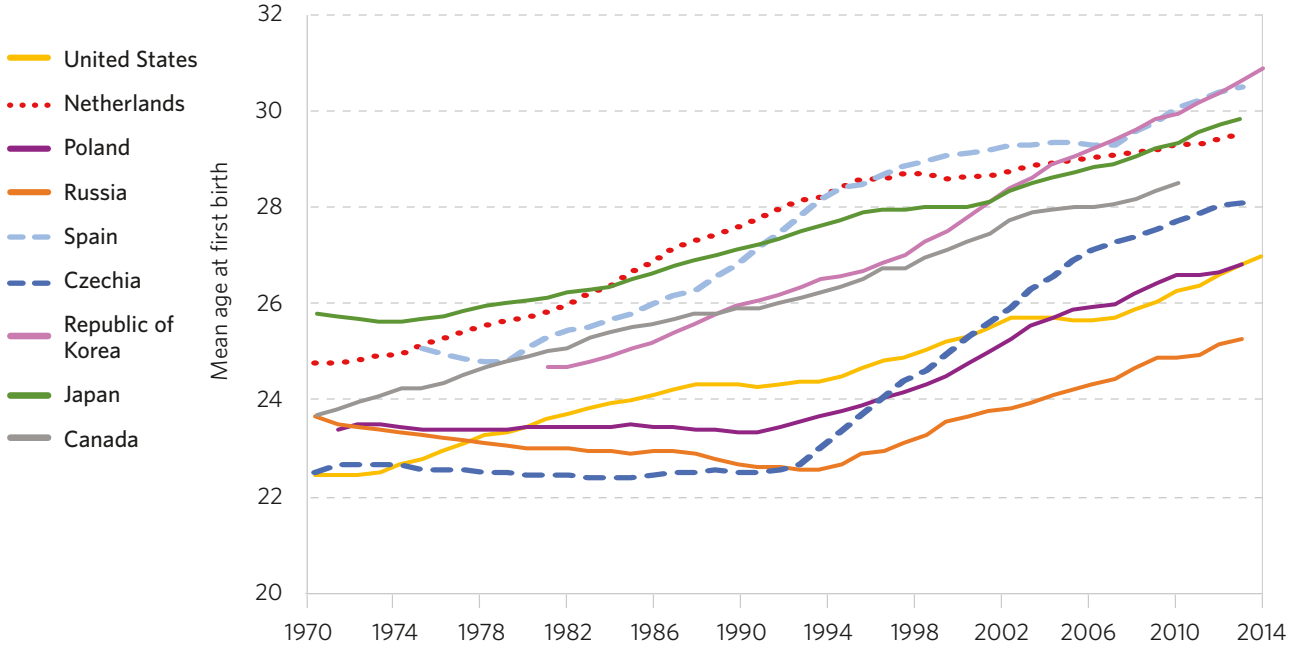
Births at older ages have increased most rapidly among highly educated women who seek to avoid the economic or career setbacks that are often associated with the "mommy track" at younger ages (Miller, 2011). The availability of assisted reproductive technology, such as in vitro fertilization, has contributed to this rise. Women who opt to delay pregnancy until their late 30s or 40s are at greater risk of infertility and complications during pregnancy (Schmidt et al., 2012; te Velde et al., 2012; Sobotka and Beaujouan, 2018).

Fertility decline between 1970 and 2000 coincided with trends towards later marriage and more cohabitation, divorce and childbearing outside marriage (Lesthaeghe, 2010; Perelli-Harris et al., 2012; Hayford et al., 2014; Lappegård et al., 2018). These trends, however, peaked in some countries, such as Sweden, the United States and Russia, and then reversed after 2004 (Figure 35).

In the European Union, the share of births outside marriage reached 42 per cent in 2014—double the level in 1994. In contrast, fertility remains closely linked with marriage in East Asia In this region, where marriage and childbearing are linked, lifetime childlessness is increasingly common (Jones and Gubhaju, 2009; Wei et al., 2013; Guo and Gu, 2014).

Most births outside marriage are to unmarried couples living together rather than to single mothers. Around 2010, 1 in 10 European children up to the age of 2 lived with a single mother, compared with 4 of 10 children who

FIGURE 33 Mean age at first birth, selected countries, 1970–2016

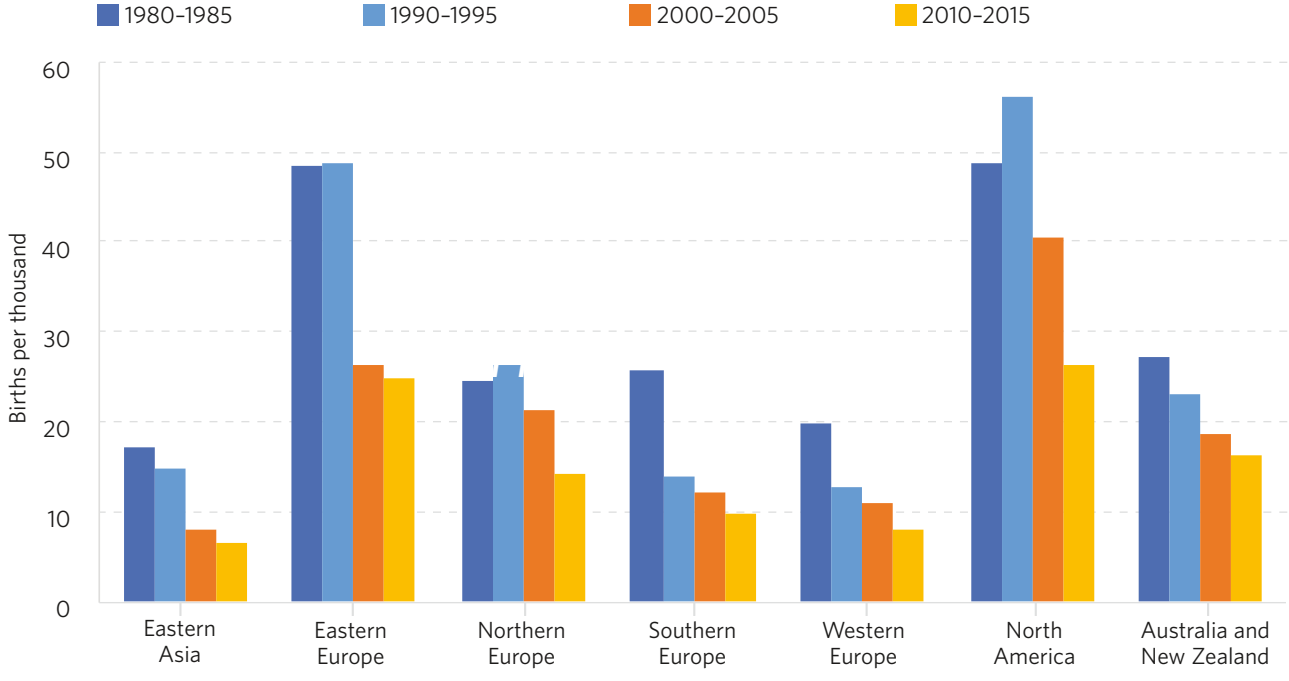


Sources: Human Fertility Database (2018); Yoo and Sobotka (2018)



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FIGURE 34 Fertility rates per 1,000 women aged 15–19, 1980–2015



Source: United Nations (2017)

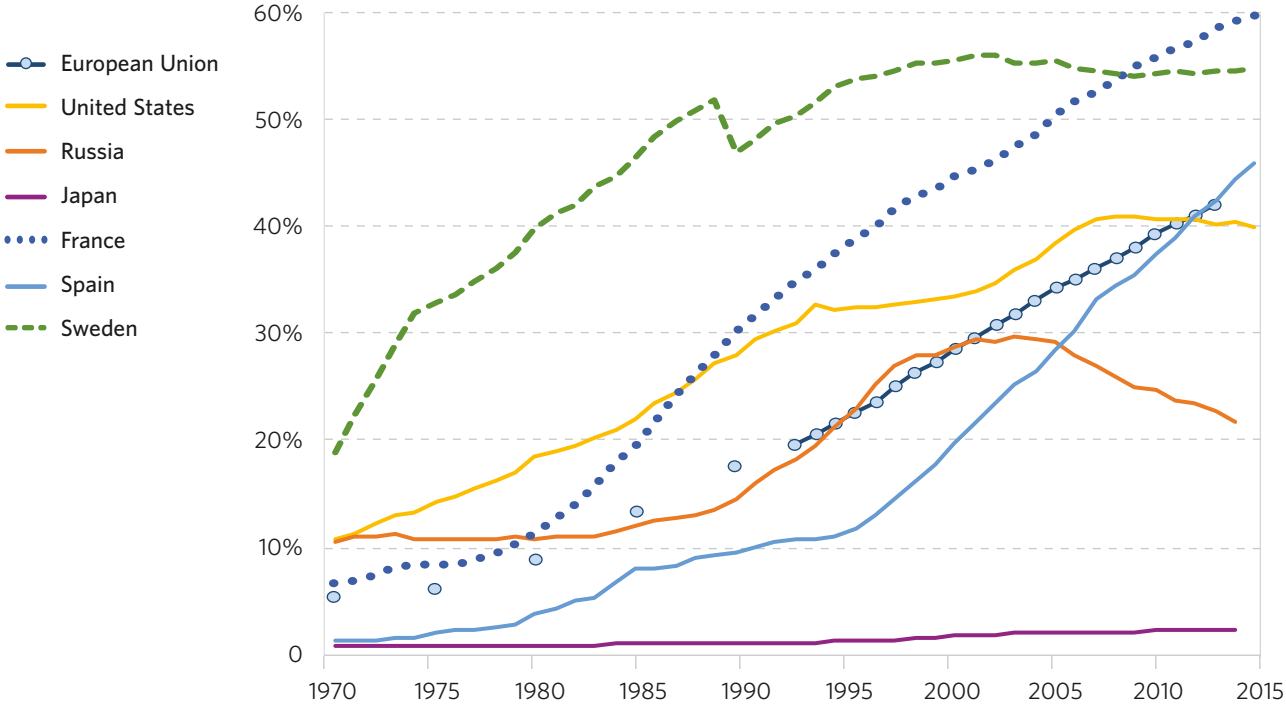
lived with a couple that was not married (Wittgenstein Centre, 2015).

The annual (or total) fertility rate can shift in reaction to changes in economic conditions, family policies, political change and conflict. The financial crisis in the United States and Europe in 2008 and beyond, for example, was associated with a drop in fertility rates in countries where fertility had been on the rise in the early 2000s (Goldstein et al., 2013; Schneider, 2015; Wittgenstein Centre, 2015; Comolli, 2017). Similarly, the 1997 financial crisis in East Asia contributed to a decline in fertility to very low levels (Kim and Yoo, 2016). The dissolution of the former Soviet Union and the demise of state socialism around 1990 were followed by a steep decline in fertility across Central and Eastern Europe (Sobotka, 2011).

Downward pressure on fertility

Very low fertility in East Asia and many parts of Europe is mostly not a direct reflection of a desired smaller family size. The mean ideal family size is about two children per woman (Sobotka and Beaujouan, 2014), but actual fertility is lower. The gap between desired and actual family size suggests that women and men are not fully able to realize their reproductive rights.

FIGURE 35 Percentage of births outside marriage in the European Union and selected countries, 1970–2016



Sources: Council of Europe (2006); NIPSSR (2017); Eurostat (2018); Martin et al. (2018)



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Economic obstacles

In higher-income countries, young women and men face challenges entering the labour market. Because, in general, they spend more years in higher education than young people in poorer countries, they become economically active later in life. And when they complete their education, they often find it difficult to get a job, particularly in their chosen field.

The changing structure of the global economy has eliminated many jobs that would have, in the past, been typical starting positions for young people coming out of college (Adsera, 2018). Meanwhile, many jobs that previously had long-term prospects have been replaced by short-term or contractual arrangements.

The outcome is worsening inequality in the labour market, and declining real incomes among women and men in their 20s and early 30s (Sanderson et al., 2013; Rahman and Tomlinson, 2018). Many young adults are "failing to thrive" in higher-income countries (Sanderson et al., 2013). Young people's position is most fragile in Southern Europe, where unemployment is high, temporary jobs are increasingly common and social protection is limited (Rahman and Tomlinson, 2018). This economic and labour market uncertainty contributes to delayed family formation, delayed marriage and rising childlessness (Blossfeld et al., 2005).

In the 1990s, many developed countries experienced economic downturns that affected

employment, income and living standards. The 1997 Asian financial crisis, for example, led to changes in employment practices that shifted new employment contracts away from jobs-for-life to fixed-term contracts, making jobs considerably less stable for young people (Ma, 2014).

Also in the 1990s, most countries in Eastern Europe saw long spells of economic decline, and rising income inequality and poverty, resulting from the turbulent transition to a market economy. At an aggregate level, these conditions are often associated with major declines in fertility. In Eastern Europe, the main fertility reaction was a fall in second birth rates, leading to a sharp rise in the share of women with one child (Perelli-Harris, 2005; Sobotka, 2011; Zeman et al., 2018). The financial crisis of 2008 had a similar toll on economic opportunities for young people.

Facing a trade-off between career and family

As more women across the more developed countries have attained higher levels of education, more have entered and remained in the paid labour force. But balancing family life and careers has been a challenge for women who have limited or no access to affordable childcare, and whose employers or governments have no provision for paid parental leave or for flexible work schedules and arrangements (Goldin, 2006). And, in many countries, responsibility for raising children falls largely on the shoulders of women. These challenges can drive women to pursue public sector jobs that offer benefits and stability but pay less than jobs in the private sector.

Countries with very low fertility often have limited policies for work-family balance. In most countries of Eastern and Central Europe, for example, government-supported childcare for infants is limited, with fewer than 15 per cent of children aged 0–2 enrolled in Bulgaria, Czechia,



FOCUS ON **THAILAND**

About 1.6 million babies were born to teenage mothers in the past 15 years.



In Thailand, a tale of two fertilities

© UNFPA/Matthew Taylor

"I started dancing when I was 15", Kate says. While performing at a fair in Nonthaburi then, she met a man. "He was older than me. He was funny and handsome. I didn't like him at first, but he grew on me."

Back then, Kate didn't know about contraception or the risks of having sex without it and eventually became pregnant. Now 17, she lives in a in Bangkok shelter for teenage mothers.

About 1.6 million babies were born to teenage mothers in Thailand during the past 15 years, with a 54 per cent increase from 2000 to 2014. In 2016 alone, more than 14 per cent of all pregnancies in the country were to adolescents.

To help girls such as Kate prevent pregnancy until they are older and decide to start a family, the Government passed a law making

contraception and information available to all people between the ages of 10 and 19.

In Thailand, comprehensive sexuality education, crucial to ensuring that young people can make well-informed decisions about their bodies and relationships, is taught in almost all high schools across the country, but quality varies. A new law requires all high schools in Thailand to adopt the curriculum.

"We can't stop teenagers from having sex, but we can help make it safer for them", says Dr. Jetn Sirathranont, Chairman of the Committee on Public Health in Thailand's National Legislative Assembly.

"My parents were farmers. They didn't have money to send me to school, so I came to Bangkok to work when I was 12", says Sanit, now 40, as she opens the dressmaking shop where she has worked for years.

"I've lived in a disciplined way", Sanit says. "I worked hard and finished high school outside of my job. I didn't have time to find a husband, let alone have children."

"So, when I married last year, I knew I had to have kids quickly. But the doctor found a growth in my womb, which, combined with my age, had made it hard for us to conceive."

Sanit is like an increasing number of women in Thailand who pursued jobs at the expense of marriages and having children. By the time they are ready to start a family, it is often too late for them to become pregnant or deliver without complications. Fertility treatments are available in Thailand but are too expensive for most people.

"Increasing numbers of people are putting economic security and stability ahead of starting families", says Dr. Sorapop Kiatpongsan, a physician specializing in fertility at Bangkok's Chulalongkorn University. "Women who have passed their peak fertility years need correct information and affordable treatment options", he says.

