Global demographic trends and their impact on children, families, and policy

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EXECUTIVE SUMMARY

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The global population increases by an estimated 83 million people annually, with a projected peak of 11.2 billion by 2100. As the world's population grows, several demographic shifts are occurring that significantly impact families. This report describes six major demographic trends: declining fertility, changing partnering patterns, reductions in early childhood and maternal mortality, a burgeoning youth population, changes in child marriage rates, and a growing aging population. Each trend is discussed in its historical context, with attention to regional and gender differences, policy responses, and examples of effective policies that have benefited families—especially those addressing multiple trends.

Fertility

Globally, fertility has declined sharply over the past 60 years. In the past, it was common for women to have 5-6 children on average, whereas today the total fertility rate (TFR) is closer to 2.4 children per woman. There is considerable variation across geographic regions, and some countries remain well above the replacement fertility rate. Factors contributing to the global decline in fertility include increased women's empowerment, rising costs and challenges associated with raising children, and greater access to contraceptives and family planning. As fertility rates continue to decline, slower population growth will eventually lead to an inverted population pyramid, with most of the population being elderly and fewer individuals in the youngest age groups.

Partnering Patterns

Family composition has changed significantly over the past few decades. Marriage has become less common, and more couples are delaying marriage or having children outside of marriage. With these changes, divorce and cohabitation are on the rise, and 6-11% of all households are now single-parent households, almost universally led by women. The reasons for these changes in partnering patterns are similar to those driving fertility declines: increased use of contraceptives, more women in the labor market, and a tendency to delay marriage.

Child and Maternal Mortality

Child and maternal mortality rates have declined considerably. Maternal mortality dropped from 342 deaths per 100,000 live births in 2000 to 211 per 100,000 in 2017. Similarly, child mortality decreased by approximately 53% from 2000 to 2015. Despite these improvements, mortality rates remain unacceptably high. In 2020, over 287,000 women died during or following childbirth, and every year 4.9 million children die before reaching adulthood. Stark regional differences exist, with Sub-Saharan Africa and Southern Asia having the highest rates, while Western Europe and North America report the lowest. The declines are attributed to increased access to healthcare (e.g., skilled birth attendants, family planning, and contraceptives) and are closely tied to women's empowerment, particularly educational attainment.

Youth Population

The world is currently experiencing the largest growth period of the adolescent population in history. The youth population (ages 15-24) now totals 1.2 billion, or 16% of the global population. Regional differences are evident. In North America and Latin America, the youth population has peaked and is expected to remain stable, while in Africa and the Middle East and North Africa (MENA) regions, growth continues. Factors influencing youth population growth include fertility rates and migration. This youth boom presents policy challenges, such as increased risk of unemployment, prolonged dependence on family, and poor health outcomes, including mental health disorders and substance use.

Child Marriage

Child marriage is recognized as a violation of human rights by the United Nations. Worldwide, 12 million girls marry before the age of 18 each year, and over 650 million women alive today were married as children (Girls Not Brides, 2020a). Drivers of child marriage include poverty, the reinforcement of social ties, and the perceived protection of marriage. However, child marriage negatively impacts educational attainment and health, perpetuating cycles of intergenerational poverty. Girls who marry are more likely to drop out of school, and early childbearing leads to poor health outcomes, including more pregnancies, higher rates of sexually transmitted infections, and significant psychological costs.

Aging Population

In 2020, 1 billion people worldwide were over 60 years of age. By 2050, 1 in 5 individuals will be elderly, and the population of those over 80 years of age will triple. Although regional variations exist, all countries are expected to experience significant growth in their elderly populations. Factors contributing to this trend include fertility declines, increasing longevity, and changes in migration patterns. The aging population presents challenges across economic, social, and psychological sectors. Economically, a larger retired population can strain systems with fewer working adults supporting more elderly individuals (i.e., a rising dependency ratio). Ageism is also a concern, particularly in the labor market. Additionally, mental health problems are increasing among older adults.

Policy Implications and Conclusions

This report includes specific policy recommendations for each of the six demographic trends. It also highlights overarching policy priorities that address all of these trends: (1) access to free and quality education, (2) labor market policies ensuring equitable access, (3) policies prioritizing lifetime health and well-being (e.g., universal health coverage and access to quality healthcare), and (4) family-friendly policies (e.g., maternity and paternity leave, childcare support). While many demographic changes indicate progress, further improvements are needed to enhance family health and well-being, particularly in vulnerable regions. We advocate for thoughtful, family-friendly policies that empower families with decision-making power and provide them with a range of options to support their choices.

INTRODUCTION

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Overview

The United Nations estimates that the global population grows by 83 million people each year (UNDESA, 2017). By 2050, the world's population is expected to increase from 7.6 billion to 9.8 billion, with a projected rise to 11.2 billion by 2100. However, total population figures alone do not fully capture the impact of shifting demographic trends on children and families, nor do they provide the necessary insights to inform effective policy responses to these changes.

This report focuses on six major demographic trends affecting families worldwide: declining fertility, changing partnering patterns, reductions in early childhood and maternal mortality, a burgeoning youth population, changes in child marriage rates, and a growing aging population. Each section provides a historical overview of the trend, explores regional, gender, and other variations, reviews policy interventions in response to these shifts, and highlights successful policies that have benefited families. The report concludes with a set of policy recommendations addressing the overarching issues across these six trends.

Methodology

In creating this report, the authors followed several steps to ensure a comprehensive and rigorous review of the literature. Our objectives included obtaining accurate and globally representative statistics on demographic trends, identifying regional differences in these trends, documenting the impact of demographic shifts and related policies on families, and identifying common threads among policies that span multiple trends.

First, the lead authors formulated a draft outline of the report by reviewing systematic, scoping, and rapid reviews of global and regional demographic changes and trends. After the draft outline was created and approved by DIFI partners, the lead authors developed a list of search terms and consulted with a Duke University research librarian to ensure the list was comprehensive[1].

Second, the authors used these search terms to identify peer-reviewed literature that explored the relationship between the six broad categories of demographic trends and family outcomes. The initial search was conducted through Google Scholar and limited to literature published between 2004 and 2024. This search was later expanded to include the Duke University Library System's search engine, which yielded additional peer-reviewed research not available on Google Scholar.

Third, the authors back-traced reference lists from seminal manuscripts, leading to the inclusion of articles pre-dating 2004 if they provided essential information necessary to fully illustrate the trends. Notably, all research involving human subjects was reviewed to ensure ethical approval from the sponsoring institutions (e.g., institutional review boards, ethics committees, and compliance with the Declaration of Helsinki).

Fourth, the authors searched and accessed reports directly from leading regional and global organizations, including the United Nations, the World Health Organization, Pew Research Institute, and UNICEF. These reports were primarily used to illustrate trends and policy recommendations, and global statistics were included in our report only if they represented regions typically designated by the United Nations (e.g., MENA region, Oceania). The lead authors met weekly to review and revise drafts of the report and guide the contributions of other authors.

Fifth, upon completion of the report, each objective statement was "fact-checked" for accuracy against the original sources. The report underwent internal review by DIFI collaborators and external reviewers, and revisions were made accordingly.

[1] For example, search terms for changing fertility trends included: fertility, fertility decline, fertility rates, marriage, sexual and reproductive healthcare services, healthcare, gender equality, female empowerment, childbearing, high-risk pregnancies, maternity leave, childcare. A full list of search terms is available by contacting the lead author.

We acknowledge that any report summarizing global population trends may fall short in capturing the full nuances of language and culture. Therefore, we have adopted definitions and terminology (e.g., defining childhood as the time before 18 years of age) commonly used by the United Nations and the World Health Organization. When necessary, we provide contextual information on how specific constructs (e.g., couples with children) were defined or measured in the cited references. Additionally, we broadly address social, behavioral, biological, and policy antecedents of each demographic trend. While these drivers are important, detailed analyses of historical, political, or economic drivers are beyond the scope of this report.

FERTILITY TRENDS

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Globally, fertility rates have been falling sharply for the past 70 years. In the pre-modern era, fertility rates of 4.5–7 children per woman were common, although high infant and child mortality rates kept population growth low (Roser, 2024). Since 1960, however, the global total fertility rate (TFR) has halved, dropping from about 5 children per woman to approximately 2.4 children per woman in 2021. The TFR is the average number of children a woman is expected to bear if she lives through her reproductive years. To sustain a population at replacement level, the TFR would need to be 2.1 children per woman (Götmark & Andersson, 2023). Currently, 80% of the world's population lives in countries where the fertility rate has dropped below 3 children per woman, while only 10% lives in countries where the fertility rate is above 5 children per woman (Roser, 2024). The global TFR is projected to decrease further, reaching 2.2 children per woman by 2050 (United Nations, 2019). By 2100, 93% of all countries are expected to have a TFR below the replacement level (Fauser et al., 2024).

Even with the implementation of pro-natal and family-friendly policies, fertility rates are expected to remain low. Additionally, most live births will occur in the poorest regions of the world, placing those areas at greater risk for poor outcomes, including increased poverty, environmental degradation, and worse maternal and child health. As such, governments will need to adapt to changing family structures and aging populations. The distribution of live births is shifting, with a larger proportion occurring in the lowest-income countries, particularly in parts of Africa (Bhattacharjee et al., 2024). Moreover, while the decline in fertility indicates a decrease in the average number of children per woman, it does not necessarily mean that the average number of children among mothers is significantly lower. In some countries, decreased fertility rates are strongly driven by the rise in childlessness (Herlofson & Hagestad, 2011; Kreyenfeld & Konietzka, 2017).

In the following sections, we explore the economic, cultural, and biological drivers of low fertility, the impacts of declining fertility rates on families and societies, and key regional differences in fertility trends. We conclude with a review of policies aimed at increasing fertility in regions below replacement levels and decreasing fertility where high fertility rates negatively affect families.

Reasons for Global Decline in Fertility

The global decline in fertility is driven by numerous socioeconomic, cultural, and biological factors. Foremost among these is the rise in women's empowerment through increased access to education and participation in the labor force (Pourreza et al., 2021). Empirical research indicates that as women attain more years of education and enter the workforce in higher numbers, they increasingly choose not to have children or, at the very least, delay the age at which they start their families (Zabak et al., 2023). Women's empowerment is also linked to higher rates of contraception use, shifts in social norms surrounding childbearing, and improved child health (Roser, 2024), along with declining rates of child mortality, a point we explore later in this report.

The rising costs and challenges associated with raising children also play a significant role in fertility rates (Martin, 2020). Families are increasingly burdened by the difficulties of balancing work and family demands. As more women enter the labor market, these stressors are amplified, particularly in high-income countries where many families rely on dual incomes to meet the cost of living (Leonce, 2020). In low- and middle-income countries (LMICs), children can increase a family's vulnerability to poverty. The financial strain of raising children, combined with a lack of quality childcare options, often forces women out of the labor market (Keck & Saraceno, 2013). As a result, families facing reduced income and increased childcare demands may choose to limit the number of additional children.

Access to contraceptives[2] and an increased focus on family planning have also contributed to declining fertility rates. Modern contraceptives have led to significant fertility declines across the United States and many European countries (Bongaarts, 2015). As other countries have expanded women's access to contraceptives, they too have seen similar declines in fertility rates (Götmark & Andersson, 2023). Notably, access to contraceptives and family planning helps reduce unintended and high-risk pregnancies, as well as maternal and infant mortality.

Fertility declines are also influenced by a rise in infertility (Fauser et al., 2024). Globally, an estimated 48 million couples and 186 million individuals are affected by infertility (The Lancet Global Health, 2022). Part of this infertility is due to declining sperm counts, which have contributed to an increased prevalence of male infertility (Okonofua et al., 2022). Causes and risk factors associated with infertility include genetic and medical conditions, health behaviors (e.g., smoking), age, and exposure to environmental contaminants (Fauser et al., 2024).

Impacts of Low Fertility

Decreases in fertility have numerous impacts on communities at large, as well as on individual families. At the societal level, declining fertility rates lead to slower population growth. While the global population is still expected to increase from the current 7.6 billion to 9.8 billion by 2050, if the TFR remains below 2.1, population growth will reverse course, and the population will begin to shrink, albeit slowly (Trask, 2020). Moreover, with fewer live births, the global population will increasingly

[2] For the purpose of this report, we defined access to contraceptives broadly to include access to any modern method, including sterilization, IUD, implant, injectable, pill, condom, vaginal barriers, emergency contraception, or other (e.g., contraceptive patch or vaginal ring) (Götmark & Andersson, 2022).

resemble an inverted pyramid, with more individuals in the older age groups and far fewer infants, children, and working-age adults. On one hand, a smaller population could alleviate pressure on food systems, fragile environments, and other finite resources (Vollset et al., 2020). On the other hand, an aging population with fewer children poses significant economic and fiscal challenges, including reduced GDP growth. Other impacts of a growing aging population are discussed in a later section.

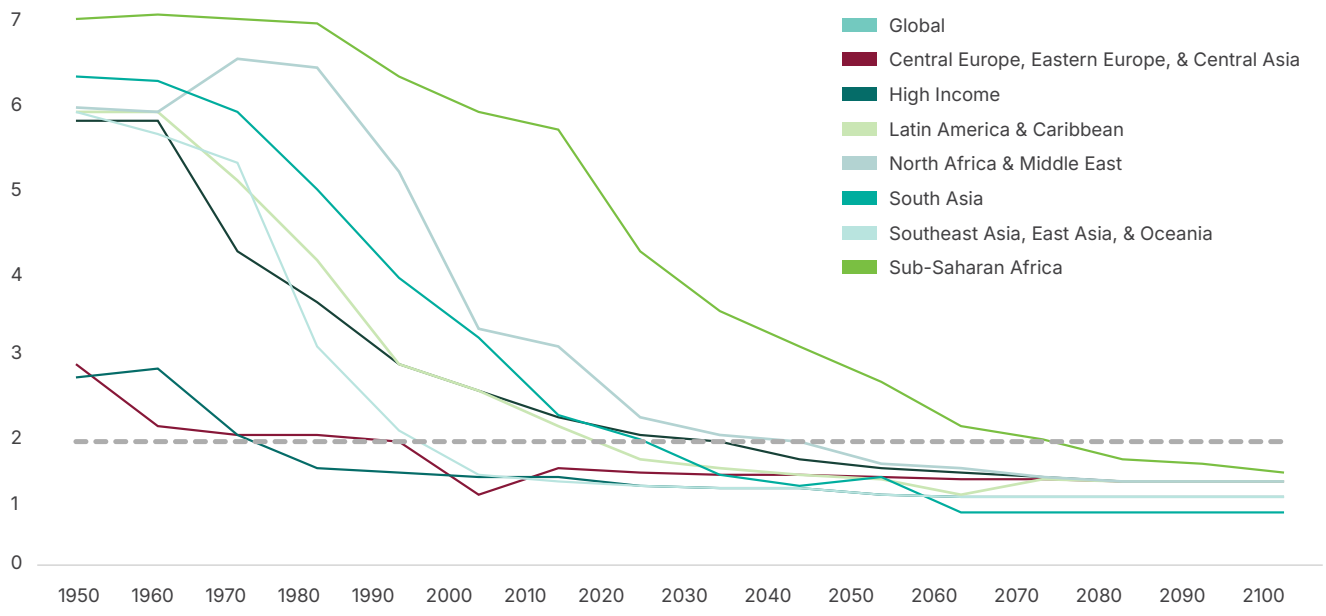
Lower fertility rates also affect family and household size, as fewer children lead to smaller families with fewer siblings and relatives over time (Esteve et al., 2024). This may decrease intra-household competition for resources, potentially leading to delayed transitions to adulthood and elevated levels of intergenerational co-residence in some contexts, a concept addressed later in this report. As fewer children are born, families tend to invest more care and resources into each child (Chi & Qian, 2016), which may reduce child poverty. In general, children born into smaller families tend to have better health, longer life expectancies, more years of education, and more economic stability relative to children born to larger families (Buchanan, 2014).

However, there is concern about potential deficits in family social capital, meaning that individuals may have fewer family members available to provide support or share resources (UNDESA, 2023). For example, caregiving responsibilities—particularly for women—may shift from caring for children to caring for Since aging relatives may live in separate households, this form of care can be resource-intensive, especially when there are fewer young people to share the workload.

Regional Differences in Fertility

Stark regional contrasts in TFR persist, despite most countries experiencing rapid declines in fertility rates. As shown in Figure 1, many countries have fallen below the 2.1 replacement level, while others, particularly in Eastern and Western Africa, continue to have TFRs in the range of 4-5.

Figure 1 Total Fertility Rate, Globally and by Region, 1950-2100



Note. Adapted from "Global fertility in 204 countries and territories, 1950–2021, with forecasts to 2100: a comprehensive demographic analysis for the Global Burden of Disease Study 2021," by GBD 2021 Fertility and Forecasting Collaborators, 2024, The Lancet, 403(10440), 2057–2099.

Europe, Asia, the Americas, and Oceania.

