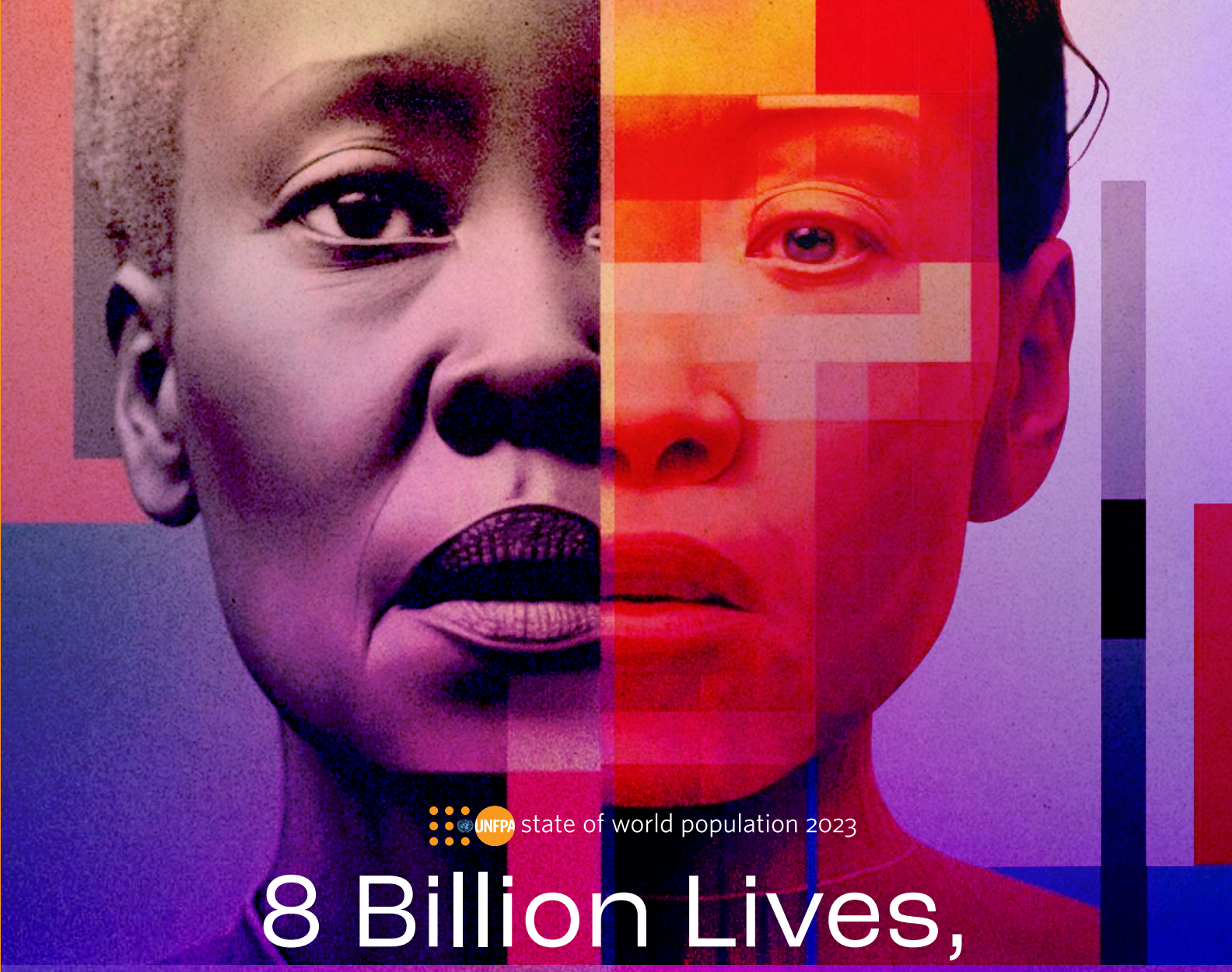

UNFPA state of world population 2023

8 Billion Lives, INFINITE POSSIBILITIES

the case for rights and choices

State of World Population report 2023

This report was developed under the auspices of the UNFPA Division for Communications and Strategic Partnerships.

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A NOTE ON ART
The artwork for this report was created by award-winning artist and founder of the art-tech studio ARTificial Mind, Cecilie Waagner Falkenstrøm. Cecilie's art, which utilizes artificial intelligence, machine learning and other cutting-edge technologies to provoke reflections about our engagement with technology, represents the core themes of this year's report: the perils and promise of a not-so-distant future, the fears which spring from those unknowns, and the infinite possibilities within reach when rights and choices for all are ensured. In its ability to bridge the gap between the real and the imagined, this year's artwork encapsulates the anxieties and opportunities that future holds, and, most importantly, underlines how we are co-creators of it.

Ensuring rights and choices for all

UNFPA state of world population 2023

8 Billion Lives, **INFINITE POSSIBILITIES**

the case for rights and choices

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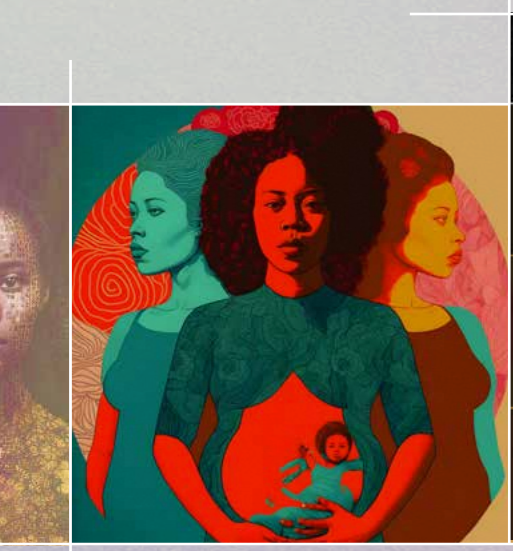





Chapter 4

The State of Reproductive Choice

Chapter 5

Rights Are the Key

FOREWORD

In November 2022, the world population eclipsed 8 billion people. For many of us, it represented a milestone that the human family should celebrate — a sign that people are living longer, healthier lives and enjoying more rights and greater choices than ever before.

The relationship between reproductive autonomy and healthier lives is an uncontested truth: as women are empowered to make choices about their bodies and lives, they and their families thrive — and their societies thrive as well.

Yet that was not the message heard by much of the world. Instead, many headlines warned of a world teetering into overpopulation, or that whole countries and regions were ageing into obsolescence. Somehow, when the human numbers are tallied and population milestones passed, the rights and potential of individuals fade too easily into the background. Over and over, we see birth rates identified as a problem — and a solution — with little acknowledgement of the agency of the people doing the birthing.

This story was supposed to have changed. In 1994, the Programme of Action of the International Conference on Population and Development (ICPD) recognized that advancing gender equality and the empowerment of women and ensuring women's ability to control their own fertility must be at the heart of population and development-related programmes.

This vision was articulated, in large part, because women's movements saw both the violations that can occur when family planning is used as a tool for "population control" and what empowerment and autonomous family planning can help secure for individuals. Today, the 2030 Agenda for Sustainable Development expressly acknowledges that sexual and reproductive health and gender equality are essential for unlocking a more prosperous and sustainable future.

Why, then, are so many women still deprived of their bodily autonomy? The most recent data from 68 countries show that an estimated 44 per cent of partnered women are unable to make decisions over health care, sex or contraception. The result? Nearly half of all pregnancies are unintended, an abrogation of women's basic human right to decide freely and responsibly the number and spacing of their children.

Today, climate change, pandemics, conflicts, mass displacement, economic uncertainty and other issues fuel concerns about over- and under-population. Yet human reproduction is neither the problem nor the solution.

This State of World Population report, produced by a group of external advisers, researchers and writers, working alongside UNFPA technical staff and editors, explores how broadening our understanding of population can lead to new solutions that build demographic resilience and help shape a more equitable and prosperous future.

Advancing gender equality is an often-overlooked solution to many of these concerns. In ageing, low-fertility countries with labour productivity concerns, achieving gender parity in the workforce is considered the most effective way to improve productivity and income growth. In high-fertility countries, empowerment through education and family planning is known to yield enormous dividends in the form of economic growth and human capital development.

That is why UNFPA is calling for expanded efforts to realize bodily autonomy and support sexual and reproductive health and rights for all — the foundation for full equality, dignity and opportunity. Every member of our human family has the right to make free and informed choices about their health, bodies and futures. This right should be the starting point for all conversations about population. Population is, after all, about people, about creating the conditions for all 8 billion of us to live freely and fully, equal in dignity and rights, on a healthy, safe and prosperous planet. When we invest in people and their potential, in their rights and choices, all of humanity benefits.

Dr. Natalia Kanem
Executive Director
United Nations Population Fund

EXECUTIVE SUMMARY

Ours is a world of hope and possibility, a world where the human family is larger than ever before. It is a world in which we are collectively living longer and, on balance, enjoying better health, more rights and broader choices than at any other point in human history. Ours is also a world of anxieties: the tensions of everyday life are rapidly accumulating amid economic uncertainty, the existential question of climate change, the still-rising toll of the COVID-19 pandemic and the ongoing ravages of conflict.

In November 2022, the United Nations announced that the human population had surpassed 8 billion people, and also that two thirds of people were living in places where fertility rates had fallen below the so-called "replacement level" of 2.1 births per woman. These trends offer a nuanced look at demographic transition — the shift from higher to lower mortality and fertility — as it unfolds in different countries and contexts. But the subtleties of this story were very often lost. "Too many" people will overwhelm the planet, many pundits proclaimed, even as others warned that "too few" people would lead to civilizational collapse. Every population trend seems to invoke its own vision of catastrophe. Too many young people? Destabilizing. Too many old people? A burden. Too many migrants? A threat.

To be sure, there are many valid and pressing concerns related to population, such as the complex links between population size, affluence and fossil fuel consumption, and the challenges of budgeting for infrastructure, health services and pension programmes. But when we flatten out the nuance, we obscure the very problems we need to address, burying them beneath layers of hyperbole and blame. Fertility rates that deviate from 2.1 are widely treated as red flags, predictive of either impending overpopulation or catastrophic depopulation. The solutions, it is often said or implied, should therefore be fertility related. Fears and fixes begin to take the form of a woman's body. This alarmism poses real risks:

one, that population anxiety will distract us from serious but solvable problems, and two, that population anxiety will become a rationale for denying the rights and bodily autonomy of women and girls.

Population matters

The State of World Population report is produced by a panel of external advisers, researchers and writers, who work alongside UNFPA technical staff and editors, bringing the insights of leading independent experts together on issues related to the UNFPA mandate. This report explores how people — the general public, policymakers, academics and others — understand current population trends, and how those views can impact sexual and reproductive health and rights.

Make no mistake: population trends are real and enormously impactful. They affect culture and social relations, economies and political discourse. They influence how we approach climate change, allocate resources, respond to shifting workforces and more.

But it is precisely because population trends are so important that we must move past the tendency to reduce all of humanity to the threat of a population "bomb" or "bust". These alarmist narratives persist in part because they offer easy talking points and can be used to justify simple but fallacious "fixes", like setting fertility targets to "correct" a population size. Research for this report found a notable recent uptick in governments adopting policies aimed at raising, lowering or maintaining fertility rates. Further, the share of countries with policies to increase fertility has grown, while the share of countries without fertility policies has diminished. Policies to influence fertility rates are not necessarily coercive — they can take many forms — but in general, the analysis finds that efforts to influence fertility are associated with diminished levels of human freedoms.

In reality, there is no perfect population size, nor any reliable way to achieve a specific population size. Fertility rates fluctuate for a wide variety of reasons that stretch far beyond the reach of targets and State policies. At times, efforts to manipulate population even defy logic. Responding to an ageing population by encouraging people to have more babies, for example, ignores the fact that this will do little to relieve shortages of workers and pension burdens in the short term, and in fact will increase the need for other large investments like education long before the babies become productive, tax-paying workers.

Yet such approaches remain palatable in many places — and not only among policymakers but among politicians, commentators and community members as well. It may seem more achievable to focus on population numbers and to convince women to have more or fewer children than to tackle the climate crisis through reducing emissions or increasing sustainable consumption and production, or to make the public investments needed to ensure equitable access to quality education, employment, health coverage and social protection. In this way, women's and girls' bodies are treated as instruments to enact population ideals, a notion made possible by their still subordinate status, socially, politically and economically.

Of course, good intentions are often also at work; implementing family-friendly conditions for those who want to have children and providing contraceptives for those who don't are critical efforts that support reproductive rights and gender equality. But a view of the world in which high-fertility rates mean contraceptives are needed, while low-fertility rates mean family-friendly policies are needed, is also too simplistic. Infertility is widespread in high-fertility contexts, just as unmet need for contraception is prevalent in low-fertility ones, and a full range of reproductive health services and gender-equality protections is needed in all settings.

Moreover, there is a risk that those who craft or implement fertility policies will come to see directing fertility rates as their main goal. We know that when this happens, it can undermine women's exercise of choice and diminish their rights. The most recent Sustainable Development Goals data reveal that, out of 68 reporting countries, an estimated 44 per cent of partnered women are unable to make decisions over health care, contraception or sex (UNFPA, 2023). The most vulnerable have only a tenuous grip on their bodily autonomy, if they can exercise autonomy at all; this fact obliges us to prioritize their needs, rights, choices and dignity – including in population policies.

Towards rights and resilience

It is clear that the old prescriptions for managing population change do not work, and in the worst cases they lead to violence and harm. The same is true of despair, which may lead us to compromise on agreed rights. How often have we seen fear used to separate populations into "us" versus "them"? Why should we work together towards a better future if all we can imagine is a worse one?

Fortunately, countries are beginning to put aside fear, responding to the challenges with new solutions in order to foster truly successful, thriving populations. In planning for unfolding demographic changes, they are not setting targets but aiming for demographic resilience. This approach means that social and economic systems stay attuned to what people themselves say they want and need to flourish, in times of both prosperity and peril.

Starting down this path means broadening our understanding of population, investing in the

data collection and analyses needed to look at — and also look beyond — total population sums and fertility rates. A more accurate perspective may emerge, for instance, from considering age structure, migration, mortality trends and age at childbearing. Data could factor in shifting social and gender norms and fertility intentions. They could better define demographic intersections with gender equality, as in a recent United Nations study, which found that greater gender parity in the labour force would do much more to sustain economies in ageing, low-fertility societies than a return to higher fertility (UN DESA, 2023a).

Equally important are the questions we ask when using this information. Instead of asking, for instance, whether a fertility rate is too high or too low, we might ask whether people are able to realize their sexual and reproductive rights, and if not, what is required to fill the gaps? How well is the space for choice protected? Is it protected equally for all, with no exclusions in principle or practice, as human rights standards require? Are diverse voices steering the process of inquiry and deciding the directions it takes and the conclusions it reaches?

The 1994 International Conference on Population and Development was a landmark shift away from population control ideologies and towards sexual and reproductive health and rights. This was largely due to the powerful advocacy of women's movements and the willingness of policymakers to listen to their case for rights and choices. It is time to listen again.

This means hearing the voices of concern, voices represented by the stories in this report. It means heeding the voices of those advocating for sexual and reproductive justice, which considers not just stand-alone factors like contraceptive access but all the conditions needed for rights and choices, from economic security to a clean and sustainable environment to liberation from violence and discrimination.

These are calls for action arising from the belief that a better future is possible, if all of us act in concert to make it so — and that requires action not just from policymakers and parliamentarians, but also young people, older persons, activists, the private sector and civil society groups. Together, we must create a world where everyone can exercise their rights, choices and responsibilities. This is essential for building a more sustainable, equal and just world for all 8 billion of us. A future of infinite possibilities.

The time for action is now.

Our Human Family, 8 BILLION Strong

Our human family now has 8 billion members, a milestone to celebrate. It represents historic advances for humanity in medicine, science, health, agriculture and education. More newborns make it through the precarious first months of life (WHO, 2022). Children are more likely to grow to adulthood (Small Arms Survey, 2022), and people live longer, healthier lives.

These gains are the result of progress in public health, nutrition, education and more, and growing numbers of people are able to enjoy these benefits. In recent decades, these advances have been amplified by commitments to human rights, universal health, sustainable development and gender equality — made by governments, non-governmental movements, the private sector and many more. They include the global Sustainable Development Goals (SDGs), which are at the heart of a transformative international agenda for development for all people by 2030. The international community has, through not only the SDGs but also many preceding decades of agreements, legal instruments and evolving social norms, assured every individual has an equal right to life, and to the highest attainable standard of health and dignity. Every human being sharing our planet today is owed these human rights and the possibilities that human rights can help them unlock.