Kate and Sanit's stories represent the two ends of Thailand's fertility challenge.

On one end, adolescents lack access to information, and sexual and reproductive health services, and are seeing their futures diminished through unintended pregnancies. At the other end, women are aiming to start families later in life and finding that their reproductive years have passed.

© UNFPA/Matthew Taylor



Sanit is like an increasing number of women in Thailand who pursued jobs at the expense of marriages and having children.

Hungary, Poland, Romania and Slovakia, compared with 34 per cent across Member States of the Organisation for Economic Co-operation and Development (OECD, 2018). Limited childcare prevents many mothers from returning earlier to the labour market and increases their opportunity costs of having children.

In East Asia, the workplace culture requires high levels of commitment of workers to their employers. Long and inflexible working hours make it difficult to have both career and family. In the Republic of Korea, for example, about 18 per cent of employed women worked more than 54 hours a week in 2014 (OECD, 2017). To address this problem, in 2018, the Republic of Korea has legislated to restrict the work week to 40 hours, with a maximum of 12 hours of overtime.

In addition, women with children often face discrimination in the labour market. In Japan and the Republic of Korea, mothers predominantly occupy low-pay positions and have limited career options, resulting in huge gender wage gaps (OECD, 2017).

Even as women have gained equality in access to education and work, their family and employment decisions continue to be constrained by their "second shift" in taking care of children and managing their households. Women are still held back by gender inequity in the home (McDonald, 2013), which can contribute to low fertility.

Women in East Asia face some of the greatest constraints in their family choices because of demanding employment conditions, and their disproportionately large share of responsibility for domestic tasks and caring for children and other relatives (Raymo et al., 2015). When women in Japan or the Republic of Korea marry, they may be expected to withdraw from the labour force, and assume responsibilities for household maintenance, and care for husbands, elderly in-laws and children (Rindfuss et al., 2004). Among married couples in Japan, men contribute an average of 3.4 hours per week to housework duties, whereas women contribute an average of 27.4 hours (Tsuya, 2015).

Faced with the prospect of sacrificing careers for family life, some women in East Asia choose to delay or avoid marriage. And because most childbearing in the region occurs within marriage, an increasing number of women are having no children in their lifetimes.

East Asia is not, however, the only region where women face these challenges. Gender inequalities in unpaid household care work also persist in most countries of Central and Eastern Europe, and in Southern Europe, especially in Italy and Portugal (OECD, 2017).

Fertility buoyed by stable economies and supportive policies

The countries with moderately low fertility are marked by strong and stable economies, and policies that make it easier to start or expand families. Supportive policies can nurture confidence among couples to form families (McDonald, 2008).

For example, some European countries with fertility rates at or around replacement level support families with children by providing paid parental leave, cash benefits for families, public childcare and other services for children, tax breaks for families, and school hours that are aligned with work hours.

Opportunities for part-time work, arrangements that allow employees to take time off to care for sick children, elimination of night shifts and irregular working hours, and generous parental and paternity leave can all make a difference to a couple or individual considering starting a family.

Canada and several European countries have reduced barriers to employment for mothers to such an extent that today most women with children are employed (OECD, 2007, 2011). A one-and-half-earner model, where one parent works full-time and the other part-time, is common today among couples with children in Australia, Austria, the Netherlands and the United Kingdom. The model became popular in the Netherlands after the Government established a legal right to work part-time, and granted part-time employees the same health-care coverage, social security and pensions as full-time workers (Mills, 2015).

Reproductive preferences centred on a two-child family

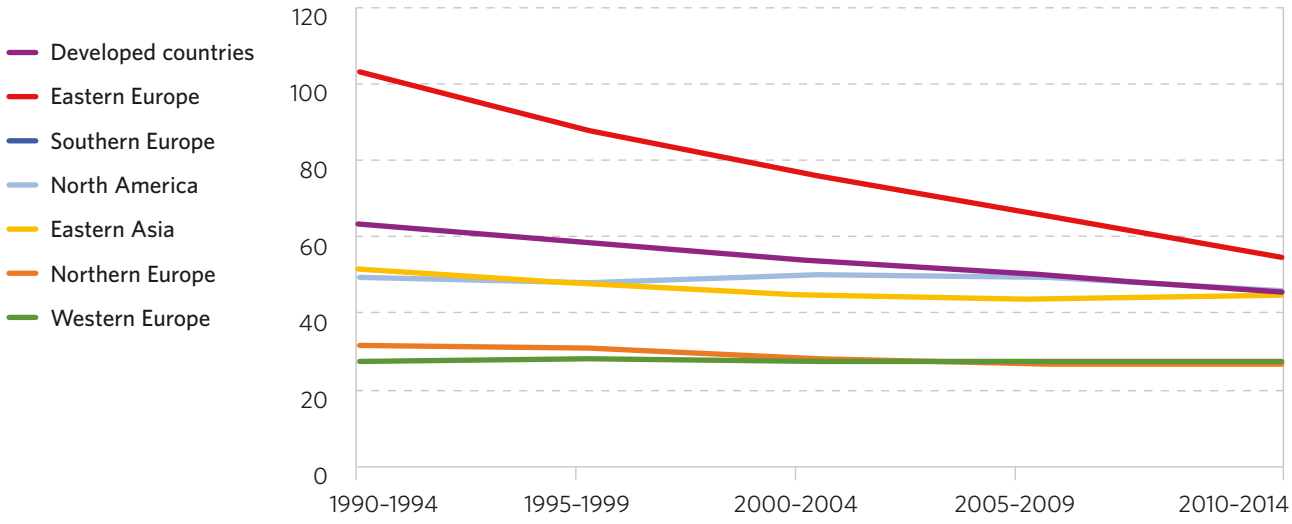
Most women in countries covered in this chapter generally express a preference for a two-child family, although a significant share prefer three children (Hagewen and Morgan, 2005; Sobotka and Beaujouan, 2014; NIPSSR, 2016). China is an exception, with many women expressing a desire for only one child (Basten and Gu, 2013).

In many low-fertility countries, there is a considerable gap between the number of children people want and the number they have (Bongaarts, 2002; Wittgenstein Centre, 2015). Some couples do not have the number of children they want because of competing priorities in life or because of circumstances such as economic hardship. Others do not have as many children as they would like because of events such as illness or divorce. Decisions about family size typically change over time in response to life experiences. Among women born in the late 1960s from seven European countries, the gap between desired and actual fertility was at least 0.5 children, on average. The gap is largest among university-educated

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FIGURE 36 Unintended pregnancies per 1,000 women aged 15–44, 1990–2014



Source: Bearak et al. (2018)

women (Wittgenstein Centre, 2015; Beaujouan and Berghammer, 2017).

The Programme of Action of the International Conference on Population and Development, endorsed by 179 governments in 1994, stated an aim that "all couples and individuals have the basic right to decide freely and responsibly the number and spacing of their children and to have the information, education and means to do so". This principle applies to all couples and individuals, whether they want no children or many children. Therefore, when couples and individuals want to have children but are constrained by economic circumstances or by circumstances that prevent a work-life balance, they are unable to fully enjoy their reproductive rights.

Unplanned pregnancies in low-fertility countries

Many pregnancies in developed countries are unintended. Some unintended pregnancies are related to an unmet need for contraception. Women with an unmet need are sexually active, do not want to become pregnant and are not using any method of contraception (United Nations, 2016). An estimated 1 in 10 married or cohabiting women in these countries has an unmet need for contraception. Moreover, every year between 2010 and 2014, an estimated 45 of every 1,000 women of reproductive age in developed countries had unintended pregnancies (Figure 36; Bearak et al., 2018).

Eastern Europe has a comparatively high rate of unintended pregnancy partly because of limited access to modern contraception (especially the pill), absence of sexuality education, and limited knowledge about pregnancy prevention (Figure 37; Kon, 1995; David, 1999; Stloukal, 1999; Sobotka, 2016). However, access to contraception across the region has improved considerably since the early 1990s, leading to higher contraceptive use and falling abortion rates (Figures 37 and 38).



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Abortion is also common in East Asia. More than three in four unintended pregnancies in Eastern Europe and East Asia ended in abortion in 2014.

Not only are many pregnancies unintended in developed countries, but so are as many as one in four births (Figure 39; Bearak et al., 2018). Most of these unintended births, however, are mistimed rather than unwanted. Countries of Eastern and Central Europe have a comparatively low rate of unintended births, largely because of access to abortion.

In many parts of Eastern and South-Eastern Europe, young people tend to use no contraception or rely on withdrawal during sexual intercourse (CDC and ORC Macro, 2003). Comprehensive sexuality education in these countries is limited.

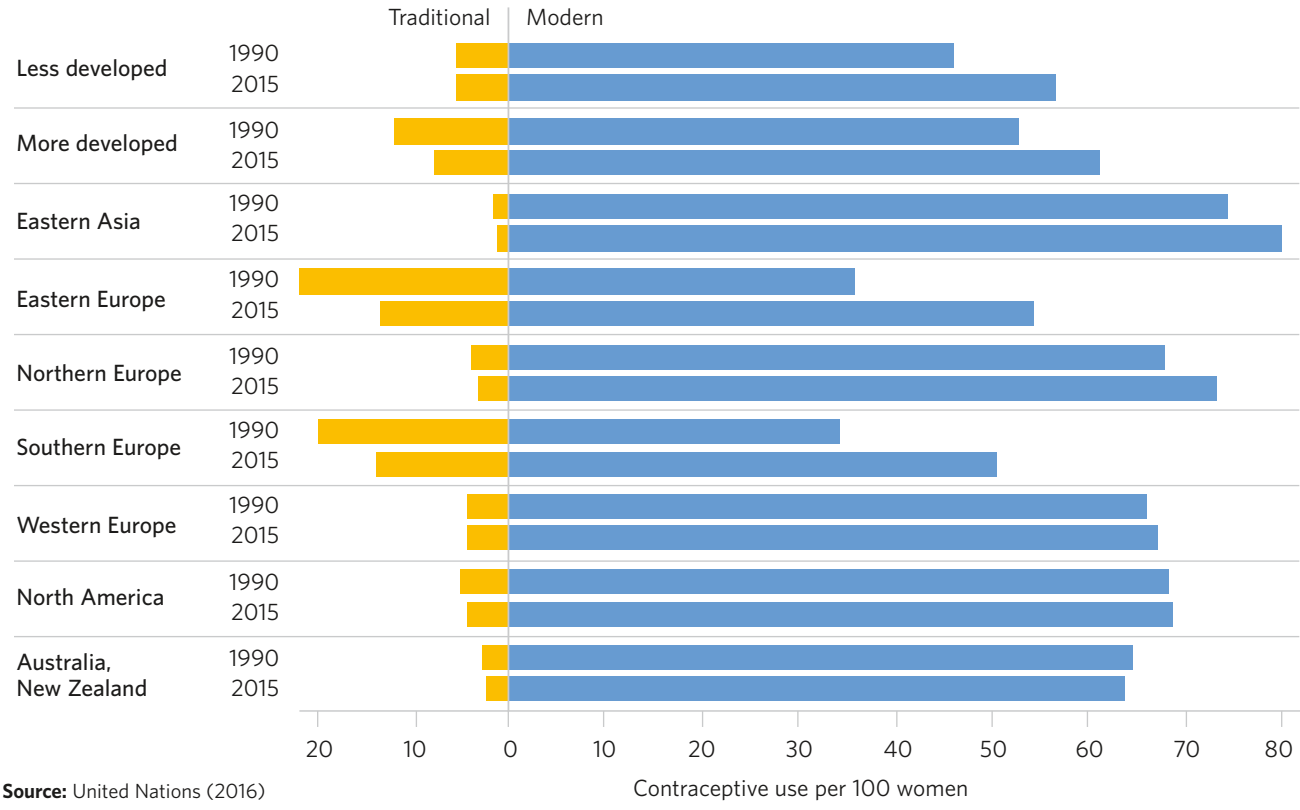
Poor reproductive health, weak health-care systems and limited condom use contributed to an upsurge in sexually transmitted infections in Eastern Europe in the 1990s (Uusküla et al., 2010). Today, HIV infections are on the rise in the region, still largely as a result of use of injected drugs (Avert, 2017), but with sexual contact becoming a major mode of transmission in recent years. Eastern Europe and Central Asia are the only regions experiencing a sustained rise in HIV infections (Avert, 2017; UNAIDS, 2017).

Infertility may play some role in low fertility in some developed countries. What little evidence exists of an infertility problem suggests that the problem is more attributable to men than to women. Some research points to a steady decline in the quality and quantity of sperm among men in high-income low-fertility countries (Levine et al., 2017), although the issue remains in dispute (te Velde et al., 2017).

A more likely contributor to low fertility in some developed countries is secondary infertility: an inability for women who have already had a child to become pregnant again or to carry another pregnancy to full term (Mascarenhas

FIGURE 37

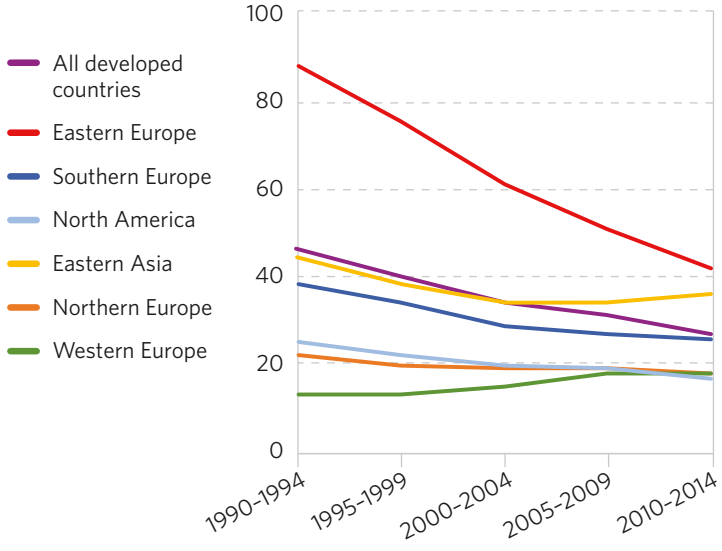
Use of traditional and modern contraception among married or cohabiting women aged 15–44, 53 countries, 1990–1994 and 2010–2014



Source: United Nations (2016)

FIGURE 38

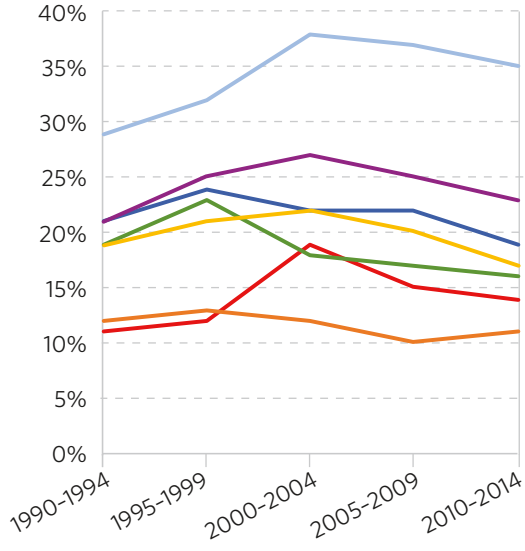
Abortion rates per 1,000 women aged 15–44, 1990–2014



Source: Sedgh et al. (2016a)

FIGURE 39

Percentage of births that are unintended, 1990–2014



Source: Bearak et al. (2018)

et al., 2012). In 2010, secondary infertility affected an estimated 7 per cent of couples in high-income countries, and as many as 18 per cent in Central and Eastern Europe, and Central Asia. Explanations for the comparatively high rates of secondary infertility in these regions include a combination of higher rates of abortion, higher incidence of unsafe abortion and invasive methods of abortion, and post-abortion infections (Hodorogea and Comendant, 2010).

Repeated surveys in the United States show a slight but continuous decline of infertility among married women of reproductive age (Chandra et al., 2013). As couples continue postponing parenthood to later reproductive ages, however, the incidence of infertility is likely to increase. In Europe, delayed childbearing has contributed to an increase in permanent involuntary childlessness, which has roughly doubled between 1970 and 2007 in six countries analysed by te Velde et al. (2012).