Most of the world is experiencing rapid declines in fertility, particularly in Europe, Asia, the Americas, and Oceania. By 2017, these regions had TFRs that had already fallen below the replacement level (Vollset et al., 2020) and are expected to see continued declines in the coming decades. For example, China's TFR is projected to fall to 1.42 by 2030. By 2100, the United States is expected to have a TFR of 1.53, while Indonesia, Japan, and Russia will also remain below the replacement level. In fact, by 2100, only a handful of countries—primarily in Africa—are predicted to remain above replacement level. The most severe declines are forecasted in South Asia, Southeast Asia, East Asia, Central Asia, Oceania, Central Europe, and Eastern Europe.

Gulf States and Arab Nations. All Gulf States and Arab nations are currently experiencing declines in fertility (Table 1). By 2012, nearly half of the world's top 15 fertility declines had occurred in Arab nations (Inhorn, 2022). For example, Oman experienced a 62% decline in fertility from 1988 to 2008 (Islam, 2020). Similarly, the TFR in Saudi Arabia dropped from 4.9 children per woman in 2000 to 2.7 in 2016 (Al-Khraif et al., 2020). In this region, part of the fertility decline may be attributed to an increase in expats and foreign nationals living in the Gulf States, many of whom are single men working in the oil industry (Elessawy, 2024). Moreover, there are significant differences in fertility rates between local and foreign-born residents. Local women in the Gulf States often still have large families (4+ children), while foreign-born expats tend to have smaller families (below the 2.1 replacement level). High fertility rates among the local population remain a concern and a policy priority for many countries in the region.

Table 1 Total Fertility Rates in Select Arab Countries, 1960-2020

Year	Egypt	Jordan	Tunisia	Morocco	Algeria	Saudi Arabia	Kuwait	Oman	Bahrain
1960	6.1	6.8	7.1	7.2	7.3	7.2	7.3	7.2	7.1
1970	5.2	7.1	6.5	7.1	7.4	7.3	7.2	7.2	6.7
1980	5.2	7.3	5.3	6.9	7.3	7.3	7.2	7.2	5.7
1990	3.5	5.8	3.7	4.5	5.1	7.0	6.2	6.5	4.8
2000	3.3	3.8	2.5	3.1	2.7	4.0	4.9	6.2	3.5
2010	2.9	3.8	2.1	2.6	2.8	3.2	-	3.7	2.7
2020	2.9	2.6	1.9	2.4	2.9	2.5	3.0	3.5	2.0

Note. From "The Fertility Revolution of the Arab Countries Following the Arab Spring," by O. Winckler, 2023, Middle East Policy, 30(4), 26–41.

Cultural changes are also partially responsible for the fertility decline. These changes include the increased use of contraceptives,[3] more women entering the labor market, a shift towards Western norms, a delay in the age of marriage, or more women choosing not to marry, and a growing willingness among families to have fewer children (Al-Khraif et al., 2020; Elessawy, 2024). It is important to note that while families in the Gulf States may be more willing to have fewer children compared to previous decades, many still express a desire for larger families. However, the cost of raising a family often forces them to have fewer children than they would prefer (Elessawy, 2024).

Africa. The highest fertility rates in the world are reported in Africa, particularly in sub-Saharan countries. The pooled estimate of sub-Saharan Africa's overall fertility rate from 2010–2018 was 5.0 children per woman (Tesfa et al., 2023). This estimate is further stratified by urbanicity, with the TFR in urban areas significantly lower (3.90 children per woman) compared to rural areas (5.82). Regional variations are also notable: East Africa (4.74), Central Africa (5.59), Southern Africa (3.18), and Western Africa (5.38). Additionally, TFRs are highest in low-income African countries, averaging 5.45. Importantly, sub-Saharan Africa, North Africa, and the Middle East are the only regions in the world expected to have higher populations in 2100 than in 2017 (Vollset et al., 2020). These population increases will largely be driven by fertility rates, as all other regions are forecasted to experience substantial population declines in the coming decades.

The high fertility rates in Africa, particularly in the poorest countries, place extreme burdens on an already vulnerable region. Empirical evidence suggests that during times of high fertility, maternal and child mortality rates remain high (Montgomery & Cohen, 1998).

High fertility is associated with poorer maternal and child health, slower economic growth, and accelerated environmental degradation (Lee & Mason, 2009; Montgomery & Lloyd, 1996; Sarkodie, 2018). Moreover, more children require more care, which leads parents—particularly mothers—to spend more time caring for children, limiting their ability to participate in the labor market.

The reasons for the high fertility rates in Africa are largely the inverse of those driving the global fertility decline: a lack of women's empowerment and lower use of contraceptives and family planning. In terms of women's empowerment, many countries in Africa, especially in sub-Saharan Africa, have the fewest years of education for girls and women. Education rates in sub-Saharan Africa are generally low, with over one-fifth of all children between the ages of 6–11 not attending formal schooling (UNESCO, 2016). By the ages of 15–17, almost 60% of youth are not attending school, with the rates even more striking for girls. Across sub-Saharan Africa, approximately 9 million girls aged 6–11 will never attend school, compared to 6 million boys. By adolescence, 36% of girls are not enrolled in school. Given the strong link between women's education and fertility rates, improving education for girls in sub-Saharan Africa is a major policy priority.

Contraceptive use is also significantly lower in sub-Saharan Africa compared to the rest of the world. Only about 22% of reproductive-age women who are married or living in a union use modern contraceptive methods in sub-Saharan Africa, compared to 86% in East Asia and 72% in Latin America and the Caribbean (Tesfa et al., 2023). Globally, about 50% of all women of reproductive age use some form of contraception, compared to only 29% in sub-Saharan Africa.

[3] In the Gulf States and Arab countries, familiarity with female contraceptives (e.g., the oral pill) has increased, such that between %98-90 of married Arab women report knowledge about at least one modern contraceptive method. Additionally, although condoms are often negatively perceived by Arab men, many support the use of withdrawal (Inhorn, 2022).

Policy Implications

Globally, countries vary in their approaches to fertility policies: 69 governments have adopted policies to lower fertility, 55 have implemented policies to raise fertility, 19 are focused on maintaining current fertility rates, and 54 do not have an official fertility policy (United Nations, 2021). Nearly all countries with high fertility (above a 5.0 TFR), as well as many with intermediate fertility, have policies aimed at reducing fertility levels closer to the replacement level of 2.1, primarily through women's empowerment, family planning, and access to contraceptives (United Nations, 2021).

Importantly, there has been a general shift away from coercive policies[4] to more family-friendly approaches that promote personal choice. These family-friendly policies typically aim to (a) raise the age of marriage or union formation, (b) delay the age of the mother at the time of her first birth, and/or (c) increase the spacing between successive births (United Nations, 2021). For example, some countries have enacted policies to raise the age of marriage and the age at first birth by providing school-based sex education and increasing rates of secondary school enrollment and retention among girls and young women. Additionally, given the relatively low contraceptive use in high-fertility regions, 90% of countries in these areas offer family planning services and contraceptive methods through public programs or financial support to non-governmental sources. None of these governments have policies restricting access to contraceptives.

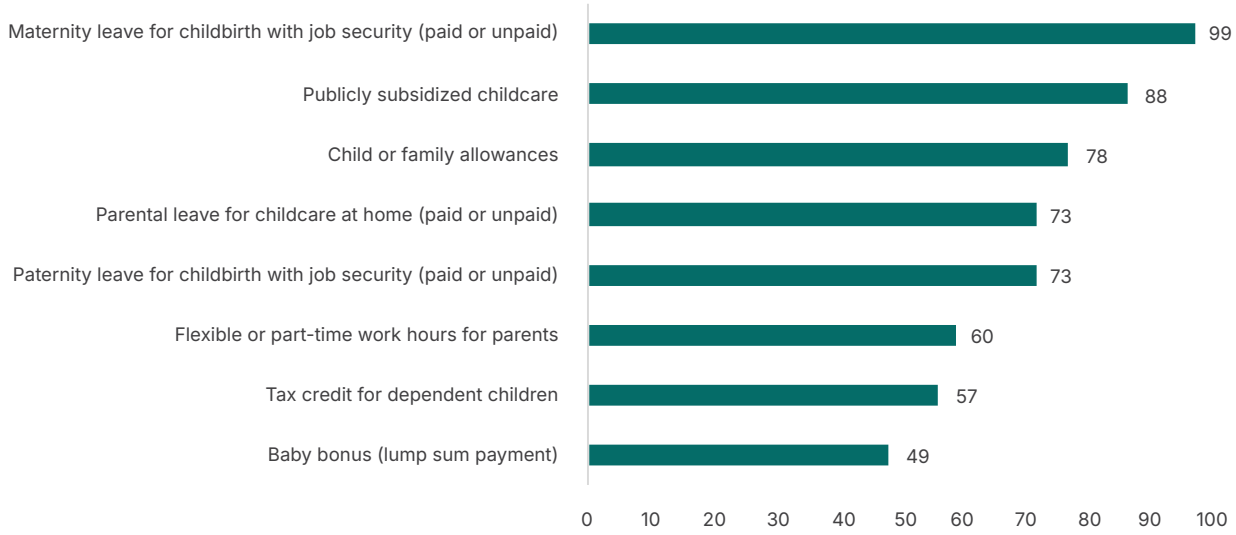
In low-fertility regions, policy priorities shift toward raising fertility closer to the replacement level through family-friendly measures, such as paid parental leave, childcare, increased access to fertility treatments, and cash transfer programs (Figure 2). Parental leave policies include paid maternity leave, paternity leave, and extended leave periods, typically until the child reaches age eight. All low-fertility countries, except for the United States, have policies ensuring paid or unpaid maternity leave for childbirth with job security. Perhaps the most comprehensive and consistent parental leave policies are found in the European Union (EU), which is also the region with the most fertility-relevant policies. Currently, both maternity leave and parental leave are regulated at the EU level. The EU Pregnant Workers Directive (Directive 92/85/EEC) sets minimum provisions for maternity leave of 14 weeks at the level of sick pay. Member States must also provide at least 4 months of parental leave per parent (paternity leave is not yet regulated at the EU level).

Empirical evidence suggests that expansions in parental leave positively impact fertility, though high-earning couples tend to benefit the most from such policies (Bergsvik et al., 2021). Provisions for maternity leave have also increased in the Middle East. For example, between 1994 and 2009, maternity leave was extended from 45 to 60 days in Bahrain, from 90 days to 4 months in Iran, and from 50 days to 120 days (first child only) in Syria (Mehdizadeh, 2015).

Childcare expansions have also been shown to increase fertility and reduce social inequalities. Globally, 88% of low-fertility countries have adopted measures to publicly subsidize childcare. Additionally, 78% provide child or family allowances, and over half offer flexible or part-time work hours for parents, as well as tax credits for dependent children.

[4] An example is China's One-Child Policy, implemented from 2015-1979, which allowed each couple to have only one child with few exceptions. In contrast, an example of a coercive policy to increase fertility was the radical pronatalist policy enacted under President Nicolae Ceausescu in Romania from 1989-1965 that outlawed all forms of contraception and banned abortion, except for women older than 45 who had at least five children who were still minors.

Figure 2 Percentage of Governments in Low-Fertility Countries with Policy Measures to Improve Work/Family Balance, 2015-2019



Note. Data refer to 82 countries or areas with below replacement fertility during 2015-2019. Multiple responses possible. From "World Population Policies Related to Fertility 2021 Policies," by United Nations, 2021.

The evidence for cash transfer programs, in which governments provide cash to individuals or households in vulnerable communities, has been mixed, with most programs only showing temporary effects (Churchill et al., 2023). In contrast, empirical evidence shows significant positive effects on fertility through the provision of infertility treatment (Bergsvik et al., 2021). Subsidizing assisted reproductive treatments through mandated insurance coverage can increase birth rates by 32% for women over age 35 (Schmidt, 2005).

Finally, countries experiencing steep declines in fertility may be able to partially offset the decrease in working-age adults through immigration-friendly policies, particularly by encouraging migration from high-fertility regions to low-fertility regions as a way to balance population levels (Bhattacharjee et al., 2024). Importantly, immigration policies aimed at addressing low fertility should be implemented ethically and thoughtfully, both to protect immigrants from exploitation and to minimize negative impacts, such as political and social tensions or workforce loss in the immigrants' home countries.

Most demographers agree that even with pro-natal and family-friendly policies, fertility rates will remain low. While these policies may help increase fertility rates closer to the 2.1 replacement level, they are unlikely to prevent long-term population decline. As such, governments must address the broader impacts of low fertility, including an aging population and a shrinking workforce. In subsequent sections of this report, we review policies relevant to aging populations and changes in household composition.

CHANGING
PARTNERING PATTERNS

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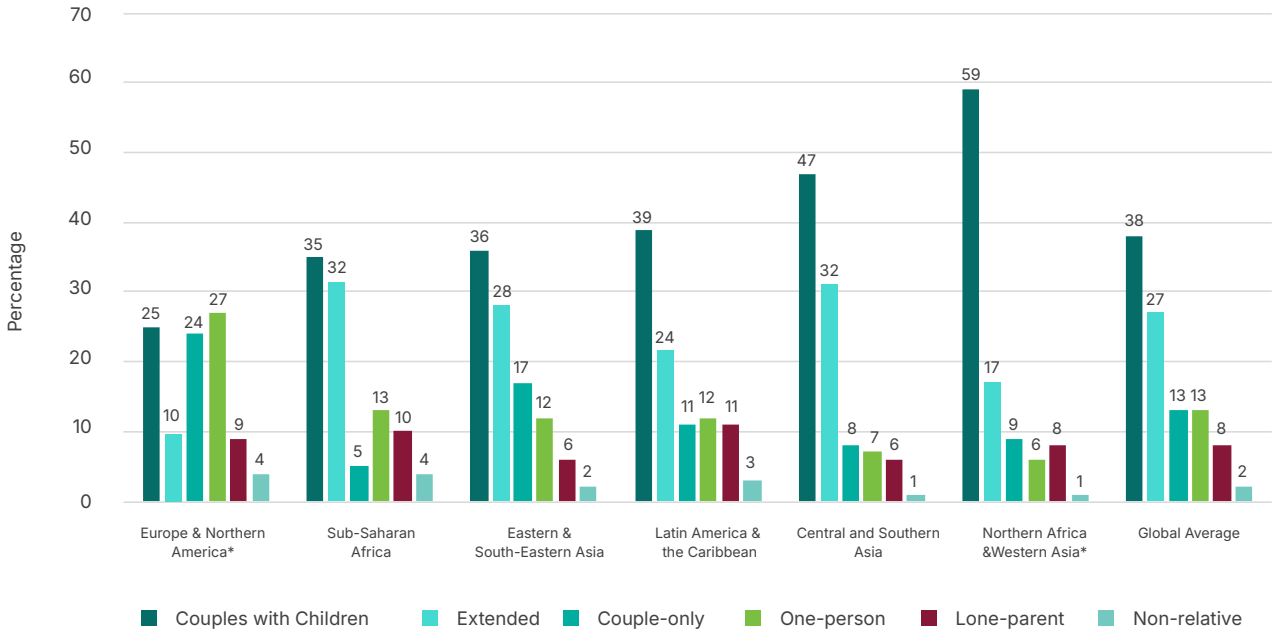
Many demographic changes occur gradually over time, but global shifts in marriage and partnering have taken place rapidly since the 1950s (Furstenberg, 2014; Hayford et al., 2014). Couples with children make up the largest share of household types globally (38%, see Figure 3), followed by households with extended family members (27%; UN Women, 2019a). However, in many countries, marriage is becoming less common, while divorce and cohabitation are on the rise.

There are notable regional differences in partnering patterns. For instance, although globally more than 1 in 3 households are families with children, in Northern Africa and Western Asia, couples with children account for over half of household types at 59% (UN Women, 2018). This contrasts with Europe and North America, where only 1 in 4 households include families with children.

Figure 3 Proportion of Households by Type: Global and Regional Averages



Note. Regional values calculated by UN Women using published country-level estimates from UNDESA 2022. For this analysis, data on China are based on estimates produced and published in Hu & Peng 2015. Regional estimates marked with an asterisk (*) are based on less than two-thirds of their respective regional population and should be treated with caution: Europe and Northern America (41.0 per cent of the population) and Northern Africa and Western Asia (36.1 per cent of the population). Global and regional distributions of households by type may not total 100 due to rounding. Population coverage was insufficient for Oceania and therefore not shown. From "Household Types: Global and Regional Averages," by UN Women, 2019a.

In many countries, particularly those in the OECD, there is an increasing decoupling of marriage and parenthood (Hayford et al., 2014; Ortiz-Ospina & Roser, 2020), along with a related rise in single-parent households. Compared to other global demographic trends covered in this report, data on family composition—including marriage, divorce, cohabitation, and household structure—are notably lacking in low- and middle-income countries (LMICs; Pesando, 2018). In the following section, we briefly explore some of the reasons behind these global trends, highlight regional differences where data are available, and discuss the related policy implications for families.