Yet humanity has reached this population of 8 billion at a moment of multiple, overlapping and escalating crises. The COVID-19 pandemic has, to date, killed more than 6 million people (with estimates as high as 21 million) (Msemburi and others, 2022; The Economist, 2022; WHO, 2022a). The climate catastrophe (UNEP, 2022), weakened economies, conflict, food and energy shortages, and technology-driven disinformation pose threats everywhere in the world. The future can seem bleak; according to the 2022 Human Development Report, more than six in seven people globally say they feel insecure (UNDP, 2022). Amid these fears, it is all too easy to interpret the biggest demographic headlines of the moment — 8 billion people on Earth alongside historically low-fertility rates in many countries (UN DESA, 2022) — as signs of impending disaster. People are seeking answers, and "population" can be an appealing scapegoat for many problems.

This tendency poses risks, including laying blame on people who look different or live differently. We see this concern unfolding right now. It is expressed as fears about "overpopulation" — the perception that there are more people than the planet can sustain. At the same time, particularly in lower-fertility countries, it is expressed as concerns about "underpopulation", worries about diminishing labour forces and the "collapse" of communities or countries. In many places, both fears are playing out simultaneously.

Media headlines tell part of this story. "Planet Earth: 8 billion people and dwindling resources", one syndicated headline (AFP, 2022) announced as the milestone figure was reached in November 2022. "Young women are turning their backs on marriage and children while elderly numbers boom", another news item exclaimed (Zhang, 2022), adding, "demographer says the issue has potential to be elevated to a national security level". Versions of these messages appeared worldwide: "As climate change worsens, Egypt is begging families to have fewer kids" (O'Grady and Mahfouz, 2022). "South Korea spent $200 billion, but it can't pay people enough

> More newborns make it through the precarious first months of life.

> Children are more likely to grow to adulthood.

> People live longer, healthier lives.

to have a baby" (Hancocks, 2022). "'Without enough Latvians, we won't be Latvia': Eastern Europe's shrinking population" (Henley, 2022). "A demographic time bomb is about to reshape our world. The planet's population is soon expected to peak. What comes next will be unrecognisable" (Shute, 2022).

Both the tone and the language of such claims fail to reflect the complexities of population trends and the rights and autonomy of individuals (see box, "Using the language of rights"). And this is not unique to the media. From policy discussions to radio chat shows to conversations among

friends, there is widespread acceptance of the idea that countries or the world should work towards an ideal population size or composition or fertility rate. In some cases, public policies articulate such goals, even though history repeatedly shows the perils of population targets. Population targets are often implicitly coercive, pushing people towards reproductive choices that they might not otherwise make themselves. This process unfolds along a spectrum, from public campaigns and persuasion, to subtle or overt discrimination, and even to the forced use or denial of contraception and other sexual and reproductive health services.

Numbers in support of rights

All human beings have the right to make choices about when (or whether) to have children, how many children to have and with whom to have them. Their right to bodily autonomy means just that: free and informed choice, unhindered by requirements to live in service to any broader demographic, economic, social, political, environmental or security claims.

This is not to say that population numbers do not matter; they do, because every human being matters. Population data offer some of the most reliable, forward-looking information on the

> A history of ups and downs

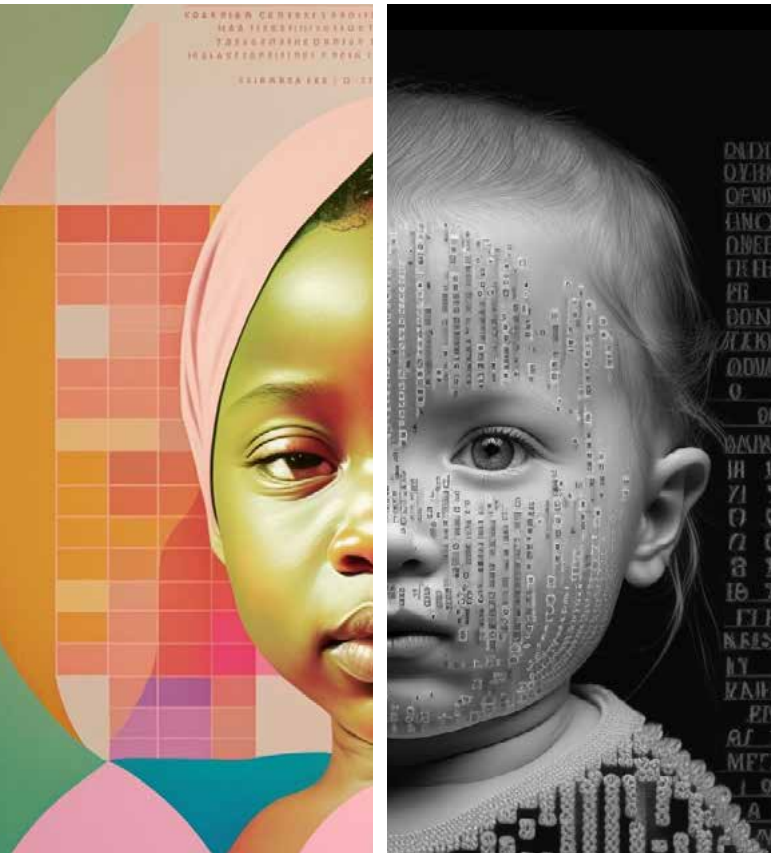
Population fluctuations are not new. Archaeological evidence indicates that there have been periods of rapid population growth followed by population declines throughout human history (Shennan and Sear, 2021) — but most historical population busts were driven by periods of mass early mortality, induced by events such as war, famines or epidemics. Indeed, the COVID-19 pandemic and the ongoing HIV/AIDS epidemic remind us that disease can continue to impact demographic trends on a large scale. Still, almost all current cases of falling population size are attributable to declining fertility and emigration rather than mass mortality events — trends that are a testament to advances in science, technology and peacebuilding. Today, most experts agree: population changes are normal, and population sizes are neither good nor bad; what is needed are resilient systems that can respond to the needs of a population, no matter what its size. Likewise, rising and falling fertility rates are neither good nor bad; they should, however, be an expression of the reproductive rights and choices of individuals.

needs that communities may have 5, 15 and even 50 years into the future. Cohorts of infants will require investments in health care and schooling, for instance. How these cohorts age, how they will likely affect labour markets and pension funds, how needs compare among cohorts within and across communities — all of this information offers policymakers a forecast of the possible future and of future possibilities. These data can enable policymakers to better prepare for impending changes, whether that means investing in systems that support large numbers of students, job seekers or retirees.

Population numbers are also critical in steering policies and programmes to achieve the SDGs, including their inherent commitment to leave no one behind. Population data provided by the United Nations Population Division are used to monitor around a quarter of the 231 SDG indicators, for example (UN DESA, n.d.). Particularly relevant for this report, population data can be used to quantify persistent and ubiquitous violations of reproductive rights. Since 2015, as part of SDG Target 5.6.1, countries have submitted data on bodily autonomy, which show that unacceptably large populations of partnered women and girls continue to be denied their fundamental right to make decisions about whether to seek health care, whether to have sex and whether to use contraception. In 2023, 68 countries have reported 5.6.1 data, showing that 24 per cent are unable to say no to sex, 25 per cent are unable to make decisions about their own health care and 11 per cent are unable to make decisions specifically about contraception. Together, this means that only 56 per cent of women are able to make their own decisions over their sexual and reproductive health and rights (UNFPA, 2023).

> Their right to bodily autonomy means just that: free and informed choice, unhindered by requirements to live in service to any broader demographic, economic, social, political, environmental or security claims.

The needs and rights of individuals may be challenging to reconcile with the number of people now sharing our planet. Much anxiety circles around the world's current megatrends, tectonic shifts not only in population size but also in the climate, emerging disease threats and more. But no matter the vastness of our human family, every member has non-negotiable rights and value. The international community has repeatedly recognized and affirmed — in agreements ranging from the 1994 International Conference on Population and Development (ICPD) Programme of Action to the 2030 Agenda for Sustainable Development — that human rights and gender equality are bedrock necessities for a more peaceful and prosperous future for all.



To this end, we must aim for a world in which the consequential act of bringing a child into the world — including the timing and circumstances of each birth — is an act of agency, an affirmation of choice and an expression of hope. Decision makers can better build resilient populations not by setting targets and stifling choices but by pursuing policies that enable individuals to realize their own reproductive ideals and broader well-being, including through education, health care, clean water, opportunities and more.

Perspectives from the public to policymakers

To learn more about perceptions and anxieties around population in a world of 8 billion, this report undertook original research in the form of a general public survey and analysis, as well as a secondary analysis of a routine United Nations survey of government policies.

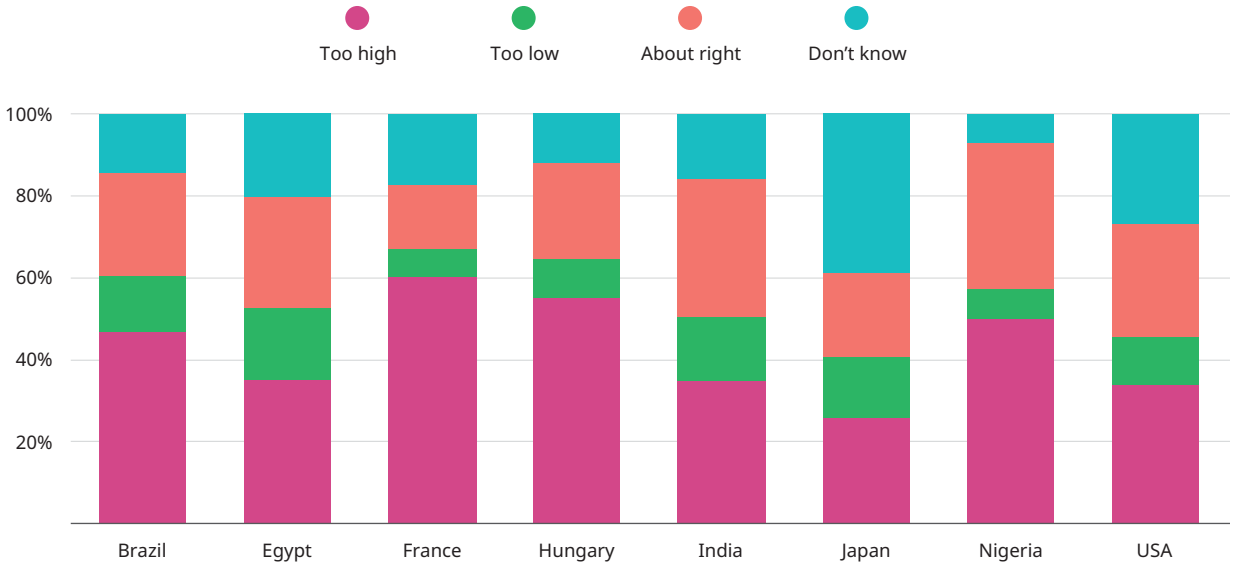
Public survey

The public survey, commissioned by UNFPA and conducted by YouGov, asked a representative sample of 7,797 people across eight countries (Brazil, Egypt, France, Hungary, India, Japan, Nigeria and the United States) for their views on population issues (see Technical note on page 172 for more information). The findings suggest that population anxieties have seeped into large portions of the general public. In every country surveyed, the most common view among respondents was that the global population was too large. In six countries (all except Japan and India), the most common view was that the global fertility rate was too high (Figure 1). Between 47 per cent (Japan) and 76 per cent (Hungary) of adults believed that the current world population was too high while between 26 per cent (Japan) and 60 per cent (France) believed the global fertility rate of 2.3 children per woman was too high.

Still, many people did not share this view, and there was variety among and within countries. Between 13 per cent (France) and 30 per cent (Nigeria) believed the global population was about right. Every country had appreciable numbers of respondents who did not have an opinion and who believed population and fertility were too low. In Hungary and Japan,

> FIGURE 1

Views on global fertility rate held by survey respondents



Source: UNFPA/YouGov survey 2022.

the two countries with the lowest fertility rates of those surveyed, the majority of adults felt domestic fertility rates were too low.

Another notable finding was that exposure to messages and rhetoric about the world's population — whether via media, general conversation or other modes of communication — appeared to be linked to greater concern about population size, fertility rate and immigration. In all countries, those who reported being exposed to media or conversations about the world's population in the past 12 months were substantially more likely to view the global population as being too high. This trend was starkest in Japan, where 68 per cent of those with media or messaging

> Exposure to messages and rhetoric about the world's population appears to be linked to greater concern about fertility rate and immigration.

exposure believed the world population was too high while only 29 per cent of those without messaging exposure believed the same.

In every country, those who had not seen any media coverage or messaging about the population were more likely to report "don't know" when asked if the population was too big, too small or just right. Similarly, those exposed to rhetoric or media messages about global or domestic population size were more likely to say the global fertility rate was too high. Although it's not possible to ascertain a causal relationship (rhetoric may contribute to population anxiety, for example, but people with population anxiety may also better recall or more actively consume

information about population), what is clear is the value of ensuring that rights and choices remain central in dialogue and messaging around population issues.

One particularly crucial finding arose when respondents were asked to identify what issues were of greatest importance to them when thinking about population change within their own countries. In all countries except Japan, issues related to policies on sexual and reproductive health and rights, as well as other human rights, were a significant concern for many (see page 46 for more information). The centrality of rights rarely finds its way into discourse about "over-" and "under-" population as expressed by politicians and the media, but it appears that rights and policies are present in the public's mind, as are concerns about the economic and environmental impacts of population change.

Secondary analysis

The secondary analysis looks at data submitted by governments to a United Nations survey of government policies, the Inquiry Among Governments on Population and Development, which has been routinely conducted since 1963. These data offer the only comparative view into the perspectives of governments on national populations, an utterly unique set of data showing how governments describe and approach critical aspects of population change and international migration within their borders. The analysis focused on responses from 2015, 2019 and 2021, predating the announcement that humanity has reached 8 billion people. Still, the responses seem to indicate a rise in anxiety among governments when it comes to their populations and fertility trends. A notable uptick is evident in the number of countries adopting fertility policies with an express purpose to raise, lower or maintain fertility rates.

Countries that state an intention to raise fertility through policy and those with no stated fertility intention have similar levels of human development. But tellingly, those countries without policies seeking to influence fertility rates have much higher scores on human *freedom*, as measured by the Human Freedom Index, compared to those with fertility targets (regardless of whether the goal is to raise, lower or maintain fertility). These global averages mask subnational diversity and variation among individual countries, but generally speaking they suggest that countries without fertility targets do better in prioritizing people's rights. (For more information, see Technical note on page 173.)

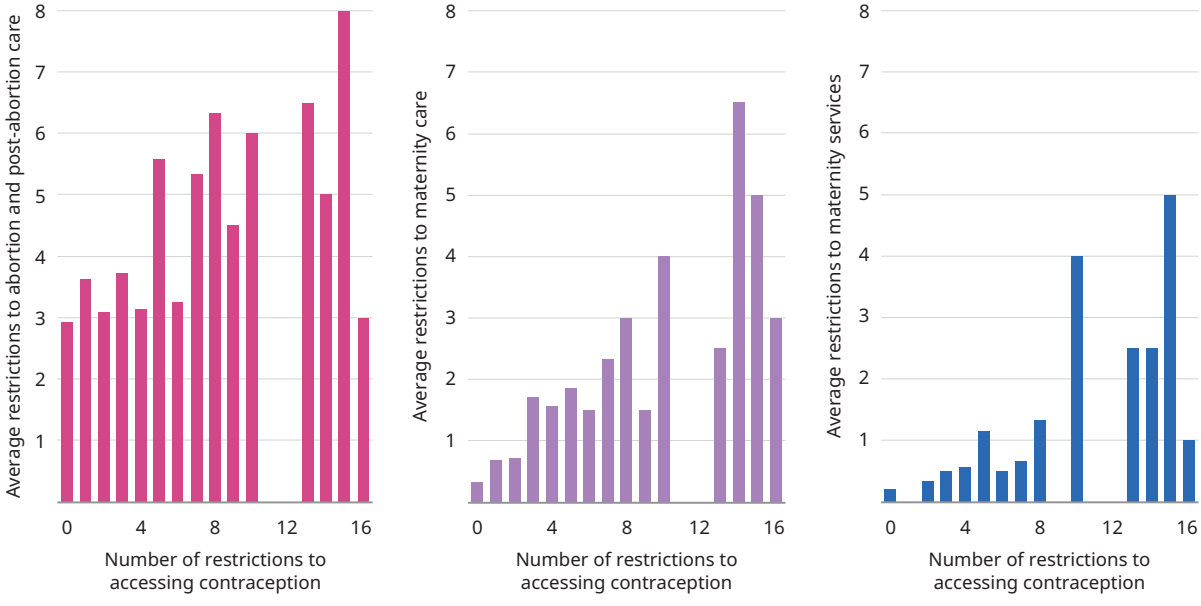
While the most recent Inquiry survey, from 2021, does not report on governments' fertility policies, it does allow governments to report on whether they have any laws or regulations that guarantee access to certain reproductive and sexual health services, including maternity care and various family planning services, and whether access to these is limited by contradictory plural legal systems or other restrictions based on age, marital status or third-party authorization (e.g., spousal, parental, medical). The analysis finds no connection between countries' fertility rates and the accessibility of their sexual and reproductive health services. In other words, countries reporting greater restrictions on sexual and reproductive health and rights are *no more likely* to have higher- or lower-fertility rates.