Reproductive rights

Exercising the right to decide freely and responsibly how many children to have and when to have them depends on more than access to contraception or appropriate



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treatment for infertility. Decisions about family size also depend on housing availability, the economic conditions of households and the cost of raising children.

Reproductive decisions may also be influenced or constrained by social, institutional and legal obstacles, such as stigma about single-parent families, discrimination against children born to unmarried or same-sex couples, the legality of abortion, and the availability of assisted reproductive technology.

The legality of abortion varies between countries. About 8 in 10 developed countries allow abortion on request or for broadly defined economic and social reasons during the first trimester (United Nations, 2013).

Demand for assisted reproductive technology, such as in vitro fertilization, has grown in developed countries where women are choosing to have children later in their reproductive years. Access to assisted reproduction broadens couples' reproductive choices and allows fulfilment of their reproductive rights. It makes a minor, but growing, contribution to fertility. In 2013, assisted reproductive technology in Europe accounted for 2.2 per cent of all births, with especially high proportions of up to 6.2 per cent reported for Czechia, Denmark, Finland and Slovenia.

Fertility and high levels of human and economic development

When poorer countries achieve higher levels of human development, fertility typically falls. As human development progresses, fertility may fall dramatically—to well below replacement level.

Some countries, however, have seen their very low fertility rise again to moderately low levels, while other countries with declining fertility have seen their fertility stabilize before hitting very low levels. These countries have several things in common: they have achieved the highest levels of human development and the highest levels of GDP per capita. Furthermore, they have made more progress towards gender equality. They are also countries where fewer people marry, and people marry later in life. Most of these countries have well-functioning labour markets, and provide opportunities for young adults to acquire jobs and housing (Myrskylä et al., 2009; Luci-Greulich and Thévenon, 2014; Arpino et al., 2015; Goldscheider et al., 2015; Billari, 2018).

Many countries with fertility close to replacement level have extensive family-friendly policies and services, such as publicly funded, high-quality childcare. These policies are neither coercive nor designed specifically to spur population growth. Rather, they respond to the actual needs of families and children, and respect or enhance rights, including reproductive rights.

The experiences of countries with moderately low fertility demonstrate that policies are most effective and helpful when they offer a range of supports to parents, and increase options for combining work, leisure and child-rearing.

In no country of the world are individuals and couples entirely empowered to decide freely and responsibly on the number, timing and spacing of pregnancies. This includes countries with fertility levels that are below replacement level. In general in these countries, many couples and individuals are not able to have the number of children they desire because of social, economic, institutional and structural obstacles.

Total fertility rate and cohort completed fertility

The total fertility rate is based on births occurring at different ages in one calendar year. The total fertility rate for a calendar year is calculated as the sum of the age-specific fertility rates across each age for ages 15–49.

Because it is the sum of fertility rates at all ages in one calendar year, the total fertility rate measures the average number of children that women in a population would have in their lifetime if they were to experience, across their lifetime, the fertility rates at each age in that calendar year.

The total fertility rate has the advantage that it can be calculated as soon as the numbers of births at each age in a calendar year are published by statistical agencies. It is a timely measure. Its disadvantage is that it does not refer to the actual experience of any group of women across their lifetime. For example, women who are 18 in 2005 will be 19 in 2006, 20 in 2007 and so on. The experience of any actual group of women is spread across many calendar years.

If age-specific fertility rates are available across many years, they can be added together across the real lifetimes of a group of women. For example, the fertility rate of women aged 18 in 2005 would be added to that of women aged 19 in 2006, 20 in 2007 and so on, until the group reaches age 50. The measure obtained by adding across real lifetimes in this way is called completed cohort fertility. Like the total fertility rate, completed cohort fertility measures the average number of children that women would have across their lifetimes, but the lifetimes in this case are real lifetimes.

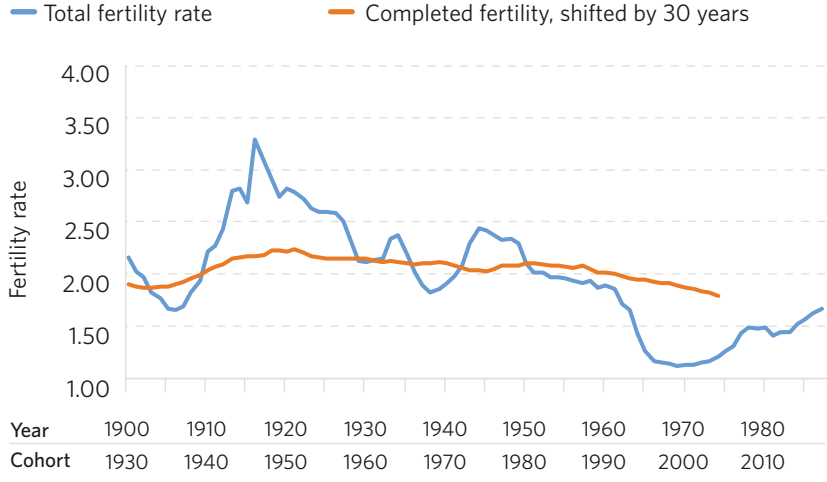
Completed cohort fertility has the disadvantage that it cannot be calculated until the analysed group of women reaches the end of their childbearing years. Although it is a more accurate measure of actual fertility experience than the total fertility rate, it is not a timely measure. It tells us nothing about the fertility behaviour of younger women in recent years.

When fertility is high, movements in the total fertility rate (almost always downward movements) provide a relatively reliable and up-to-date picture of the trend in fertility. This is the reason that the total fertility rate has been employed in the earlier chapters of this report.

When fertility is low, however, changes in the timing of births or a shock such as an economic recession can have a large effect on the annual number of births and, hence, on the total fertility rate. This is illustrated in the graph below, which shows very wide fluctuations in the total fertility rate for Czechia but only moderate movements for completed cohort fertility.

Thus, in low-fertility settings, it is important to be aware of the potentially misleading picture that is provided by the trend in the total fertility rate and, where possible, to also examine the trend in completed cohort fertility.

Long-term changes in total fertility rate (1930–2015) and completed cohort fertility (women born 1900–1974) in Czechia





Parental leave policies make it easier for Swedes to have the number of children they want

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"Parents in Sweden don't have to choose between a career and being a parent."

Hans Linde, RFSU

Andreas Åsander kisses his wife Elin goodbye as she leaves for work. Once she's out the door, he bundles up their 11-month-old daughter Edda, takes their daughter Lo, 4, by the hand and heads out the door too.

The first stop is Lo's preschool and then a walk with Edda through a park near their home in a suburb of Stockholm. They pass an outdoor exercise course where Andreas works out

"Sweden's parental leave policy is good for reproductive rights and for the economy."

Hans Linde, RFSU

as Edda sleeps soundly in her stroller. By 9 a.m., Andreas and Edda are back home. If Andreas is lucky, he'll have time for a cup of coffee before Edda wakes up and insists on playing before her morning snack.

"On a normal day, we do what you normally do with a child", Andreas says. "We play, read a book, eat. When Edda sleeps, I try to do some chores, like laundry and cleaning. And sometimes there is time to meet up with friends who are also on parental leave."
When Andreas met Elin, she already had a son, John, who is in fourth grade at a school across the street. The couple decided early on that they wanted children together.

© UNFPA/Melker Dahlstrand



Sweden's social security system supports and encourages shared parental responsibility. A total of 480 days of parental leave are provided: 90 days are dedicated to each parent, the remaining 300 may be shared by the parents, and up to 30 days can be taken at the same time—with both parents at home. A parent receives up to $110 a day for the first 390 days, and less for the remaining days.

Elin was home for the four first months with Edda. Since then, Andreas takes care of Edda on Tuesdays, Fridays and half a day on Wednesday. Elin stays home the other two and half days a week.

"Parents in Sweden don't have to choose between a career and being a parent", says Hans Linde, president of the Swedish Association for Sexual Education, RFSU. "The parental leave system is a good foundation for equality", he adds.

"The way we arranged it leaves us both more energy for work and for Edda", Andreas says.

"Sweden's parental leave policy is good for reproductive rights and for the economy", RFSU's Linde says. Sweden's respect for reproductive rights has made it possible to have "one of the strongest welfare economies in the world", he adds.



A total of 480 days of parental leave are provided.



CHAPTER 6

Everyone has the right to choose

Fertility matters. It mirrors where people are and where they have come from, reflecting their opportunities and constraints. It defines future aspirations, with profound implications that start with individuals and ripple across societies.



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Amid today's wide gaps between high and low fertility rates, both within and across countries, fertility issues and drivers vary hugely. But what is common to all countries is that the extent to which couples and individuals are able to exercise their reproductive rights is a critical determinant of how many children they have and how well their fertility matches what they want from their reproductive lives.

For 50 years, since the 1968 International Conference on Human Rights in Tehran, governments have agreed on the right to freely and responsibly make decisions about family size. They strongly reaffirmed this right in 1994 at the International Conference on Population and Development. The conference's Programme of Action states that all couples and individuals have the right to the information and means to

decide on the number, spacing and timing of their children, free from discrimination, coercion and violence. In 2015, in the 2030 Agenda for Sustainable Development, reproductive rights became an explicit aim of one of 17 Sustainable Development Goals and integral to achieving all the others.

Much progress has been made in upholding reproductive rights. Yet today, no country can claim that all population groups enjoy these rights at all times. Almost everywhere, social, institutional and economic circumstances still deny some people the means to freely and responsibly have the number of children they want, or to have them when they want. This situation is evident in high- and low-fertility countries alike. And it persists despite increasing urgency around issues such as how fertility can sap or propel the strength of an economy, and define resources for essential social services. It echoes in the concerns of many individuals who are limited in their reproductive rights and choices by concerns about housing, work or childcare.

A better matching of public policy and individual goals is in order. Individuals need the knowledge and tools to enable them to decide whether, when or how often to have children. Governments concerned about high or low fertility need policies that enhance individuals' rights to make their own decisions about timing and spacing of pregnancies. Aligning individual and government goals, and grounding them in human rights can be a powerful force for economic and social development.

What every country needs to do

Each country needs to define the mix of services and resources it requires to uphold reproductive rights for all citizens, ensuring that no one is left behind, and to dismantle social, economic, institutional and geographic obstacles that prevent couples and individuals

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from deciding freely and responsibly the number and timing of pregnancies. Some actions may be more relevant to countries at different fertility rates. But a few issues cut across all countries, reflecting areas that are the foundation for reproductive rights, yet where shortfalls are still broadly persistent.

Fulfil commitments to reproductive rights

The 179 governments represented at the International Conference on Population and Development in 1994 endorsed the notion of reproductive rights, particularly the right of everyone to make their own free and responsible decisions about family size, and the timing of pregnancy and childbearing. Each person is entitled to these rights. Yet universality has not been achieved.

To begin closing the gaps, countries should consider whether demographic policies enhance reproductive rights and empower individuals to realize their own fertility goals, or whether they diminish the power to make decisions about family size. Policies should be reframed or realigned with what people actually need to have the number of children they want, when they want. This requires considering a full range of intersecting factors that influence reproductive rights and fertility, including education, work, housing and food security. Bangladesh, for example, realized its fertility aims at an unusually rapid pace by taking a comprehensive human development approach to national development, which emphasizes providing people with a balanced mix of capacities in health, education and income.

One starting point in any country could be to conduct regular national reproductive rights "check-ups" to assess whether laws, policies, budgets, services, awareness campaigns and other activities are aligned with reproductive rights, as defined by the International Conference on Population and Development. To be fully informed and rights based, check-ups should solicit expert opinions as well as feedback from people at large. In general, better methods need to be developed to measure gaps in reproductive rights, covering health-care, social, economic and institutional determinants.

Get to zero unmet need

Women with an unmet need for modern contraception account for more than four in five unintended pregnancies in developing countries (Guttmacher Institute, 2017). But unmet need is not unique to developing countries. It exists practically everywhere, even in countries with low fertility. Whereas women around the world who are wealthier, live in cities and are more highly educated typically have full access to a range of modern methods of contraception, their poorer, rural counterparts with less education do not. In some countries with low fertility and higher incomes, safe abortion services are readily available and affordable or free, but some forms of contraception are not. Nationally owned and funded family planning programmes that aim to achieve zero unmet need for family planning services no later than 2030 can help countries attain the Sustainable Development Goals.

Prioritize reproductive health in health-care systems

Reproductive health services in many countries still do not receive the attention—or financing—they deserve, despite their influence on a spectrum of human rights and development goals, from poverty reduction to labour force participation. These services should be considered integral to primary health care, equal to vaccination and other essentials for sound health. They should be comprehensive,

high quality, accessible to all and grounded in empowering people to make their own decisions. Further, asking questions about whether or not people of reproductive age are having the number of children they want should be standard in general medical examinations, backed by information and referrals for those who are not satisfied with their existing options.

Mechanisms for accountability need to be in place, based on sound data, and oriented towards fully realizing rights in practice, as defined by whether or not people who use health-care services feel they are able to meet their own fertility goals.

Provide universal comprehensive sexuality education

People need knowledge to exercise their reproductive rights, and make choices around whether, when or how often to become pregnant. This knowledge should be imparted to young people before they become sexually active. All school curricula should therefore include age-appropriate and phased comprehensive sexuality education about rights, relationships, and sexual and reproductive health as a foundation for gaining this understanding. The most successful programmes emphasize not just the basics about how reproduction works, but also gender equality, and help girls and boys develop confidence and skills to make empowered choices.

Act to achieve gender equality on all fronts

Shortfalls in women's rights are closely intertwined with shortfalls in reproductive rights; neither will be resolved without the other. Gender discrimination can negatively influence health systems, for instance, so that women cannot access the services they need to make their own choices about types of contraception. Where women are subordinate in household decision-making or subjected to gender-based violence, they may have little control over their fertility.

Gender equality should ideally be enshrined in all national policies and practices, and should be a central operating principle of all health-care systems. Gender-responsive budgets, which screen policies to raise and spend public resources based on their contribution to gender equality, can be an important tool to accelerate progress. In all efforts to promote gender equality, attention must be given to how gender may intersect with other forms of discrimination and exclusion related to age, ability, location, ethnicity and so on. A girl in a rural area, for instance, is twice as likely to be married as a child than a girl in a city.

Work on social norms is essential to transforming some of the most persistent drivers of gender inequality. Although women globally are increasingly aware of their rights and able to act on them, attitudes among men remain major barriers. This is clearly reflected in women's universally disproportionate share of unpaid care work, with men still failing to take up an equal share, even in countries that have made significant advances in gender equality. One consequence is that some women will have fewer children than they would prefer. Conversely, for those who have more children than they want, the demands of household work may become an insurmountable barrier to other activities, such as paid work or participation in community affairs.

What countries with high fertility need to do

Countries with high fertility rates also tend to struggle with high rates of poverty and overstretched services, particularly in rural areas. Although some people in these countries, especially the urban young, are choosing to have fewer children, fully realizing reproductive rights would mean that everyone



© Abbie Trayler-Smith/Panos Pictures

can make informed choices. Unmet need for contraception is typically high in these countries, suggesting that fundamental barriers exist to one of the basic tools couples have for achieving their reproductive goals.

Extend the reach of reproductive health-care services and improve quality

A starting point for realizing reproductive rights and empowering people to have the number of children they want is to extend reproductive health services to those who have been left furthest behind. In high-fertility countries, these are often poorer people in rural areas. Services, whether provided in health clinics or by community workers, can be built around integrated models that offer family planning commodities and messages that support shifts in social norms, including those posing barriers to contraceptive use and constraining women's empowerment. Such services might also become an entry point for basic levels of support and referral in cases of gender-based violence.