Reasons for Changing Marriage Rates and Regional Differences

Decreases in overall marriage rates are generally driven by three main factors that also contribute to declines in fertility: increased contraceptive use, higher female participation in the labor market, and younger people delaying the age of marriage (UN Women, 2019a). Between 1990 and 2010, the age at first marriage for women rose in every region of the world (UN Women, 2019a). Similarly, during that same period, the proportion of women aged 45-49 who had never married increased across all world regions, indicating that a larger number of women globally are not just delaying marriage but may be forgoing it altogether (UN Women, 2019a).

In the U.S. alone, marriages per capita in 1920 were twice as common as in the early 2000s (Ortiz-Ospina & Roser, 2020). Marriage rates peaked just after World War II and again in the early 1970s but are now at their lowest point in recorded U.S. history.

Divorce

The percentage of adults aged 35-39 who were divorced or separated doubled globally from 2% in 1970 to 4% in 2008 (Ortiz-Ospina & Roser, 2020). There is considerable variation in divorce rates between countries, and divorce statistics can be difficult to interpret because they cut across age groups. However, the overall trend suggests that divorce rates may have peaked and are now declining globally in most regions. The specific year in which the divorce peak occurred varies by country and depends on the duration of the marriage being examined (e.g., ten years into marriage, 20 years into marriage). For example, the share of marriages that ended in divorce in England and Wales appears to have peaked in the 1990s, while in South Korea, it peaked in the early 2000s, and in Mexico, it is still on the rise (Ortiz-Ospina & Roser, 2020).

Overall, divorce rates are typically calculated as a percentage of the population rather than as a percentage of the total number of marriages, which can be misleading. Some of the lowest divorce rates (e.g., in Sri Lanka and Guatemala) may also be found in countries with greater societal, legal, and economic barriers compared to other regions of the world (World Population Review, 2023). Changing divorce rates continue to be influenced by cultural norms (e.g., in the Gulf region, Anser, 2013; in sub-Saharan Africa, Clark & Brauner-Otto, 2015), which in turn inform interventions.

Single Parent Households

Globally, single-parent households make up between 6% (in Central and Southern Asia) and 11% (in Latin America and the Caribbean) of household types (UN Women, 2018). The largest increases in single-parent households between 1960 and 2016 have occurred in Colombia and Argentina, while the smallest increases have been seen in Indonesia and India (OWID, n.d.). Overall, 92% of children aged 0-5 who live with a single parent are in households headed by a female parent (Ortiz-Ospina & Roser, 2020).

Regardless of region, single-parent families tend to be more financially fragile, but these risks can be mitigated through effective policy. For example, paid family leave and family allowances have a more positive impact on poverty risk among single-parent households compared to two-parent households across a diverse range of countries (Maldonado & Nieuwenhuis, 2015). Additional policy implications are discussed below.

Cohabitation and Decoupling of Parenthood and Marriage

Cohabitation is more common in many regions than it was 60 years ago. Between 1968 and 2018 in the U.S., for example, the percentage of young adults aged 18-24 living with an unmarried partner increased from 1 in 1,000 to nearly 1 in 10 (Ortiz-Ospina & Roser, 2020). Regional differences in partnering patterns include a rise in cohabitation in East Asia, a sharper-than-global-average decline in North America and Northern Europe, and no significant change in South America (Ortiz-Ospina & Roser, 2020). For instance, in the U.K., 9 in 10 opposite-sex couples who married in 2021 and 2022 in England and Wales lived together prior to marriage (ONS, 2024).

The growth in the number of cohabiting couples in some countries may have important policy implications, particularly regarding shifting beliefs about legal protections for unmarried but cohabiting partners. In a single-country study, nearly two-thirds of those surveyed reported that cohabiting partners should have the same legal rights as married partners (Horowitz et al., 2019).

While cohabitation is the fastest-growing family type in the U.K. (Lawyer Monthly, 2020) and is becoming increasingly popular in many countries, including the U.S. and China, it is still considered socially unacceptable in certain areas, often due to cultural and religious norms. This is evident in some European countries with low rates of cohabitation among women aged 25-29 (e.g., Belarus, 9%; Poland, 7.7%; UN Women, 2018). Additionally, cohabitation is not legal everywhere (Bisset, 2022; Isaacs, 2024; Lawyer Monthly, 2020; Popoola & Ayendele, 2019), leading to prevalence rates of less than 1% of the adult population in countries like Egypt, Saudi Arabia, and Indonesia (DeRose, 2011). Consequently, such countries are not expected to experience any major shifts in cohabitation trends (Lesthaeghe, 2020), even in the face of newer trends such as delayed marriage age or declining marriage rates (Rashad et al., 2005).

Considering the combined impact of declining marriage and increasing cohabitation, the overall trend is one of only a modest decline in formal partnering. Additionally, the share of children born outside of marriage—regardless of household type—increased in almost all OECD countries between 1960 and 2014, with the sharpest rise occurring around 1990 (Ortiz-Ospina & Roser, 2020).

Although much research has been conducted on the impact of different family structures on child well-being, the results are mixed and do not always account for within-region differences. For example, some studies have shown that children from single-parent households and stepfamilies experience more adjustment difficulties (e.g., internalizing and externalizing behaviors) compared to children in two-parent households, but much of this difference may be mediated by financial strain (e.g., socioeconomic status) rather than family composition (Grüning Parache et al., 2023). Research is also limited in scope, primarily including participants from Europe and North America, and often fails to consider multiple aspects of child well-being.

Because the focus of this report is on how parenting and partnering trends impact children and families—not solely on the direct impact of the partnering practice itself, which has been extensively studied—our policy implications highlight aspects of family life that are of concern across all family types.

Policy Implications

As noted above, policy responses to changing family compositions must be informed by evolving trends, which may differ by region. Some key considerations and priorities put forth by the United Nations include: (1) enacting family laws that recognize diverse family structures (e.g., single, divorced) and promote gender equality; (2) ensuring high-quality and accessible public support for families; (3) promoting women's access to sufficient and independent income; and (4) supporting family members who provide care (UN Women, 2019b).

For example, laws governing marriage, divorce, child custody, adoption, and inheritance often include provisions based on gender. These provisions can limit the rights of women, which is particularly relevant given the rise of single-mother households, declines in marriage rates, and increases in cohabitation without marriage. Moreover, as family compositions change, public support systems (e.g., education, healthcare) and efforts to promote women's access to income play vital roles in supporting families and advancing equity. When a family has adequate income, all its members are more likely to thrive.

Finally, as individuals live longer and families have fewer members, the burden of providing care intensifies, especially for women. Policies such as parental leave, cash benefits that allow informally self-employed workers to take time off, and leave provisions for those caring for older family members or individuals with disabilities can support caregivers and reduce the burden of providing care.

MATERNAL
AND CHILD MORTALITY TRENDS

5

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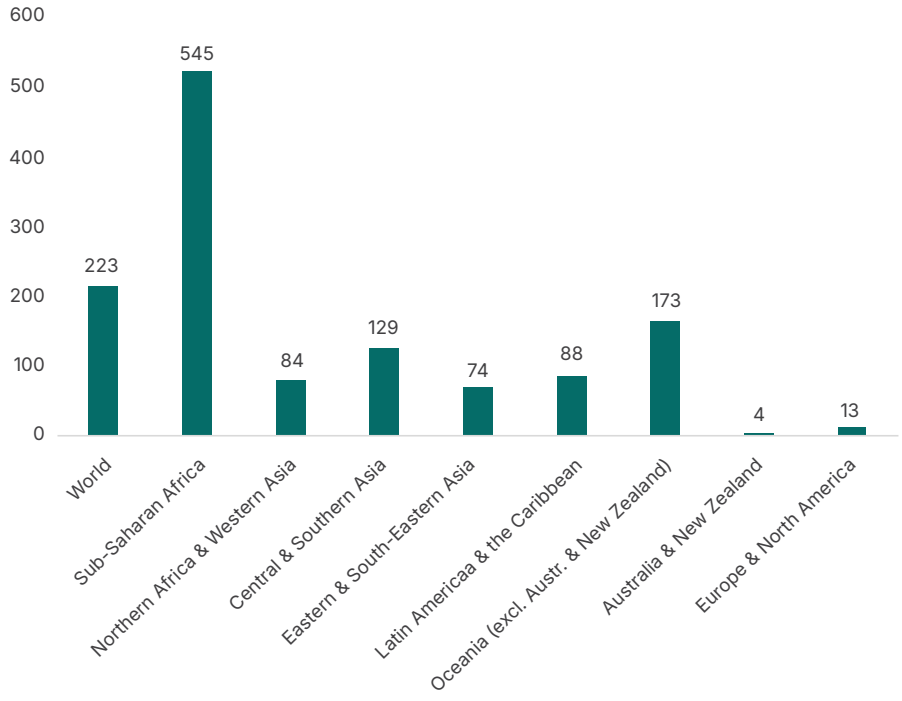
Maternal and child mortality rates have been a global priority since the introduction of the Millennium Development Goals (MDGs; 1990-2015) and the Sustainable Development Goals (SDGs; 2015-2030). As a result of this focus, global rates of maternal and child mortality have declined considerably (Boerma et al., 2018; Hogan et al., 2010; Ronsmans & Graham, 2006). Maternal mortality rates decreased from 342 maternal deaths per 100,000 live births in 2000 to 211 per 100,000 in 2017 (UNFPA, 2000). Similarly, during the MDG era, there was a 53% decline in under-five child mortality from 2000 to 2015, although most countries did not meet their mortality targets (Khodaei et al., 2015). The SDGs aim to reduce the under-five mortality rate to no more than 25 per 1,000 live births in every country by 2030. Notably, rates of maternal and child mortality are highly correlated, and the factors that contribute to changes in these rates tend to be similar. Moreover, policies addressing each form of mortality are often the same. For these reasons, this report includes a combined discussion of maternal and child mortality.

Although rates of maternal and child mortality have declined globally, they remain unacceptably high; without significant effort, the SDG targets will not be met. In 2020, approximately 287,000 women died during or following pregnancy and childbirth (World Health Organization, 2023a). In fact, nearly 800 women die each day from complications related to pregnancy and childbirth, which equates to one woman every two minutes.

Annually, there are 4.9 million under-five deaths, equivalent to 6,300 per day (UNICEF, 2023b). Overall, 1 in 27 children die before reaching their fifth birthday (UNICEF, 2021). Furthermore, rates of maternal and child mortality differ significantly between regions, with the lowest rates occurring in Western Europe and North America, while the highest proportion of deaths occurs in sub-Saharan Africa (Figure 4).

Figure 3 Regional Maternal Mortality Ratio Estimates in 2020



Note. Adapted from "Maternal Mortality," by Word Health Organization, 2023a.

Impact of Maternal Mortality

Maternal mortality exerts profound effects on families, particularly on surviving children. Children whose mothers have died are at increased risk of child labor, poor learning outcomes, lower educational attainment, disrupted living arrangements, and, for girls, early marriage and childbearing (Bazile et al., 2015; see Child Marriage section below). Moreover, newborns and young children may suffer from malnutrition, impacting their growth and survival. Maternal mortality also exacerbates gender inequality within families, as surviving daughters and other female relatives often take on childrearing responsibilities, leading many to drop out of school and refrain from entering the workforce (Bazile et al., 2015; Moucheraud et al., 2015). Finally, following a maternal death, family fragmentation is common. Specifically, when fathers remarry, family disputes and conflicts can increase (Molla et al., 2015).

In the sections that follow, we discuss the reasons behind declining maternal and child mortality rates—including important regional differences—and the factors that moderate the relationship between geographical region and mortality rates. We conclude this section with a detailed overview of global and regional policies and initiatives aimed at reducing maternal and child mortality rates.

Reasons for Global Decline in Maternal and Child Mortality Rates

The leading causes of maternal death are hemorrhages, hypertensive disorders, unsafe abortions, malaria, and HIV/AIDS in some regions (Clark et al., 2008; Paulson et al., 2021; Say et al., 2014). The causes of child mortality include preterm birth complications (15%), pneumonia (15%), intrapartum-related events (11%), and diarrhea (9%) (Liu et al., 2015). Although progress in reducing maternal and child mortality rates has been slower than the targets set by the MDGs and SDGs, considerable declines in mortality have still been observed globally, largely due to expanded healthcare access and women's empowerment.

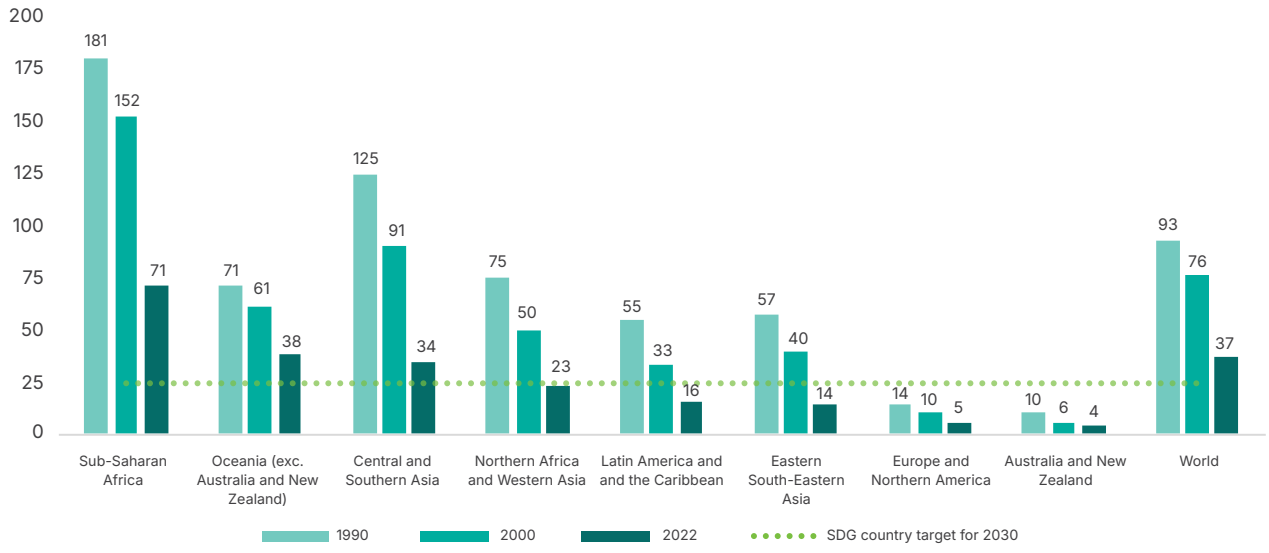
Reductions in maternal and child mortality are linked to increased healthcare access, particularly financial coverage and access to four crucial stages of care: reproductive health (family planning), maternal and newborn care, immunization, and management of child illness (Boerma et al., 2018). Empirical evidence suggests that all four stages of continued care are vital for reducing maternal and child deaths. For example, family planning and access to contraceptives have consistently been shown to reduce maternal deaths (Stover & Ross, 2009). One study estimated that the current contraceptive use rate decreases maternal deaths by approximately 44% annually, while satisfying the unmet need for contraception could prevent another 104,000 maternal deaths per year (an additional 29% reduction; Ahmed et al., 2012). The greatest impact is on the reduction of high-risk pregnancies, particularly high-parity births (Stover & Ross, 2009). Additional healthcare interventions that have decreased maternal and child mortality rates include access to birthing hospitals, the use of community health workers, quality prenatal and postpartum care, access to safe and legal abortions, routine immunizations, and broader strategies to promote health (e.g., prevention of infectious disease and access to clean water) (Campbell & Graham, 2006). Although coverage for these interventions is still far from universal, improvements have been made, especially with the increased availability of skilled birth attendants.

Maternal and child mortality is strongly associated with women's empowerment, particularly in terms of educational attainment. For women, lower levels of education are linked to a higher mortality risk during and after pregnancy, even among those who have access to facilities providing intrapartum care (Karlsen et al., 2011). For children, the risk of dying before the age of 5 is 2.1 times higher among children of mothers with no education or only primary education compared to those whose mothers attained secondary or tertiary education (UNICEF, 2023b). Children of mothers who never attended school are at the highest risk of death before age 5. Strikingly, one study estimated that of the 8.2 million fewer deaths among children younger than 5 years between 1970 and 2009, 4.2 million (51%) were attributable to increased educational attainment among women of reproductive age (Gakidou et al., 2010). Other forms of women's empowerment linked to improvements in maternal and child survival include gender equity in access to human capital development opportunities (e.g., land ownership rights), participation in the labor market, and involvement in policymaking (Kangmennaang et al., 2021).

Regional Differences in Mortality Rates

There are considerable regional inequalities in maternal and child mortality rates. Sub-Saharan Africa and Southern Asia have the highest rates, while Western Europe and North America have the lowest (Chao et al., 2018; Hug et al., 2019). For example, in 2020, Sub-Saharan Africa reported 545 maternal deaths per 100,000 live births, accounting for 70% of global maternal deaths, compared to only 4 per 100,000 in Australia and New Zealand (UNICEF, 2023c). The mortality risk is also highest for children in Sub-Saharan Africa and Southern Asia (World Health Organization, 2023b). Sub-Saharan Africa alone accounts for 57% of global under-5 deaths, while Southern Asia accounts for another 26% annually (UNICEF, 2023b). Moreover, children in Sub-Saharan Africa are 18 times more likely to die before their fifth birthday than children in Australia and New Zealand.