However, these data also show there is a concerning connection between restrictions in one sexual and reproductive health domain and those in others (Figure 2). For example, countries curtailing access to maternity care also tended to have more constrained access to contraception. Greater limits on contraception correlate with more barriers to abortion and post-abortion care. This suggests that, while fertility rates do not seem to be reflective of restrictions in reproductive health services, the restrictions certainly reflect gender-unequal norms. Further, these norms remain tragically commonplace. Similarly, countries with lower income levels were not found to have more restrictive access to contraception and maternity care than higher-income countries, suggesting that political choices, not resources, explain differences in access.

This analysis, along with the research elaborated throughout this report, indicates that when sexual and reproductive health services are viewed, even rhetorically, as tools to achieve fertility goals, the results can be counterproductive.

> FIGURE 2

Correlations between restrictions to access in sexual and reproductive health and rights services



Source: United Nations Inquiry Among Governments on Population and Development, 2021.

For information on restrictions, see Technical note on page 174.

Hope in an age of anxiety

People cannot have too many or too few children under any definition but their own. What can be extraordinarily good or disastrously bad, however, are the ways we respond to population numbers and trends. Extraordinarily good outcomes can happen when policies are evidence-based and human rights are affirmed, and disastrously bad outcomes happen when we react to the real challenges of population change by prescribing fertility solutions that undercut human rights — or by ignoring population change altogether.

In many ways, population anxiety may be an understandable reaction to the world's many uncertainties. But despair only diverts attention away from the problems that need addressing and saps motivation to manage challenges associated with demographic change — and these challenges can, indeed, be managed. Countries and people can thrive in a world of demographic change.

While people have never been more numerous than they are today, and total population numbers will continue to grow for several decades, the latest United Nations projections suggest that the *rate* of global population growth has fallen, and has been at less than 1 per cent since 2020 (Figure 3). This is largely due to declining fertility; around two thirds of people live in a country or area with a total fertility rate at or below 2.1 children per woman (widely considered the "replacement fertility" rate, also called "zero-growth fertility" rate, an idea explored on page 60). In some cases, falling populations will be due to higher emigration (UN DESA, 2022a). The population growth

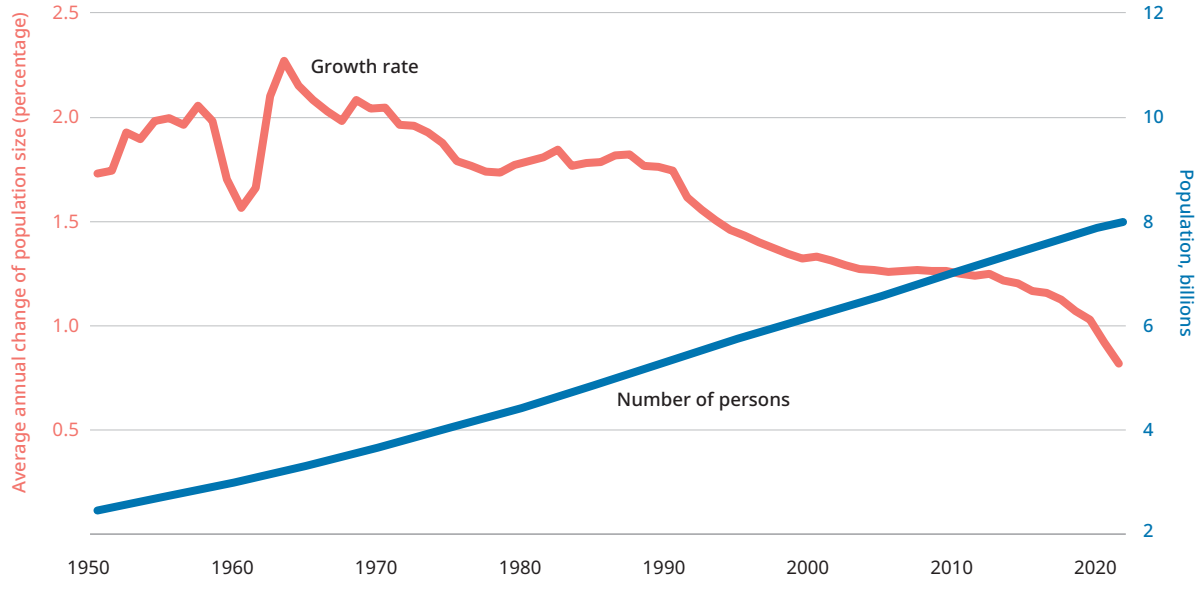
that remains largely stems from the inbuilt momentum of current numbers of people and improvements in life expectancy, not fertility rates.

This report explores the mix of fears and anxieties arising from these trends. Chapter 2 considers the view that there are simply "too many" people, leading to climate change and environmental destruction. The Intergovernmental Panel on Climate Change has described growth in per capita gross domestic product (GDP) *and* population growth as the strongest drivers of emissions from fossil fuel combustion in the last decade. Yet these projections are not purely about population numbers. Growth in per capita GDP is outstripping gains in efficiency, underlining the critical role of consumption patterns in emissions (IPCC, 2022).

Typically, those who are well-off and able to consume more produce more emissions and have a much greater impact on climate change. And they are a minority of the human family. Out of 8 billion people, around 5.5 billion do not make enough money, about $10 a day, to consume much and contribute much to emissions, if anything at all (Kanem, 2017). So while population numbers are essential to

> FIGURE 3

World population growth rate, 1950–2021



Source: UN DESA, 2022.

understanding climate concerns, fixating on numbers alone can obscure the actions that all countries need to take to meet these challenges, from cutting emissions to financing the efforts of poor communities to adapt to climate change.

Chapter 3 addresses anxiety over shrinking populations, fears that are increasingly common in places where fertility is low and where concerns either about nations disappearing or being "taken over" by minority or migrant groups have risen. Movements in some European countries and elsewhere have pushed to stop the "great replacement" supposedly posed by increased migration, and have called on women to have babies to shore up population numbers instead (Goetz, 2021). Yet history repeatedly shows that neither restrictions on reproductive freedoms nor cultural exhortations for women to have more children are effective in reversing fertility declines or increasing population numbers overall.

A related concern addressed in Chapter 3 is population ageing, a phenomenon taking place everywhere but felt most acutely in low-fertility countries. The fact that people are living longer and healthier lives than at any time in human history should be seen as a

> Using the language of rights

This interdisciplinary report brings together scholarship from a variety of fields and, in doing so, finds incongruities in how various academic traditions, practitioners and political actors speak about and understand population issues — and in particular how they speak about fertility trends and patterns. The very same words can communicate different meanings depending on who is talking and who is listening.

At the "macro" level, where many demographic experts and policymakers operate, fertility is often approached as simply one of three components of population change (along with mortality and migration), and calls to "reduce" or "boost" it are common. Policies designed to increase or decrease fertility are seen not only as beneficial to societies but often also as rights affirming and empowering for individuals, especially when accompanied by the caveat that such policies must avoid coercion.

But heard from the perspectives of people who have historically been — or currently are — denied reproductive autonomy, this same language conspicuously fails to account for the agency of individuals. For decades, feminist academics, among others (Hartmann, 2016; Smyth, 1996), have noted with concern that family planning programmes have been used, even promoted, as tools for fertility reduction rather than tools by which to secure women's and girls' autonomy. In this view, neglecting to specify reproductive rights and choices as the foremost objective of any population policy necessarily opens the door to pressure, coercion and abuse.

It is possible to bridge these gaps when we talk about fertility rates and population policies, by making reproductive rights the starting point rather than an assumption or afterthought. This is not a rejection of the seriousness of population concerns, which require rational, evidence- and human rights-based population policies. Such policies must be designed and explained with care, understanding that language is an instrument of power and that real lives are at stake.

This report uses the following terms with the following definitions:

population control – the practice of intentionally controlling the growth, size or distribution of a human population (this term is widely associated with measures that violate human rights, such as forced sterilization programmes, but in some contexts it continues to be used to describe family planning programmes without any negative connotation [Sari and others, 2022]).

demographic anxiety – fear, whether founded or unfounded, arising from population size, population change, population composition or fertility rates.

demographic resilience – the quality or state of being able to adapt and thrive amid demographic changes (see box on page 27).

population targets – numbers or number ranges of people that are the goal of any given population policy.

fertility targets – fertility rates or fertility rate changes that are the goal of any given population policy.

population policies – policies concerning a range of population issues, including population size and growth, population distribution by age, fertility and marriage, reproductive health and family planning, health and mortality, spatial distribution and urbanization, and internal and international migration. These policies are often not comprehensively contained within a single framework, ministry or programme but rather touch upon the work of many different agencies and divisions within governments.

fertility policies – policies related to fertility, most notably those related to reproductive health services; however, in this report "fertility policies" refers specifically to policies which countries themselves have identified as intending to influence fertility rates (whether to maintain, reduce or increase) in their responses to the Inquiry Among Governments on Population and Development.

high fertility – in this report, the term "high fertility" is used in a comparative sense rather than as a fixed fertility threshold tied to a specific total fertility rate. While the term, as used in the report, generally points to fertility rates that lead to population growth — those above approximately 2.1 children per woman (see page 60) – it recognizes that perceptions of what constitutes high fertility are subjective and context specific.

low fertility – likewise, "low fertility" in this report is used in a comparative sense rather than as a fixed fertility benchmark tied to a specific total fertility rate. While the term, as used in the report, generally points to fertility rates that do not contribute to population growth — those at or below approximately 2.1 children per woman (see page 60) — it recognizes that perceptions of what constitutes low fertility are subjective and context specific.

major accomplishment, yet fears about ageing populations are common — including worries of diminishing national power, unsustainable public budgets and weakening economies. Experience shows that many of the issues associated with decreasing population size and ageing can be managed. One of the most impactful solutions, in fact, is the empowerment of women (UN DESA, 2023a).

Chapter 4 illustrates why women's empowerment and bodily autonomy belong at the centre of population conversations. Too many women around the world are unable to achieve their reproductive aspirations. In broad strokes, many women in high-fertility countries report having more children than desired while many women in low-fertility countries report having fewer children than desired.

Yet to assume that all women in certain settings desire fewer children while those in other settings desire more is to erase crucial complexities. For example, there is a tragically high prevalence of infertility in low-income, high-fertility countries, including in sub-Saharan Africa (Inhorn and Patrizio, 2015). In contrast, there are persistently high levels of unmet need and low levels of satisfied demand for modern contraception in many low-fertility countries, including countries in Asia and Eastern Europe (Haakenstad and others, 2022). Moreover, many patriarchal assumptions about women's reproductive wants and roles are counterproductive for both families and individuals.

Chapter 5 offers solutions aimed at using family planning and gender-equality programmes not as tools to achieve population goals but as goals in themselves. Instead of focusing on whether fertility rates are "too high" or "too low", leaders might more productively ask whether people are able to choose, freely and responsibly, the number and timing of their children, if they are able to exercise reproductive choice and bodily autonomy, and if they can access health services with confidentiality and dignity. When reproductive rights are undermined, which people are most affected? How can their needs be met, their voices heard and their rights upheld? Inclusion is a core solution, at every level, spanning a more expansive vision of what families are and can look like, a comprehensive array of reproductive health services, a holistic definition of what population is, and an inclusive vision of who is counted and who belongs. This chapter also highlights the importance of looking at solutions beyond fertility and reproduction.

Beyond alarmism, towards empowerment

We have the tools and frameworks to move beyond alarmist debates over "too many" or "too few". One example is the international call for sexual and reproductive justice, which requires addressing the diverse forms of discrimination and injustice that people face in realizing their rights. Applying it, as has already been done in countries such as South Africa (McGovern and others, 2022), implies putting aside fertility targets and ensuring that people, with no exceptions or exclusions, have the best chances to make their own choices. This means providing quality and affordable health services, a liveable income, a clean environment, and safety from violence and stigma, among other core elements.

> Demographic resilience

Demographic resilience describes the ability of a system to adapt to, anticipate and thrive amid demographic changes. As populations inevitably fluctuate, there is a growing call for States to better understand these changes to ensure they have the skills, tools, political will and public support to effectively mitigate potentially negative effects for individuals, societies, economies and the environment, and harness the opportunities that come with demographic change for people, prosperity and the planet. In contrast to reactive approaches to population change, which seek to manipulate or control natural trends, an approach which centres on demographic resilience attempts to prepare for such changes to ensure that the needs and rights of everyone in a society are adequately met, regardless of its make-up. Population change is something to be planned for, not feared. A toolkit to help countries promote resilience amid demographic change can be found on page 132.

Another important approach is the movement for demographic resilience, a new view of population policies and actions where societies anticipate changing demographic trends and adapt and harness opportunities accordingly, all while keeping human rights at the centre of any intervention. This is a more balanced, positive and comprehensive approach than piecemeal concerns about fertility levels or population numbers (Armitage, 2021).

In Cairo in 1994, at the ICPD, governments agreed that the aim of any population policy should be to ensure the reproductive rights, choices and sexual health of people, rather than to achieve demographic targets. Fertility targets should not become goals in and of themselves; rather, very high- or low-fertility rates are often a symptom of widespread loss of bodily autonomy and reproductive choice. A more stable and productive social contract would be one that avoids putting human bodies in the service of economic, political, security or any other national goals, and instead upholds human rights and advances human well-being so that all members of a society have choices about how to live and thrive.

In the end, population anxiety is an easy way to avoid the complexities of the challenges we face. For some, it offers the comfort of clinging to the status quo. But indulging in it will do little to move our human family forward. Progress requires us to imagine the world not as it is but as it could be, one in which every individual can realize their full potential, one in which the most consequential reproductive choices of a person's life — whether, when and with whom to have a child — are made freely and responsibly. That world is a future within our reach; the path there is ours to make.

FEATURE

It's not about the number, it's about the quality of life

The world's population reached 8 billion in November 2022. What does the general public think of this record number of people on the planet and how does this milestone affect them as individuals? How does it affect their communities and nations?

Interviews were conducted with several individuals from the Arab States, a region where a higher-than-average fertility rate (2.8 births per woman compared to the world's average of 2.3) is occurring in the context of water scarcity concerns, accelerating desertification (Abumoghli and Goncalves, 2019) and frequent humanitarian crises. Have these trends affected people's perceptions of population growth or influenced their decisions about having children?

One woman, Rama (name changed), said yes. "I don't want to give birth to a child while living in these times," the 30-year-old Syrian explains. "There are too many things to worry about today: safety, security, economic security."

In her opinion, the population of Syria is too large for the level of services that are available. Conflict has weakened the social safety net. She adds that many people facing hardship today are having children without the means to care for them. "It's everyone's right to have a child, but maybe it's best to wait for the right conditions." Rama hopes to one day adopt one of the country's many children who have been orphaned or abandoned.

Said (name changed), 45, says that the population of Oman may seem small compared to other countries in the region, but it's growing fast, and it seems that people with fewer means are the ones having larger families. This is not a problem, he believes, so long as the country's economy remains strong enough to provide jobs, especially for unskilled labourers. "I worry about what will happen if one day the economy takes a downturn and people lose their jobs," he says. "And I worry about what a lot of unemployed young people will mean for stability."

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A key theme that emerged is that anxieties about population size are more often than not anxieties about being able to provide a good quality of life for everyone.

Khaled, 51, says that the problem in his country, Yemen, is that population growth is outpacing "development growth". He says Yemen has a large and rapidly growing working-age population right now, and the country could, in his opinion, see faster economic growth if young people were educated, in good health and able to find good jobs. He says women in particular need to participate more in the country's development. "So our population can be a positive thing," he says.

Anxieties about population size are more often than not anxieties about being able to provide a good quality of life for everyone.