Health systems need to ensure that all women, whether in cities or the countryside, have equal access to the full range of contraceptive choices, along with other essentials such as protection from, and treatment for, sexually transmitted infections. More could be done to draw links between family planning and HIV programmes, given that condoms are now the most common contraceptive method for single people. As a matter of human rights, and given the role of high infant and child mortality in driving high fertility rates, weak maternal and child health programmes need to improve, supported by related programmes in nutrition, food security and women's empowerment. Other priorities are strengthening health management information systems, including identifying disparities in service quality and access, and investing in the capacity of health workers, particularly mid-level cadres such as midwives.

Make sure everyone knows their reproductive rights and how to exercise them

Social norms can play a major role in sustaining high fertility rates, in combination with gaps in family planning services. Social norms that inhibit informed choices about the number and timing of pregnancies need to be challenged, because individuals otherwise cannot realize their reproductive rights.

Behaviour change campaigns are a technique for shifting norms. These need to reach rural areas, in particular, where information is more limited, and they need to be grounded in principles of empowerment and human rights. This means, for example, that the emphasis is not just on explaining to people how to use contraceptives, but also on helping them think through assumptions about family size, implications for future well-being, and the process of men and women making decisions within households.



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End child marriage

Early marriage is a human rights violation that typically leads to the denial of other rights, including reproductive rights. Protection from child marriage needs to be codified in the law and upheld in practice. But the pervasiveness of child marriage in some countries also requires systematic efforts to challenge deep-rooted notions about its purpose and permissibility.

Social influencers and decision-makers, such as traditional chiefs and parliamentarians, can be powerful voices in urging people to adopt a "new normal". Awareness-raising may be effective by emphasizing basic information about the harms of early pregnancy that accompanies most child marriages. Quality education is another support, because it keeps girls in school, and provides opportunities for them to know their rights, seek assistance if they are at risk, and develop skills to make informed choices over the course of their lives.

Prioritize employment for rural women

For women around the world, entry into the modern economy provides income, information and new ways of thinking, and creates opportunities for lives that extend beyond the home. It has also been an important trigger for lower fertility. In high-fertility countries, women in rural areas have the least access to quality jobs or sustainable livelihoods. Education, agriculture and labour market policies could in many cases all work harder for these women. Many of these policies still take gender-blind approaches, which in practice means they mostly benefit men. Women make significant contributions to agricultural economies, for instance, yet agricultural extension services still often cater primarily to male farmers.

Rural women's economic empowerment largely depends on equal land and property rights, and

equal access to finance and technology. Bringing more rural women into vocational training programmes and stressing their access to higher levels of education might be other priorities. Opening space for women in local governance upholds their right to participate and can influence local agendas to provide the services that women need. Empowerment that builds awareness and confidence can encourage women to become community role models and shifters of social norms, including on issues around fertility and family planning.

Prioritize spending on reproductive health care

Reproductive health still receives short shrift in many national health budgets, for a variety of reasons. The poorest countries still depend on financing from international donors, who have paid less attention to reproductive health services, including family planning, in recent years. Given the far-reaching impacts of fertility, and in line with commitments to reproductive rights and high-quality development partnerships, reproductive health care needs greater priority in both domestic and international sources of health finance.

What countries with mid-range fertility need to do

Although countries with fertility of more than two but fewer than four births per woman are mixed in their levels of overall development, there is generally better knowledge of, and access to, reproductive health-care services and information, and people at large have glimpsed a future where well-being, whether defined by the level of income or the quality of education, is linked to fertility choices. Some of these countries are dealing simultaneously with high fertility in one group or community and low fertility in another, a lack of absorption of young people in the paid labour market and historically rapid rates of ageing, all of which present significant social and economic demands.

Close disparities in reproductive health-care services

Many mid-range fertility countries have made progress in extending health-care systems, typically beyond the level achieved in high-fertility countries. With fertility at a moderate level, there may be less urgency to raise or lower it at the national level. However, considering average fertility alone will likely miss persistent disparities in reproductive rights that need to be closed, in line with the commitment to universality. Disparities may be reflected in, for example, high rates of unintended pregnancies and unmet need for contraception.

Remote regions, minority ethnic groups, young people, unmarried people, and the rural and urban poor are among the population groups who have been left behind in access to the full range of contraceptive methods, services and knowledge. Services not only need to physically reach these groups, but also need to be tailored to their needs, such as through appropriately communicated family planning information. More could be done to provide a full range of family planning options, and to introduce and expand access to assisted reproduction.

Given high rates of mistimed and unwanted pregnancies in some of these countries, service models and measures of their effectiveness should be oriented around ensuring that rights realized in principle are not lost in practice—this can happen, for example, when a woman's partner prevents her from exercising her right to use contraception to make her own decisions about the timing and spacing of pregnancies. Stronger links could be forged between family

planning programmes, initiatives to prevent and protect against gender-based violence, and economic empowerment for women. These links could be as basic as screening and referral systems, so that, when women come for family planning services, processes are in place to identify their other needs and refer them to additional resources.

Do more to reach youth and adolescents, particularly those who are unmarried

A number of mid-range fertility countries have large populations of youth and adolescents—a legacy of the recent high-fertility past. Yet there has been a lag in responding to young people's reproductive health-care needs, even though they will fuel significant population momentum as they begin to have their own children. Barriers to services include assumptions that one size fits all in service provision, that adolescents are too young to be sexually active and that youth who are not married should be barred from contraception.

To some extent, young people themselves, exposed to a wealth of information through technology, are choosing lower fertility. But they need more consistent, quality support. This includes comprehensive sexuality education, as well as youth-friendly reproductive health services and information. Services that do not differentiate between married and unmarried young people and adolescents would have even greater reach. In all cases, service providers should be respectful, and oriented around rights and empowerment, particularly for girls.

Adolescence is a time for brain development that is equalled only by early childhood; it provides an essential point to develop behaviours that can guide informed choices about reproductive health and fertility throughout a lifetime. Equally, it is a point where many young lives are irrevocably derailed by child marriage or unplanned pregnancy, which may be seen as inevitable outcomes for girls whose horizons are limited by poor-quality education systems and anaemic job markets. In these cases, population and reproductive health policies need to be connected to policies aimed at ensuring a stable transition into adulthood, including through entry into the labour market.

Increase women's employment options and labour force participation

A number of mid-range fertility countries have low rates of labour force participation among women, even where there is increasing parity in educational attainment. This reflects discriminatory notions that keep women out of the paid labour force, in poor-quality jobs or compromised in their ability to work as they juggle an unfair share of unpaid care responsibilities. Many face a scarcity of childcare and other services that would facilitate an effective balance between family and work responsibilities. The consequences can include a higher portion of women and children with few routes out of poverty, a hit to the overall strength of emerging economies, and losses against individual and social investments in education. Just as important, women lose capacities and rights to plan their families, for reasons including more limited exposure to information, and dependence on male partners and incomes.

Specific policy initiatives are needed to narrow male-female wage differentials and limit patterns that still track many women into poor-quality employment. Discriminatory laws, such as those barring women from certain jobs or stipulating a lower retirement age, need to be removed. All these countries could consider moving towards universally available childcare, and maternity and paternity leave, including for those who work in the informal sector or are self-employed.

Gender-responsive labour market policies could do more to actively stimulate women's labour force participation. Job-matching programmes, internships and apprenticeships, and vocational training initiatives could both reach more women and encourage entry into professions outside traditional gender roles. As part of the structural transformation of economies to provide higher-productivity jobs, women need equal chances to pursue new opportunities, including in science and technology.

Given the high share of women who migrate for work from some mid-fertility countries, and their significant contributions to economies through remittances, migration needs to be not only a safe process in terms of labour standards, but one that supports the exercise of reproductive rights. This encompasses, for example, equal access to family planning services, and comprehensive protection from sexual and gender-based violence in destination countries, and assistance in transitioning back to origin countries at an appropriate age for women who want to start families.

Institute a rights-based approach to budgeting and spending

Many mid-fertility countries face complex constraints in public financing of health-care services because of cutbacks in official development assistance, inefficient taxation or high levels of debt servicing. This forces prioritization, which may lead to reproductive health receiving short shrift. Some countries have privatized services, which imposes costs that poorer and younger people may not be able to afford, resulting in losses to their rights.

A rights-based approach to budgeting might result in new choices, such as increasing allocations for universal access to a full array of contraceptives, and adjusting tax policy to generate revenue to strengthen and expand services. Debates around such choices might be informed by a clearer understanding of the role that fertility and reproductive rights play in forming healthy, stable societies and flourishing economies that benefit everyone, within and across individual countries.



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What countries with low fertility need to do

Low-fertility countries typically have higher levels of formal education and gender equality, along with social shifts that have led to later marriage, higher levels of divorce and higher levels of childbearing outside marriage. Many women build careers before starting families and are economically independent. Yet women in low-fertility countries often report that they do not have as many children as they would like. The barriers to their reproductive rights include economic hardship, a lack of housing, uncertain

labour markets, and longstanding gaps in support for balancing work and family life.

Low fertility means that parents with fewer children can invest more time and resources in their children's well-being. At the same time, populations are ageing, with attendant health-care costs and a shrinking labour force.

Do more to enable fertility in line with reproductive rights

Some low-fertility countries have higher-quality family planning services that reach even poorer populations and have helped protect teenagers from unintended pregnancy. However, services are often not responsive to the shifting needs of women and couples as fertility changes. Some of the remaining shortfalls in reproductive rights include those that affect older women who have postponed childbearing, and a lack of a full choice of contraceptive methods. In vitro fertilization and other fertility treatments that are provided in accordance with appropriate ethical guidelines and medical standards are an option for some women. Making these treatments widely available would require tackling issues such as prohibitive costs. Family planning programmes should ensure that a full range of contraceptive methods are available to women and couples, allowing them to select a method that suits their specific needs and preferences.

Advance the array and reach of family-friendly policies

Beyond the provision of all essential reproductive health-care services, a range of related policies and practices can support people in exercising their reproductive rights, including to start or expand a family. These need to be universally available. Examples are paid parental leave for men and women, tax breaks for families, alignment between school and work schedules, flexible work hours and affordable housing. Policies linked to employment need to keep up with rapid shifts in labour markets that lead to unstable jobs, such as through a continuum of health and pension benefits. These should be complemented by efforts to challenge and transform gender norms around the household division of labour and childcare, both of which continue to constitute a major impediment to women's participation in the paid labour force.

Expand access to childcare

The expectation in many countries that women should bear the primary responsibility for child-rearing forces women to choose between having children and pursuing paid work. Weak, non-existent or unaffordable childcare exacerbates the problem. For many women, having a child means leaving the workforce or remaining outside it longer than they would like, with consequences for their earnings and labour productivity.

A combination of efforts is needed to address this issue. Childcare needs to be universally available, regardless of the ability to pay for it. It should be linked to early childhood development programmes, which offer additional benefits for a new generation in terms of socialization, brain development and a head start on primary education. Advocacy campaigns could reinforce emerging norms around a better balance in responsibilities for unpaid care work between women and men.

Cushion fallout from unstable labour markets

The search for decent work has become increasingly difficult for younger people in low-fertility countries. This problem may worsen over time, given profound shifts in the global economy and the rise of automation. So-called starter jobs for college graduates have diminished, and

many blue-collar jobs have disappeared. Real incomes have declined. Short-term or contractual arrangements have replaced stable employment with long-term prospects. In some countries, workplace cultures remain rigid and demanding, requiring long hours. Where labour markets are particularly inadequate, people turn to migration, which accelerates population and productivity losses.

Where young people are uncertain about their future well-being, many will choose to delay having a family. Although supports such as affordable and accessible childcare and flexible work policies are critical, they do not make up for a prevalence of poorer-quality jobs and inadequate income. These issues may require more active emphasis on the structure of the economy and the jobs it provides, in tandem with measures to ensure that young people have the right skills to gain decent work.

In some countries, a policy discussion needs to take place around the nature and quality of employment, and the deepening inequalities that often reflect poor-quality jobs. This should involve governments, private sector employers, labour unions, educators and other social actors, and be aimed at cultivating more equitable and inclusive employment options that support reproductive and other human rights. Some part of this discussion has a regional and global component as well, given the fluid movement of economic activities, people and jobs across borders.

Completing the transition by realizing rights

Around the world, the historic transition to lower fertility has emerged through people claiming their right to make choices about their reproductive lives, and to have as few, or as many, children as they want, when they want. That right has been enshrined in international declarations, conventions and other agreements over the past 50 years.

An equally historic gap in fertility rates, however, illustrates that countries have fallen short of this commitment. Everywhere, social, economic or institutional impediments to people's reproductive rights remain, imposing costs on individuals and their societies. The obstacles vary, but no country can yet claim to be free of them. Future well-being largely depends on removing these obstacles. The fertility transition will only be complete when every individual realizes the right to choose.

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Monitoring ICPD goals: selected indicators

Country, territory or other area	Sexual and reproductive health										Harmful practices		Education					
	Maternal mortality ratio (MMR) (deaths per 100,000 live births)[a]	Range of MMR uncertainty (UI 80%)		Births attended by skilled health personnel, per cent	Adolescent birth rate per 1,000 girls aged 15-19	Contraceptive prevalence rate, women aged 15-49		Unmet need for family planning, women aged 15-49[§]	Proportion of demand satisfied, with modern methods, women aged 15-49[§]	Decision making on sexual and reproductive health and reproductive rights, per cent	Child marriage by age 18, per cent	FGM prevalence among girls, aged 15-19, per cent	Adjusted net enrolment rate, primary education, per cent,		Gender parity index, primary education	Net enrolment rate, secondary education, per cent,		Gender parity index, secondary education
	2015	2015 estimate Lower	Upper	2006-2017	2006-2017	2018 Any method[§]	Modern method[§]	2018	2018	2007-2016	2006-2017	2004-2017	2007-2017 male	female	2007-2017	2007-2017 male	female	2007-2017
Afghanistan	396	253	620	51	87	26	23	25	46	–	35	–	–	–	–	62	36	0.58
Albania	29	16	46	99	20	63	25	14	32	62	10	–	96	95	0.99	87	85	0.98
Algeria	140	82	244	97	12	64	56	10	77	–	3	–	100	98	0.98	–	–	–
Angola	477	221	988	50	163	17	15	36	29	–	30	–	89	66	0.75	13	10	0.79
Antigua and Barbuda	–	–	–	–	–	63	61	14	80	–	–	–	82	81	0.99	73	76	1.04
Argentina	52	44	63	100	65	69	66	11	82	–	–	–	100	100	1.00	86	91	1.05
Armenia	25	21	31	100	24	58	30	13	43	66	5	–	92	93	1.01	93	92	0.99
Aruba	–	–	–	–	35	–	–	–	–	–	–	–	99	99	1.00	73	81	1.10
Australia	6	5	7	100	12	66	64	11	83	–	–	–	96	97	1.01	93	94	1.01
Austria	4	3	5	98	8	67	64	10	84	–	–	–	–	–	–	–	–	–
Azerbaijan	25	17	35	100	53	58	28	13	39	–	11	–	96	94	0.98	–	–	–
Bahamas	80	53	124	–	32	67	65	12	83	–	–	–	85	92	1.08	79	86	1.09
Bahrain	15	12	19	100	14	67	48	11	62	–	–	–	97	99	1.02	92	94	1.02
Bangladesh	176	125	280	50	78	64	57	12	76	–	59	–	90	100	1.11	60	67	1.12
Barbados	27	19	37	99	50	62	58	15	76	–	11	–	92	94	1.03	93	100	1.07
Belarus	4	3	6	100	16	73	60	7	75	–	3	–	96	97	1.00	97	99	1.01
Belgium	7	5	10	–	7	72	71	7	90	–	–	–	98	98	1.00	93	94	1.01
Belize	28	20	36	97	69	54	51	19	70	–	26	–	100	99	0.99	71	74	1.04
Benin	405	279	633	77	94	20	14	30	28	38	26	2	100	90	0.90	53	40	0.75
Bhutan	148	101	241	89	28	62	62	13	83	–	26	–	82	84	1.02	59	68	1.16
Bolivia (Plurinational State of)	206	140	351	90	71	66	48	16	59	–	19	–	91	90	0.99	78	78	1.00
Bosnia and Herzegovina	11	7	17	100	11	49	20	15	31	–	4	–	–	–	–	–	–	–
Botswana	129	102	172	100	39	59	57	14	79	–	–	–	89	90	1.01	–	–	–
Brazil	44	36	54	99	62	80	77	7	88	–	26	–	94	95	1.01	80	83	1.04
Brunei Darussalam	23	15	30	100	11	–	–	–	–	–	–	–	97	96	1.00	82	84	1.03
Bulgaria	11	8	14	100	39	72	53	10	65	–	–	–	93	93	1.00	91	89	0.97
Burkina Faso	371	257	509	80	129	26	25	27	47	20	52	58	77	75	0.97	28	28	0.99
Burundi	712	471	1050	85	58	32	27	28	45	49	20	–	97	97	1.00	31	34	1.08
Cambodia	161	117	213	89	57	60	45	12	62	76	19	–	93	93	1.00	40	37	0.92
Cameroon, Republic of	596	440	881	65	119	36	24	20	43	38	31	0	99	91	0.92	50	44	0.88
Canada	7	5	9	98	11	73	71	8	88	–	–	–	–	–	–	99	100	1.01
Cape Verde	42	20	95	91	80	66	63	13	80	–	–	–	87	86	0.98	61	68	1.11
Central African Republic	882	508	1500	40	229	26	20	23	41	–	68	18	77	60	0.79	18	9	0.52
Chad	856	560	1350	20	179	7	6	24	21	27	67	32	89	69	0.77	–	–	–
Chile	22	18	26	100	41	75	72	8	86	–	–	–	93	93	1.00	86	89	1.04
China	27	22	32	100	9	83	82	4	95	–	–	–	–	–	–	–	–	–
China, Hong Kong SAR	–	–	–	–	3	76	72	7	88	–	–	–	–	–	–	–	–	–
China, Macao SAR	–	–	–	–	3	–	–	–	–	–	–	–	–	–	–	–	–	–
Colombia	64	56	81	99	75	80	75	7	86	–	23	–	93	94	1.01	76	82	1.07
Comoros	335	207	536	82	70	26	21	30	37	21	32	–	84	81	0.97	43	47	1.09
Congo, Democratic Republic of the	693	509	1010	80	138	25	11	27	22	31	37	–	–	–	–	–	–	–
Congo, Republic of the	442	300	638	91	147	41	25	20	41	27	27	–	84	91	1.09	–	–	–
Costa Rica	25	20	29	99	53	79	77	7	89	–	21	–	97	97	1.00	81	84	1.04