Figure 5 Under-Five Mortality Rate, by Sustainable Development Goal Region, 19990, 2000, and 2022



Note. Adapted from "Levels & Trends in Child Mortality," by UNICEF, 2023b.

In contrast, maternal and child mortality rates are lower in the rest of the world. In fact, the lifetime risk of maternal mortality in Western Europe (1 in 11,000) is approximately 268 times lower than in sub-Saharan Africa (1 in 41). Notably, within the Gulf States, maternal mortality rates are significantly lower than in other neighboring Arab countries. For example, in 2015, the maternal mortality ratios (MMR) in Kuwait and Qatar were 4 per 100,000 and 13 per 100,000, respectively. In comparison, the MMRs in Jordan and Yemen were considerably higher, at 58 per 100,000 and 385 per 100,000, respectively.

Similarly, there are lower documented rates of child mortality in the rest of the world compared to sub-Saharan Africa and Southern Asia. For instance, the under-5 mortality rate in Europe and North America is 5 children for every 1,000 live births, while in Latin America, the rate is 16 children for every 1,000 births. Here again, the Gulf States are faring comparatively well, with relatively low under-5 mortality rates (per 1,000 live births): Bahrain (5.2), Qatar and UAE (7.0), Kuwait (8.1), Oman (9.8), and Saudi Arabia (13.4) (Lansford et al., 2019).

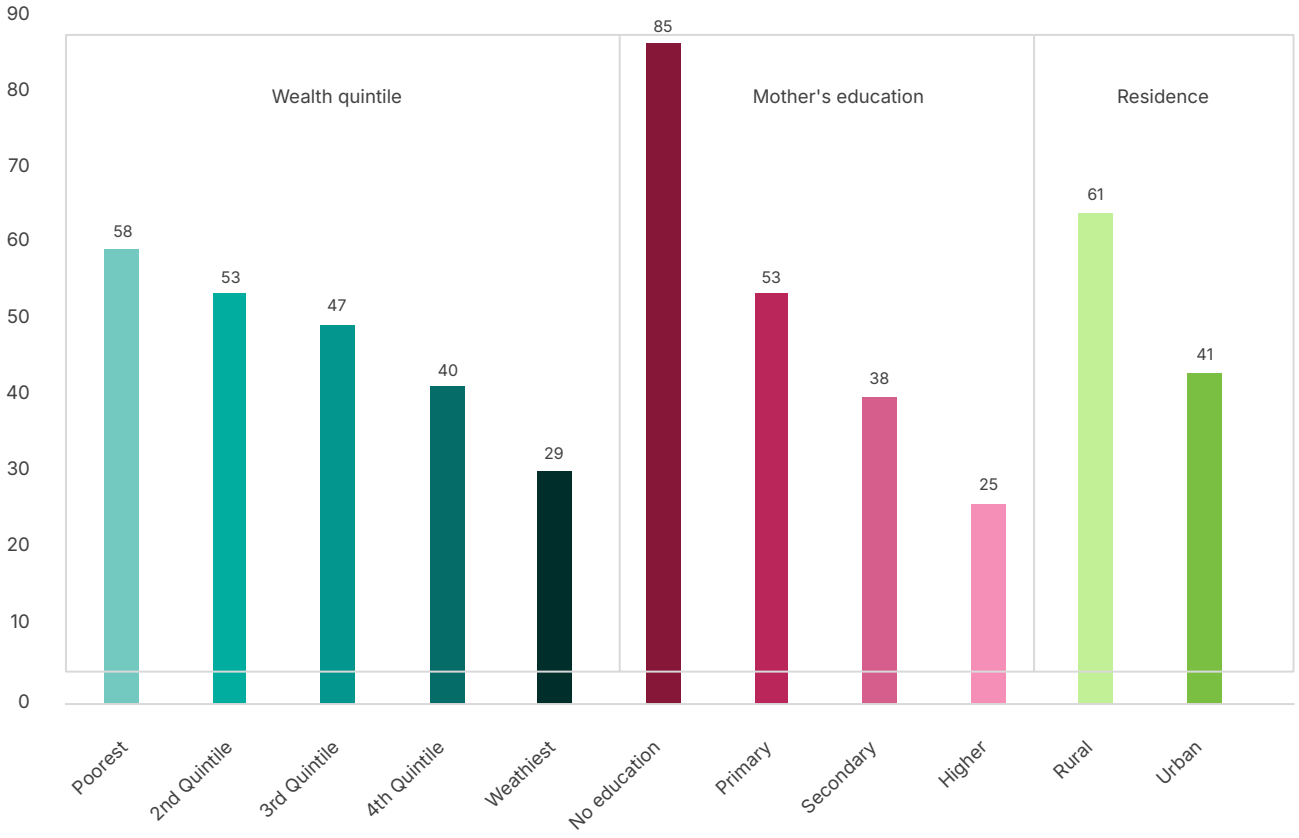
Widespread differences in mortality rates also lead to regional variations in changes over time. Countries with high mortality rates have more room for improvement, while countries with already low rates may experience floor effects. One change worth noting over time is the reported increase in maternal mortality in the United States. According to the National Vital Statistics System, maternal deaths in the U.S. increased by 144% from 1999 to 2021 (Joseph et al., 2024). However, recent empirical evidence suggests that this significant increase was largely a consequence of changes to maternal mortality surveillance (specifically, the addition of a pregnancy checkbox on death certificates) rather than an increase in maternal deaths from direct obstetrical causes. Nonetheless, stark racial and ethnic disparities in maternal deaths remain evident, a point we will address in the next section. Finally, some countries reported an increase in maternal mortality during the COVID-19 global pandemic, although data are still relatively incomplete, hindering our ability to estimate the full impact of the pandemic on maternal mortality (Khalil et al., 2023).

Other Moderators of Mortality

In addition to established regional differences in maternal and child mortality, variations within and between regions also occur due to several factors, including maternal age, maternal race and ethnicity, urbanization, and socioeconomic status (Figure 6). Regarding age, a J-shaped trend exists whereby mortality rates are slightly higher for young mothers (under age 18) than for mothers aged 18-34, with the highest mortality rates found among older mothers (ages 35-40+) (Restrepo-Mendez & Victora, 2014). Rates of mortality also differ considerably based on the race and ethnicity of the mother. For example, in the United States, non-Hispanic Black women have a 2.5-fold higher maternal mortality rate compared to non-Hispanic White women (Hoyert, 2021). Similarly, Black children and American Indian/Alaska Native children have significantly higher mortality rates under the age of 5 relative to other children in the U.S. (Singh & Yu, 2019). These disparities are not unique to the U.S.; evidence from England indicates that Black women are five times more likely than White women to die during pregnancy or within the first year postpartum (Knight et al., 2020). Similar disparities for mothers and infants of African descent have been documented in other countries, such as Brazil and the Netherlands (Matijasevich et al., 2008; Small et al., 2017).

Across the globe, mothers and infants have higher survival rates when residing in urban rather than rural locations. In Egypt, the maternal mortality ratio is more than twice as high in nomadic frontier regions compared to metropolitan areas (Ronsmans & Graham, 2006). Striking differences also occur in Afghanistan; in the capital city of Kabul, maternal mortality is 418 per 100,000 compared to 6,507 per 100,000 in the rural region of Ragh (Ronsmans & Graham, 2006). Similar patterns of rural risk are found in higher mortality regions, such as sub-Saharan Africa, as well as in lower mortality regions, including the United States and China (Liang et al., 2011; Rossen et al., 2022). Relatedly, mortality rates vary considerably based on poverty level or socioeconomic status, both within and between countries. Between countries, child mortality rates are significantly higher in low-income countries compared to higher-income countries. Specifically, child mortality is 65 per 1,000 live births in low-income countries, relative to 44 per 1,000 for lower middle-income, 13 per 1,000 for upper middle-income, and 5 per 1,000 for high-income countries (UNICEF, 2023b). Maternal mortality disparities are even starker, with a lifetime risk of 1 in 49 for low-income countries compared to 1 in 53,000 for high-income countries (UNICEF, 2023c).

Figure 6 Under-5 Mortality Rates



Note. Adapted from "Under-five Mortality," by UNICEF, 2021.

Policy Implications

Health outcomes, including morbidity and mortality, for mothers and their infants are inextricably linked: maternal deaths impact newborn and child survival. Therefore, policies aimed at one tend to impact the other. Ample evidence exists regarding successful policies and strategies to reduce maternal and child mortality. In 2015, the World Health Organization identified five strategic objectives to end preventable maternal mortality: 1) address inequities in access to and quality of sexual, reproductive, maternal, and newborn healthcare; 2) ensure universal health coverage for comprehensive sexual, reproductive, maternal, and newborn healthcare; 3) address all causes of maternal mortality, reproductive and maternal morbidities, and related disabilities; 4) strengthen health systems to respond to the needs and priorities of women and girls; and 5) ensure accountability to improve quality of care and equity.

Meeting these strategic objectives requires prioritizing policies focused on access to critical healthcare services, skilled birth attendants, efforts to increase the use of community health workers, preventive services (e.g., vaccination), improved diagnosis and treatment of key causes of childhood illness, and broader health efforts to reduce malnutrition and disease (e.g., improved water sanitation and a reduction in environmental risks). Considerable progress has been made over the past few decades to improve access to many essential healthcare interventions that have been shown to reduce maternal and infant mortality, including family planning and postpartum care for mothers and infants (Boerma et al., 2018). Unfortunately, many countries are still far from achieving universal coverage for most essential interventions.

Critical healthcare services involve expanded access to sexual and reproductive healthcare (Campbell & Graham, 2006), such as family planning services and access to contraceptives (Ahmed et al., 2012; Stover & Ross, 2009). Yet, even as access to sexual and reproductive healthcare expands, myths and misconceptions about contraceptives persist, dissuading many from utilizing them. For example, Kenya's population continues to grow even as modern contraceptive methods have been introduced; contraceptive prevalence was 46% in 2008-2009, falling short of the 2010 goal of 62% set by the Kenya National Population Policy for Sustainable Development (Ochako et al., 2015). Although young Kenyan women typically possess awareness and knowledge of contraceptive methods, they choose not to use them due to beliefs regarding their side effects.

Women commonly report believing that contraceptives will lead to total or temporary infertility, birth defects, and an inability to menstruate normally. Kenyan women also express concerns that contraceptives cause weight gain and headaches, reduce sexual desire, and raise blood pressure. In deciding whether to utilize contraceptive care, these women often consult their social networks rather than healthcare providers or other professionals (Ochako et al., 2015).

To dispel these myths and promote long-acting reversible contraceptives (LARC), the Tupange project implemented a multifaceted approach. This included not only improving the physical capacity of medical centers for LARC implantation but also enhancing interpersonal communication skills to correct family planning myths and misconceptions. Tupange also engaged community health workers, youth groups, religious leaders, and local radio stations to disseminate information about family planning. As a result, there was a significant increase in the contraceptive prevalence rate, uptake of LARC implants, and a reduction of at least 15 percentage points in common myths and misconceptions over the course of the project (Muthamia et al., 2016). This initiative exemplifies how combining better healthcare infrastructure with targeted education can effectively reduce contraceptive misconceptions and increase their use.

Importantly, coverage of skilled delivery care has increased in many countries with the highest maternal and infant mortality rates, while other countries still show no improvement (Boerma et al., 2018). For example, in many countries in sub-Saharan Africa, median coverage is still below 50% for several critical interventions, including postnatal care for infants (36%), treatment of diarrhea with rehydration salts (43%), basic sanitation services (44%), and family planning with modern methods (48%). Overall, unacceptably high numbers of women and children are not reached with essential services. For example, a recent analysis of deliveries in South Asia and sub-Saharan Africa from 2011 to 2015 estimated that 130 to 180 million births—approximately 42 to 48% of all births—were not attended by a skilled birth attendant (Garces et al., 2019). A study in Ethiopia revealed that only 28.4% of mothers in the study area received complete postnatal care (Akibu et al., 2018). To improve both newborn and maternal care, the Maternal and Newborn Health in Ethiopia Partnership (MaNHEP) employed a community collaborative quality improvement approach. This included training health workers who then educated pregnant women and their caregivers through community maternal and newborn health meetings, enhancing awareness of pregnancy-related procedures and duties, and emphasizing the importance of postnatal care. As a result, the rate of women receiving postnatal care from a skilled provider within 48 hours of birth increased significantly; in the Amhara region, it rose from 5% to 51% (Tesfaye et al., 2014). Overall, increasing and allocating resources toward two critical interventions—care for small and sick newborns and emergency obstetric care—could potentially quadruple returns on investment by reducing both maternal and infant mortality (World Health Organization, 2024b).

Moreover, in high-mortality regions, there is a need to target leading infectious causes. For example, pneumonia, diarrhea, and malaria still kill more than 3 million children each year; however, longstanding treatments for these diseases do not reach 50% of the children who need them (UNICEF, 2022). Given the high burden of infectious disease on children, there is a need to extend healthcare provision beyond the district and health facility level, integrating directly into communities to deliver interventions. Community-based intervention deliveries for the prevention, detection, and treatment of infectious diseases have proven effective. Roll Back Malaria, for example, enabled Africa to achieve its goal of having 80% of households possess at least one insecticide-treated net (Bhutta et al., 2010). The success of such programs highlights the necessity of community-based initiatives to reduce the prevalence of infectious diseases and improve health outcomes for children worldwide.

Beyond increased access to safe and reliable medical care, policies to reduce maternal and infant mortality must invest in women's empowerment, particularly by enhancing women's agency and ability to make strategic life choices (Kangmennaang et al., 2021). These policies include raising female education levels, encouraging later marriage, increasing access to the labor market, and promoting more women in political positions. For instance, studies suggest that a one-year increase in a mother's education is associated with a 7-9% reduction in child mortality among those under the age of 5 (Gakidou et al., 2010). To date, the global mean number of years of education for women increased from 3.5 years to 7.1 years between 1970 and 2009. Researchers estimate that this increase in education was responsible for 4.2 million fewer deaths in children under the age of 5, thus underscoring the vital role of women's empowerment in maternal and child survival.

BURGEONING
YOUTH POPULATION

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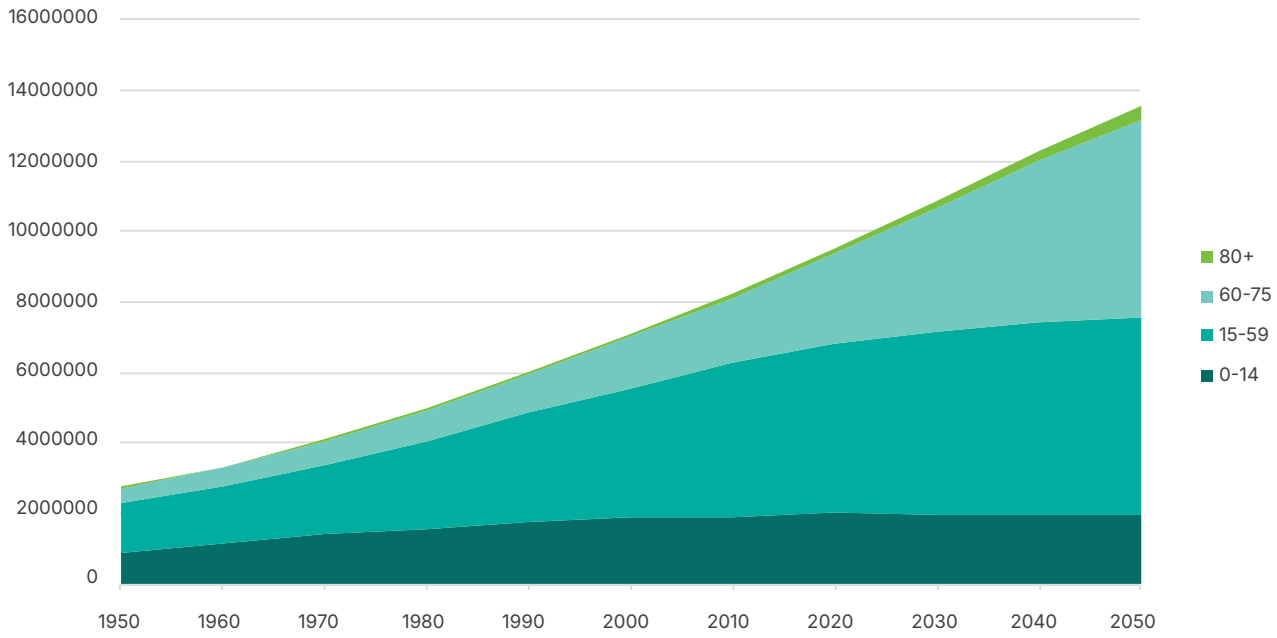
The world is currently experiencing one of the largest growth periods of the adolescent population in human history. Numbering 1.2 billion, young people aged 15-24 years (defined as “adolescents” and “youth” here, according to the United Nations) make up more than 16% of the world’s population (United Nations, 2022a). By 2030, the target date for the UN’s Sustainable Development Goals (SDGs), the number of youth is expected to grow to 1.3 billion worldwide (Trask, 2024).