IN FOCUS

Too many, too few: the long history of population debates

Interest in population size dates to antiquity. But no matter if populations were seen as too large or too small, there has been one consistent thread: disregard for the rights and choices of women and girls, and the exercise of power by some people over others. Early philosophers, including Confucius, Plato and Aristotle, contemplated how the number of people might influence the power and prosperity of a State (Charbit, 2011). Ancient Rome penalized childless women over the age of 24 by barring them from wearing precious metals, and imposed a tax on men who remained single (The Economist, 2020).

In Europe, the end of the feudal system spurred interest in populations as a source of wealth, political power and military strength. Jean-Baptiste Colbert, an influential French statesman, promoted *populationisme* — a doctrine favouring population growth through high fertility or immigration (Pal, 2021). This era saw an emphasis on controlling and subjugating women as obedient reproducers of the workforce. Social norms stressed their roles as dutiful wives and mothers and discouraged protest. The transatlantic slave trade took off, forcibly moving people from Africa to the Americas and elsewhere; their bodies were counted as literal assets (Federici, 2004).

At the end of the eighteenth century, declining living conditions in Britain spurred concerns around population growth. T. R. Malthus advanced his influential theory that unchecked population growth results in poverty, misery and war. His "population pessimism" still echoes in thinking today (Economics Online, 2021). In France, a century later, alarmism flared in the opposite direction when population decline became the scapegoat for the defeat in the Franco-Prussian war. Policies to encourage childbearing were put in place. Such views spilled over into the growing number of colonies held by European powers. British Governor of Bombay Sir Richard Temple promised his superiors in London that he would "increase the number of his Majesty's subjects in India" (Randeira, 2018).

After the independence of most Latin American countries in the first half of the nineteenth century, the new governments shared a pronatalist view, summarized in Juan Bautista Alberdi's phrase "to govern is to populate". Promoting population growth was seen as needed to protect the emerging countries from outside threats, from possible invasions from neighbouring countries and as a way to increase the number of workers and production. This pronatalist view lasted uncontested during the first six decades of the nineteenth century (Sánchez-Albornoz, 2014).

By the twentieth century, the birth control movement had emerged in some parts of the world (MacNamara, 2018; Engelman, 2011; Fisher, 2006; Klausen, 2004; Grossmann, 1995; McCann, 1994; Reed, 1984), driven by ideas foundational to the suffragist struggle, including bodily autonomy and full and participatory citizenship (Prescott and Thompson, 2020). When mass-produced contraceptives became widely available in the 1920s, advocacy for contraception in India, then a British colony, became a moment to exert a sense of agency and a right to self-rule (Hodges, 2016).

Healthy mothers were seen as the basis for a self-sufficient

nation, and contraception was part of entering a new age of science, innovation and progress. In that same period, the Soviet Union became the first country to legalize abortions on medical and social grounds, among other advances. But by the 1930s, faced with slumping population growth, Joseph Stalin reversed these policies and arrested the statisticians behind the 1937 census because it showed a population decline (Arel, 2002; Blum, 1998).

Declining fertility rates in Western Europe and the United States of America in the early twentieth century shaped the emergence of eugenics, an ideology thought to improve the "quality" of populations. It encouraged fertility among those with "desirable" traits and discouraged fertility among those with "undesirable" traits. "Inferior" groups typically were socioeconomically disadvantaged and/or marginalized minorities and persons with disabilities. Ideas of racial supremacy were also invoked in the evil ideology and policies of Nazi Germany and the horrors which were perpetrated; notions of "racial purity" culminated in the Holocaust.

Some of these ideas were adopted in Latin America in the early twentieth century at a moment when immigration was seen as a way to increase the size and the "quality" of the population. Migration policies excluded individuals who were considered by governments to "represent a racial, moral or political risk". Under these ideas, immigration from Western Europe was encouraged and preferred over the arrival of other groups such as immigrants from Africa, Asia, Eastern Europe or the Middle East (Yankelevich, 2020; Sánchez-Albornoz, 2014).

The second half of the twentieth century saw many countries gain independence, the emergence of diverse movements to claim human rights, and family planning programmes and population policies oriented around reducing fertility around the world (Klancher Merchant, 2017). UNFPA and many other population-focused organizations and family planning programmes were founded as leaders reacted both to fears over the "population bomb" *and* to the potential of contraception to drive development and prosperity for the poorest communities. Popular narratives at the time typically gave little prominence to the reproductive desires of women; it was often assumed that women would want (or could be convinced to want) smaller family sizes, with development benefits for their broader communities.

India established the first national programme to control population growth through family planning in 1952. This achieved limited success in slowing birth rates but also resulted in instances of excessive and even forced sterilization (Hartmann, 2016); it would take until the early 1990s for leaders to shift from a target-driven family planning programme to one based on women's health and rights. Mixing national and international ideas about population control as a road to development, China, in 1956, adopted a policy to regulate population growth "for the protection of women and children, better educating and rearing offspring and bringing about national prosperity" (Yu, 1979). The notion that high population growth would impede development eventually culminated in the one-child policy in 1980 (Jackson, 2012).

Some developing countries pushed back against the idea of population control, with ministers arguing, "Development is the best contraceptive" (Sinding, 2000). In other words, overall economic development would result in higher levels of education and health, including greater use of contraception, leading to lower-fertility levels.

In Africa, mounting international pressure to institute policies to control population growth, including through development aid, was initially met with widespread resistance. African thinkers argued that the problem was not the size of their populations but their distribution. Low population

density complicated efforts to develop infrastructure, for instance. Only six African nations had population policies in place by the early 1970s, but by 1990, all but two African governments had established policies with elements of population control, often emphasizing contraception. This took place as countries struggled to gain the means to advance their economies, develop their extensive and poor rural areas, and empower women (Pearce, 1994).

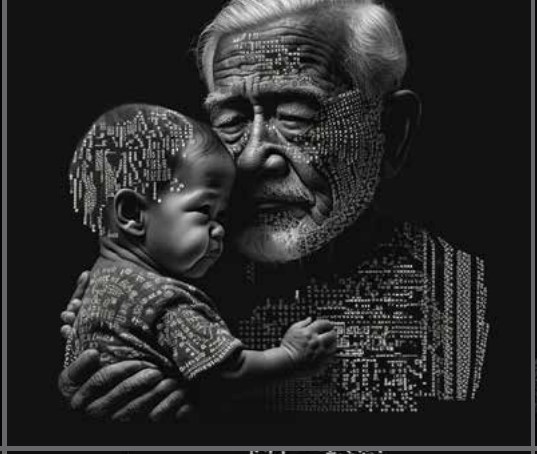
In Latin America, the implementation of population policies based on birth control and the definition of growth targets started in the late 1960s and spread after the Population Conference of Bucharest in 1974. Within the region, debate concentrated on the way population policies were aligned or not with general social, health, educational and economic policies and on how demographic variables were integrated into national development strategies. Almost all countries implemented some type of family planning programmes, with variations in the emphasis, resources and relevance given by governments, and the participation of the public and private sectors (Miro, 2022, 1971).

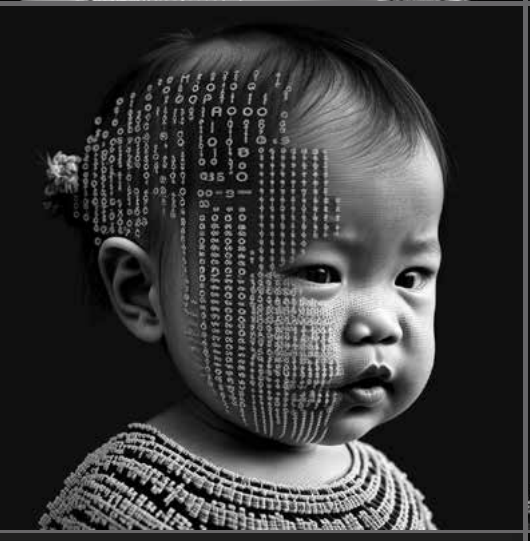
Different tendencies operated in countries under the Soviet Bloc. By the middle of the last century, many were concerned not about too many people but about too few. Some responses aimed at exerting a devastating control over women's bodies, most notably in Romania. In 1966, the Ceaușescu regime severely restricted abortions and access to contraception to force more women to have babies (Socialist Republic of Romania, 1966). The population never reached a planned target of 30 million, however, peaking at 23.2 million in 1990. Until the policy was dropped in 1989, Romania saw spiking maternal and child mortality, and higher rates of malnourishment and severe physical disabilities (Kligman, 1998).

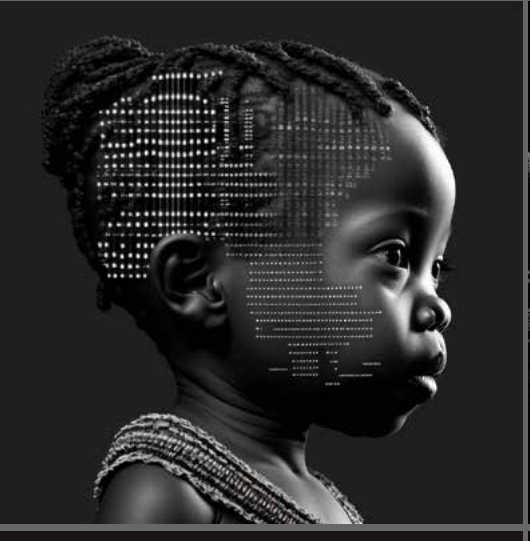
Marginalized groups have been especially vulnerable to population control policies (Jean-Jacques and Rowlands, 2018). Federally sponsored mass sterilization campaigns in the United States had affected up to 42 per cent of Native American women by the 1970s (University of Rochester, 2019). In Japan, a 1948 forced sterilization policy for people with disabilities (Hovannisyan, 2020) remained in place until 1996, when the Government of Japan compensated victims of it. In the 1980s, Singapore briefly introduced incentives for highly educated women to have children and disincentives for women with lower levels of education (Wong and Yeoh, n.d.). Despite pronatalist policies in State-socialist countries, Roma minorities in Central and Eastern Europe were the target of antinatalist programmes and forced sterilization between the 1950s and the 1980s (Varza, 2021).

Underlying ideologies around population control echoed throughout international talks on population in the latter half of the twentieth century, although acceptance of the human right to decide on the number and spacing of children gained ground, driven by the growing strength of women's rights movements. First enshrined in the 1968 Teheran Proclamation, and propelled by mounting evidence of abuses and gaps in family planning services, this vision was most powerfully and successfully advanced by feminists and rights advocates, including civil society groups supported by UNFPA, at the landmark ICPD in Cairo in 1994 (UNFPA, 1994). The ICPD transformed the global consensus on how to approach population policy, moving it from numbers and targets to a central emphasis on human rights. Contraception was seen as integral to broader efforts to improve women's health and empowerment (Hardon, 2006).

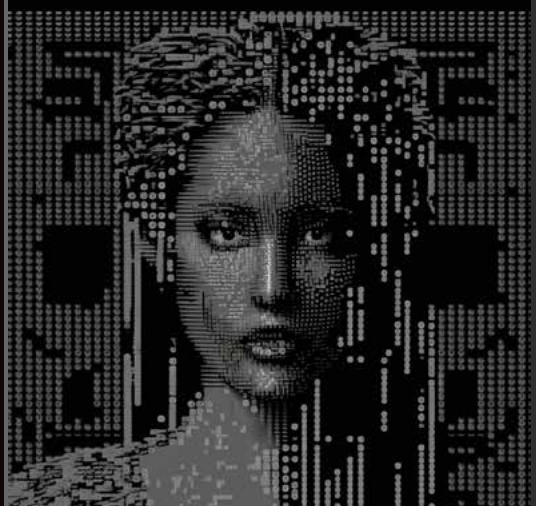
Since then, although some governments have maintained population targets to increase or decrease fertility rates, many others have shifted the focus to ensuring sexual and reproductive rights and health. Still, old habits die hard, and the language and tools of the past continue to be used, even in countries that have disavowed target-based population policies. Measures continue to be designed and implemented to coax individuals to increase or decrease the number of their children towards a fixed notion of an ideal population size.

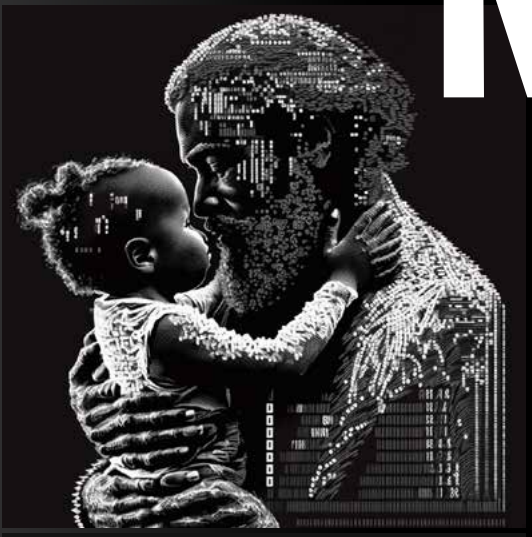



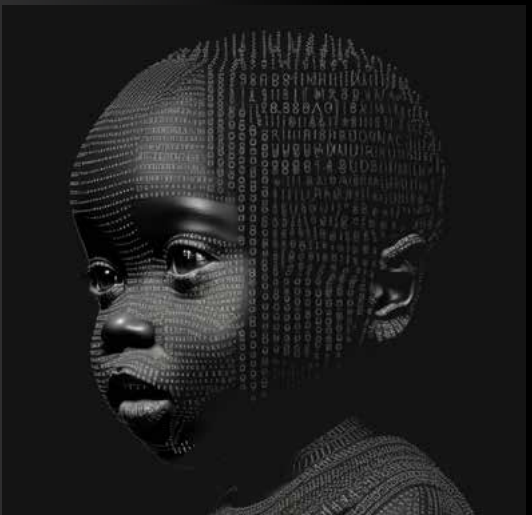








CHAPTER 2

Too Many?

“Too many” people.

This phrase is uttered every day. It can be heard among drivers sitting in traffic. It may be spoken by shoppers in long queues for groceries and by consumers of news about the plunder of natural resources and rising global temperatures. From their perspectives, a world of 8 billion human beings is one bursting at the seams.

“Too many” is a convenient summary, a tidy way of explaining away overloaded infrastructure, the climate crisis, biodiversity losses, economic instability, hunger and security threats. It erases from public imagination the steps needed to address such issues, including policies to promote sustainable consumption and production or to reduce inequality and poverty. It obscures the responsibility of systems and societies to find solutions to these complex and interconnected problems while upholding human rights. Many real challenges are waved away with a simple, nihilistic verdict: if global catastrophes are the result of too many people, the logical assumption that follows is that the number of people must be reduced, that some unknown number of people should survive and reproduce while others should not.

There is ample evidence from history that the fears stirred by this false narrative lead to horrors and inhumanity (for more, see "Too many, too few" on pages 30-33). But there is another peril, too — the risk that in focusing on whether and how to subtract human beings from the planet, we will neglect entirely the root causes of so many global crises. Inequality, violations of human rights and lack of sustainable development are key drivers of the ill health, environmental degradation, poverty, hunger and tragedy so often blamed on "overpopulation".

"Too many" is also a deterrent to political action, in that it leaves citizens to lament the perceived inevitability of overpopulation, which is often predicted to lead to mass mortality events and draconian restrictions on human freedoms (Gerbrands, 2017). This thinking erodes the optimism required for voters and consumers to call upon governments, industries, distribution systems and infrastructure developers to respond productively and in good faith to the pressing challenges related to population growth.

What else is lost with the ringing alarm of "too many"? The real and powerful story of progress, and the lessons of that progress. We start to see human survival as a problem rather than an achievement, and we retreat to ancient divisions — us versus them — instead of seeking common ground and solutions through solidarity and innovation for the common good.

Yes, the choices ahead are complex and difficult. There are real concerns, real catastrophes to mitigate and avert — urgent and existential issues that will not be solved when they are expressed as problems of "too many". This chapter shows that fears of "too many" are

> What else is lost with the ringing alarm of "too many"? The real and powerful story of progress, and the lessons of that progress.

indeed pervasive, and it emphasizes how the real problems fuelling fears of overpopulation cannot be solved by efforts to manipulate population size or composition. It will highlight some solutions and how we can move forward, with clear eyes and hard evidence, to achieve a better future.

Modern Malthusians

Concerns about overpopulation have deep roots, most famously expressed by T. R. Malthus. In this view, the appetites of humanity will inevitably outstrip scarce resources. Today, in an age of uncertainty, these old beliefs are rising once again to the fore. When overpopulation alarmists talk about the needs of the planet, they are generally careful to avoid identifying who exactly they believe is reproducing "too much", but for many listeners, the question of "who?" hangs in the air, unspoken.