Country, territory or other area	Sexual and reproductive health										Harmful practices		Education					
	Maternal mortality ratio (MMR) (deaths per 100,000 live births)[a]	Range of MMR uncertainty (UI 80%)		Births attended by skilled health personnel, per cent	Adolescent birth rate per 1,000 girls aged 15-19	Contraceptive prevalence rate, women aged 15-49		Unmet need for family planning, women aged 15-49[§]	Proportion of demand satisfied, with modern methods, women aged 15-49[§]	Decision making on sexual and reproductive health and reproductive rights, per cent	Child marriage by age 18, per cent	FGM prevalence among girls, aged 15-19, per cent	Adjusted net enrolment rate, primary education, per cent,		Gender parity index, primary education	Net enrolment rate, secondary education, per cent,		Gender parity index, secondary education
	2015 estimate					2018							2007-2017			2007-2017		
	2015	Lower	Upper	2006-2017	2006-2017	Any method[§]	Modern method[§]	2018	2018	2007-2016	2006-2017	2004-2017	male	female	2007-2017	male	female	2007-2017
Côte d'Ivoire	645	458	909	74	129	19	17	25	39	25	27	27	92	83	0.90	41	30	0.73
Croatia	8	6	11	100	10	65	47	11	62	–	–	–	96	99	1.04	89	92	1.04
Cuba	39	33	47	100	50	74	72	8	88	–	26	–	96	95	1.00	83	88	1.06
Curaçao	–	–	–	–	35	–	–	–	–	–	–	–	–	–	–	–	–	–
Cyprus	7	4	12	97	5	–	–	–	–	–	–	–	98	98	1.01	94	95	1.01
Czechia	4	3	6	100	12	80	71	6	82	–	–	–	–	–	–	–	–	–
Denmark	6	5	9	94	3	70	67	10	84	–	–	–	99	99	1.01	88	92	1.04
Djibouti	229	111	482	87	21	27	26	29	47	–	5	90	62	56	0.89	38	32	0.83
Dominica	–	–	–	–	–	–	–	–	–	–	–	–	97	99	1.02	90	97	1.08
Dominican Republic	92	77	111	100	90	71	69	11	84	77	36	–	88	88	1.00	62	71	1.13
Ecuador	64	57	71	97	111	79	71	7	83	–	–	–	97	99	1.02	87	89	1.02
Egypt	33	26	39	92	56	61	59	12	81	–	17	70	98	99	1.01	81	82	1.00
El Salvador	54	40	69	100	69	72	67	10	82	–	26	–	85	86	1.01	63	65	1.03
Equatorial Guinea	342	207	542	68	176	18	14	32	29	–	30	–	44	45	1.02	–	–	–
Eritrea	501	332	750	34	76	14	13	30	30	–	41	69	45	41	0.91	29	26	0.88
Estonia	9	6	14	100	13	66	61	11	79	–	–	–	93	94	1.01	93	94	1.02
Eswatini	389	251	627	88	87	66	65	14	81	49	5	–	77	76	0.99	32	41	1.29
Ethiopia	353	247	567	28	80	40	38	22	62	45	40	47	89	83	0.93	31	30	0.97
Fiji	30	23	41	100	40	49	45	19	66	–	–	–	98	98	1.01	79	88	1.11
Finland	3	2	3	100	6	83	78	4	90	–	–	–	99	99	1.00	96	96	1.01
France	8	7	10	97	5	77	74	5	91	–	–	–	99	100	1.01	98	100	1.01
French Guiana	–	–	–	–	87	–	–	–	–	–	–	–	–	–	–	–	–	–
French Polynesia	–	–	–	–	40	–	–	–	–	–	–	–	–	–	–	–	–	–
Gabon	291	197	442	89	91	36	25	25	41	48	22	–	–	–	–	–	–	–
Gambia	706	484	1030	57	88	13	12	26	31	41	30	76	75	83	1.10	–	–	–
Georgia	36	28	47	100	44	55	40	15	58	–	14	–	98	98	0.99	94	97	1.03
Germany	6	5	8	99	8	63	62	11	83	–	–	–	–	–	–	–	–	–
Ghana	319	216	458	71	76	33	28	27	47	52	21	2	84	86	1.02	52	53	1.01
Greece	3	2	4	–	8	70	50	9	63	–	–	–	94	93	1.00	90	89	0.99
Grenada	27	19	42	–	–	65	62	13	80	–	–	–	96	97	1.01	83	90	1.08
Guadeloupe	–	–	–	–	–	59	54	16	73	–	–	–	–	–	–	–	–	–
Guam	–	–	–	–	38	53	46	16	66	–	–	–	–	–	–	–	–	–
Guatemala	88	77	100	63	92	61	51	14	68	65	30	–	87	87	1.00	48	46	0.96
Guinea	679	504	927	63	146	10	8	25	24	23	51	95	86	74	0.86	40	26	0.66
Guinea–Bissau	549	273	1090	45	106	19	18	21	44	–	24	42	74	70	0.95	–	–	–
Guyana	229	184	301	86	74	42	40	28	58	71	30	–	95	97	1.02	81	86	1.06
Haiti	359	236	601	49	55	36	33	36	46	56	18	–	–	–	–	–	–	–
Honduras	129	99	166	83	103	73	65	10	78	70	34	–	82	84	1.02	42	49	1.16
Hungary	17	12	22	–	23	68	60	10	76	–	–	–	97	97	1.00	89	89	1.00
Iceland	3	2	6	98	8	–	–	–	–	–	–	–	99	99	1.00	89	91	1.02
India	174	139	217	86	28	56	51	13	73	–	27	–	97	98	1.01	61	62	1.01
Indonesia	126	93	179	93	48	61	59	13	80	–	14	–	94	89	0.95	76	78	1.02
Iran (Islamic Republic of)	25	21	31	99	38	78	65	5	78	–	17	–	99	99	1.01	72	73	1.00
Iraq	50	35	69	70	82	58	44	12	62	–	24	5	98	87	0.89	49	40	0.81
Ireland	8	6	11	100	9	68	63	11	80	–	–	–	99	100	1.01	98	100	1.02
Israel	5	4	6	–	10	71	57	8	71	–	–	–	97	98	1.01	98	100	1.02
Italy	4	3	5	100	5	69	54	9	69	–	–	–	99	99	1.00	97	96	1.00
Jamaica	89	70	115	99	46	72	69	10	84	–	8	–	–	–	–	69	77	1.11
Japan	5	4	7	100	4	44	40	22	61	–	–	–	99	99	1.00	99	100	1.01

Monitoring ICPD goals: selected indicators

Country, territory or other area	Sexual and reproductive health										Harmful practices		Education					
	Maternal mortality ratio (MMR) (deaths per 100,000 live births)[a]	Range of MMR uncertainty (UI 80%)		Births attended by skilled health personnel, per cent	Adolescent birth rate per 1,000 girls aged 15-19	Contraceptive prevalence rate, women aged 15-49		Unmet need for family planning, women aged 15-49[§]	Proportion of demand satisfied, with modern methods, women aged 15-49[§]	Decision making on sexual and reproductive health and reproductive rights, per cent	Child marriage by age 18, per cent	FGM prevalence among girls, aged 15-19, per cent	Adjusted net enrolment rate, primary education, per cent,		Gender parity index, primary education	Net enrolment rate, secondary education, per cent,		Gender parity index, secondary education
	2015	2015 estimate Lower	Upper	2006-2017	2006-2017	2018 Any method[§]	Modern method[§]	2018	2018	2007-2016	2006-2017	2004-2017	2007-2017 male	female	2007-2017	2007-2017 male	female	2007-2017
Jordan	58	44	75	100	26	63	46	12	62	73	8	–	–	–	–	68	70	1.03
Kazakhstan	12	10	15	99	31	57	55	15	76	–	7	–	98	100	1.02	100	100	1.00
Kenya	510	344	754	62	96	64	62	14	78	56	23	11	81	85	1.04	50	47	0.94
Kiribati	90	51	152	80	49	28	24	26	44	–	20	–	–	–	–	–	–	–
Korea, Democratic People's Republic of	82	37	190	100	1	75	71	8	86	–	–	–	–	–	–	76	76	1.01
Korea, Republic of	11	9	13	100	1	78	70	6	84	–	–	–	97	98	1.01	98	98	1.00
Kuwait	4	3	6	100	6	57	47	15	65	–	–	–	95	99	1.04	84	89	1.07
Kyrgyzstan	76	59	96	98	38	43	41	17	68	77	12	–	99	98	0.99	85	85	1.00
Lao People's Democratic Republic	197	136	307	40	76	56	50	17	68	–	35	–	95	94	0.98	60	58	0.98
Latvia	18	13	26	100	18	69	62	11	78	–	–	–	95	96	1.00	91	94	1.03
Lebanon	15	10	22	–	–	61	48	13	64	–	6	–	87	82	0.94	65	65	1.00
Lesotho	487	310	871	78	94	61	61	17	78	61	17	–	79	82	1.03	29	45	1.53
Liberia	725	527	1030	61	149	30	30	28	51	67	36	26	39	36	0.93	16	14	0.88
Libya	9	6	15	100	11	50	33	18	48	–	–	–	–	–	–	–	–	–
Lithuania	10	7	14	–	14	66	56	11	73	–	–	–	99	100	1.00	94	93	1.00
Luxembourg	10	7	16	100	6	–	–	–	–	–	–	–	97	98	1.01	82	86	1.05
Madagascar	353	256	484	44	152	46	40	19	61	74	41	–	–	–	–	29	31	1.06
Malawi	634	422	1080	90	136	61	60	17	77	47	42	–	95	99	1.04	32	31	0.96
Malaysia	40	32	53	99	12	53	39	17	55	–	–	–	99	99	1.00	71	77	1.09
Maldives	68	45	108	96	13	44	37	23	55	–	4	–	98	99	1.01	–	–	–
Mali	587	448	823	44	174	16	15	26	36	7	52	83	66	58	0.88	37	28	0.75
Malta	9	6	15	100	11	84	66	4	75	–	–	–	97	100	1.03	87	92	1.05
Martinique	–	–	–	–	20	60	56	15	75	–	–	–	–	–	–	–	–	–
Mauritania	602	399	984	69	71	20	18	30	35	–	37	63	69	73	1.05	26	27	1.06
Mauritius	53	38	77	100	24	67	43	10	56	–	–	–	94	97	1.03	82	87	1.06
Mexico	38	34	42	98	63	71	68	11	82	–	26	–	98	100	1.02	76	79	1.04
Micronesia (Federated States of)	100	46	211	85	44	–	–	–	–	–	–	–	83	85	1.03	–	–	–
Moldova, Republic of	23	19	28	99	27	64	49	12	64	–	12	–	90	90	0.99	76	77	1.01
Mongolia	44	35	55	99	27	58	52	14	72	–	5	–	99	98	0.99	91	94	1.03
Montenegro	7	4	12	99	11	38	23	21	39	–	5	–	95	92	0.97	90	90	1.00
Morocco	121	93	142	74	32	69	62	9	79	–	–	–	95	94	1.00	60	54	0.90
Mozambique	489	360	686	54	167	29	27	24	52	49	48	–	92	87	0.95	19	19	1.02
Myanmar	178	121	284	60	36	53	52	16	76	68	16	–	90	89	0.99	54	59	1.09
Namibia	265	172	423	88	82	59	59	16	78	71	7	–	89	92	1.03	45	57	1.26
Nepal	258	176	425	58	88	53	47	23	62	48	40	–	96	93	0.97	53	57	1.07
Netherlands	7	5	9	–	3	72	69	7	86	–	–	–	97	98	1.01	93	94	1.01
New Caledonia	–	–	–	–	22	–	–	–	–	–	–	–	–	–	–	–	–	–
New Zealand	11	9	14	96	16	71	68	9	85	–	–	–	98	99	1.01	95	97	1.02
Nicaragua	150	115	196	88	92	80	77	6	90	–	35	–	97	100	1.03	45	53	1.17
Niger	553	411	752	40	210	20	18	19	47	7	76	1	69	59	0.86	20	14	0.68
Nigeria	814	596	1180	43	145	19	15	23	35	51	44	12	72	60	0.84	–	–	–
Norway	5	4	6	99	5	75	70	7	84	–	–	–	100	100	1.00	95	96	1.01
Oman	17	13	24	99	14	37	25	26	39	–	–	–	98	99	1.00	96	94	0.99
Pakistan	178	111	283	52	44	41	32	20	53	–	21	–	84	71	0.85	50	41	0.81
Palestine[1]	45	21	99	100	48	60	47	12	65	–	15	–	92	93	1.01	78	86	1.10
Panama	94	77	121	95	79	60	57	16	75	–	26	–	88	87	0.99	67	72	1.07
Papua New Guinea	215	98	457	53	–	37	31	25	50	–	21	–	89	82	0.92	–	–	–