In many regions, including Latin America and the Caribbean, Europe, North America, and Oceania, youth populations have peaked and are expected to remain relatively stable over the next few decades (United Nations, 2015). Asia is anticipated to continue experiencing a decline in this age group through 2060, although it will still represent the largest share of the adolescent population worldwide. By contrast, the adolescent population in Africa is growing rapidly. In 2015, adolescents living in Africa accounted for nearly 20% of the world’s adolescent population, and the number of adolescents in Africa is expected to double between 2015 and 2055.

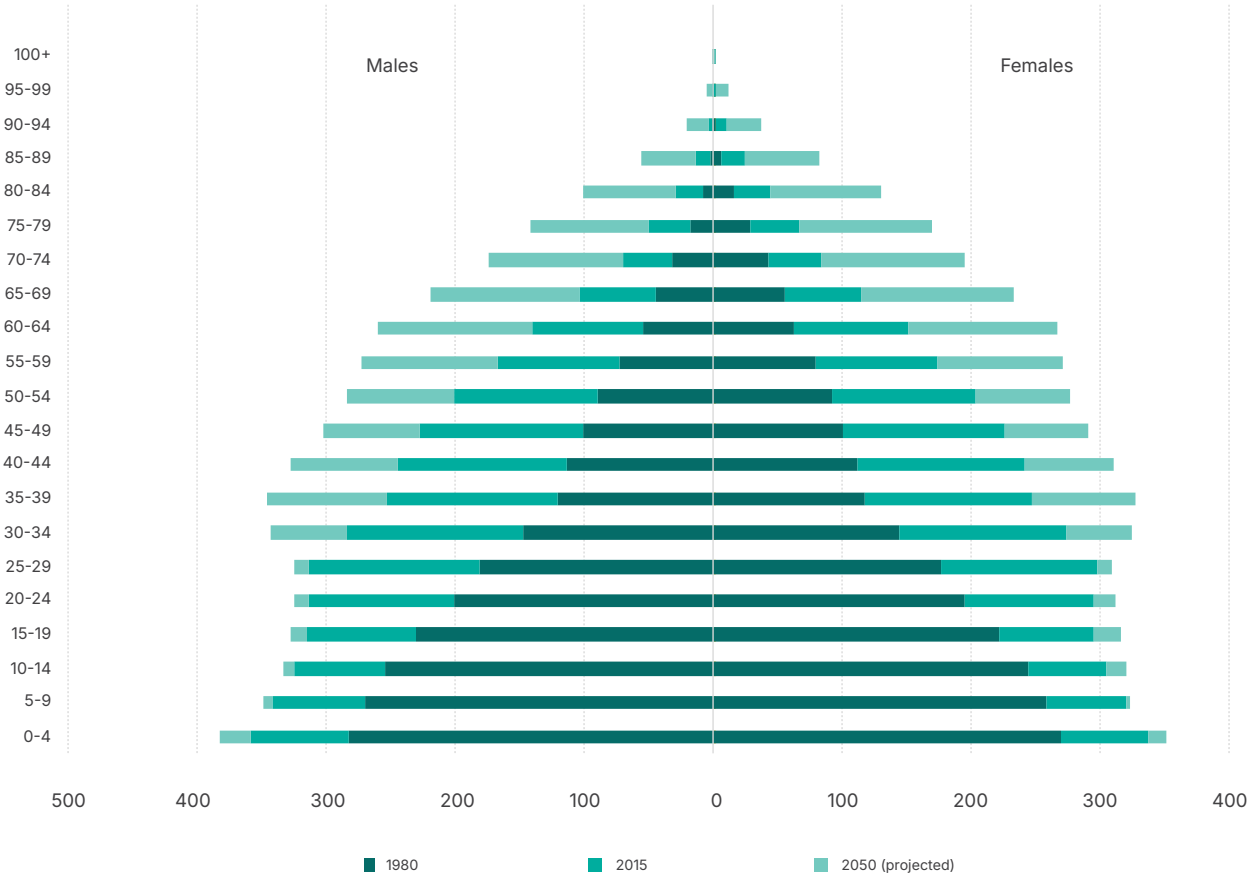
In the Middle East and North Africa (MENA), youth currently represent approximately 17% of the total population, but the growth rate of the youth population is expected to slow. The total number of youths is anticipated to peak at 100 million by 2035 and then steadily decline (Assaad & Roudi-Fahimi, 2007).

Figure 7 World Population by Age Group 1950-2050



Note. Used medium-variant data for 2024 onwards. Adapted from "World Population Prospects 2024 Standard Projections: Population by Select Age Groups Both Sexes," by United Nations, 2024.

Figure 8 World Population by Age and Gender 1980, 2015, and 2050



Note. Used medium-variant data for 2050 projection. Adapted from "World Population Prospects 2024 Standard Projections: Population by Select Age Groups Male; Population by Select Age Groups Female," by United Nations, 2024.

In the following sections, we describe two main drivers of the burgeoning youth population: fertility and migration. We also highlight the potential positive societal impact of a growing youth population in the coming decades, often referred to as a "demographic dividend." Following this, we discuss several impacts of a growing youth population and the importance of equitable access to societal benefits (e.g., healthcare and employment), along with related policy implications.

Reasons for Burgeoning Youth Population

Fertility. As described above, the proportion of the population represented by adolescents varies widely by region. In general, high fertility rates, when coupled with falling infant and child mortality rates, lead to a "youth bulge" in the subsequent two decades. This phenomenon is evident in sub-Saharan Africa, MENA countries, and South Asia. In parts of the world where fertility rates began to decline in the early 2000s (e.g., Europe, North America, and Oceania), we now see the "youth bulge" beginning to stabilize.

Migration[5]. Another driver of an expanded proportion of youth in society is migration, both from rural to urban areas within a country and between countries. As morbidity and fertility decline within a country, urbanization occurs, leading more youth to move to urban areas in search of work (Menashe-Oren, 2020). From a global perspective, a significant proportion (28% - 41%) of immigrants to Africa, Asia, Latin America, and the Caribbean are 24 years of age or younger (Immigration Data Portal, 2024). For example, in Africa, 25% of the migrant population is under the age of 18, with 16% of the migrant population between the ages of 15 and 24.

Potential for Demographic Dividend

On one hand, the burgeoning youth population is a sign of success; declining child mortality and advances in science, technology, and healthcare (e.g., improved sanitation, vaccinations, and preventive health care) reflect societal advancements (Inayatullah, 2016). At a societal level, the economic boom resulting from increased productivity among working-age adults, which began with a decline in mortality rates, is known as a "demographic dividend." To realize a demographic dividend from the increasing numbers of youth in society, two conditions must be met. First, the potential negative impacts of having so many youth must be mitigated. Second, as youth—a dependent population—age into the working population, they must acquire the skills necessary to find employment and earn adequate income; otherwise, the demographic dividend will not be realized (Lin, 2012).

Impacts of Burgeoning Youth Population

Unemployment. One of the most noticeable impacts of a growing youth population is its effect on employment. Youth comprise about one-quarter of the world's population but experience approximately 40% of the world's unemployment (Harper, 2017), amounting to 67.6 million unemployed youth (International Labour Office, 2020). As a result, youth well-being is affected not only in terms of physical needs but also regarding emotional well-being, as many face growing frustration and hopelessness (Kariba, 2020). In turn, youth unemployment is one of the biggest drivers of interpersonal violence and political unrest (see Demeke, 2022). Youth are also disproportionately impacted by economic or community-level shocks related to employment; for example, youth employment fell by more than twice as much as adult employment during the COVID-19 pandemic, and this employment gap was not filled by youth entering educational institutions (Trask, 2024).

Prolonged Dependence on Families. The foundation for realizing a demographic dividend lies in a decreasing birth rate, which allows more resources to be devoted to each individual child or redistributed to community economic growth (Omoju & Abraham, 2014). Thus, with the right support and under the right conditions, the economic benefits of a growing adolescent population can be realized as those youth transition into productive adult years. Conversely, however, if youth unemployment remains high and is not replaced with engagement in advanced training and education, youth will be dependent on their families longer into adulthood, negatively impacting not only their own productive years but also those of their family members. More years of dependency among adolescents also affect the society's support ratio, as the working-age population is called upon

[5] For more information about migration and urbanization trends and their impacts on children and families, please refer to the Migration and Urbanization report in this series.

to support a growing youth population as well as an aging population (see Increasing Elderly Aging Structure section), further straining individuals and economies.

Healthcare. Despite global gains in child health, nutrition, and education, adolescents have experienced fewer health improvements in tandem with economic development compared to other age groups (Patton, 2016). Mental health disorders, substance use disorders, and other non-communicable diseases are rising to the forefront of healthcare issues for this age group (Patton, 2016). Further complicating healthcare for this demographic is the widening gap between physical maturation and social adulthood (World Health Organization, 2017), which contributes to prolonged dependence on families. Evidence-based interventions tailored to vulnerable adolescent populations and their specific health needs are required (see World Health Organization, 2017). These interventions should include both universal and targeted approaches and must be implemented alongside broader community-wide efforts to improve infrastructure (e.g., sanitation and clean water) and policy (e.g., reduced access to harmful substances).

Equitable Access

Unemployment. Most of the world's adolescents reside in low- and middle-income countries (LMICs), creating challenges for young people and societies in accessing educational opportunities, healthcare, employment, and technology. Without equitable access to four key elements (educational opportunities, healthcare, employment, and technology), young people cannot gain the skills they need to thrive in later life (Trask, 2024), and societies cannot realize a demographic dividend from a burgeoning youth population. The 2030 target date for the Sustainable Development Goals (SDGs) means that increased focus is needed to ensure youth have equitable access to education, future employment, healthcare, and technology, while also experiencing gender equality.

Education and Employment. In 2023, more than 1 in 5 young people aged 15-24 globally were not in employment, education, or training (NEET; USAID and International Labour Organization, 2022). The downstream effects of this situation are widespread. Being NEET early in life is highly predictive of being NEET later in life, especially for women (International Labour Organization, 2022; O'Higgins et al., 2023). The gender gap is particularly evident for women in rural areas compared to those in urban settings. In terms of employment, the unemployment rate for youth aged 15-24 averaged 16% in 2023 (The Global Economy, 2023), but differences exist even within regions. In Africa alone, the need for jobs outpaces available jobs by more than 7 million each year (Kariba, 2020). Countries in East Asia and the Pacific saw unemployment rates below 10%; however, in MENA countries and regions in Europe and Central Asia, youth unemployment figures were 20% or more in 2022 (Statista, 2018). Qatar stands out as the nation with the lowest youth unemployment rate in the world, at less than one percent (Statista, n.d.).

Access to free, quality education also varies markedly depending on global region and gender; the effect is further complicated when considering both factors together. For example, around the world, about 77% of girls complete secondary education, but this number drops to approximately 33% in low-income countries (The World Bank, 2018). Fewer educated youth—particularly girls—means reduced capacity for earning a living, increased rates of child marriage (see the following section on Child Marriage), and negative impacts on health, well-being, and agency (e.g., HIV/AIDS prevention, mental health, and decision-making about their future). A burgeoning youth population necessitates a focus on ensuring youth have free and equitable access to high-quality education to guarantee a high quality of life and longer lifespan for individuals within a society (Patton et al., 2016), as well as the economic well-being of communities.

Healthcare. High-quality healthcare is defined as necessary care occurring at the right time and place, provided by the right provider, with minimal harm (Das et al., 2018; Veillard et al., 2017). Youth face unique challenges to healthcare access, including a lack of insurance, limited agency, and inadequate modern family planning methods. In a study examining 30 LMICs, young people reported encountering higher barriers to medical help than older populations (Nachiappan et al., 2022), a trend that is also present in high-income countries. Differences in the primary causes of mortality between youth and adults highlight the need for tailored solutions. The leading causes of youth mortality worldwide include unintentional injuries such as road accidents and drowning, violence, and self-harm, with males being more susceptible than females to these causes, while women in LMICs experience higher mortality rates largely due to inadequate maternal conditions (World Health Organization, 2023b).

Because each country's healthcare system is distinct, there are significant differences in healthcare outcomes for youth. The most overt differences occur based on income; the higher a country's income, the better its healthcare funding, medical personnel, and access to medicines, as well as other factors like social systems or access to sanitation and clean water that impact overall health. A 2017 report documented increases in healthcare access worldwide, including immunization, family planning, and HIV treatment, with fewer people experiencing extreme poverty than before (World Health Organization, 2017). Still, these improvements are disproportionate across regions.

In 2021, the chances of youth survival were highest in Europe and North America, lowest in sub-Saharan Africa (World Health Organization, 2023b), second lowest in Oceania (excluding New Zealand and Australia), and third lowest in Latin America and the Caribbean (World Health Organization, 2022a). These disparities are particularly concerning since 90% of the global youth live in low- and middle-income countries (Nachiappan et al., 2022).

Although countries with higher gross national incomes (GNIs) often have better average health accessibility and outcomes, variability exists within countries depending on the specific healthcare system and other determinants, including socioeconomic status, structural inequalities, or location of residence, all of which are interdependent. The United States, for example, has the highest healthcare expenditures among high-income countries yet consistently produces the worst healthcare outcomes (Schneider et al., 2021), including healthcare access and equity. Living in urban versus rural areas within countries also results in differential outcomes. Risk factors for health disparities in rural areas include isolation, overall lower socioeconomic status, high patient-to-doctor ratios, and fewer hospitals and infrastructure. In the U.S., rural youth are less likely than urban youth to receive preventive care and have continuous health insurance coverage (Crouch et al., 2023). A study examining Asia, Africa, and South America found healthcare accessibility disparities in rural areas for working-age youth. Barriers included distance to healthcare centers, poor road infrastructure, and low educational experience, which made navigating the healthcare system difficult; this often led rural youth to obtain medicine from nearby informal drugstores rather than seeking formal care (Oladosu, 2023).

While urbanization is often portrayed positively, it can have harmful health consequences. In a study of Nigeria, Ghana, Nepal, and Bangladesh, rapid and uncontrolled urbanization—where individuals migrate to cities for work opportunities—has led to rising health inequalities. Some reasons for this gap in healthcare include a lack of sufficient services for a growing urban population and higher overall healthcare costs due to an increasing reliance on the private sector (de Siqueira Filha et

al., 2022). Overall, higher-income groups are more likely to seek out and receive care when needed (Makinen et al., 2000).

Technology. Globalization— the interconnectedness and interdependence of cultures and economies—affects adolescents in significant ways. The rapid exchange of ideas between countries leaves many adolescents behind, in part because they cannot access information, or because doing so (e.g., using social media) may conflict with their values (Bhatia, 2020). Even within regions, the "connectivity" of adolescents remains varied. For example, in one study of 10-15-year-olds, 36% of youth in Sudan, 13% in Ethiopia, and 3% in Tanzania owned mobile phones, with boys having a higher ownership rate compared to girls (Wang et al., 2023).

Policy Implications

In many parts of the world, youth aged 15-24 make up a larger share of the total population than ever before. This "youth bulge" presents an opportunity for marked improvements in innovation, productivity, and increased support ratios for dependent populations. However, these gains can only be realized if proactive steps are taken to address the gaps in employment, education, healthcare, and technology that will persist if not addressed promptly.

Unemployment. As of 2021, 75 million youth worldwide were unemployed (Youth Workforce Development, n.d.), and more than one in five were considered Not in Education, Employment, or Training (NEET) in 2023 (O'Dell, 2024), signaling a growing crisis. The main reasons for unemployment are twofold: a lack of experience and skills, and a shortage of job opportunities. Several strategies can address both issues. Solutions to the lack of experience and skills include training, offering internships and apprenticeships, and promoting education. A systematic review analyzing 107 youth employment interventions, including 68 focused on skills training, found that training overall increased youth employment odds and wages (Kluve et al., 2017). The effects were particularly pronounced in lower-income countries. The training programs analyzed were versatile, covering technical and business skills as well as literacy, numeracy, and other non-technical skills. One intervention, called Juventud y Empleo (JE) in the Dominican Republic, provided young people aged 16-29 with vocational training (150 hours), life skills training (75 hours), and internships in private sector firms (240 hours). The program, spearheaded by the Ministry of Labour and the National Institute of Technical and Vocational Training, improved job formality for men, increased monthly earnings, and reduced teenage pregnancies (Kluve et al., 2017). A similar study in Rwanda demonstrated that hard skills training, along with business mentorship and employment services, produced positive impacts (McIntosh & Zeitlin, 2022). Notably, these skills training programs are most effective when combined with other factors, some of which are described below.