The idea that fewer people would automatically relieve pressures on the planet and allow ecological restoration is persistent (Cafaro and others, 2022). For example, one Western group of academics puts population "at the root of grave global environmental problems, from climate change to mass species extinction". Its answer: limit human numbers. It argues, "Excessive family size sends tens of millions

of children to bed hungry each night in the developing world, where rapid population growth stresses scarce water, food and space resources beyond safe limits" (The Overpopulation Project, n.d.).

Proponents of such thinking often link human population size to food insecurity, soil degradation, biodiversity loss, plastic pollution, the increased chances of pandemics, overcrowding, joblessness, deteriorating infrastructure, bad governance and conflict. These views call for "difficult conversations about population growth" among other policy measures like reining in consumption patterns, in order to avoid a "ghastly future" (Bradshaw and others, 2021). These claims have gained traction throughout the broader world. Famous broadcaster and naturalist David Attenborough's statement in 2020 that humans have overrun the planet unleashed volumes of subsequent social media commentary (Manavis, 2020). A survey of Twitter comments found that the vast majority agreed with his overpopulation claims. The few dissenters mostly took the chance to deny climate change (Manavis, 2020).

Yet there is surprisingly little evidence to link demographics and conservation efforts. "There is not, and never has been, a single, evidence-based model that has successfully calculated or predicted the global environmental impact of human numbers *alone*," one expert writes (Sasser, 2018), a point acknowledged even by many proponents of the view that humankind is overpopulated (Cafaro and others, 2022).

The rhetoric around overpopulation is not harmless. Even when calls for limiting human reproduction are accompanied by caveats about respecting human rights (Crist and others, 2022), the overarching logic continues to allocate responsibility for reversing global scarcity, environmental degradation and climate change to those who have had the least chance to access opportunities, have contributed less to these problems given lower levels of consumption, and whose rights are most easily undermined. Women and girls in particular see their bodies repeatedly invoked as the problem and the solution to "overpopulation". CNN editor Eliza Anyangwe pointed out that "identifying population growth as the problem logically presents population control as the solution. This automatically transforms wombs into legitimate sites for climate policy. In other words, women's rights to contraception and education are weaponized: they are no longer tools that help women access greater choice, but instead this gender equality goal is hijacked to impose someone else's agenda" (Anyangwe, 2021).

Additionally, marginalized communities, such as people living in the least developed countries and those who have experienced the worst poverty and dislocation, tend to find themselves on the losing side of the implied demographic "solution". When high rates of population growth are identified as the problem, it becomes impossible to ignore that it is the poorest countries that tend to have the highest fertility and population growth rates. In other words, when viewed through a global lens, much of the "problem" of global population growth is being attributed to the bodies of impoverished sub-Saharan Africans and Asians who make the most minimal

contributions to global environmental destruction and climate change (Bhatia and others, 2020). This dynamic exists within borders as well; in some countries with low-fertility rates, poor and marginalized communities have long been described as reproducing recklessly and prolifically (Brooks, 2021).

Yet even immediate declines in fertility would not prevent population growth, demographers indicate. “Two thirds of the projected increase in global population

> Women and girls in particular see their bodies repeatedly invoked as the problem and solution to “overpopulation”.

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FEATURE

Young people forge new paths

About one in six people in the world today are between the ages of 15 and 24, and the ranks of young people are growing rapidly, especially in sub-Saharan Africa. Some policymakers view this trend with alarm, seeing nothing but potential for political upheaval and violence. Persistent negative stereotypes about youth frame them as a problem to be solved and a threat to be contained, according to *The Missing Peace*, an independent progress study on the United Nations Youth, Peace and Security agenda (Simpson, 2018).

But rather than being the problem, young people around the world today are increasingly part of the solution. Through their creative actions and "unapologetic advocacy", young people are challenging the status quo in many sectors, according to the United Nations study. Youth creativity has reshaped culture and the arts. Youth movements have championed diversity and human rights. Energetic activism has offered an antidote to despair.

"The momentum surrounding the global youth agenda is larger than ever before," says Idil Üner, who, at age 24, manages a flagship initiative of the Office of the Secretary-General's Envoy on Youth to recognize exceptional young leaders for the SDGs. Young people everywhere are making a difference, even though they rarely have a seat at the table where policy decisions are traditionally made, Üner explains.

While almost half of the world's population is under age 30, the average age of political leaders is 62 (Office of the Secretary-General's Envoy on Youth, 2022). In some countries, the minimum age to run for public office is 40. Thus, most laws are enacted by people with a world view fundamentally different from those who have grown up in the fast-moving, crisis-beset, Internet-fuelled world of 8 billion.

"For generations before us, power was something exclusive. It was hierarchical, bureaucratic, formal and institutional," Üner adds. But for most young people today, she says, "Power means transparency not secrecy. Power is fluid, not hierarchical. Power is in mobilization… In many ways, young people are already designing their own futures by reimagining the way our systems operate and by demanding true power-sharing within those systems."

Gibson Kawago, for instance, a 24-year-old climate entrepreneur, radio personality and youth mentor in the United Republic of Tanzania, says, "Every young person should identify a problem in their own society and come up with a solution. That is the easy way for us to create solutions for the future."

At age 14, he created a solar battery to help members of his unelectrified village. Later, with the help of a business incubator, he started his own company, WAGA TANZANIA. The company recycles lithium-ion batteries and produces durable and affordable battery-powered products.

Since 2019, WAGA has recycled over 3,100 lithium-ion batteries and created 32 jobs, all while keeping hazardous materials out of the environment. On top of that, Kawago's can-do spirit and empowering messages reach a radio audience of some 12 million.

Another youth leader, 24-year-old Paul Ndhlovu, from Zimbabwe, has an outsize influence. At Zvandiri (meaning "As I am" in the local language), an organization that provides peer-led support to HIV-positive young people, he has produced around 100 radio shows reaching an estimated 180,000 people over a recent 10-month period. Ndhlovu has seen policy changes informed by the show and by the group's advocacy. "It's all a collective effort," he stresses.

These stories suggest the scope of what young people can accomplish when their talents are supported and when they are included in decision-making. "Ultimately we are the ones most impacted by the choices we make, or fail to make, today," Üner points out.

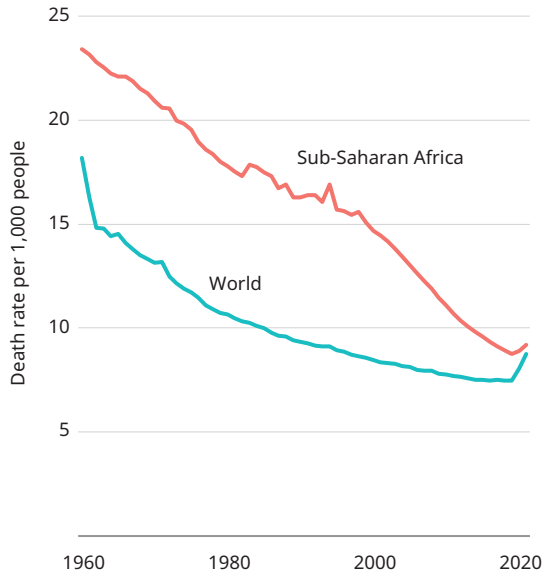
For Idil Üner, young people everywhere are making a difference despite rarely having a seat at the table.

Image courtesy of Idil Üner

"In many ways, young people are already designing their own futures by reimagining the way our systems operate and by demanding true power-sharing within those systems."

> FIGURE 4

Comparison of crude death rate in sub-Saharan Africa with global crude death rate, 1960–2020



Source: UN DESA, 2022.

through 2050 will be driven by the momentum of past growth that is embedded in the youthful age structure of the current population," the 2022 United Nations World Population Prospects report highlights (UN DESA, 2022). "Such growth would occur even if childbearing in today's high-fertility countries were to fall immediately to around two births per woman. Given that most population increases until 2050 will be driven by the momentum of past growth, further actions by governments aimed at reducing fertility would do little to slow the pace of growth between now and midcentury." Overall fertility is projected to fall to 2.1 births per woman — considered to be the approximate level required for long-term zero growth in a context of low mortality — by 2050 (for more on the limits of this 2.1 fertility rate, see page 60).

Focusing only on the "problem" of high fertility, moreover, obscures the fact that population growth is driven in significant part by declining levels of mortality. Global life expectancy reached 72.8 years in 2019 — an increase of nearly 9 years since 1990, and it is expected to reach 77.2 years by 2050, even after considering the effects of the COVID-19 pandemic on mortality (UN DESA, 2022). The African Development Bank notes increased survival, with mortality declining more quickly than fertility, as a key contributor to population growth in sub-Saharan Africa (African Development Bank Group, 2014). In fact, even while mortality rates remain unacceptably high in the region, sub-Saharan Africa has seen transformative gains in human health and longevity since the end of colonialism (see Figure 4).

Further, the group Survival, which works with Indigenous peoples to protect their land rights, notes that Africa is only a fraction as densely populated as the United Kingdom, for example, and that the average person in the United States consumes 40 times as much food, energy, consumer goods and so on as the average African (Corry, n.d.). It has pushed back against a global drive to make 30 per cent of the Earth's territory a "protected area", stressing that this will continue a long colonial history of pushing Indigenous communities off their land, despite consistent evidence that these communities are highly sustainable custodians of natural resources (Maffi and Woodley, 2010; Pretty and others, 2009; Gadgil and others, 1993).

> Extreme scenarios at work

A harmful and disturbing version of "too many" people being the problem has emerged with the coupling of fascist movements and environmentalism, layered with White supremacism. One of the parents of ecofascism was Finnish writer Pentti Linkola who, in 2009, called for the "controlled pruning" of the human population and opposed reductions in infant mortality. He suggested genocide as a solution to both environmental and cultural destruction. Ecofascism's deadly ambitions erupted in mass shootings in 2020 in both New Zealand and the United States, as only two recent examples. Both killers issued manifestoes listing environmental and White supremacist grievances (Amend, 2020).

An analysis of 22 European far-right parties that sat in the European Parliament from May 2014 to September 2019 detected a discourse labelled "ecobordering", which treats immigration as a threat to the local or national environment. Borders then become a form of environmental protection. Ecobordering depicts migrants, especially non-White migrants, as environmentally irresponsible "hordes" that have exhausted their own natural resources, and that threaten destination countries due to an absence of "belonging" to or "investment" in a local area (Turner and Bailey, 2022).

In the United States, anxiety over non-White immigrants has fuelled racist conspiracy theories dubbed the "great replacement" (discussed further in Chapter 3), which largely skips any environmental reference points in favour of calls for immediate, violent action. "I think of America, the great assimilator, as a rubber band, but with this — we're at the breaking point," said the general counsel of a think tank in the state of Minnesota. "These aren't people coming from Norway, let's put it that way. These people are very visible" (Darby, 2019).

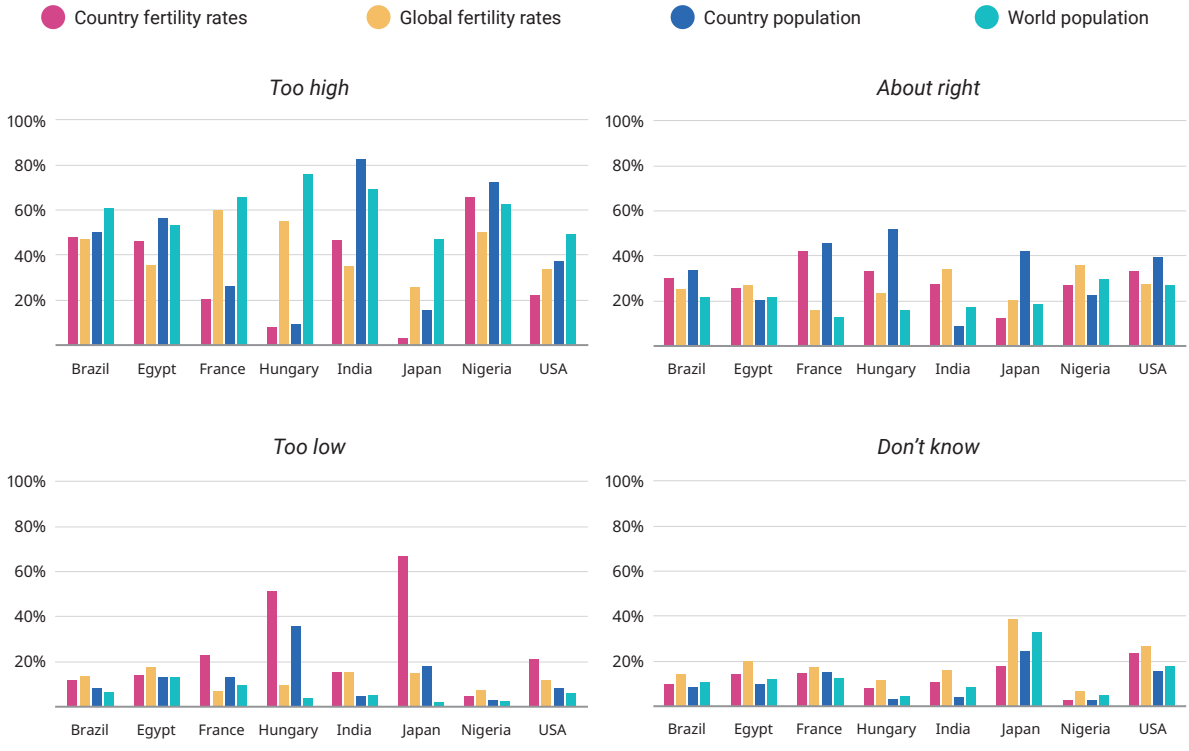
Views from the population

How pervasive is the view that the world's population is "too high" or that fertility rates are "too high"? In the representative YouGov survey of 7,797 people, across eight countries, the most commonly held view was that the current world population was too large (Figure 5). In six of the eight countries surveyed (Brazil, Egypt, France, Hungary, India and Nigeria), a majority of people — 53 to 76 per cent — held this perspective. In the two remaining countries (Japan and the United States of America), this view was held by the largest share of respondents, amounting to just under half of all people (49 and 47 per cent, respectively). Similarly, in six of the eight countries, the most commonly held opinion about the global fertility rate was that it was too high.

Of course, this does *not* mean that the majority of those surveyed believe that the planet is overrun by people, nor does it mean respondents

> FIGURE 5

Respondents' views on fertility rate and population size across eight countries surveyed



Source: UNFPA/YouGov survey, 2022.

believe fertility rates are a tool for solving such a problem. In fact, views about respondents' *own* population sizes were much more varied: in Brazil, Egypt, India and Nigeria, the most commonly held opinion was that the population in their own country was too large and fertility rates were too high, while in France, Hungary, Japan and the United States, the most commonly held opinion was that their own country's population size was "about right". In France and the United States, the most commonly held opinion was that the domestic fertility rate was about right, while in Hungary and Japan, the most commonly held view — representing more than half of adults in both — was that the fertility rate was too low.

Some of these views may be unsurprising. For example, all four countries that view their domestic populations as too large have indeed experienced significant growth — more than quadrupling in size since 1950. But the survey also shows that population concerns cannot be reduced to simple or single factors. They are much more context specific.

Interestingly, five out of the eight countries (Brazil, France, Hungary, Japan and the United States) had more respondents saying the size of the world's population was too high compared to saying the same thing about the size of their own country's population. This was particularly dramatic in Hungary and Japan. Respondents in two countries (India and Nigeria) were more likely to say their domestic population was too high than to say the global population was too high. In Egypt, respondents were equally likely to say that the population was too high on both a national and global level. When asked about the *impact* of potentially higher global fertility or higher domestic fertility, only France, Hungary, Japan and the United States (all members of the Organisation for Economic Co-operation and Development [OECD]) had more respondents viewing higher global fertility as harmful than viewing higher domestic fertility as harmful.

> Forced sterilization

Sterilization without full, free and informed consent has been variously described by international, regional and national human rights bodies as an involuntary, coercive and/or forced practice, and as a violation of fundamental human rights, including the right to health, the right to privacy, the right to information, the right to decide on the number and spacing of children, the right to found a family and the right to be free from discrimination (OHCHR and others, 2014). Numerous human rights bodies have recognized that forced sterilization is a violation of the right to be free from torture and other cruel, inhuman or degrading treatment or punishment (United Nations General Assembly, 1998).