Country, territory or other area	Sexual and reproductive health										Harmful practices		Education					
	Maternal mortality ratio (MMR) (deaths per 100,000 live births)[a]	Range of MMR uncertainty (UI 80%)		Births attended by skilled health personnel, per cent	Adolescent birth rate per 1,000 girls aged 15-19	Contraceptive prevalence rate, women aged 15-49		Unmet need for family planning, women aged 15-49[§]	Proportion of demand satisfied, with modern methods, women aged 15-49[§]	Decision making on sexual and reproductive health and reproductive rights, per cent	Child marriage by age 18, per cent	FGM prevalence among girls, aged 15-19, per cent	Adjusted net enrolment rate, primary education, per cent, 2007-2017		Gender parity index, primary education	Net enrolment rate, secondary education, per cent, 2007-2017		Gender parity index, secondary education
	2015	2015 estimate Lower	Upper	2006-2017	2006-2017	2018 Any method[§]	Modern method[§]	2018	2018	2007-2016	2006-2017	2004-2017	male	female	2007-2017	male	female	2007-2017
Paraguay	132	107	163	96	62	72	68	9	85	–	22	–	89	89	1.00	67	66	1.00
Peru	68	54	80	92	65	76	56	7	67	–	22	–	99	100	1.01	79	80	1.02
Philippines	114	87	175	73	47	56	41	17	56	–	15	–	96	97	1.01	60	72	1.19
Poland	3	2	4	100	12	61	51	14	69	–	–	–	96	96	1.00	92	93	1.01
Portugal	10	9	13	99	8	70	63	9	79	–	–	–	97	96	1.00	93	94	1.01
Puerto Rico	14	10	18	–	30	78	70	6	84	–	–	–	79	84	1.07	72	77	1.07
Qatar	13	9	19	100	10	46	41	17	64	–	4	–	98	98	1.00	76	89	1.17
Reunion	–	–	–	–	44	73	71	8	87	–	–	–	–	–	–	–	–	–
Romania	31	22	44	95	35	70	58	8	74	–	–	–	90	90	1.00	81	81	1.00
Russian Federation	25	18	33	99	24	69	57	9	73	–	–	–	97	98	1.01	–	–	–
Rwanda	290	208	389	91	45	56	51	18	69	70	7	–	95	96	1.01	25	30	1.18
Saint Kitts and Nevis	–	–	–	–	46	–	–	–	–	–	–	–	–	–	–	–	–	–
Saint Lucia	48	32	72	99	–	59	56	16	75	–	8	–	96	93	0.97	76	80	1.04
Saint Vincent and the Grenadines	45	34	63	–	64	66	63	12	81	–	–	–	98	98	1.00	89	91	1.01
Samoa	51	24	115	83	39	29	27	42	39	–	11	–	95	98	1.03	74	81	1.10
San Marino	–	–	–	–	0	–	–	–	–	–	–	–	93	93	1.00	–	–	–
São Tomé and Príncipe	156	83	268	93	92	43	40	30	55	–	35	–	97	97	0.99	61	68	1.11
Saudi Arabia	12	7	20	–	7	30	24	27	42	–	–	–	99	100	1.00	86	84	0.97
Senegal	315	214	468	59	80	26	24	25	47	5	31	21	69	76	1.10	–	–	–
Serbia	17	12	24	98	16	58	27	13	38	–	3	–	99	99	1.00	92	94	1.02
Seychelles	–	–	–	–	66	–	–	–	–	–	–	–	–	–	–	87	90	1.03
Sierra Leone	1360	999	1980	60	125	20	18	26	40	40	39	74	99	99	1.01	33	30	0.91
Singapore	10	6	17	100	3	66	59	11	77	–	–	–	–	–	–	–	–	–
Sint Maarten	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Slovakia	6	4	7	–	24	71	61	9	76	–	–	–	–	–	–	–	–	–
Slovenia	9	6	14	100	5	77	66	6	79	–	–	–	97	99	1.01	96	96	1.01
Solomon Islands	114	75	175	86	78	32	27	25	47	–	21	–	72	73	1.01	33	29	0.88
Somalia	732	361	1390	9	64	30	29	28	50	–	45	97	–	–	–	–	–	–
South Africa	138	124	154	97	71	57	56	14	79	–	–	–	90	85	0.95	65	65	1.01
South Sudan	789	523	1150	19	155	9	7	30	17	–	52	–	36	28	0.76	6	4	0.70
Spain	5	4	6	–	8	69	67	11	85	–	–	–	98	99	1.00	95	97	1.02
Sri Lanka	30	26	38	99	20	65	53	8	74	–	12	–	98	96	0.98	84	87	1.04
Sudan	311	214	433	78	87	16	15	28	35	–	34	82	55	58	1.05	–	–	–
Suriname	155	110	220	90	58	52	52	19	72	–	19	–	93	97	1.04	53	65	1.22
Sweden	4	3	5	–	4	69	63	10	80	–	–	–	100	100	1.00	100	99	1.00
Switzerland	5	4	7	–	6	74	70	7	86	–	–	–	100	100	1.00	87	84	0.97
Syrian Arab Republic	68	48	97	96	54	59	44	14	61	–	13	–	68	67	0.98	46	45	0.99
Tajikistan	32	19	51	87	54	35	32	21	57	41	12	–	99	98	0.99	87	78	0.90
Tanzania, United Republic of	398	281	570	64	132	42	36	21	57	47	31	5	78	80	1.02	–	–	–
Thailand	20	14	32	99	43	79	76	6	90	–	23	–	92	87	0.94	77	77	1.01
The former Yugoslav Republic of Macedonia	8	5	10	100	16	47	22	18	33	–	7	–	92	92	1.00	–	–	–
Timor–Leste, Democratic Republic of	215	150	300	57	50	28	26	25	48	–	19	–	80	83	1.04	52	59	1.14
Togo	368	255	518	45	85	23	20	33	37	30	22	2	90	83	0.92	–	–	–
Tonga	124	57	270	96	30	36	32	28	51	–	6	–	95	97	1.03	72	80	1.12
Trinidad and Tobago	63	49	80	97	38	48	44	21	64	–	11	–	99	98	0.99	–	–	–
Tunisia	62	42	92	74	7	67	57	9	75	–	2	–	99	98	0.99	–	–	–

Monitoring ICPD goals: selected indicators

Country, territory or other area	Sexual and reproductive health										Harmful practices		Education					
	Maternal mortality ratio (MMR) (deaths per 100,000 live births)[a]	Range of MMR uncertainty (UI 80%)		Births attended by skilled health personnel, per cent	Adolescent birth rate per 1,000 girls aged 15-19	Contraceptive prevalence rate, women aged 15-49		Unmet need for family planning, women aged 15-49[§]	Proportion of demand satisfied, with modern methods, women aged 15-49[§]	Decision making on sexual and reproductive health and reproductive rights, per cent	Child marriage by age 18, per cent	FGM prevalence among girls, aged 15-19, per cent	Adjusted net enrolment rate, primary education, per cent,		Gender parity index, primary education	Net enrolment rate, secondary education, per cent,		Gender parity index, secondary education
	2015 estimate					2018							2007-2017			2007-2017		
	2015	Lower	Upper	2006-2017	2006-2017	Any method[§]	Modern method[§]	2018	2018	2007-2016	2006-2017	2004-2017	male	female	2007-2017	male	female	2007-2017
Turkey	16	12	21	97	27	75	50	6	62	–	15	–	95	95	0.99	88	86	0.98
Turkmenistan	42	20	73	100	28	54	51	15	74	–	6	–	–	–	–	–	–	–
Turks and Caicos Islands	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Tuvalu	–	–	–	93	28	–	–	–	–	–	10	–	–	–	–	71	92	1.30
Uganda	343	247	493	74	140	39	35	29	52	49	40	1	90	92	1.03	23	21	0.92
Ukraine	24	19	32	99	26	67	54	10	70	81	9	–	92	94	1.02	86	87	1.01
United Arab Emirates	6	3	11	100	34	50	42	18	61	–	–	–	98	96	0.98	89	86	0.96
United Kingdom	9	8	11	–	14	79	79	6	93	–	–	–	99	99	1.00	98	99	1.01
United States of America	14	12	16	99	20	74	67	7	83	–	–	–	93	94	1.01	90	92	1.03
United States Virgin Islands	–	–	–	–	25	68	63	11	80	–	–	–	–	–	–	–	–	–
Uruguay	15	11	19	98	51	79	76	7	89	–	25	–	98	98	1.00	78	85	1.08
Uzbekistan	36	20	65	100	30	68	64	9	84	–	7	–	99	98	0.98	91	90	0.99
Vanuatu	78	36	169	89	78	45	40	23	59	–	21	–	86	88	1.03	48	51	1.07
Venezuela (Bolivarian Republic of)	95	77	124	96	95	73	68	11	82	–	–	–	89	89	1.00	69	74	1.07
Viet Nam	54	41	74	94	30	79	65	5	77	–	11	–	–	–	–	–	–	–
Western Sahara	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Yemen	385	274	582	45	67	42	36	25	54	–	32	16	88	78	0.88	54	40	0.74
Zambia	224	162	306	63	141	54	50	18	69	47	31	–	87	89	1.02	–	–	–
Zimbabwe	443	363	563	78	110	67	66	10	85	60	32	–	84	86	1.02	44	44	1.01

	Sexual and reproductive health										Harmful practices		Education					
	Maternal mortality ratio (MMR) (deaths per 100,000 live births)[a]	Range of MMR uncertainty (UI 80%)		Births attended by skilled health personnel, per cent	Adolescent birth rate per 1,000 girls aged 15-19	Contraceptive prevalence rate, women aged 15-49		Unmet need for family planning, women aged 15-49[§]	Proportion of demand satisfied, with modern methods, women aged 15-49[§]	Decision making on sexual and reproductive health and reproductive rights, per cent	Child marriage by age 18, per cent	FGM prevalence among girls, aged 15-19, per cent	Adjusted net enrolment rate, primary education, per cent,		Gender parity index, primary education	Net enrolment rate, secondary education, per cent,		Gender parity index, secondary education
		2015 estimate				2018							2016			2016		
Country, territory or other area	2015	Lower	Upper	2017	2018	Any method[§]	Modern method[§]	2018	2018	2013	2017	2017	male	female	2016	male	female	2016
Arab States	162	138	212	76	50	54	47	15	69	–	21	55	85	82	0.97	63	58	0.92
Asia and the Pacific	127	114	151	84[b]	28[b]	67	62	10	81	–	26	–	96	94	0.99	67	68	1.02
Eastern Europe and Central Asia	25	22	31	98	26	65	50	10	66	–	11	–	96	95	0.99	88	87	0.99
Latin American and the Caribbean	68	64	77	95[c]	62[e]	74	69	10	83	–	26	–	95	96	1.01	75	78	1.05
East and Southern Africa	407	377	501	62	93[f]	41	37	22	59	50	35	–	86	83	0.96	33[f]	31[f]	0.92[f]
West and Central Africa	679	599	849	52	114	21	17	24	38	39	42	22	79	70	0.89	39	33	0.84
More developed regions	12	11	14	–	14	68	61	10	78	–	–	–	96	97	1.01	92	93	1.02
Less developed regions	238	228	274	–	48	62	57	12	77	–	–	–	92	89	0.97	62	61	0.99
Least developed countries	436	418	514	56[d]	91	41	36	21	59	49	40	–	84	80	0.94	39	36	0.92
World	216	207	249	79	44	63	57	12	77	53	21	–	92	90	0.98	66	65	1.00

NOTES

– Data not available.
§ Women currently married or in union.
a The MMR has been rounded according to the following scheme: <100, rounded to nearest 1; 100-999, rounded to nearest 1; and ≥1000, rounded to nearest 10.
b Excludes Cook Islands, Marshall Islands, Nauru, Niue, Palau, Tokelau, and Tuvalu due to data availability.
c Excludes Anguilla, Aruba, Bermuda, British Virgin Islands, Cayman Islands, Curaçao, Montserrat, Sint Maarten, and Turks and Caicos Islands due to data availability.
d Excludes Tuvalu due to data availability.
e Excludes Anguilla, Antigua and Barbuda, Bermuda, British Virgin Islands, Cayman Islands, Ecuador, Grenada, Montserrat, Sint Maarten, and Saint Kitts and Nevis due to data availability.
f Includes Seychelles.
g Percentage of girls aged 15-19 years who are members of the Sande society. Membership in Sande society is a proxy for FGM.

1 On 29 November 2012, the United Nations General Assembly passed Resolution 67/19, which accorded Palestine "non-member observer State status in the United Nations..."

Demographic indicators

Country, territory or other area	Population								Fertility	
	Total population in millions 2018	Average annual rate of population change, per cent 2010-2018	Population aged 0-14, per cent 2018	Population aged 10-24, per cent 2018	Population aged 15-64, per cent 2018	Population aged 65 and older, per cent 2018	Life expectancy at birth (years), 2018 male	Life expectancy at birth (years), 2018 female	Total fertility rate, per woman 2018	Mean age of childbearing, years 2015-2020
Afghanistan	36.4	2.9	43	35	55	3	63	66	4.3	29.1
Albania	2.9	0.0	17	21	69	14	77	81	1.7	27.5
Algeria	42.0	1.9	29	23	64	6	75	78	2.6	31.5
Angola	30.8	3.4	47	32	51	2	59	65	5.6	28.8
Antigua and Barbuda	0.1	1.1	24	25	69	7	74	79	2.0	27.6
Argentina	44.7	1.0	25	24	64	11	73	81	2.3	28.2
Armenia	2.9	0.2	20	19	68	11	72	78	1.6	26.8
Aruba	0.1	0.5	18	21	69	14	74	79	1.8	28.6
Australia[1]	24.8	1.4	19	19	65	16	81	85	1.8	31.0
Austria	8.8	0.5	14	15	67	19	80	84	1.5	30.8
Azerbaijan[2]	9.9	1.2	23	21	70	6	69	75	2.0	25.7
Bahamas	0.4	1.3	20	22	70	9	73	79	1.8	29.2
Bahrain	1.6	2.9	19	19	78	2	76	78	2.0	29.7
Bangladesh	166.4	1.1	28	29	67	5	71	75	2.1	25.4
Barbados	0.3	0.3	19	19	66	15	74	79	1.8	29.0
Belarus	9.5	0.0	17	15	68	15	68	79	1.7	28.5
Belgium	11.5	0.6	17	17	64	19	79	84	1.8	31.1
Belize	0.4	2.2	31	30	65	4	68	74	2.4	27.1
Benin	11.5	2.8	42	32	54	3	60	63	4.8	28.9
Bhutan	0.8	1.4	26	27	69	5	71	71	2.0	28.7
Bolivia (Plurinational State of)	11.2	1.5	31	29	62	7	67	72	2.8	28.4
Bosnia and Herzegovina	3.5	–0.8	14	17	69	17	75	80	1.4	29.3
Botswana	2.3	1.8	31	28	65	4	66	71	2.6	29.9
Brazil	210.9	0.9	21	24	70	9	72	80	1.7	26.4
Brunei Darussalam	0.4	1.4	23	24	72	5	76	79	1.8	30.3
Bulgaria	7.0	–0.6	14	14	65	21	72	78	1.6	28.2
Burkina Faso	19.8	2.9	45	33	53	2	60	62	5.2	29.2
Burundi	11.2	3.1	45	31	52	3	56	60	5.5	30.3
Cambodia	16.2	1.6	31	29	64	5	67	72	2.5	27.0
Cameroon, Republic of	24.7	2.6	43	32	54	3	58	60	4.6	28.9
Canada	37.0	1.0	16	17	67	17	81	85	1.6	30.7
Cape Verde	0.6	1.2	30	30	66	5	71	75	2.3	27.4
Central African Republic	4.7	0.8	43	34	54	4	52	56	4.7	29.6
Chad	15.4	3.2	47	34	51	3	52	55	5.7	28.8
Chile	18.2	0.9	20	22	68	11	77	82	1.8	27.8
China[3]	1,415.0	0.5	18	17	71	11	75	78	1.6	27.4
China, Hong Kong SAR[4]	7.4	0.7	12	13	71	17	81	87	1.3	32.3
China, Macao SAR[5]	0.6	2.0	14	14	76	10	81	87	1.4	30.9
Colombia	49.5	0.9	23	24	69	8	71	78	1.8	27.4
Comoros	0.8	2.4	40	31	57	3	62	66	4.2	30.0
Congo, Democratic Republic of the	84.0	3.3	46	32	51	3	59	62	5.9	29.4
Congo, Republic of the	5.4	2.6	42	31	54	3	64	67	4.5	28.3
Costa Rica	5.0	1.1	21	23	69	10	78	83	1.8	27.3
Côte d'Ivoire	24.9	2.5	42	32	55	3	53	56	4.8	28.9
Croatia	4.2	–0.5	15	16	65	20	75	81	1.4	30.2