First, youth should receive training for skills that align with employers' demands and growing job markets (World Bank, 2024). Second, programs should focus on sustainable initiatives, as demonstrated by the highly successful Punjab Youth Workforce Development Project (Nadeem, 2019). Third, job matching can be beneficial since youth often lack experience navigating the workforce (Kluve et al., 2017). Although this can be integrated into training or mentorship programs, the job matching and search process has evolved with digital platforms like ELISE, a server-based matching engine used in Europe, Singapore, Saudi Arabia, and the U.S., which effectively handles large datasets and reduces recruitment time and costs (Solutions for Youth Employment, 2023). Similarly, in Rwanda, the Ministry of Youth and ICT created

YouthConnekt in 2023, allowing youth to network, learn skills, and find work (Guay, 2017). Embracing new technologies and connecting youth to them can be fruitful.

In addition to equipping youth for jobs, there are several ways to address the lack of job opportunities. Although entrepreneurial ventures carry risks and competition may lead to job losses, in regions like Africa—where job demand exceeds availability—promoting self-employment and entrepreneurship is key. A study examining 99 countries found that 70% of all jobs are created by small economic units (International Labour Organization, 2019). Organizations like the International Labor Organization (ILO) have programs such as the Start and Improve Your Business (SIYB) initiative, which has been implemented in more than 100 countries and has created over 10.4 million jobs. Tried-and-proven programs like these can be adopted by stakeholders, including governments, in partnership with guiding organizations. Successful initiatives address several barriers to entrepreneurship, such as limited access to capital and inadequate knowledge and technical skills. Additionally, to foster entrepreneurship in regions with a youth bulge, support from fiscal, trade, and philanthropic organizations is necessary (Inayatullah, 2016).

Healthcare. Access to quality healthcare tailored to the needs of adolescents is critical. The World Health Organization (WHO) has developed eight Global Standards to enhance adolescent healthcare quality based on extensive needs assessments, literature reviews, and data collection. Nearly half of the adolescents consulted by the WHO were from **LMICs**, and nearly two-thirds were female (Nair et al., 2015). Several themes emerged in the process. First, adolescents generally understand the importance of health—including sexual, reproductive, and mental health—and are eager to engage in activities to improve it. Second, families remain a crucial source of health information and play a vital role in adolescent well-being. Finally, accessibility and proximity to healthcare providers are key determinants of adolescents' use of health services (Nair et al., 2015).

Health is influenced by several factors, including biological, social, and psychological components, so solutions must be holistic and address multiple determinants. Education is one of the strongest social determinants of health: the longer a student spends in school, the greater their health improvement (Gakidou et al., 2010). For example, reductions in HIV cases and mortality from all causes were associated with more years spent in school, with the most prominent effects emerging in sub-Saharan Africa and South Asia (Kruk et al., 2022). Education is often marked by low funding levels and poor cross-sectoral coordination, which points to a need for increased investment in education—a theme that emerges throughout this report.

In addition to broader healthcare access, many healthcare interventions for youth in LMICs have focused on the micro level (focusing on the individual, clinics, or providers), many of which have been ineffective given system-level flaws. Macro-level interventions, including ensuring high-quality leadership and management at each level of the health system, redesigning service delivery to implement whole-school approaches, and prioritizing multisectoral collaboration, are imperative (Kruk et al., 2022). A study in Ghana found that healthcare managers in higher-performing districts exhibited better teamwork, organizational commitment, and communication compared to low-performing districts (Heerdegen et al., 2020). In Pakistan, managers and policymakers working on the Nutrition and Early Childhood Development (ECD) initiative collaborated effectively, capitalized on favorable contexts, and formulated stakeholder coalitions for improved healthcare outcomes (Zaidi et al., 2018).

Healthcare services should also be redesigned to maximize accessibility. Approaches that integrate healthcare into school curricula have proven effective. A school-based intervention involving 75 secondary schools in Bihar, India, found reductions in depression, violence and victimization, and increased knowledge of sexual and reproductive health (Shinde et al., 2018). In addition to educating students and providing healthcare at schools, improving social and physical environments, and increasing engagement with families and parents can lead to better outcomes.

Technological advancements also enhance accessibility to healthcare among youth. Interventions can incorporate mass communication platforms such as television, mobile phones, and radio. A systematic review of eight meta-analyses found that digital platforms can help improve depression and anxiety in adolescents (Domhardt et al., 2020), while automated messages have led to better preventative healthcare and long-term condition management (Posadzki et al., 2016). Studies in Somaliland, South Africa, and India demonstrated improved outcomes through video conferencing platforms for consultation and treatment (Naslund et al., 2017). Virtual healthcare could be promising in areas with limited infrastructure, where there is a shortage of healthcare workers, transportation barriers, or stigma associated with seeking out services (Nature Medicine, 2024).

In addition to increasing access for youth, interventions should foster collaboration across healthcare delivery systems and community organizations, as well as provide financial support to key actors. In the U.S., several organizations have successfully implemented cross-sectoral initiatives, including The Door, a nonprofit based in New York that provides healthcare services for adolescents and youth, as well as job and educational support. Other organizations, like the New York City Teen Center, have created collaborations among community organizations, youth, schools, citywide agencies, and nearly 70 clinics to provide quality, holistic health services to teens. In South Africa, the Monitoring and Response Unit promoted community coordination and collaborative networks between primary healthcare providers and hospital services, creating positive outcomes in maternal, child, and adolescent health (Schneider et al., 2021).

For any given solution, partnering with youth can generate the most effective results. In 2016, the Bangladesh Youth Summit on Universal Health Coverage informed and held policymakers accountable, leading to important changes; and in Kenya, the Organizations of African Youth (OAYouth) presented information collected from youth in 15 countries about sexual and reproductive health needs, which sparked important discussions among policymakers and youth. Such conversations between decision-makers, youth, and families are necessary for maximally effective and informed initiatives.

Technology. As mentioned briefly above, technology has the potential to improve healthcare outcomes, grow businesses, and reduce unemployment. More specific policy recommendations and implications tailored to adolescents can be found in the Technology Report.

CHILD MARRIAGE

7

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Although the previous section details how adolescence may include education, access to technology, increased independence and self-sufficiency, and entry into the labor market, for many children around the world, child marriage limits access to these activities and milestones. Child marriage is defined as any marriage involving a person under 18 years of age. The United Nations Commission on Human Rights considers the practice to be a violation of human rights, and the UN Sustainable Development Goals (SDGs) have called for an end to child marriage by the year 2030. Worldwide, 12 million girls marry before the age of 18 every year, and over 650 million women alive today were married as children (Girls Not Brides, 2020a).

Although the practice still occurs around the world, it is particularly prevalent in countries experiencing significant economic need (Jiang & Lansford, 2023). Based on data collected from 2015-2023, the highest prevalence of child marriage is found in West and Central Africa, where 32% of girls marry before age 18. In comparison, the rates of child marriage are 30% in Eastern and Southern Africa, 26% in South Asia, 21% in Latin America and the Caribbean, less than 1% in Western Europe and North America, and 17% in the MENA region (UNICEF, 2023a). This means that approximately 700,000 girls enter into child marriages each year (UNICEF MENA, 2022).

Both boys and girls can be involved in child marriage; however, most children married under 18 are girls. Thus, child marriage contributes to the gender gap, as its negative impacts are predominantly borne by young girls. As young girls are deprived of their opportunity for socioeconomic mobility, the cycle of intergenerational poverty continues.

In the subsequent sections, we review the cultural, societal, and economic drivers of child marriage, including misconceptions about its supposed protective effects for girls. We then describe the significant negative impact child marriage has on health, education, and communities, and review policies aimed at reducing child marriage globally.

Drivers of Child Marriage

There are several causes that drive child marriage: poverty, the need to reinforce social ties, and the perceived protection marriage offers. Child marriage is most predominant in areas with significant economic need, as daughters are costly to raise and often cannot contribute economically in the same way that sons can. For example, girls living in the poorest wealth quintile of West Africa are nearly four times as likely to be married as girls in the richest wealth quintile (Sagalova, 2021). Marrying daughters can alleviate a family's economic strain by reducing household size and bringing a dowry to the family. Dowries (incentives paid to the groom's family by the bride's family) are higher for older girls and women because they are believed to have diminished labor and reproductive capabilities as they age (Mathur et al., 2003). This further incentivizes families to encourage early marriage to reduce financial strain on the bride's family.

Apart from the tangible financial benefits, parents also perceive social advantages in establishing connections when their daughter is married into a "high-status" family. Powerful families can elevate not only the daughter's social status but also that of the entire family. Many families also believe that child marriage will protect their children from sexual assault. In Bangladesh, for example, between 2014 and 2019, nearly 86 percent of rape victims were children. Many families fear that reporting rape will damage their honor, leaving them helpless as the local government often provides shelter to the offenders (Patoari, 2020). Thus, families rely on a typically older husband whom they believe will protect their children from rape, premarital sexual activity, and sexually transmitted infections (STIs) such as HIV or AIDS.

Outcomes of Child Marriage

Education and Health. Despite perceived benefits, child marriage is a human rights violation that does significantly more harm than good to those involved. Child marriage is detrimental to educational attainment and literacy. Generally, many parents are less inclined to invest in their daughters' education because girls leave their parental households upon marriage, preventing parents from realizing the benefits of such investment (Mathur et al., 2003). In Southern and Eastern Africa, the school attendance rate for married girls is just 6%, compared to 69% for unmarried girls (Omoeva et al., 2014).

Child marriage also has detrimental impacts on both physical and mental health. Women who marry as children often have children of their own at earlier ages and tend to have more children over their lifetime. Complications related to pregnancy and childbirth are among the leading causes of death globally for girls aged 15-19 (World Health Organization, 2023b). Contrary to commonly held beliefs, child marriage increases the risk of contracting sexually transmitted infections (STIs), specifically HIV and human papillomavirus (HPV) (Irani & Latifnejad Roudsari, 2019). In Kenya, married girls are 50% more likely than unmarried girls to contract HIV. Pregnant girls living in regions where malaria is prevalent are also at higher risk of infection (Nour, 2009). Additionally, pregnant girls face significant risks of malaria-related complications like severe anemia, pulmonary edema, and hypoglycemia. Any combination of malaria, HIV, and pregnancy can be fatal for a young mother, especially in areas lacking proper health infrastructure.

In addition to the increased risk of infection, the lack of bodily autonomy leads many adolescent girls to resort to unsafe abortions, which can result in serious injury or death. Young mothers are more likely to deliver preterm or low-birthweight infants, with the infant mortality rate being 60% higher when the mother is under 18 compared to women over 18. Early marriage and childbirth are also correlated with undernutrition for both the mother and her children (Fan & Koski, 2022). Furthermore, the psychological impacts of child marriage cannot be underestimated. Once married, girls who are separated from their homes live with their often much older husbands as wives and domestic workers. Such a drastic lifestyle change forces girls to prematurely abandon their childhoods, leading to isolation and depression (Nour, 2009).

Societal Impacts. Child marriage also has societal impacts, perpetuating cycles of intergenerational poverty by limiting socioeconomic development and participation in the labor force. Education, the primary means through which women can expand their labor market prospects and achieve economic mobility, is severely hindered by child marriage (Patoari, 2020). In countries where childcare is not readily available, women are forced to remain at home when they become parents. Many women may also suffer adverse health consequences due to childbirth, rendering them unable to work (Parsons et al., 2015). Girls whose parents had less or no education are more likely to marry early compared to girls whose parents completed more years of education (Envuladu et al., 2016), perpetuating a cycle of intergenerational poverty.

Child marriage also serves as a barrier to the overall socioeconomic development of a country. Since those married in childhood are more likely to be unskilled and less literate than those who delay marriage until adulthood, they contribute less to the nation's economic development (Patoari, 2020). They are also less able to participate in informed community and national-level discussions or engage meaningfully in the political process (Parsons et al., 2015).

Policy Implications

Policymakers can look to current and former initiatives to continue mitigating the global problem of child marriage. They should work at the broader governmental level, advocating for stricter regulations on the legal marriage age. Although child marriage is difficult to prevent outright since families voluntarily involve their children (Patoari, 2020), laws and regulations can help reduce its prevalence. However, the pace of improvement must quicken in order to meet the 2030 UN Sustainable Development Goals (Girls Not Brides, 2020b).

For example, Uttar Pradesh, a state in India, is working to increase awareness of the minimum legal marriage age (18) and denies government jobs to individuals who marry before that age. A district-level campaign in Rajasthan, India, has prolonged the traditional engagement period, allowing girls to marry later (Mathur et al., 2003). In 2014, the African Union (AU) launched a campaign that extended into 2021, advocating for the end of child marriage in Africa. It yielded several positive outcomes, including making the prevention of child marriage a priority for African leaders and the adoption of the AU Member States' African Common Position on Ending Child Marriage, which enforces laws setting the minimum age of marriage at 18 (UNICEF, 2018). Furthermore, in Bangladesh, the Child Marriage Restraint Act (2017) specifies the legal age of marriage for boys and girls to be 21 and 18, respectively, but allows marriages at any age under "special circumstances" in the best interest of the bride and groom. Replacing this vague wording with more specific language could reduce the number of children legally married through this loophole.

Policies to reduce child marriage can be more successful if they also provide economic opportunities to girls and their families (Arnab & Siraj, 2020). Most global progress has targeted girls from wealthier families, with the exception of South Asia and the MENA region, where there has been progress for both low- and high-income families. In the Arab region, the prevalence of child marriage dropped from 1 in 3 to 1 in 5 over the last quarter-century (UNFPA, 2014).

Campaigns and initiatives, in conjunction with modified legislation, are also necessary. In 2022, for example, Egypt's Ministry of Social Solidarity, in partnership with NGOs, mass media platforms, the UN Development Program, and the EU British Embassy in Cairo, launched the "Combating Child Marriage" campaign (UNDP, 2022). The online campaign lasted for two months and was a direct response to the COVID-19 pandemic's impact on poverty rates and violations of children's rights. The initiative saw some early success, with Egypt's National Council for Childhood and Motherhood reporting 27 prevented marriages in May 2022 (Egypt Today Staff, 2022). Some Indian states have also developed similar programs that provide cash payments to young women only if they have completed a certain level of schooling and remain unmarried (Mathur et al., 2003).

Additionally, policymakers should promote educational opportunities for girls, even if they marry at a young age. Iran has established schools specifically for young married girls, and in Kenya, local groups have organized informal education and vocational training for adolescent mothers. Empowering girls with skills and knowledge is one of the most successful overarching interventions for preventing child marriage. Educating parents and other community members about the harms of child marriage can also be effective; the Nepalese government is collaborating with the U.S. government to produce educational materials that encourage parents to delay their daughters' marriages until they are over 20 years old (Malhotra et al., 2011). In many countries, girls rarely have control over whom and when they marry, so educational efforts aimed at communities and elders can shift broader societal norms.

Overall, child marriage remains a critical issue that requires multifaceted policy responses to address its root causes and effects. By combining legal reforms, education, and economic support, it is possible to break the cycles of intergenerational poverty and create a future where all children can experience a full childhood.

INCREASING
ELDERLY AGE STRUCTURE

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Arguably, one of the greatest accomplishments of the 20th century is the lengthening of the average human lifespan by more than 30 years. Reductions in infant and child mortality, lower fertility rates, and better access to improved sanitation, preventive healthcare, and advances in medicine have led to drastic demographic changes, including a general global trend of a rapidly aging population. In 2020, 1 billion people worldwide were aged 60 or older (World Health Organization, 2023e), a figure that is projected to increase to 1.4 billion by 2030 and 2.1 billion by 2050. This age group will comprise more than 1 in every 5 persons in the global population by the halfway point of the twenty-first century (Guseh, 2015; Harper, 2014). A subset of that population—those over age 80—is expected to triple between 2020 and 2050. As a result, by 2050, there will be more people over age 60 than under age 25 for the first time in recorded human history (Guseh, 2015). The details of population growth in certain age structures are complex. Both the drivers and results of population growth in the aging population vary based on the region of the world, gender, and inequalities within countries related to social policy. The following sections will explore the causes of a growing older population, outline the outcomes of an aging population at the societal, family, and individual levels, and conclude with evidence-based policy recommendations. Each section will also emphasize global inequities, especially across regions and gender.

Reasons for an increasing older population

Various global trends have led to an increasing number of older adults in the population. Stabilizing or decreasing fertility rates (see the fertility section above), increases in longevity, and changes in migration patterns (see the Urbanization and Migration report in this report series) are key drivers of population aging. As infant and child mortality decreases (see the mortality section above), a decline in fertility rates typically follows. Over time, the population becomes "less young," resulting in a logical increase in the share of the population that is older.