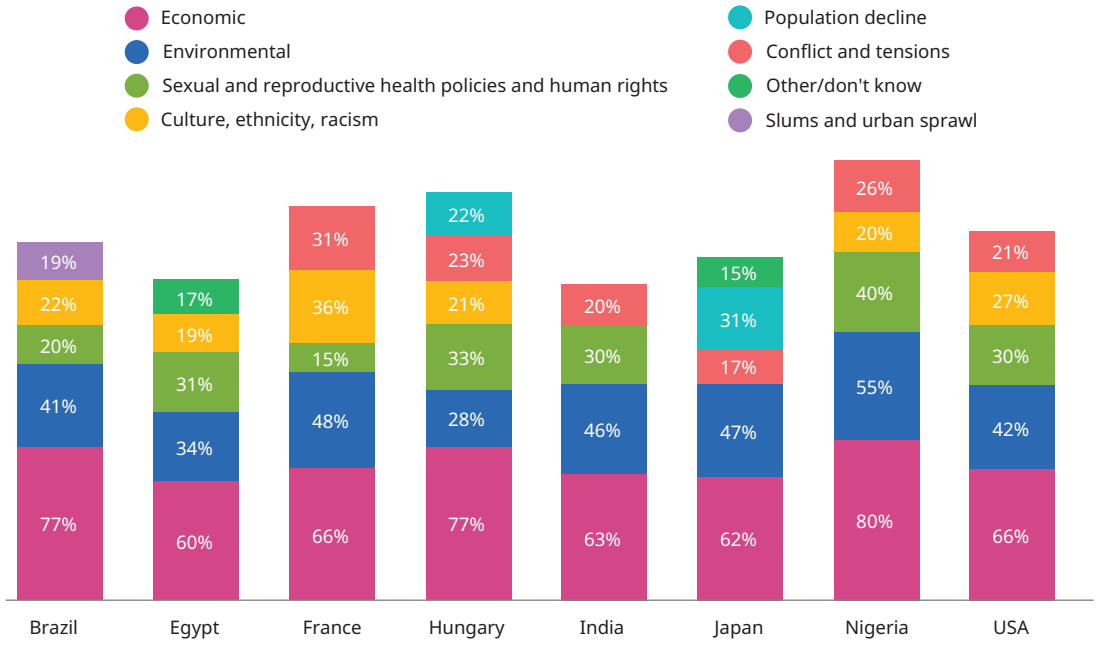
Respondents were also asked to identify which 3 out of 20 issues were of greatest importance to them when thinking about population change in their countries. After the authors classified these issues into 8 thematic categories, it was found that approximately two thirds or more of adults named various economic issues as top concerns for population change (Figure 6). Environmental concerns were the second most commonly cited priority in all countries except Hungary (where sexual and reproductive health and rights policies ranked as the second most commonly selected concern, followed by environmental concerns).

Concerns over sexual and reproductive health and rights policies and over human rights generally ranked as the third most commonly selected priority in the aggregate, while issues of culture, the impact of ethnic groups and concerns about racism took fourth priority in the aggregate (see Technical note on page 173 for more.)

Surveys in eight countries are not sufficient to generalize views for all the world. Still, the responses do make the case that demographic anxiety is real and, in those countries surveyed, widespread. They show that environmental

> FIGURE 6

Concerns about possible changes to population in countries surveyed



Source: UNFPA/YouGov survey, 2022.

Note: Proportions add up to more than 100% because respondents identified their top 3 concerns out of a list of 20 options (plus "don't know" and "none of these"). Authors classified these into the 8 broad categories above. More information available at www.unfpa.org/swp2023/YouGovData.

concerns are indeed among the top causes of population anxiety — which might make people vulnerable to the claims of "too many" or indicate that alarmist rhetoric about "overpopulation" is influencing people's views. The responses similarly highlight how differently people view their own country's population and fertility rates, and those of the world at large. At the same time, there is enormous diversity in what people regard as their top concern.

One takeaway lesson is that more research is needed to understand people's concerns and that better communication about population issues is needed to ameliorate these concerns. Another is that members of the general public can and do hold nuanced and complex views about population, and they are disserved by simple narratives like "too many". Sexual and reproductive health and rights, and human rights more broadly, are indeed at the front of many people's minds when population issues are discussed, and therefore rights can and should have a central place in these conversations.

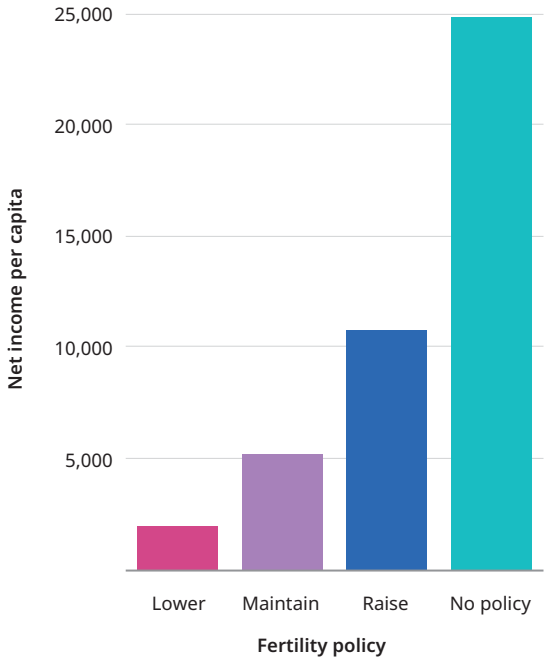
Views from policymakers

The United Nations Inquiry Among Governments on Population and Development, in its 2015 and 2019 iterations (the eleventh and twelfth Inquiries), asked, "What is the policy of the Government concerning the present level of fertility?" with the optional responses "raise", "maintain at current levels", "lower" and "no official policy".

Despite widespread anxiety about "overpopulation", countries with the most wealth — those with the highest adjusted net income per capita (gross national income minus consumption of fixed capital and natural resources depletion) and highest gross national income per capita — tend to say they have no policies to influence fertility in one way or another (Figure 7). When countries reporting an intention to raise domestic fertility are grouped together, they represent the next highest level of wealth. Both groups of countries — those without policies to affect fertility and those intending to raise fertility — have very high per capita environmental impacts, as measured by carbon dioxide emissions per capita, material

> FIGURE 7

Relationship between fertility policies and net national income per capita



Source: United Nations Inquiry Among Governments on Population and Development, 2019 and 2015.

footprint per capita and consumption-adjusted carbon dioxide emissions per capita (Figure 8).

In other words, countries with the highest levels of wealth and consumption are either agnostic about their own fertility rates or actively seeking to increase those rates. This pattern is also seen when looking at countries' actual fertility rates, rather than their government-specified policy intentions. Countries are not asked in the United Nations Inquiry survey for their views on the size of the global population. Without these data, there are two possible interpretations of the above fertility policies: countries with high levels of development and affluence are perhaps not deeply concerned about "overpopulation", or they are concerned about it but not about their own country's contributions to it.

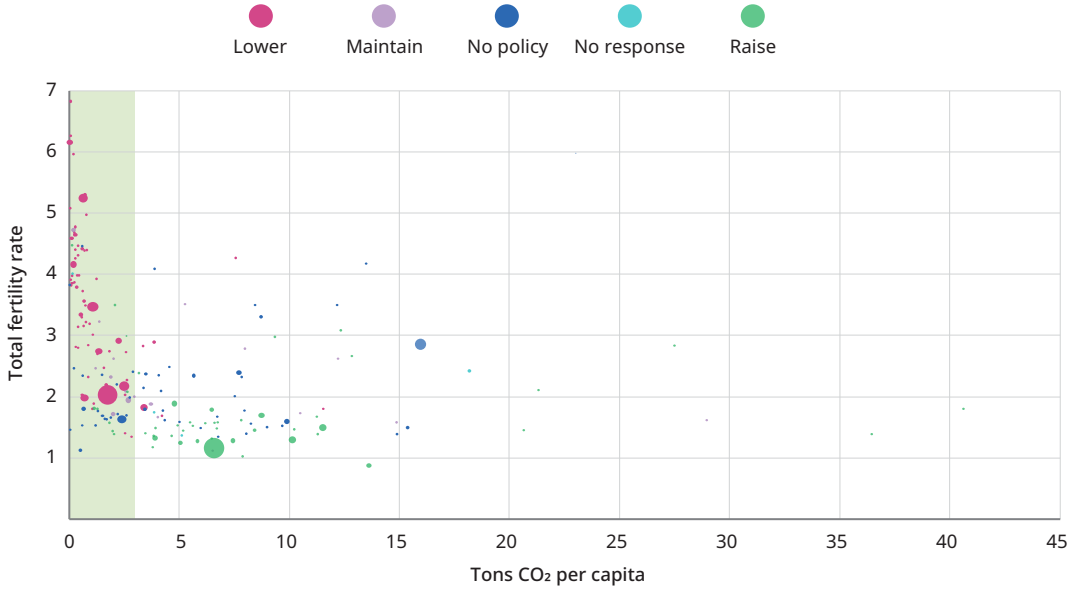
In countries experiencing the highest levels of fertility, governments do indeed express concerns over population growth. The United Nations Inquiry response data show countries with high-fertility rates overwhelmingly reporting an intention to use policy measures to reduce fertility rates.

When looking at circumstances within these countries, it seems likely that policies to reduce fertility rates are largely in response to concerns

> FIGURE 8

Correlation between total fertility, fertility policy and consumption-adjusted carbon dioxide emissions per capita and population size

Countries with the highest fertility rates tend to be the lowest per-capita emitters of carbon dioxide.



Area marked in green indicates 3 tonnes of CO2 per capita or less; many believe sustainable consumption requires a per capital emission rate within this range. Dots in the figure are scaled to country population size.

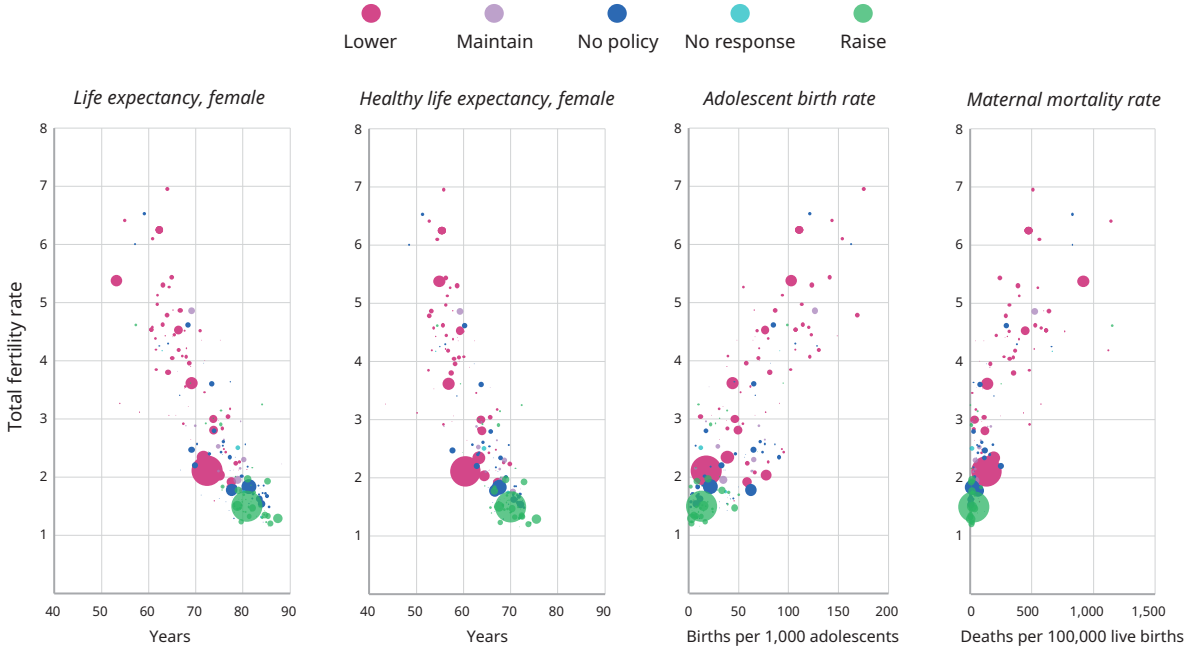
Source: United Nations Inquiry Among Governments on Population and Development, 2019 and 2015.

around being able to afford the needed investments in education, health and social services that would lead to improved welfare and broader economic prosperity. Countries with higher-fertility rates see a strong correlation with lower female life expectancy (Figure 9). Many of the drivers behind curtailed life expectancies are directly related to reproductive health care: people in countries with weaker health systems experience higher barriers (including financial and logistical) to accessing contraceptive information and services, higher rates of unintended pregnancy, and higher risks of maternal, neonatal and under-5 mortality (Starrs and others, 2018).

> Countries with the highest levels of wealth and consumption are either agnostic about their own fertility rates or actively seeking to increase those rates.

> FIGURE 9

Correlation between total fertility rate, fertility policy and other development indicators



For information on healthy life expectancy and life expectancy, see Technical note on page 174.

Source: United Nations Inquiry Among Governments on Population and Development, 2019 and 2015.

The reciprocity between fertility and mortality rates plays out most starkly in settings with the highest fertility: higher-fertility rates very strongly correlate to higher maternal death rates and higher adolescent birth rates (which also carry a higher risk of maternal injury and death), while higher overall mortality rates could incentivize higher fertility. For instance, one respondent to a Kenyan questionnaire on contraception explained, "Young men say that they want to have many children first, then do [family planning] later. They wonder, suppose they get only two children and the two die, what will happen next?" (NCPD, 2014).

According to the 2021 World Population Policies report, 69 countries have population policies to lower fertility; just over half are in sub-Saharan Africa (UN DESA, 2021). In these countries, the report notes, raising the age of marriage or union formation, raising the age of the mother at the time of her first birth and increasing the interval between successive births "are considered to be effective means to improve sexual and reproductive health and to help reduce fertility levels". All of these are important policy and development efforts to be applauded; they are known to support the health, rights and empowerment of women and girls, with value well beyond their impact on national fertility rates. But problems can and do arise if such efforts are tied to a fertility target — either expressly in the text of policies, or implicitly as interpreted by local officials or service providers — rather than specifically intending to help individuals secure their sexual and reproductive rights.

When rights and choices are secondary

To critique concerns about "too many" as overbroad and alarmist is not the same as dismissing concerns related to population growth or high rates of fertility. Many concerns are valid, including those around the impacts of population growth when it takes place without investments in sustainable development and advances in human well-being. Family planning can help address these worries and support declining fertility, yielding "a demographic dividend by reducing the dependency ratio, increasing women's participation in the paid labor force, and allowing increased investments in human and physical capital" (Liu and Raftery, 2020). This paradigm has been well known for decades.

In fact, the goals of both those concerned with "too many" and advocates of reproductive and human rights are aligned in most respects. Both call for greatly expanding access to high-quality contraceptive services and information. Both call for investing in girls' education and women's economic empowerment. Both highlight the development benefits that accrue to societies and countries more broadly when individuals are able to responsibly plan their families, secure an education and invest in their children. Both also note the broad development gains that can be achieved in the years following fertility decline (Mayhew and others, 2020; Janetos and others, 2012).

Where these two camps diverge is in decision-making. Who is exercising agency and reproductive choice? This question cannot be

answered unless we ask what individuals want for themselves. Overpopulation anxiety can lead to proposals to manage, or even control, human populations (Cafaro, 2012), which, in the worst cases, can lead to forced, top-down population policies. But even when the most coercive practices are eschewed, the belief that populations can or should be calibrated by experts leads to a kind of "soft" targeting through persuasion and incentives — "non-coercive population control" is a term sometimes used (Cafaro, 2012). These targets seek to convince people of the "benefits of investing in smaller families…[and] the ways that a shrinking population contributes to securing the best lives possible for future generations everywhere" (The Population Dimension, 2021). Promoting family planning in this way, with reproductive agency as a secondary consideration, may actually undermine the acceptance of contraception and the commitment to reproductive rights (Nandagiri, 2021; Senderowicz, 2020).

Marginalized groups, particularly those in developing countries that receive donor funds for family planning programmes, have long expressed concerns about contraception being imposed by government actors for shadowy purposes. These fears see a connection between historical policies of eugenics (Thorburn and Bogart, 2005), colonialism (Kaler, 2003), genocide and modern reproductive health initiatives. "Too close an identification of the family planning programme with foreign donors can lead to accusations of intended genocide," warned a 2012 publication directed towards programme implementers (Bongaarts and others, 2012).

These fears — that family planning is a foreign imposition — continue to find expression within communities (Mwaisaka and others, 2020; Thorburn and Bogart, 2005), academia (Bendix and others, 2020; Wilson, 2018) and even among state leaders (Anon, 2022; Yeginsu, 2014). They are exacerbated when policymakers in more affluent countries frame family planning programmes as a means to fix concerns about "too much" fertility and population growth in other countries. For example, an official from one country noted that aid for family planning programmes would — in addition to supporting women's and girls' autonomy and health — also help to reduce high population growth rates in Africa, and therefore migratory pressures on Europe (BBC, 2017; ReliefWeb, 2017). This latter objective was widely circulated in the media (BBC, 2017; Bergin, 2017), as it echoed old narratives alleging that family planning was a

tool of the "population control lobby" imposing Western values on non-Western communities (BBC, 2017; Pearce, 1994).