Country, territory or other area	Population								Fertility	
	Total population in millions 2018	Average annual rate of population change, per cent 2010-2018	Population aged 0-14, per cent 2018	Population aged 10-24, per cent 2018	Population aged 15-64, per cent 2018	Population aged 65 and older, per cent 2018	Life expectancy at birth (years), 2018 male	Life expectancy at birth (years), 2018 female	Total fertility rate, per woman 2018	Mean age of childbearing, years 2015-2020
Cuba	11.5	0.2	16	17	69	15	78	82	1.7	26.9
Curaçao	0.2	1.1	19	19	65	17	76	82	2.0	28.5
Cyprus[6]	1.2	0.8	17	20	70	14	79	83	1.3	29.8
Czechia	10.6	0.1	16	14	65	19	76	82	1.6	30.6
Denmark	5.8	0.4	16	19	64	20	79	83	1.8	31.0
Djibouti	1.0	1.7	31	30	65	4	61	65	2.7	32.2
Dominica	0.1	0.5	–	–	–	–	–	–	–	–
Dominican Republic	10.9	1.2	29	27	64	7	71	77	2.4	25.8
Ecuador	16.9	1.5	28	27	64	7	74	80	2.4	27.4
Egypt	99.4	2.1	33	26	61	5	70	74	3.2	27.5
El Salvador	6.4	0.5	27	29	64	8	69	78	2.0	26.8
Equatorial Guinea	1.3	4.0	37	29	60	3	57	60	4.5	28.1
Eritrea	5.2	2.1	41	32	55	4	64	68	4.0	29.5
Estonia	1.3	–0.2	17	15	64	20	73	82	1.7	30.3
Eswatini	1.4	1.8	37	33	60	3	55	62	3.0	27.8
Ethiopia	107.5	2.5	40	34	56	4	64	68	4.0	29.7
Fiji	0.9	0.7	28	26	65	6	68	74	2.5	28.1
Finland[7]	5.5	0.4	16	17	62	22	79	84	1.8	30.6
France	65.2	0.4	18	18	62	20	80	86	2.0	30.3
French Guiana	0.3	2.7	33	28	62	5	77	83	3.2	29.2
French Polynesia	0.3	0.8	23	24	69	8	75	80	2.0	28.9
Gabon	2.1	2.9	36	28	60	4	65	69	3.7	29.0
Gambia	2.2	3.1	45	33	53	2	60	63	5.3	30.4
Georgia[8]	3.9	–1.0	19	18	66	15	69	78	2.0	26.7
Germany	82.3	0.2	13	15	65	22	79	84	1.5	31.3
Ghana	29.5	2.3	38	31	58	3	62	64	3.9	29.8
Greece	11.1	–0.3	14	15	65	21	79	84	1.3	31.3
Grenada	0.1	0.4	26	25	66	7	71	76	2.1	28.5
Guadeloupe[9]	0.4	0.0	18	21	64	18	78	85	1.9	30.2
Guam	0.2	0.5	24	25	66	10	78	82	2.3	28.8
Guatemala	17.2	2.1	34	32	61	5	71	77	2.9	28.5
Guinea	13.1	2.4	42	32	55	3	61	62	4.7	29.1
Guinea-Bissau	1.9	2.5	41	31	56	3	56	60	4.5	29.2
Guyana	0.8	0.6	29	30	66	5	65	69	2.5	26.7
Haiti	11.1	1.3	33	30	62	5	62	66	2.8	30.0
Honduras	9.4	1.7	31	31	64	5	71	77	2.4	27.7
Hungary	9.7	–0.3	14	16	67	19	73	80	1.4	30.2
Iceland	0.3	0.7	20	20	65	15	82	84	1.9	30.6
India	1,354.1	1.2	27	28	66	6	68	71	2.3	26.5
Indonesia	266.8	1.2	27	26	68	5	67	72	2.3	28.2
Iran (Islamic Republic of)	82.0	1.2	24	21	71	6	75	78	1.6	28.6
Iraq	39.3	3.1	40	31	56	3	68	73	4.2	28.7
Ireland	4.8	0.5	22	19	64	14	80	84	2.0	31.4
Israel	8.5	1.6	28	23	60	12	81	84	2.9	30.7
Italy	59.3	–0.1	13	14	63	23	81	85	1.5	31.7

Demographic indicators

Country, territory or other area	Population								Fertility	
	Total population in millions 2018	Average annual rate of population change, per cent 2010-2018	Population aged 0-14, per cent 2018	Population aged 10-24, per cent 2018	Population aged 15-64, per cent 2018	Population aged 65 and older, per cent 2018	Life expectancy at birth (years), 2018 male	Life expectancy at birth (years), 2018 female	Total fertility rate, per woman 2018	Mean age of childbearing, years 2015-2020
Jamaica	2.9	0.4	23	26	67	10	74	79	2.0	27.7
Japan	127.2	–0.1	13	14	60	27	81	87	1.5	31.3
Jordan	9.9	4.0	35	30	61	4	73	76	3.2	29.8
Kazakhstan	18.4	1.4	28	20	64	7	65	75	2.6	28.6
Kenya	51.0	2.6	40	33	57	3	65	70	3.7	28.7
Kiribati	0.1	1.8	35	29	61	4	63	70	3.6	30.7
Korea, Democratic People's Republic of	25.6	0.5	20	22	70	9	68	76	1.9	29.1
Korea, Republic of	51.2	0.4	13	17	72	14	79	85	1.3	32.3
Kuwait	4.2	4.2	21	19	76	3	74	76	2.0	29.9
Kyrgyzstan	6.1	1.5	32	25	63	5	67	75	2.9	28.2
Lao People's Democratic Republic	7.0	1.4	33	31	63	4	66	69	2.6	27.6
Latvia	1.9	–1.2	16	14	64	20	70	79	1.6	30.2
Lebanon	6.1	4.3	23	26	69	9	78	82	1.7	29.8
Lesotho	2.3	1.3	35	32	60	5	53	57	3.0	27.8
Liberia	4.9	2.6	41	32	55	3	62	65	4.4	28.6
Libya	6.5	0.6	28	25	68	4	69	75	2.2	32.8
Lithuania	2.9	–1.0	15	16	66	19	70	80	1.7	29.7
Luxembourg	0.6	1.9	16	18	69	14	80	84	1.6	31.7
Madagascar	26.3	2.7	41	33	56	3	65	68	4.1	28.0
Malawi	19.2	2.9	44	34	53	3	61	67	4.4	28.0
Malaysia[10]	32.0	1.6	24	26	69	7	73	78	2.0	30.9
Maldives	0.4	2.5	23	22	72	4	77	79	2.0	29.0
Mali	19.1	3.0	48	33	50	3	58	60	5.9	29.0
Malta	0.4	0.5	14	16	66	20	80	83	1.5	30.4
Martinique	0.4	–0.3	18	18	63	19	79	85	1.9	30.2
Mauritania	4.5	2.9	40	31	57	3	62	65	4.6	30.4
Mauritius[11]	1.3	0.2	18	22	71	11	72	79	1.4	28.1
Mexico	130.8	1.4	26	27	67	7	75	80	2.1	26.9
Micronesia (Federated States of)	0.1	0.3	33	34	62	5	68	71	3.1	30.7
Moldova, Republic of[12]	4.0	–0.1	16	17	73	11	68	76	1.2	27.3
Mongolia	3.1	1.8	30	23	66	4	66	74	2.7	29.3
Montenegro	0.6	0.1	18	19	67	15	75	80	1.7	29.4
Morocco	36.2	1.4	27	25	66	7	75	77	2.4	30.4
Mozambique	30.5	2.9	45	33	52	3	57	61	5.1	29.1
Myanmar	53.9	0.9	26	27	68	6	64	69	2.2	29.6
Namibia	2.6	2.2	36	31	60	4	62	68	3.3	28.6
Nepal	29.6	1.1	30	32	64	6	69	73	2.1	25.8
Netherlands	17.1	0.3	16	18	65	19	80	84	1.8	30.9
New Caledonia	0.3	1.4	22	23	68	10	75	80	2.1	29.9
New Zealand	4.7	1.0	20	20	65	16	81	84	2.0	30.1
Nicaragua	6.3	1.1	29	28	66	6	73	79	2.1	26.7
Niger	22.3	3.8	50	32	47	3	60	62	7.1	29.1
Nigeria	195.9	2.6	44	32	53	3	54	55	5.4	29.8
Norway[13]	5.4	1.1	18	19	65	17	81	84	1.8	30.7

Country, territory or other area	Population								Fertility	
	Total population in millions 2018	Average annual rate of population change, per cent 2010-2018	Population aged 0-14, per cent 2018	Population aged 10-24, per cent 2018	Population aged 15-64, per cent 2018	Population aged 65 and older, per cent 2018	Life expectancy at birth (years), 2018 male	Life expectancy at birth (years), 2018 female	Total fertility rate, per woman 2018	Mean age of childbearing, years 2015-2020
Oman	4.8	5.8	22	20	76	2	76	80	2.5	31.1
Pakistan	200.8	2.0	35	29	61	4	66	68	3.3	28.6
Palestine[14]	5.1	2.7	39	32	58	3	72	76	3.9	28.9
Panama	4.2	1.7	27	25	65	8	76	81	2.5	26.7
Papua New Guinea	8.4	2.1	36	31	61	4	63	68	3.6	29.8
Paraguay	6.9	1.3	29	29	64	7	71	76	2.4	28.2
Peru	32.6	1.3	27	26	66	7	73	78	2.3	28.9
Philippines	106.5	1.6	31	29	64	5	66	73	2.9	28.9
Poland	38.1	–0.1	15	16	68	17	74	82	1.3	29.4
Portugal	10.3	–0.4	13	15	65	22	79	84	1.2	30.7
Puerto Rico	3.7	–0.2	18	21	67	15	77	84	1.5	27.0
Qatar	2.7	5.2	14	18	85	1	78	80	1.9	29.9
Reunion	0.9	0.8	23	23	65	12	77	84	2.3	28.3
Romania	19.6	–0.5	15	16	66	18	72	79	1.5	28.1
Russian Federation	144.0	0.1	18	15	68	15	66	77	1.8	28.8
Rwanda	12.5	2.5	40	31	57	3	66	70	3.7	30.0
Saint Kitts and Nevis	0.1	1.0	–	–	–	–	–	–	–	–
Saint Lucia	0.2	0.5	18	24	72	10	73	79	1.4	27.8
Saint Vincent and the Grenadines	0.1	0.1	24	25	69	8	71	76	1.9	27.1
Samoa	0.2	0.7	36	32	58	6	72	79	3.9	30.3
San Marino	0.0	0.9	–	–	–	–	–	–	–	–
São Tomé and Príncipe	0.2	2.2	42	33	55	3	65	69	4.3	28.8
Saudi Arabia	33.6	2.5	25	22	72	3	74	77	2.5	32.2
Senegal	16.3	2.9	43	32	54	3	66	70	4.6	30.3
Serbia[15]	8.8	–0.4	16	18	66	18	73	78	1.6	29.2
Seychelles	0.1	0.5	22	19	69	9	70	79	2.3	27.5
Sierra Leone	7.7	2.2	42	33	56	3	52	53	4.3	28.7
Singapore	5.8	1.7	15	18	72	14	81	85	1.3	31.3
Sint Maarten	0.0	2.5	–	–	–	–	–	–	–	–
Slovakia	5.4	0.1	15	16	69	16	74	81	1.5	29.6
Slovenia	2.1	0.2	15	14	65	20	78	84	1.6	30.6
Solomon Islands	0.6	2.1	38	32	58	4	70	73	3.7	29.8
Somalia	15.2	2.9	46	33	51	3	55	59	6.1	29.7
South Africa	57.4	1.3	29	27	66	5	60	67	2.4	28.3
South Sudan	12.9	3.1	41	33	55	3	57	59	4.7	29.6
Spain[16]	46.4	–0.1	15	15	66	20	81	86	1.4	31.9
Sri Lanka	21.0	0.5	24	23	66	10	72	79	2.0	30.0
Sudan	41.5	2.4	40	33	56	4	63	67	4.4	30.0
Suriname	0.6	1.0	26	26	67	7	68	75	2.3	28.5
Sweden	10.0	0.8	18	17	62	20	81	84	1.9	31.0
Switzerland	8.5	1.1	15	16	66	19	82	85	1.6	31.8
Syrian Arab Republic	18.3	–1.7	36	34	60	5	67	78	2.8	29.4
Tajikistan	9.1	2.2	35	29	61	4	69	75	3.3	27.8
Tanzania, United Republic of[17]	59.1	3.1	45	32	52	3	65	69	4.9	28.2
Thailand	69.2	0.4	17	20	71	12	72	79	1.5	27.4

Demographic indicators

Country, territory or other area	Population								Fertility	
	Total population in millions 2018	Average annual rate of population change, per cent 2010-2018	Population aged 0-14, per cent 2018	Population aged 10-24, per cent 2018	Population aged 15-64, per cent 2018	Population aged 65 and older, per cent 2018	Life expectancy at birth (years), 2018 male	Life expectancy at birth (years), 2018 female	Total fertility rate, per woman 2018	Mean age of childbearing, years 2015-2020
The former Yugoslav Republic of Macedonia	2.1	0.1	17	18	70	14	74	78	1.6	29.0
Timor-Leste, Democratic Republic of	1.3	2.2	44	35	53	4	68	71	5.3	30.3
Togo	8.0	2.6	41	32	56	3	60	62	4.3	28.9
Tonga	0.1	0.6	35	33	59	6	70	76	3.6	31.1
Trinidad and Tobago	1.4	0.4	21	19	69	10	67	75	1.7	27.9
Tunisia	11.7	1.1	24	21	68	8	74	78	2.1	31.0
Turkey	81.9	1.6	25	25	67	8	73	79	2.0	28.6
Turkmenistan	5.9	1.7	31	25	65	4	65	72	2.8	27.9
Turks and Caicos Islands	0.0	1.9	–	–	–	–	–	–	–	–
Tuvalu	0.0	0.9	–	–	–	–	–	–	–	–
Uganda	44.3	3.3	47	34	50	2	58	63	5.4	28.1
Ukraine[18]	44.0	–0.5	16	15	67	17	67	77	1.6	28.0
United Arab Emirates	9.5	1.8	14	16	85	1	77	79	1.7	26.9
United Kingdom	66.6	0.6	18	17	64	19	80	84	1.9	30.4
United States of America	326.8	0.7	19	20	65	16	77	82	1.9	29.5
United States Virgin Islands	0.1	–0.1	20	20	61	19	78	82	2.2	27.1
Uruguay	3.5	0.3	21	22	64	15	74	81	2.0	27.7
Uzbekistan	32.4	1.5	28	26	67	5	69	74	2.2	27.1
Vanuatu	0.3	2.2	36	29	60	5	70	75	3.2	29.3
Venezuela (Bolivarian Republic of)	32.4	1.4	27	26	66	7	71	79	2.3	26.4
Viet Nam	96.5	1.1	23	22	70	7	72	81	1.9	28.0
Western Sahara	0.6	2.1	28	26	69	3	68	72	2.4	31.0
Yemen	28.9	2.5	40	33	57	3	64	67	3.8	30.0
Zambia	17.6	3.0	44	34	53	2	60	65	4.9	28.9
Zimbabwe	16.9	2.3	41	32	56	3	60	64	3.6	27.8

World and regional data

	Population								Fertility	
	Total population in millions 2018	Average annual rate of population change, per cent 2010-2018	Population aged 0-14, per cent 2018	Population aged 10-24, per cent 2018	Population aged 15-64, per cent 2018	Population aged 65 and older, per cent 2018	Life expectancy at birth (years), 2018 male	Life expectancy at birth (years), 2018 female	Total fertility rate, per woman 2018	Mean age of childbearing, years 2015-2020
Arab States	**366**	**2.0**	**34**	**28**	**61**	**5**	**68**	**72**	**3.3**	**29.2**
Asia and the Pacific	**3,996**	**1.0**	**24** [a]	**24** [a]	**68** [a]	**8** [a]	**70** [a]	**73** [a]	**2.1** [a]	**27.2** [a]
Eastern Europe and Central Asia	**245**	**0.9**	**23**	**22**	**67**	**10**	**70**	**77**	**2.0**	**28.0**
Latin American and Caribbean	**647**	**1.1**	**25** [b]	**25** [b]	**67** [b]	**8** [b]	**73** [b]	**79** [b]	**2.0** [b]	**27.1** [b]
East and Southern Africa	**597**	**2.7**	**42**	**32**	**55**	**3**	**61**	**66**	**4.4**	**28.8**
West and Central Africa	**436**	**2.7**	**44**	**32**	**54**	**3**	**56**	**58**	**5.1**	**29.4**
More developed regions	**1,263**	**0.3**	**16**	**17**	**65**	**19**	**76**	**82**	**1.7**	**30.0**
Less developed regions	**6,370**	**1.3**	**28**	**25**	**65**	**7**	**69**	**73**	**2.6**	**27.7**
Least developed countries	**1,026**	**2.4**	**39**	**32**	**57**	**4**	**63**	**67**	**4.0**	**28.5**
World	**7,633**	**1.2**	**26**	**24**	**65**	**9**	**70**	**74**	**2.5**	**27.9**

NOTES

— Data not available.

a Excludes Cook Islands, Marshall Islands, Nauru, Niue, Palau, Tokelau and Tuvalu due to data availability.

b Excludes Anguilla, Bermuda, British Virgin Islands, Cayman Islands, Dominica, Montserrat, Saint Kitts and Nevis, Sint Maarten, and Turks and Caicos Islands due to data availability.