Average increases in life expectancy, although partially driven by decreases in infant and child mortality, also benefit an aging population. Improvements in medical technology, healthcare, industry, nutrition, sanitation, and a reduction in smoking have contributed to increasing life expectancies for most age groups (Bloom & DeLuca, 2016; Guseh, 2015). It should be noted that two drivers of an increasing aging population—lower fertility and longer lifespans—have different economic and therefore policy implications. A "less young/more old" population puts pressure on working adults to support more older people and could result in economic strain on society. However, a growing aging population due to increased longevity, if accompanied by good health and productivity, has the potential to mitigate drastic economic concerns (Bloom & DeLuca, 2016).

Although great strides have been made in each of these areas in many regions of the world, global summary statistics do not tell the complete story. Behind the general trends lie stark inequalities, with regional and gender-based disparities being two of the most prominent.

Regional Differences

The increasing share of the population represented by those over age 60 varies by region. Deep-seated inequalities have caused disparities in which groups benefit from improved health outcomes, such as reductions in infant, child, and maternal mortality. Consequently, wealthier nations have been the primary beneficiaries of increased longevity. In Europe, the number of people over age 60 is projected to outnumber those under age 15 even sooner than 2050 (World Health Organization, 2023d). In fact, the number of people over age 60 already outnumbered those under age 15 by the year 2000 (Harper, 2014). This trend is expected to replicate in North America by 2030, and in Latin America and Asia by 2040 (Harper, 2014).

The MENA region has experienced the highest rate of population growth compared to other regions, alongside declining fertility rates and rising life expectancy (Hajjar et al., 2013). In countries such as Qatar, Kuwait, and the United Arab Emirates, the proportion of elderly individuals in the population is expected to increase fivefold or more by 2050. Despite the larger proportions of older persons in wealthier countries, nearly 8 in 10 older persons will live in mid-to-low-income countries by 2050 (United Nations, 2017).

Gender Differences

Across geographical areas, women in the aging population outnumber men. In the over-60 age group, there are 84 men for every 100 women, and in the over-80 age group, the gender gap widens to 61 men for every 100 women (UNFPA, 2012). Throughout the lifespan, mortality rates for males are higher than for females, due in part to biological factors and risk behaviors (Bloom & DeLuca, 2016). However, women still experience worse quality of life outcomes, including more functional impairments per capita as they age and greater difficulties with activities of daily living (ADLs, e.g., bathing, cooking, errands) (Christensen et al., 2009).

One explanation for this gender discrepancy in disability at older ages is that males are more likely to suffer from and die from diseases that cause disability (e.g., heart disease and cancer, see Leveille et al., 2000), rather than surviving and living with a disability. Another driver of this gender gap is that globally, women are disproportionately affected by non-fatal but disabling diseases such as osteoporosis and high blood pressure (Leveille et al., 2000).

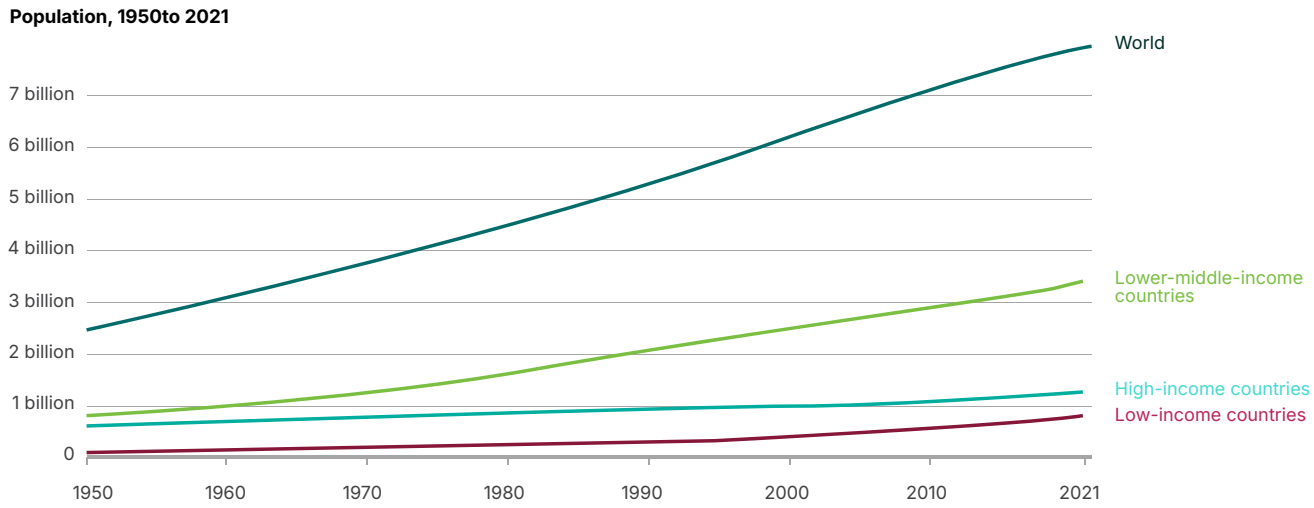
Policy responses to address the burgeoning aging population will need to account for the higher number of women and include interventions that target functional and health impairments.

Regional Differences in Life Expectancy and Population Growth

At the most basic level, stark differences exist in life expectancy according to region. For example, global life expectancy in 2015 was 68.6 years and is expected to increase to 76.2 years by 2050 (He et al., 2016). However, in 2015, twenty-four countries had life expectancies exceeding 80 years, while twenty-eight other countries had life expectancies below 60 years. By 2050, all major regions of the world, except Africa, are expected to have life expectancies of 80 years or more, while Africa's life expectancy is projected to be 68 years. Notably, Africa's healthy average lifespan has increased by 10 years between 2000 and 2019 (United Nations, 2022b).

There are also disparate trends in population growth. Regions such as Africa, the Middle East, and southern and southeastern Asia are experiencing rapid population growth (Guseh, 2015), which, in turn, will increase the proportion of the population represented by aging adults in the decades that follow. Over the next 40 years (by 2065), most of the expected population growth will occur in low- and middle-income countries (LMICs), with two-thirds of that growth coming from just 14 low-income countries (Guseh, 2015).

Figure 9 World Population in Low, Middle, and High-Income Countries, 1950-2021



Note. Regions and years editable on https://ourworldindata.org/world-population-update-2022. From "Population Growth," by H. Ritchie, L. Rodés-Guirao, E. Mathieu, M. Gerber, E. Ortiz-Ospina, J. Hasell & M. Roser, 2023, *Our World in Data*.

Outcomes of an Increasing Aging Population

The consequences of a growing and aging population are numerous, with impacts occurring at three primary levels: societal (economic and social), family (social and psychological), and individual. These three levels are highly interconnected, with outcomes in one level inevitably affecting outcomes in another. This section will begin with broader societal outcomes, then zoom into more proximal effects, and finally explain the significance of mental health outcomes among older populations.

Economic. At a societal level, there remain unanswered questions about how a large portion of the population exiting the workforce (e.g., due to retirement) may impact economies. Higher retirement rates may lead to a slowdown in GDP and falling national savings rates, as seniors spend more of their savings, invest less, and rely more on scarce government resources to pay for social programs (Guseh, 2015).

National budgets are also affected by an aging population, as governments must decide how to allocate resources when social protection and healthcare programs are relied upon by a greater number of individuals, and how this reallocation will impact long-term economic growth (Temsumrit, 2023). As a population ages, there is a higher likelihood of increased government spending on health and social protection in higher-income countries than in lower-income countries, where a growing aging population may lead to increased expenditures on defense, for example (Temsumrit, 2023). Changing support ratios, discussed in the following section, also contribute to stress on a country's economic system.

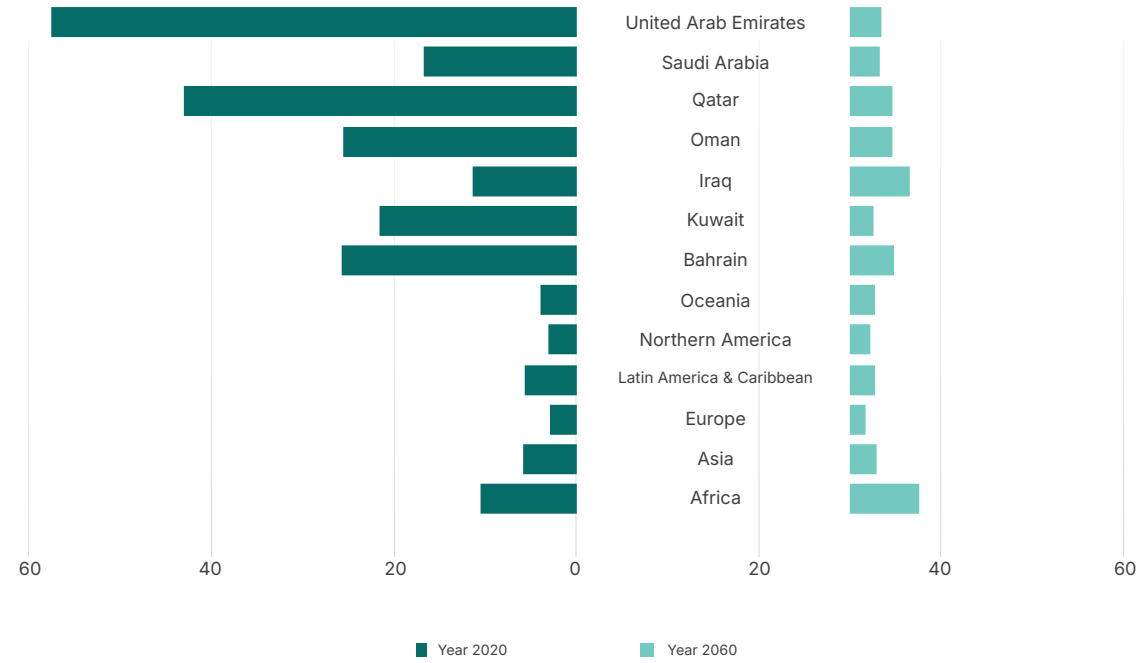
Social. One of the largest societal outcomes of a growing aging population is the changing old-age dependency ratios (OADR), which also has downstream effects at other levels[6]. The UN defines the old-age dependency ratio (OADR) as the number of people aged 65 or older for every 100 people aged 15-64. Globally, the OADR has risen

from 13 in 1990 to 17 in 2021 and is expected to reach 29 by 2050. Although OADR growth rates vary by country, every region is expected to experience a higher OADR in 2050 compared to 2021.

High dependency ratios that lead to economic challenges within countries are often referred to as a "demographic deficit." Another way to conceptualize this demographic deficit, inversely related to OADR, is by examining trends in potential support ratios (PSRs), defined as the number of working people aged 15-64 for every one person aged 65 or older. Stark differences exist across and within regions. For example, globally, the support ratio was 12 in 1950 but fell to 7 in 2020 (World Data Atlas, 2024). In Japan, there were 12.2 working-aged persons for every person aged 65 and older in 1950, but just 2.1 by 2020 (World Data Atlas, n.d.), which is one of the lowest ratios in the world. In 2021, most European countries had similar ratios between two and five (e.g., Austria: 3.4; Denmark: 3.1; Finland: 2.7; Ireland: 4.4), while the United States and United Kingdom were in the same range, at 3.9 and 3.4, respectively. In contrast, many African countries, with larger young populations and higher fertility rates, had higher support ratios (e.g., Central African Republic: 19.7; Kenya: 20.7; Nigeria: 18). This trend of higher ratios was also reflected in MENA countries (e.g., Jordan: 17.1; Oman: 25.2; Qatar: 50). Southeast Asian countries generally fell in the lower to middle range, with Thailand at 4.8, the Philippines at 12, Vietnam at 7.8, India at 9.9, and China at 5.3 (CIA, 2021). PSRs in Central and South American countries ranged between six and seven.

In addition to the economic concerns discussed above, these decreasing support ratios have several implications, particularly for family members who bear the brunt of caregiving responsibilities.

Figure 10 Support Ratios for Select Areas in 2020 and 2060



Note. Adapted from "World Population Prospects 2019," by UNDESA, 2019.

[6] Some researchers also refer to a health-adjusted dependency ratio (HADR), which adjusts for the health of the +65 population. Because this statistic is found less often in the literature, we refer to the more common economic OADR.

Caregiving. A larger aging structure within a society impacts families in several ways, one of which is caregiving. First, as a larger share of the population requires care, adult siblings may need to negotiate who provides care for aging parents, which can create discord within families. Second, demanding work expectations in the middle-aged generation may make it difficult for family members to provide care for aging loved ones and start their own families, which may lead to delayed childbearing. It remains to be seen how the increasing older age structure trend, coupled with delayed childbearing (see Fertility section), will impact the age of children caring for aging adults. As adults live longer and healthier lives and make up a larger share of the population, it may be true that their caregivers are younger and still raising children of their own by the time elder care is needed, leading to increased demands and stress on caregivers who are children of the aging population. Regardless, older caregivers are more likely to report worse psychological well-being (e.g., higher levels of depression and lower levels of self-efficacy) compared to younger caregivers, and balancing work and caregiving negatively impacts more women than men (Silverstein & Giarrusso, 2010). Third, many people will become caregivers for their aging spouses. Although caring for an elderly parent can have some positive impacts on caregivers' well-being (e.g., improved problem-solving skills, increased self-efficacy; Roberto & Jarrott, 2008), care provided by a spouse is instead linked with higher rates of caregiver depression in some populations (Marks et al., 2002; Silverstein & Giarrusso, 2010), with even higher rates of depression among women caregivers compared to men (Choi et al., 2007). Additionally, because one in five women aged 60 and older, versus one in ten men, live alone (Ausubel, 2020), far more men than women have a spouse potentially able to care for them as they age (Tinker, 2002).

There are further gender differences in the effect of caregiving on the well-being of family members. In most societies, the burden of caregiving is more likely to fall on female family members rather than males, and globally, women do three times as much unpaid care as men (UN Women, 2019b). Not only do female caregivers provide more care overall, but they also tend to assist more with personal tasks, both of which negatively impact their well-being. Overall, female caregivers experience higher rates of depression compared to male caregivers, with the gender differences that more negatively impact women being more prominent in non-spousal caregivers (Pinquart & Sorensen, 2006).

"Beanpole families." Caregiving does not only apply to middle-aged people providing care for aging individuals. As fertility rates decline, people born today will have fewer cousins, nieces, and nephews than a generation or two ago. Often referred to as "beanpole" families (Bengston, 2001), these families include more generations due to increasing life expectancies and fewer children; fewer siblings are also included in each generation. With this decrease in family size, intergenerational family support systems are rising in importance (UNFPA, 2012), as shifting gender roles toward more caregiving equality between men and women and geographical spread change expectations around which family members provide care for aging adults (Meil, 2006). The shift towards beanpole family structures has already occurred in regions of the world where the demographic transition towards a large aging structure has already occurred or is well underway (e.g., Europe, North America, parts of Asia). In addition, grandparents around the world are increasingly providing financial, childcare, and household support for their adult children and grandchildren. The rise in beanpole family structures is an important consideration in policy development because societies will need to reimagine informal caregiving systems and provide support for larger numbers of four-generation families.

Ageism. In societies not adequately prepared to support longevity, people who live longer may experience age-based discrimination—"ageism"—especially if they aim to remain working beyond the "accepted" retirement age (Guseh, 2015). Ageism is an understudied social determinant of health, as it is associated with poorer physical and mental health, accelerated cognitive decline, increased difficulty coping with disabilities, and shorter lifespan (Mikton et al., 2021; WHO, 2021).

Ageism occurs both at the structural level (e.g., institutions reinforcing negative aging stereotypes, like underutilization of life-saving medical procedures due to a person's advanced age) and at the individual level (e.g., interpersonal bias toward an older person that keeps the older person socially isolated) (Chang et al., 2020).

Financial. At an individual financial level, people must plan for a longer life and adjust their consumption and savings accordingly. If they do not adequately reduce consumption and increase savings to account for a longer lifespan, they risk relying on social services that may not be in place or adequately able to cover basic needs due to growing support ratios. People over the age of 60 report concerns about having an income as one of their biggest stressors as they age (UNFPA, 2012).

Psychological. Worldwide, mental health is of significant concern for individuals and societies. But now more than ever, the mental health needs of those in their advanced years cannot be ignored. As of 2019, approximately 14% of adults aged 60 and older live with a mental disorder, accounting for more than 10% of the total disability among aging adults (World Health Organization, 2023e). Further, the WHO considers suicide a global public health concern, and more than one-quarter of deaths from suicide globally are among people aged 60 or older (World Health Organization, 2023c). Importantly, while suicide mortality rates have been decreasing in the past two decades, the suicide rate of adults aged 60 or older in the Americas has been on the rise (Sadek et al., 2024). Most suicides (77%) occur in LMICs (Sadek et al., 2024; World Health Organization, 2023c). Further complicating mental health treatment for aging adults is the higher occurrence of comorbidities—including physical illnesses—among the aging population compared to younger ages (Clifton et al., 2013).