Both global and national family planning programmes are still often evaluated mainly by their ability to increase contraceptive uptake and reduce fertility. Even if programmes fully embrace the language of rights and empowerment, there is a risk of coercion if their ultimate goals are understood — by administrators, service providers or others — to be the steering of people's choices. Studies of contraceptive provision in low-income countries have found women reporting biased or directive counselling, misinformation, limited contraceptive choices, method denial, a refusal to remove implanted contraceptives and non-consensual provision of long-acting methods (Senderowicz and Kolenda, 2022; Tumlinson and others, 2022; Senderowicz, 2019).

Family planning targets can also obscure gender-based and other forms of discrimination. In India, when some states proposed a two-child policy in 2021, including financial incentives for sterilization as well as penalties, in the form of lost benefits and debarment from certain government jobs and local elected office, for those who exceeded the target family size (Nagabhushana and Sarkar, 2022; Ellis-Petersen, 2021; Government of Assam, Health and Family Welfare, 2017), commentators pointed out some of the deleterious effects of such policies: "sex-selective abortion, preference for male children, denying the paternity of female children, prenatal sex determination, and violence against women for giving birth to girl children will be on the rise" (Mishra and Paul, 2022). Other commentators noted that such policies would disproportionately affect vulnerable sectors of society (Tyagi, 2021) and members of religious groups with higher birth rates (Rao, 2022; Dash, 2021; Ghosh, 2021). Emphasizing its opposition to coercion in family planning, the national government stated in several forums, including in Parliament, that it did not condone such policies, noting that they would prove to be "counter-productive" (Government of India, 2021). In 2012, doctors in Uzbekistan spoke out about the use of sterilization to reduce the population rate, which included relying on arguments to poorer patients that they could not afford more children (Holt, 2012).

None of these concerns undermines or invalidates the importance of voluntary family planning programmes, which have been foundational to many health and rights advances in recent decades. Family planning programmes have cut maternal mortality rates, averting an estimated 150,000 maternal deaths in the past year alone (FP2030, 2022), and they are strongly associated with reductions in adolescent pregnancy (UNFPA, 2020) and improved educational attainment (Stevenson and others, 2021). Declines in fertility, including in countries that once had high rates, largely represent the fact that more people have the means and opportunities to exercise their rights and choices. Indeed, economic and development gains are worthy reasons for promoting family planning efforts in aggregate, and may even serve as more compelling incentives for donors or leaders than human rights alone.

But while economic and development benefits of family planning programmes are powerful and laudable, they should not be secondary to the essential goal of empowering women and

girls to exercise choice over their own bodies and futures. Experience shows that when contraceptives are viewed as tools for something other than promoting individual health and empowerment, women and girls are vulnerable to harmful consequences. In the case of one community in the United States in the 1960s, fears around "Black genocide" led male leaders to reject Government-funded contraceptive services, a decision forcefully opposed by the women of the community (Caron, 1998). Similarly, injectable contraceptives were banned in post-colonial Zimbabwe due in part to the fact that the method was closely associated with colonial population control strategies — despite the high popularity of the method among women, who often saw the injectable contraceptive as a means of regulating their own fertility without interference from partners and relatives (Kaler, 1998). And reproductive rights advocates in the United States have warned that overzealous and targeted promotion of long-acting reversible contraceptives could paradoxically reduce choice for the most marginalized women (Gomez and Wapman, 2017; Gomez and others, 2014).

Male opponents of contraception often see it as undermining their own authority over their partner's sexuality and reproduction (Kabagenyi and others, 2014; NCPD, 2014). The most recent SDG data find that, in 68 reporting countries, just 56 per cent of partnered women are able to make decisions about health care, contraception and sex (UNFPA, 2023). Given these low levels of bodily autonomy, family planning programmes must exercise care to ensure that decision-making power over a woman's body is not simply relocated from her partner to the State or vice versa.

Additionally, it is important to acknowledge that family planning can encompass much more than contraceptive information and care; it can include supporting those who want to become pregnant, a desire that is no less valid when it takes place in a country with a high-fertility rate. In fact, researchers have long noted that developing countries with high-fertility rates often have the paradoxical experience of high rates of infertility (ESHRE Taskforce on Ethics and Law, 2009), representing a loss for those unable to realize their reproductive goals (see page 137 for more).

Putting people at the centre

Historically, the links between economic outcomes and population were issues of debate (Sinding, 2009) — population growth was alternatively seen as a benefit, an obstacle and even irrelevant in terms of economic growth (Fox and Dyson, 2015). Some evidence suggests that the association depends on different periods in time, pointing to how a buoyant global economy in the middle of the last century obscured negative consequences from high population growth. While the balance of studies today shows that demographic transitions — the movement from high to low fertility — offer a powerful opportunity to generate an economic and developmental gain in the form of a so-called "demographic dividend" (UNFPA, 2018; Lee and Mason, 2006: Bloom and Williamson, 1998), the crux of this gain is not mechanical. It is human.

Family planning programmes must be accompanied by other advances to human welfare, such as increased equality, the expansion of education and more stable employment, to

maximize benefit (Fletcher and others, 2014) and to continue the trend of global progress. Family planning alone, without improving the low status of women and girls around the world, will likely have only a limited impact on broader economic and social development.

In fact, the world has made great progress in making contraceptive services and information more available. While lack of knowledge about contraceptives was the most commonly cited reason for non-use in the 1980s, it is now among the least common reasons, a heartening trend (Sedgh and others, 2016). Still, research shows that, in 2023, 41 per cent of partnered women are not using modern contraception (UN DESA, 2022c), highlighting the importance of creating environments that enable women to achieve their reproductive goals. That means doing more than distributing contraceptive commodities but also providing comprehensive sexuality education (inclusive of facts about human rights and gender equality), health services that provide gender-responsive care and the broadest possible contraceptive method mix, and — critically — overall improvements in gender equality to overcome opposition to contraception that is driven by patriarchal norms (Abbing, 2017).

The case for hope

In today's world of unease and uncertainty, we need to talk about population issues. But we must do so in new ways that uproot current biases and avoid perpetuating harmful discriminatory norms and myths. Malthus himself offers a case in point. He forecast that a growing population would outstrip the food supply, but missed how rapidly agricultural productivity improved. In the end, this left his prophecy unrealized (Ojeda and others, 2020). Malthus also overlooked the critical issues of disparities in resource consumption and inequalities, which lie at the heart of crises such as famines as well as the climate emergency today.

In the end, the mantra of "too many" risks reinforcing, even unintentionally, old notions of who is "valued" and who is not. And it does not grapple with the broader questions of agency, autonomy, rights or justice that surround two core population issues: reproduction and migration (the issue of migration is addressed in chapter 3).

Contrary to the alarm bells about exploding numbers, population trends everywhere point to slower growth and ageing societies (see Chapter 3). Just eight countries will account for half the projected growth in global population by 2050 — the Democratic Republic of the Congo, Egypt, Ethiopia, India, Nigeria, Pakistan, the Philippines and the United Republic of Tanzania — while two thirds of people now live in a country where lifetime fertility corresponds with zero growth.

The World Bank points out that "demography need not lead to disaster", referring to these trends. In countries experiencing a demographic transition — where fertility rates decline, life expectancy rises and workforces grow — human capital investment can trigger a demographic dividend, not only through greater economic productivity but also from more health, education and empowerment (all of which are also associated with declining fertility rates) (Gorvett, 2022; Canning and others, 2015).

Other evidence has shown that higher levels of human capital can offset environmental impacts while improving productivity and economic growth. In China, one study found that a steady flow of people into urban areas has increased environmental pressures but educational achievements, rising at the same time, have moderated the impact (Ahmed and others, 2020). Since urbanization is central to economic growth, the study suggested not stopping it but making urban sustainability central to environmental policies. Necessary elements include urban planning, well-orchestrated investments in green labour markets and industries, and workforce training to continue building human capital.

Moving towards realistic, rights-based and effective responses to current challenges requires reframing how we talk and think about population, justice, development, climate and the relationships connecting these things. Sexual and reproductive rights have been defined and agreed in the ICPD Programme for Action and various regional instruments, such as the Montevideo Consensus and the African Protocol on the Rights of Women. Realizing these rights will support other forms of human progress. But rights cannot be used mainly to meet fertility targets or accelerate economic growth or curb climate change. Nor can they be shunted aside under varying conditions. The real issue may not be so much a "ghastly future" but emerging from a "ghastly past" that made people and environmental resources subordinate to economies and powerful factions of society — rather than the other way around (Bluwstein and others, 2021).

Advocates have long called for the provision of contraception, reproductive health care and social policies, such as maternity leave and so on, for reasons beyond fertility targets (Senderowicz, 2020). These efforts should continue, and can form part of broader modern efforts to place population, development and human rights under a framework of sexual and reproductive justice (Ross and Solinger, 2017). This framework encapsulates the right to have or not have children as well as the right to parent one's children in safe and sustainable environments, and the right to sexual autonomy and gender freedom. Sexual and reproductive rights are at the core of the framework, but it also recognizes and calls for action on the *conditions* surrounding reproduction, including the diverse inequalities and intersecting forms of economic, social and environmental discrimination that systematically limit sexual and reproductive choices. These barriers operate and intersect at the community, country, regional and global levels. They are worse for people caught at the intersection of multiple forms of vulnerability and marginalization (McGovern and others, 2022).

In 2015, the Cabinet of South Africa included sexual and reproductive health and rights as a population policy priority, which has led to broad consultations across sectors, looking at issues of governance, service delivery, migration and mobility, tradition, culture and language, poverty, inequality and demography. In 2023, a national conference is planned to highlight priorities requiring intensified interventions. In Nepal, after a landmark case affirming women's reproductive rights and right to self-determination in all reproductive functions, the Supreme Court ordered the Government of Nepal to make necessary legal and policy changes to ensure that all women can realize these rights, including those who are marginalized and

FEATURE

With covert contraceptive use, women challenge men's power over childbearing decisions

On her rounds in rural Ethiopia, health-care extension worker Amsalu goes door to door, delivering contraceptives to women who would otherwise not have access to them. The husbands of most of her clients know about the contraception — but a few do not.

"These women are already mothers with three or four kids," says the 36 year old, who began doing this work 14 years ago. "They hide contraception because the husband wants more children but she has had enough or just wants to take a break."

An estimated 7 per cent of married women who use contraception in Ethiopia are using it covertly (PMA Ethiopia, n.d.). Covert use is not unique to Ethiopia, however. It happens in many countries, with recent estimates from sub-Saharan Africa ranging from about 5 per cent in Kano, Nigeria, to more than 16 per cent in Burkina Faso (Sarnak and others, 2022).

Women typically resort to covert use in response to their husbands' opposition. Some men think that a woman's use of contraception means she is having an affair. Others object to contraception because they believe it can harm their wives' health. Some say it goes against their religious beliefs. Still others want their wives to keep having children. In many countries, women tend to have less power in health-care decisions (Smith and others, 2022). That means when a man forbids his wife from using contraception, her only options may be to go without or to use covertly.

Amsalu says that women in her area prefer injectable contraceptives because they last for three months and are not visible. In the capital of Ethiopia, however, women who hide contraception from their husbands prefer implants and intrauterine devices, according to Gelila, a family planning services provider. "We can be asked to hide the scars from implants so their husbands don't see them," she says.

"Women hide contraception because they are afraid," she adds. They are dependent on their husbands and fear what might happen to them if they are caught. The consequences can include

everything from violence to divorce. “I remember one time, a man brought his wife into the clinic and demanded that I remove her implants then and there,” Gelila says.

Despite the risks involved, some women still choose covert use in response to “pregnancy coercion”, according to Shannon Wood, a Johns Hopkins University researcher who studies the social determinants of women’s health, gender-based violence, and adverse reproductive and sexual health outcomes. An estimated one in five Ethiopian women aged 15 to 49 have experienced pregnancy coercion, which can take the form of a husband forbidding family planning, taking her contraceptives away, threatening to leave her if she doesn’t become pregnant, or beating her for not agreeing to get pregnant (Dozier and others, 2022).

Even though covert use persists in the capital of Ethiopia and in rural areas, Gelila and Amsalu say they are seeing less of it today than they did a decade or two ago. “Nowadays, men are more open and understanding,” Amsalu says.

“Ideally, a couple would discuss using contraception,” Gelila says. “But if that doesn’t work, a woman may take action and use it even if her husband disagrees. It’s empowering for her to do what she has to do to time or space her pregnancies.”

Women typically resort to covert contraceptive use in response to their husbands’ opposition. Pictured is an Ethiopian health extension worker who counsels women on family planning.

An estimated one in five Ethiopian women aged 15 to 49 have experienced pregnancy coercion.

impoverished (McGovern and others, 2022). The Montevideo Consensus on Population and Development, approved in 2013 at the Economic Commission for Latin America and the Caribbean Regional Conference, offers another powerful example in which population policies are centred on human rights, particularly sexual and reproductive rights, gender equality, the inclusion of minorities and efforts addressing inequality (UN ECLAC, 2013).

A sexual and reproductive justice approach can also help us understand more clearly the relationship between climate catastrophe and population. It can point to how "too many" masks the gender and racial dimensions and the starkly unfair results. Women are already on the front lines of climate change, struggling to cope with fewer assets and resources, deficits in food, jobs, education and health care, and the horrors of gender-based violence (Anon, 2022a). The idea that their reproductive capacities can be harnessed to solve environmental degradation and loss is both wrong and ineffective because it assumes "there is no fundamental power imbalance between the rich and the poor or contradiction between placing disproportionate blame for the world's problems on poor women's fertility and advocating for reproductive rights and health" (Hartmann and Barajas-Román, 2011).

The continued refrain of "too many" suggests we must re-emphasize and build upon the work of the ICPD Programme of Action, perhaps by raising its central message — about the importance of individual reproductive health and rights to collective human development — in new spaces. We see this happening, to some extent, when environmental and social justice activists and ecofeminists frame *all* environmental issues as reproductive issues, since sustaining ecosystems makes all life possible and enables the processes of production and reproduction on which all communities depend (Di Chiro, 2008). Such approaches would move beyond focusing on human numbers to look at human experiences (Ojeda and others, 2020). Indigenous scholars have led the way in articulating an environmental reproductive justice situated in diverse kinships, including not just the human family but the natural world we depend upon (Lappé and others, 2019).

Many scholars argue that rebalancing inequitable economic, social and political systems can go much further in addressing current concerns — indeed, this is at the heart of the 2030 Agenda for Sustainable Development. Rather than reducing the number of people, our focus should be on investing in education, quality health care, measures to resolve food insecurity, clean and affordable energy, and gender equality in all areas of life, among other fundamentals. The Union of Concerned Scientists echoes these ideas in pointing out: "A misplaced focus on population growth as a key driver of past, present and future climate change conflates a rise in emissions with an increase in people, rather than the real source of those emissions: an increase in cars, power plants, airplanes, industries, buildings, and other parts of our fossil fuel dependent economy and lifestyles." Half of all emissions come from the richest 10 per cent of the world's population, it notes (Union of Concerned Scientists, 2022). Sustainable development depends on factors inclusive of, but extending well beyond, demographics. The counting of human numbers should advance, not undermine, our collective humanity.

FEATURE

Family planning: a climate change survival strategy

For some women, family planning can be a question of life and death. When there is no money to feed additional children, keeping families small is one way for women to cope. That is the case for Pela Judith, who lives in the Grand Sud, or Great South of Madagascar, a region now facing its most acute drought in 40 years (Kouame, 2022).

"I used to cultivate cassava and other grains," she says. "The children went to school while we were in the fields."

It's a life the 25 year old barely remembers. "The droughts have changed many things. Now everything has become expensive — food, water. We had to stop schooling for two of the children."

The drought has caused severe food shortages for more than a million people. For Pela Judith, it coincided with another tragedy: her husband fell ill and became partly paralysed. The family sold their land to pay for treatment and moved to the city to find work. Pela Judith is now the sole breadwinner, washing clothes or carrying water for money. For her, contraception is a necessity. "I am not even able to feed my four children, so giving birth to another child is not in my plans anymore."

Pela Judith is not alone; many women are choosing to limit their family size in response to climate catastrophe (Staveteig and others, 2018). But not everyone makes the same choice. Some evidence shows that, while some women in Bangladesh and Mozambique preferred not to have children because they could not ensure their survival, others wanted to *increase* their family size by at least one son, which was seen as helping the family's security (IPAS, n.d.).