1 Includes Christmas Island, Cocos (Keeling) Islands and Norfolk Island.

2 Includes Nagorno-Karabakh.

3 For statistical purposes, the data for China do not include Hong Kong and Macao, Special Administrative Regions (SAR) of China, and Taiwan Province of China.

4 As of 1 July 1997, Hong Kong became a Special Administrative Region (SAR) of China.

5 As of 20 December 1999, Macao became a Special Administrative Region (SAR) of China.

6 Refers to the whole country.

7 Includes Åland Islands.

8 Includes Abkhazia and South Ossetia.

9 Includes Saint-Barthélemy and Saint-Martin (French part).

10 Includes Sabah and Sarawak.

11 Includes Agalega, Rodrigues and Saint Brandon.

12 Includes Transnistria.

13 Includes Svalbard and Jan Mayen Islands.

14 Includes East Jerusalem. On 29 November 2012, the United Nations General Assembly passed Resolution 67/19, which accorded Palestine "non-member observer State status in the United Nations..."

15 Includes Kosovo.

16 Includes Canary Islands, Ceuta and Melilla.

17 Includes Zanzibar.

18 Includes Crimea.

Technical notes for indicators

The statistical tables in *The State of World Population 2018* include indicators that track progress toward the goals of the Framework of Actions for the follow-up to the Programme of Action of the International Conference on Population and Development (ICPD) beyond 2014, and the Sustainable Development Goals (SDGs) in the areas of maternal health, access to education and reproductive and sexual health. In addition, these tables include a variety of demographic indicators. The statistical tables support UNFPA's focus on progress and results towards delivering a world where every pregnancy is wanted, every birth is safe and every young person's potential is fulfilled.

Different national authorities and international organisations may employ different methodologies in gathering, extrapolating or analysing data. To facilitate the international comparability of data, UNFPA relies on the standard methodologies employed by the main sources of data. In some instances, therefore, the data in these tables differ from those generated by national authorities. Data presented in the tables are not comparable to the data in previous State of World Population publications due to regional classifications updates, methodological updates and revisions of time series data.

The statistical tables draw on nationally representative household surveys such as Demographic and Health Surveys (DHS) and Multiple Indicator Cluster Surveys (MICS), United Nations organizations estimates, and inter-agency estimates. They also include the latest population estimates and projections from World Population Prospects: The 2017 revision, and Model-based Estimates and Projections of Family Planning Indicators 2018 (United Nations Department of Economic and Social Affairs, Population Division). Data are accompanied by definitions, sources, and notes. The statistical tables in *The State of World Population 2018* generally reflect information available as of June 2018.

Monitoring ICPD goals: selected indicators

Maternal and Newborn Health

Maternal mortality ratio (MMR), deaths per 100,000 live births and Range of MMR uncertainty (UI 80%), lower and upper estimates 2015. Source: United Nations Maternal Mortality Estimation Inter-agency Group (WHO, UNICEF, UNFPA, The World Bank and the United Nations Population Division). This indicator presents the number of deaths of women from pregnancy-related causes per 100,000 live births. The estimates are produced by the Maternal Mortality Estimation Inter-agency Group (MMEIG) using data from vital registration systems, household surveys and population censuses. UNFPA, WHO, the World Bank, UNICEF, and United Nations Population Division are members of the MMEIG. Estimates and methodologies are reviewed regularly by MMEIG and other agencies and academic institutions, and are revised where necessary, as part of the ongoing process of improving maternal mortality data. Estimates should not be compared with previous inter-agency estimates.

Births attended by skilled health personnel, per cent, 2006/2017. Source: Joint global database on skilled attendance at birth, 2017, United Nations Children's Fund (UNICEF) and World Health Organization (WHO). Regional aggregates calculated by UNFPA based on data from the joint global database. Percentage of births attended by skilled health personnel (doctors, nurses or midwives) is the percentage of deliveries attended by health personnel trained in providing life-saving obstetric care, including giving the necessary supervision, care and advice to women during pregnancy, labour and the post-partum period; conducting deliveries on their own; and caring for newborns. Traditional birth attendants, even if they receive a short training course, are not included.

Adolescent birth rate, per 1,000 women aged 15-19, 2006/2015. Source: United Nations Population Division and UNFPA. The adolescent birth rate represents the risk of childbearing among adolescent women 15 to 19 years of age. For civil registration, rates are subject to limitations that depend on the completeness of birth registration, the treatment of infants born alive but dead before registration or within the first 24 hours of life, the quality of the reported information relating to age of the mother, and the inclusion of births from previous periods. The population estimates may suffer from limitations connected to age misreporting and coverage. For survey and census data, both the numerator and denominator come from the same population. The main limitations concern age misreporting, birth omissions, misreporting the date of birth of the child, and sampling variability in the case of surveys.

Sexual and Reproductive health

The United Nations Population Division produces a systematic and comprehensive set of annual, model-based estimates and projections is provided for a range of family planning indicators for a 60-year time period. Indicators include contraceptive prevalence, unmet need for family planning, total demand for family planning and the percentage of demand for family planning that is satisfied among married or in-union women for the period from 1970 to 2030. A Bayesian hierarchical model combined with country-specific time trends was used to generate the estimates, projections and uncertainty assessments. The model advances prior work and accounts for differences by data source, sample population, and contraceptive methods included in measures of prevalence. More information on family planning model-based estimates, methodology and updates can be found at <http://www.un.org/en/development/desa/population>. The estimates are based on the country-specific data compiled in *World Contraceptive Use 2017*.

Contraceptive prevalence rate, women currently married/in union aged 15-49, any method and any modern method, 2018. Source: United Nations Population Division. Model-based estimates are based on data that are derived from sample survey reports. Survey data estimate the proportion of married women (including women in consensual unions) currently using, respectively, any method or modern methods of contraception. Modern or clinic and supply methods include male and female sterilization, IUD, the pill, injectables, hormonal implants, condoms and female barrier methods.

Unmet need for family planning, women aged 15 to 49, 2018. Source: United Nations Population Division. Women with unmet need for spacing births are those who are fecund and sexually active are not using any method of contraception, and report wanting to delay the next child. This is a subcategory of total unmet need for family planning, which also includes unmet need for limiting births. The concept of unmet need points to the gap between women's reproductive intentions and their contraceptive behavior. For MDG monitoring, unmet need is expressed as a percentage based on women who are married or in a consensual union.

Proportion of demand satisfied, any modern methods, women currently married/in union aged 15-49, 2018. Source: United Nations Population Division. Modern contraceptive prevalence divided by total demand for family planning. Total demand for family planning is the sum of contraceptive prevalence and unmet need for family planning.

Proportion of demand satisfied with any methods (PDS) = Contraceptive prevalence rate for any methods (CPR) divided by total demand for family planning (TD).

Proportion of demand satisfied with any modern methods (mPDS) = Contraceptive prevalence rate for modern methods (mCPR) divided by total demand for family planning (TD).

Where total demand = Contraceptive prevalence rate plus unmet need for contraception rate (UNR), that is

TD = CPR + UNR

Decision-making on sexual and reproductive health and reproductive rights, per cent, 2007/2016. Source: UNFPA. Percentage of women aged 15 to 49 years who are married or in union, who make their own decisions on all three areas—sexual intercourse with their partner, use of contraception, and their healthcare.

Harmful Practices

Child marriage, married by 18, 2008/2016. Source: UNFPA. Proportion of women aged 20 to 24 years who were married or in a union before age 18.

FGM prevalence among girls, per cent, 2004/2015. Source: UNFPA. Proportion of girls aged 15 to 19 years who have undergone female genital mutilation.

Education

Male and female adjusted primary school enrolment, net per cent of primary school-age children, 1999/2015. Source: UNESCO Institute for Statistics (UIS). The adjusted primary school net enrolment ratio indicates the percentage of children of the official primary age group who are enrolled in primary or secondary education.

Male and female secondary school enrolment, net per cent of secondary school-age children, 2000/2015. Source: UIS. The secondary school net enrolment ratio indicates the percentage of children of the official secondary age group who are enrolled in secondary education.

Gender parity index, primary education, 1999/2015. Source: UIS. The gender parity index (GPI) refers to the ratio of female to male values of adjusted primary school net enrolment ratio.

Gender parity index, secondary education, 2000/2015. Source: UIS. The GPI refers to the ratio of female to male values of secondary school net enrolment ratio.

Demographic indicators

Population

Total population, in millions, 2018. Source: United Nations Population Division. Regional aggregates calculated by UNFPA based on data from United Nations Population Division. These indicators present the estimated size of national populations at mid-year.

Average annual rate of population change, per cent, 2010/2018. Source: UNFPA calculation based on data from United Nations Population Division. These figures refer to the average exponential rate of growth of the population over a given period, based on a medium variant projection.

Population aged 0-14, per cent, 2018. Source: UNFPA calculation based on data from United Nations Population Division. These indicators present the proportion of the population between age 0 and age 14.

Population aged 10-24, per cent, 2018. Source: UNFPA calculation based on data from United Nations Population Division. These indicators present the proportion of the population between age 10 and age 24.

Population aged 15-64, per cent, 2018. Source: UNFPA calculation based on data from United Nations Population Division. These indicators present the proportion of the population between age 15 and age 64.

Population aged 65 and older, per cent, 2018. Source: UNFPA calculation based on data from United Nations Population Division. These indicators present the proportion of the population between aged 65 and older.

Male and female life expectancy at birth (years), 2015/2020. Source: United Nations Population Division. Regional aggregates calculated by UNFPA based on data from United Nations Population Division. These indicators present the number of years newborn children would live if subject to the mortality risks prevailing for the cross section of population at the time of their birth.

Fertility

Total fertility rate, per woman, 2018. Source: United Nations Population Division. Regional aggregates calculated by UNFPA based on data from United Nations Population Division. These indicators present the number of children who would be born per woman if she lived to the end of her childbearing years and bore children at each age in accordance with prevailing age-specific fertility rates.

Mean age of childbearing, years, 2015/2020. Source: United Nations Population Division. These indicators present the average age of mothers at the birth of their children if women were subject throughout their lives to the age-specific fertility rates observed in a given year. It is expressed as years.

Regional classification

UNFPA averages presented at the end of the statistical tables are calculated using data from countries and areas as classified below.

Arab States Region
Algeria; Djibouti; Egypt; Iraq; Jordan; Lebanon; Libya; Morocco; Oman; Palestine; Somalia; Sudan; Syrian Arab Republic; Tunisia; Yemen

Asia and Pacific Region
Afghanistan; Bangladesh; Bhutan; Cambodia; China; Cook Islands; Fiji; India; Indonesia; Iran (Islamic Republic of); Kiribati; Korea, Democratic People's Republic of; Lao People's Democratic Republic; Malaysia; Maldives; Marshall Islands; Micronesia (Federated States of); Mongolia; Myanmar; Nauru; Nepal; Niue; Pakistan; Palau; Papua New Guinea; Philippines; Samoa; Solomon Islands; Sri Lanka; Thailand; Timor-Leste, Democratic Republic of; Tokelau; Tonga; Tuvalu; Vanuatu; Viet Nam

Eastern Europe and Central Asia Region
Albania; Armenia; Azerbaijan; Belarus; Bosnia and Herzegovina; Georgia; Kazakhstan; Kyrgyzstan; Moldova, Republic of; Serbia; Tajikistan; The former Yugoslav Republic of Macedonia; Turkey; Turkmenistan; Ukraine

East and Southern Africa Region
Angola; Botswana; Burundi; Comoros; Congo, Democratic Republic of the; Eritrea; Ethiopia; Kenya; Lesotho; Madagascar; Malawi; Mauritius; Mozambique; Namibia; Rwanda; Seychelles; South Africa; South Sudan; Tanzania, United Republic of Uganda; Zambia; Zimbabwe

Latin American and the Caribbean Region
Anguilla; Antigua and Barbuda; Argentina; Aruba; Bahamas; Barbados; Belize; Bermuda; Bolivia (Plurinational State of); Brazil; British Virgin Islands; Cayman Islands; Chile; Colombia; Costa Rica; Cuba; Curaçao; Dominica; Dominican Republic; Ecuador; El Salvador; Grenada; Guatemala; Guyana; Haiti; Honduras; Jamaica; Mexico; Montserrat; Nicaragua; Panama; Paraguay; Peru; Saint Kitts and Nevis; Saint Lucia; Saint Vincent and the Grenadines; Sint Maarten; Suriname; Trinidad and Tobago; Turks and Caicos Islands; Uruguay; Venezuela (Bolivarian Republic of)

West and Central Africa Region
Benin; Burkina Faso; Cameroon, Republic of; Cape Verde; Central African Republic; Chad; Congo, Republic of the; Côte d'Ivoire; Equatorial Guinea; Gabon; Gambia; Ghana; Guinea; Guinea-Bissau; Liberia; Mali; Mauritania; Niger; Nigeria; São Tomé and Príncipe; Senegal; Sierra Leone; Togo

More developed regions comprise UNPD regions Europe, Northern America, Australia/New Zealand and Japan.

Less developed regions comprise all UNPD regions of Africa, Asia (except Japan), Latin America and the Caribbean plus Melanesia, Micronesia and Polynesia.

The least developed countries, as defined by the United Nations General Assembly in its resolutions (59/209, 59/210, 60/33, 62/97, 64/L.55, 67/L.43, 64/295) included 48 countries in January 2014: 34 in Africa, 9 in Asia, 4 in Oceania and one in Latin America and the Caribbean—Afghanistan, Angola, Bangladesh, Benin, Bhutan, Burkina Faso, Burundi, Cambodia, Central African Republic, Chad, Comoros, Democratic Republic of the Congo, Djibouti, Equatorial Guinea, Eritrea, Ethiopia, Gambia, Guinea, Guinea-Bissau, Haiti, Kiribati, Lao People's Democratic Republic, Lesotho, Liberia, Madagascar, Malawi, Mali, Mauritania, Mozambique, Myanmar, Nepal, Niger, Rwanda, São Tomé and Príncipe, Senegal, Sierra Leone, Solomon Islands, Somalia, South Sudan, Sudan, Timor-Leste, Togo, Tuvalu, Uganda, United Republic of Tanzania, Vanuatu, Yemen and Zambia. These countries are also included in the less developed regions.

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