Many determinants influence mental health among aging populations. The cumulative impact of earlier life experiences, including poverty, nutrition, healthcare, chronic illness, and substance use (World Health Organization, 2023e), as well as trauma and maltreatment in childhood (Kiely et al., 2019), play a role in later life well-being. Additionally, determinants like social isolation and stigma-motivated ageism—which contribute to higher rates of illnesses like anxiety and depression among older adults—are likely to become increasingly prevalent. Considering the mental health crisis among older adults in many regions of the world, adequate mental health resources are necessary. However, like other impacts among the aging population, accessibility of therapeutic treatment varies widely based on world region, with LMICs having the most limited access. Among the general population, for example, the WHO estimates that more than 70% of mental illness occurs in LMICs, but these countries have the fewest professionals and infrastructure for proper treatment (Alloh et al., 2018). Furthermore, countries experiencing war, natural disasters, and high rates of domestic violence are even more susceptible to the compounding effects of inadequate treatment (Alloh et al., 2018), and individuals in rural areas face additional barriers in accessing healthcare of all kinds. Further complicating effective mental health treatment for older populations is the scarcity of research that includes them, forcing treatment decisions to be adapted based on protocols made for younger populations with different needs (Clifton et al., 2013).

Gender Differences in Impact. Because of cultural and systemic patterns that exist across the lifespan, women may be more vulnerable as they age. In many countries, there is reduced access to jobs and high-quality healthcare for women compared to men, and women are more likely to become victims of abuse. Further, they are often limited in their ability to take advantage of social security programs or own property (UNFPA, 2012). Older men, however, are more likely to be victims of financial abuse and have fewer social support networks compared to women (UNFPA, 2012).

Policy Implications

Considering the outcomes an aging population will trigger in the coming years, policy interventions are crucial. In the past, monetary constraints caused by the financial crisis of 2008 and the COVID-19 pandemic created conflicts for policymakers, who had to choose between public spending on social support for aging populations and other priorities. However, because changing age structures are guaranteed to alter nearly every facet of society in the next few decades, delaying action is not an option. The following recommendations cover several areas for intervention, encompassing workplace policy, healthcare, technology, and gender inequality.

Labor. A growing aging population has unique implications for the labor market. Traditional stigmas assume that those over 65 years of age are less productive in the workplace, but this may no longer be true given higher levels of education and improved health compared to decades ago. Repositioning societal and employer perspectives based on these shifts to challenge prior grim economic forecasts about a growing aging population can have several positive effects. For example, encouraging people to work longer can reduce concerns about a shrinking workforce and allow for better support ratios. To actively combat stigmas against older individuals in the workforce, employers should implement age-friendly workplace policies to support aging populations (Harper, 2014). Raising the retirement age is often one of the first strategies considered to solve support ratios and maintain economic stability, and the OECD predicts a two-year increase in the average retirement age by the mid-2060s (World Economic Forum, 2023). Still, raising the retirement age may not be as straightforward as it seems. In 2023, France raised its retirement age by just two years, from 62 to 64, and faced fierce backlash from the public (Francis & Parker, 2023). To be successful, a higher retirement age must be preceded by effective changes to workplace policies, healthcare, and education, with the order of policy changes being just as important as the policies themselves.

Policy actions can take place at three primary levels: encouraging older adults to keep working, promoting employers to hire older individuals, and generating job opportunities for older adults (OECD, 2015). One way to incentivize work beyond traditional retirement years is to implement pension plans that reward later retirement. Encouraging employers could involve reducing ageism in the workplace and implementing employment protection for older workers. Enhancing employment opportunities might entail promoting skill development or assisting older adults in their employment search. Several countries have already enacted policies aimed at increasing the participation of older adults in the workforce. Australia's Human Rights Commission has implemented public education campaigns about healthy aging and expanded the employment assistance fund to train workplaces about employees with chronic health conditions (Australian Human Rights Commission, 2016). Canada's Employment and Social Development Department has provided a detailed outline that includes anti-ageism awareness campaigns, investments in research and policy centers focused on older workers, company awards for employers who implement best practices, employment assistance and computer training, job training grants for employers of older employees, job matching programs, wage subsidies, and several other initiatives (Employment and Social Development Canada, 2016). Other government departments can also devise similarly detailed plans.

Organizational policies at individual workplaces are also key. For example, workplaces should consider the physical needs of older workers. Frequent workplace health screenings or incentives for active and healthy lifestyles are possibilities. Additionally, to foster a greater balance between leisure and productivity, employers may need to consider changes to the workweek. Workplaces can get creative by offering compressed work weeks, job sharing, part-time employment, or remote work. Increasing flexibility would allow aging populations to balance work with spending time with children and grandchildren and pursuing other meaningful activities (Christensen et al., 2009).

Healthcare. Policymakers should consider differences in healthcare needs between younger and aging populations. This includes the structure of healthcare provision and the shifting mortality and morbidity trends. Due to improved treatments and technology, mortality rates are decreasing across societies; however, this is not necessarily accompanied by decreasing morbidity (e.g., disease and disability) rates. This highlights three possibilities for health policy adjustments. First, societies should adapt their healthcare systems to better address chronic health care issues rather than only acute illnesses. For example, preventative policies addressing smoking, diet, exercise, and nutrition early in life can decrease future mortality and morbidity outcomes (Christensen et al., 2009). Second, societies must implement policies that reduce health disparities among minority and economically challenged groups. Third, healthcare systems should heighten their focus on geriatric care (He et al., 2016) and expand training for medical students and healthcare professionals (The Lancet Healthy Longevity, 2021). In the United States, for example, the Geriatric Practice Leadership Institute (GPLI) created an online, seven-month team-based program based on the 4M's framework: What Matters, Medication, Mentation, and Mobility. The training significantly improved healthcare professionals' and teams' knowledge of geriatric care (Murphy et al., 2023).

Mental Health. As previously discussed, aging populations are among those most susceptible to suicidal ideation and self-harm, underscoring the need for mental health intervention. Broadly speaking, the WHO's Mental Health Action Plan for 2013-2030 (World Health Organization, 2013) suggested a course of action including a life-course approach, evidence-based practice, universal health coverage, a multi-sectoral approach, a focus on human rights, and the empowerment of those living with psychosocial disabilities. The WHO calls on international and regional agencies, academic and research institutions, civil society and community-based organizations, religious institutions, and healthcare professionals and providers to collaborate on mental health solutions.

More specifically for aging populations, promoting independence is crucial because the loss of independence in activities of daily living is heavily associated with significant mental health declines (Albanese et al., 2020). Incentives and provisions for affordable housing and accessible transportation can help keep older adults connected with their communities and as independent as possible (UNFPA, 2012). This also means shifting care away from long-term mental health hospitals and strengthening short-stay inpatient care or day care centers. Other interventions include promoting longer employment and interdependence among age groups, both of which are described in other sections below.

The integration of mental health into primary health care has also proven to be highly effective. A study of 2,000 older adults experiencing depression indicated that those who experienced collaborative care were twice as likely to see significant improvement in their depression (Unützer et al., 2002). Furthermore, collaboration with community-based organizations (CBOs) like Meals on Wheels, which delivers food to seniors, can lead to improved mental health outcomes (Nass et al., 2023). Given their established presence within communities, CBOs are well-positioned to conduct outreach, screening, education, and treatment initiatives. They can also help facilitate at-home psychotherapy or medication deliveries (Nass et al., 2023). Both integrated mental health services and community-based care align with the second objective of the WHO's Mental Health Action Plan.

Interdependence Among Ages. Intergenerational solidarity is defined as the bonding between individuals of different age groups and generations, and it can exist at both the family and community levels (Bengston & Oyama, 2007). With shifting demographics, policies that promote solidarity between generations rather than competition can reduce negative outcomes such as ageism. This idea is nothing new. In 2007, the UN identified intergenerational relations as a primary area of focus in their World Programme of Action for Youth.

In 2009, experts at a UN meeting on families and intergenerational solidarity recommended cooperation between youth and elder organizations, implementation of community-based centers, and increased research on intergenerational bonding efforts.

The UN's actions paved the way for governments and organizations to build frameworks and initiatives regarding intergenerational solidarity.

Generations United recommends that policymakers apply an inclusive policy framework to all legislation, which involves the following tenets: prioritizing lifetime well-being, considering the impact of every action on each generation, uniting generations for the best social and economic outcomes, and helping each generation realize its ability to contribute to family and community well-being (Generations United, 2010). Essentially, policymakers should adopt and communicate the mindset that budget decisions are never "young versus old," but that good policies can support all generations. For example, social security, educational investments, and healthcare positively affect all family members. Other policies, including tax credits and benefits, pensions, public child care supports, and revisions in educational policy, have proven successful in narrowing generational gaps (Generations United, 2010).

For the past few decades, several countries have been implementing and developing successful cross-age initiatives. Cyprus has a national program named Interaction of Students and Cypriot Senior Citizens, where seniors study and train alongside youth in primary and secondary schools (Generations United, 2010). In the U.S., the National Family Caregiver Support Program and the Fostering Connections to Success and Increasing Adoptions Act of 2008 have supported older caregivers (Butts et al., n.d.). Singapore has promoted youth community service at elderly homes, elder-to-youth mentorship programs, and age-integrated centers like the Ayer Rajah Day Care Center and the Tampines 3-in-1 Family Center, where child care, after-school care, and day care services for the elderly are integrated (Thang, n.d.).

Educational initiatives can also be effective and include integrating anti-ageism training in colleges or challenging school districts to involve family members and older adults in the curriculum. Experience Corps, a U.S.-based program that recruits individuals over age 55 to tutor and mentor elementary school students, has found boosts in academic performance and increased success in school and youth organizations (Butts et al., n.d.). A few outcomes for youth in intergenerational mentoring programs included improved school attendance, better reading comprehension and developmental scores, increased knowledge about substance abuse, and enhanced life skills (LoSciuto et al., 1996). Benefits for older adults who volunteered with children and youth included better memory test scores (Fried et al., 2004), higher fitness levels, improved energy (Jarrott & Bruno, 2003), and decreased time spent alone (Butts et al., n.d.).

Technology. Public policies are crucial for addressing the digital divide among older adults and for increasing technology accessibility among aging populations. Currently, aging populations lack equal access to technology, with the largest gaps occurring in low- and middle-income countries (LMICs) and rural areas. The AARP (American Association of Retired Persons) has recommended that to expand broadband infrastructure to the 1.4 billion people who will be 60 or older by 2030, policies must foster public-private partnerships, increase affordability, promote accessible design, and enhance technical knowledge among the older population (AARP, 2023).

To target affordability, initiatives like the Lifeline Program in the U.S., which provides subsidies to low-income residents for telephone services, can be effective. Lifeline benefits many older adults, for whom technology can be especially vital due to telemedicine resources, communication with emergency service providers, healthcare providers, and family and friends. Gaps in technological knowledge can be addressed through digital literacy programs in local languages, especially in existing community spaces or workplaces. In South Korea, a six-week digital literacy education program

conducted in rural areas improved older adults' capacity to navigate smartphones and enhanced their happiness and cognitive function (Lee et al., 2022). However, policymakers should also seek to address issues that may arise due to increased technology access. For instance, older adults are more susceptible to online scams. Protective policies that involve law enforcement and consumer education are necessary, as demonstrated by the U.S. Federal Trade Commission in 2016.

Gender. The UN Women Strategic Plan for 2022-2025 outlines continued support for women's economic empowerment, including income security, meaningful work, and financial autonomy, and recognizes the disproportionate caregiving responsibilities placed on women (UN Women, 2021). Their solution framework includes the 5Rs: recognize, reduce, redistribute unpaid care and domestic work, reward, and represent care workers (UN Women, 2021).

Regarding elder care specifically, there have been a few proposed policies to alleviate this disproportionate burden on women. The first involves changing social norms through educational campaigns and organizing. MenCare, a fatherhood campaign in more than forty countries across five continents, conducts activities to promote male involvement in caregiving (Elson, 2017). These include social media campaigns, radio shows, and education and training. The second is pension credits. Governments can offer credits to offset pension entitlement losses that women often face due to time spent caring for children and other family members. These credits are used in Latin America (e.g., Uruguay and Bolivia), but they are only provided to mothers, while in Europe, they go to the primary caregiver (International Labour Office, 2008). Pension credits for the primary caregiver allow more freedom to redistribute caregiving responsibilities. Similarly, countries can provide financial assistance to informal caregivers. The UK offers Carer's Allowance to those caring for individuals with illness or disability for at least 35 hours a week, and Australia, Germany, Norway, and Sweden have similar policies. Third, many women's organizations and unions advocate for increased investment in social and physical public infrastructure. In regions of high poverty, investing in physical public infrastructure like clean water solutions, roads, and bridges is particularly important. The water crisis, for example, disproportionately impacts women in lower-income countries. In 25 countries in sub-Saharan Africa alone, women spend a total of sixteen million hours per day walking for water (Caruso, 2019). The outcomes include a decrease in time allocated to education or other activities, thereby diminishing financial flexibility and growth, particularly when combined with caregiving responsibilities.

Social infrastructure investments in care and health services, such as increasing the prevalence and affordability of non-medical care services for the elderly, are also important. Currently, public investment in elderly care services is low in most countries but is better in those with a history of strong welfare systems. Denmark, for example, has services fully financed through taxes and provided to all legal residents for permanent long-term care. It also has one of the lowest global gender wage gaps (Elson, 2017). In the MENA region, women's social status, political participation, and economic freedom differ drastically from men's (Hussein & Ismail, 2016). Elderly care can be either formal or informal, but due to religious and cultural norms and the lack of formal systems, many long-term care responsibilities fall on family members, especially women. Increasing state support, access to community-based care, capitalizing on university or volunteer-based healthcare, and implementing financial assistance policies are promising starts for this region (Hussein & Ismail, 2016).

POLICY SUMMARY

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We close this report by providing a high-level overview of key policy priorities that cut across the six major demographic trends described herein. It is of utmost importance that all enacted policies take a family-friendly approach, allowing families to make decisions based on their needs and preferences rather than adopting a "one size fits all" model. Broadly, the policies recommended in this report fall into four categories: education, labor market, healthcare, and family laws.

1. Education.

Access to free and quality education greatly promotes the well-being of all members of society. For girls and young women, education is shown to (1) delay the age of marriage and childbirth, and (2) reduce maternal and infant mortality. For the burgeoning adolescent population, education can reduce unemployment, promote well-being, and have positive downstream effects during middle age by increasing productivity and support ratios. Finally, for the aging population, education in the form of skills and job training, as well as training in technology, can generate job opportunities and promote the hiring of older adults.

2. Labor Market.

Policies are needed to ensure that all members of society have fair and equal access to the labor market. Women empowerment initiatives that promote women's employment, their ability to own land and businesses, and participation in political decision-making have considerably reduced maternal and infant mortality rates. These initiatives have also led to reduced fertility rates, specifically the rates of unwanted or unplanned pregnancies. Similar patterns are observed for adolescents and aging adults who gain greater access to the labor market.

3. Healthcare.

It is crucial that policies prioritize lifelong health and well-being. At the broadest level, countries need to ensure universal health coverage and access to quality healthcare across all geographic areas. More specifically, policies must address barriers to healthcare access, especially for vulnerable populations such as pregnant women, mothers of young children, youth under 18, those living in rural areas, and aging adults.

Healthcare systems also need to be strengthened to respond to the unique healthcare needs of women, adolescents, and aging adults. For example, access to family planning, contraceptives, and infertility treatments is essential to reduce maternal and infant mortality, as well as unwanted and unplanned pregnancies. Additionally, healthcare policies need to address the causes of maternal and infant mortality, such as infectious diseases. For the aging population, there is a need to better address chronic health issues and provide more mental health support.

4. Family Laws.

Across all six demographic trends highlighted in this report, there has been a resounding message regarding the need for laws that promote the well-being of families. These laws include maternal and paternity leave, parental and family care leave, childcare support, and tax credits for children and other dependents.

Of note, while recommendations such as improving education and health access are critical across the board, there is no universal policy approach. Researchers should continue collecting and disseminating high-quality, accurate data about individual regions to better inform specific policy initiatives. Moreover, we acknowledge the importance of national sovereignty and cultural specificity. Here, we take a global, macro-level perspective, but when implementing policies, it is crucial to understand and align with the local context. The recommendations provided here should be adapted and implemented through partnerships involving governments, policymakers, community leaders, cultural institutions, and, most importantly, individuals with lived experience.

CONCLUSION

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Globally, crucial demographic changes are occurring: fewer babies are being born, couples are waiting longer to get married or deciding not to marry at all, more children are surviving infancy and childhood, childbirth is becoming less dangerous, the youth population is expanding, fewer child marriages are taking place, and the population as a whole is getting older. Many of these changes are positive, but we still have a long way to go to improve health and well-being outcomes for families, particularly in vulnerable regions such as sub-Saharan Africa. Importantly, demographic trends are not susceptible to rapid policy-induced change. As such, the most successful policy interventions will be preceded by careful long-term planning informed by rigorous data collection. We advocate for thoughtful, family-friendly policies that aim to adapt to changing family structures and dynamics in equitable and inclusive ways. By focusing on the support and empowerment of our world's most vulnerable populations, we can help ensure that all children and families thrive.

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