For Volatanae, 43, reliance on a man was never an option. She works as a street hawker in the Madagascan city of Majunga, more than 1,500 kilometres away from her four children, who live with her parents. Abandoned by her children's father, Volatanae alone shoulders the responsibility for making money to send home so her children can eat.

In Majunga, she got into a relationship with a man who turned out to be abusive. "He kept beating me. Because of this, I can't hear with my left ear, I can't hear very well with my right ear either, and I can't see very well with my left eye." The injuries have left her struggling to make ends meet. For her, contraception is essential — for her own future and for her children's.

"With the droughts, how will I be able to feed another child? It's already very difficult for me to feed my four children. Since the droughts, I am really afraid of getting pregnant again… Thank goodness family planning is still available where I am."

IN FOCUS

The fallacies of aiming for replacement-level fertility

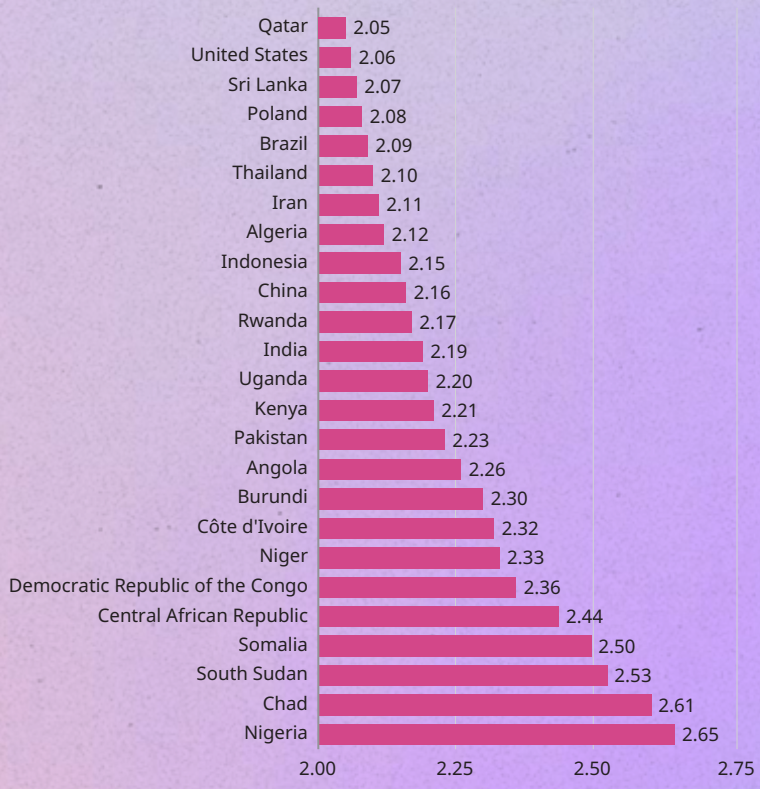
It is clear that there are widespread concerns about fertility rates and trends. But how are governments deciding whether their country's fertility rate is "too low", "too high" or "just right"?

Period total fertility rate — an indicator of the average number of children that would be born alive to a woman during her lifetime — has become the measure of choice in evaluating fertility trends and differences between countries and population groups (Sobotka and Lutz, 2011). In highly developed countries with very low infant and child mortality and natural sex ratios at birth, replacement-level total fertility rate is close to 2.1 children per woman. This number, 2.1, has become a gold standard for many policymakers, even if their population policies do not expressly state it (Sobotka and others, 2019).

But a tunnel-vision focus on period total fertility rate is problematic: it can lead to a distorted view of population prospects and, consequently, ill-conceived policies. For one, period total fertility relies on numerous assumptions. The 2.1 threshold assumes natural sex ratios at birth and very low mortality, neither of which is universally prevalent. For most countries, the replacement-level fertility rate falls somewhere between 2.05 and 2.12. But there are 18 countries, all in sub-Saharan Africa, that have a replacement-level total fertility rate between 2.30 and 2.65 (with Somalia, South Sudan, Chad and Nigeria ranking the highest) (Figure 10) (UN DESA, 2022). Sex ratios at birth can also be strongly affected by son preference and sex-selective

> FIGURE 10

Global variation in replacement-level total fertility rate, 2020



Source: computations from World Population Prospects 2022 (UN DESA, 2022).

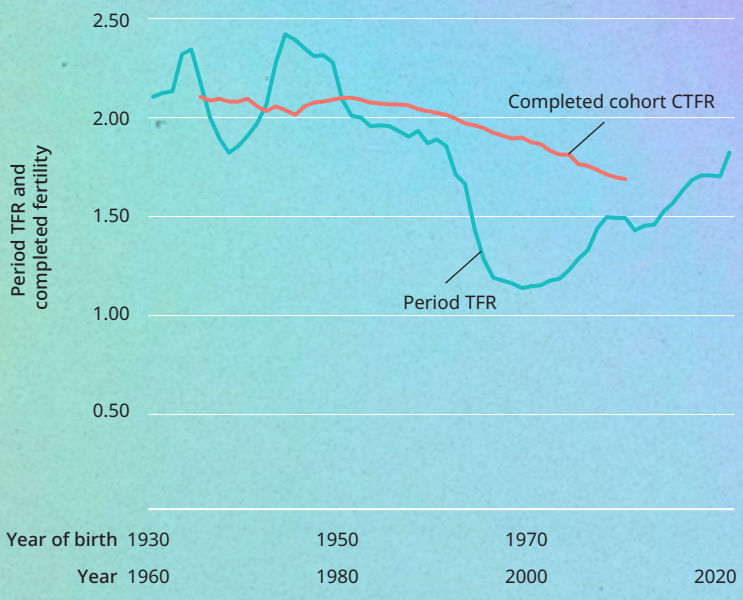
abortion. While a natural sex ratio at birth is around 106 boys per 100 girls born, a global assessment identified 12 countries and regions with systematically distorted ratios over the last three decades, including Armenia, Azerbaijan, China, India and Viet Nam (Chao and others, 2019). The UN estimated that in 2021 the highest such ratio was 113 boys born per 100 girls in Azerbaijan and 112 boys per 100 girls in China (UN DESA, 2022). When factoring in skewed sex ratios at birth, the threshold of replacement-level total fertility rate changes; a sex ratio at birth of 113:100 implies that total fertility rate would need to be 7 to 8 per cent higher to reach replacement.

Period fertility rates also respond strongly to external shocks and changing societal conditions. Economic crises, political upheaval, epidemics (including the COVID-19 pandemic) and changes in family policies can lead to sizeable swings in the total fertility rate. These changes are often temporary and fuelled by fluctuations in the age at childbearing or in birth spacing, rather than by overall changes in family sizes. In many countries with low-fertility rates, the trend of later parenthood means fewer babies are born in each period: a number of children who would be born today if childbearing age remained stable might be born instead one, two or many years later, increasingly to parents in their late 30s or early 40s. This trend skews conventional indicators of period fertility (Bongaarts and Sobotka, 2012; Bongaarts and Feeney, 1998). Researchers have developed indicators of fertility that adjust for the impact of changes in the age at childbearing, or the “tempo effect”. For instance, in the European Union, a tempo-adjusted index of period fertility was 1.72 in 2018, about 0.2 above the conventional total fertility rate (VID, 2022). In the United States, this tempo-adjusted number stood at 0.33 above the conventional total fertility rate of 1.73 in 2018 (VID, 2022).

These seemingly small differences can have long-term implications. When changes in the timing of births stretch over long periods, total fertility rate can be very different from the actual family sizes seen among women of reproductive age. In Czechia in 1999, a period of economic and social change, the total fertility rate fell to 1.13, which might suggest the country was awash with single-child families; yet, when looking at the family sizes of women born in 1970 (who were in their prime childbearing years in 1999), the average was close to 1.91 births (Czech Statistical Office, 2022; Human Fertility Database, 2022) (Figure 11).

> FIGURE 11

Period total fertility rate (1960–2021) and completed cohort fertility rate (CTFR, women born 1930–1980) in Czechia



Source: Czech Statistical Office (2022), Human Fertility Database (2022).

Notes: Cohort fertility at later childbearing years (41+) for women born in 1975–1980 was partly estimated. In the figure, fertility in each year is compared with cohort fertility of women who were in mid-reproductive years (age 30) in that year.

Looking at total fertility rate as the reproduction level required to replace a generation also means assuming a closed population without migration. However, very few countries experience almost no international migration. Both outmigration and immigration impact population growth, as well as the age and sex structure of the population. In countries and regions with positive net migration — including most of the European Union, North America and Australia, but also many middle-income countries — migration partly or fully compensates for the fewer births seen with low-fertility rates. By contrast, in countries with significant outmigration, including most countries in Eastern and South-Eastern Europe, migration accelerates the impact of low fertility on population decline and can contribute to faster population ageing. When accounting for migration, the picture of replacement fertility looks very different (Parr, 2021; Preston and Wang, 2007). Countries such as Australia, Norway and Singapore could have extremely low fertility and still achieve population growth in the long run.

Population age structure also casts a shadow from the past on current and future demographic trends. Populations with many people in the young and reproductive age brackets may experience decades of continuing growth, even with very

low fertility and no significant immigration — this legacy impact of population age structure is termed "population momentum". By contrast, older populations may experience population declines despite higher fertility rates. The use of total fertility rate is even more problematic when looking at population age structures because replacement and above-replacement fertility levels do not lead to the stabilization of age structures. Increasing longevity is the main driver of population ageing, not low fertility.

Many governments have launched policies aimed at limiting or boosting fertility, which can violate reproductive rights and freedoms (Gietel-Basten and others, 2022), often basing these policies on biased assessments that use total fertility rate and the oversimplified concept of replacement-level fertility. A proper assessment of generational replacement and prospects for population growth should consider population age structure, migration, trends in mortality, sex ratios at birth and the tempo effect. In addition, the stated or implicit aim by many governments to achieve long-term population "stabilization" — and thus also zero population growth — is misguided and its rationale questionable. For one, government policies have only a limited impact on many population processes, including fertility and migration. But there is also no compelling evidence that a stable population would bring the highest levels of societal well-being and prosperity. (Some research suggests that moderately low fertility and a declining population are even beneficial for material standards of living, for example [Skirbekk, 2022; Lee and others, 2014].) Lasting solutions will not be found in oversimplified metrics. Instead, policymakers would do well to support the collection and analysis of *more* data and more complex data that capture shifting social norms, changing needs and evolving fertility intentions.

Too few?

In 2020, international media reported a "jaw-dropping global crash in children being born"(Gallagher, 2020) based on a study published in *The Lancet* by the Institute for Health Metrics and Evaluation (Vollset and others, 2020). This was mirrored in alarmist reports about specific countries, especially two of the largest: "The Great People Shortage Hits China: The Country's Shrinking Population Is a Grim Omen for the Rest of the World" (Dettmers and others, 2023) and "America Is Looking Down the Barrel of Population Collapse" (Cooper, 2021).

On the face of it, fears of an "underpopulation crisis" (Musk, 2022) may be surprising given that the global population has more than doubled in just 50 years. The global fertility rate remains above the so-called "replacement level" of 2.1 births per woman (see page 60 for more on the limitations of this measurement) (UN DESA, 2022), and there are informed predictions that the global population will continue growing to almost 10 billion later this century (Vollset and others, 2020). Yet concerns about "depopulation" are also ascendant.

Historically, population decreases have taken place locally, nationally and even globally because of factors such as migration, war, famine, natural disaster and disease. Tragically, all of these drivers continue to exist today. However, at the national level, many of today's falling populations are additionally fuelled by a drop in birth rates to below replacement levels, a trend that is informing much of the discourse and concern about decreasing populations. Indeed, there are well-documented issues that tend to arise with a slowed birth rate or a decreasing population (as there would be with a high-fertility rate or with moderate growth, as well). At the local level, in areas of economic decline for example, concerns include maintaining infrastructure and services (e.g., schools, hospitals and public transportation) for the remaining populace. At the country level, these concerns are magnified to include fears about lower overall economic growth, possible reduced productivity because of ageing, difficulties in funding entitlement programmes such as pensions, the need to raise taxes to maintain infrastructure, and a loss of military and political strength (Coleman and Rowthorn, 2011).

While population decreases may be nothing new, the global context is: an estimated two thirds of the world population are now living in a country or area with sub-replacement fertility. This fact, alongside the increasing number of States confronted by lower fertility numbers, is stoking concerns that, if this continues, whole countries or even the human population itself could "collapse".

Public responses to this phenomenon vary widely, from hopeful to concerned to deeply pessimistic predictions of an impending "population disaster" (Kassam, 2015), "birth crisis" (Zecchini and Jones, 2022) and potential threat to "national security" (Zhang, 2022). Some policy responses have taken the form of positively working to improve maternal health, encouraging gender equality and removing financial barriers to parenthood — in other words, programmes which support choice and rights — while others look to more directive policies that aim to reduce the availability of contraception and ban or limit voluntary sterilization (Gietel-Basten and others, 2022; Population Matters, 2021). The blame, in many

contexts, is laid at the feet of women, who are often castigated for rejecting marriage and motherhood (He, 2022; Tavernise and others, 2021; Tramontana, 2021; Stone, 2018; Lies, 2014; Kelly, 2009), while encouraging a more submissive model of femininity that seeks to reinstate a so-called "traditional" family and gender dynamic (this is considered in more detail in Chapter 4) (Vida, 2019). Many countries have a mix of such policies and rhetoric (Gietel-Basten and others, 2022; Population Matters, 2021).

Fertility rates are not the only mechanism affecting population size. In fact, below-zero growth fertility rates have existed in many parts of the world since the 1970s, without an attendant decline in population totals because many of these countries typically experience net immigration (Simon and others, 2012; UN DESA, 2001). This trend is currently projected to continue, United Nations demographers say. "Over the next few decades, migration will be the sole driver of population growth in high-income countries, as the number of deaths will progressively exceed the number of births," notes the most recent World Population Prospects report (UN DESA, 2022).

But this, too, is often viewed with concern, commonly revolving around economic and cultural fears. There are fears, for example, about labour market impacts, such as low-skilled migrants undercutting wages or "overqualified" migrants displacing domestic workers and increasing income inequality. In fact, there is no conclusive evidence on this matter (Orrenius and Zavodny, 2018), and from an international perspective, international migration may even decrease global inequality by increasing the wages of those at the bottom of the world's income distribution (National Academies of

Science, Engineering and Medicine, 2016). There are also concerns about rapidly changing social norms, and concerns about migrants' integration or lack thereof. One frequently cited fear is that migration effectively imports criminality, a concern generally debunked by investigations into such allegations (Knight and Tribin, 2020; Hagan and others, 2008). All of these fears can fuel ethno-nationalist sentiment (Gietel-Basten and others, 2022; Vida, 2019), as they centre around who is counted as a member of the population, who "belongs" and who does not.

Lower fertility also contributes to the phenomenon of population ageing. In simple terms, ageing is the foreseeable result of declining fertility rates and growing longevity, a process taking place at different rates worldwide but moving in the same general direction everywhere. When populations age, attendant concerns have been expressed around slowing economic activity and growing caretaking burdens on societies (Anon, 2021; Bauer, 2021; Turner, 2009).

Just as with claims that there are "too many" people, the focus on "too few" portrays the common global experience of progress and achievement as one of catastrophe instead. Falling birth rates and rising lifespans are a hallmark of demographic transition, the trajectory of economic and social development observed by demographers for decades among countries moving from higher to lower mortality and fertility: since 1990 global lifespans have increased by nearly a decade (UN DESA, 2022). Worldwide, fertility has fallen from an average of 5 births per woman in 1950 to 2.3 births per woman in 2021, an indication of the increasing control that individuals — particularly women — are able to exercise over their reproductive lives (UN DESA, 2022).

Together, these advances have resulted in the large-scale liberation of women and girls from repeated unwanted and unplanned pregnancies; the educational and economic empowerment they have achieved alongside that liberation has played a major role in increasing life expectancy for themselves and their children.

These are gains, not losses. It is a march of progress that must continue.

"Too few" of whom?

Historically, fears about so-called "underpopulation" are closely linked to the view that there is "strength in numbers". National security was seen as requiring the potential mass mobilization of the male population in times of war; in this view, large populations are necessary for economic and military power (Coleman and Rowthorn, 2011). Reproduction is a form of patriotic service to the state, this thinking held. "Men give to their country its swords and lances, but the women give to it its men," argued a 1912 book (tellingly titled *Race Suicide*) (Iseman, 1912). In more recent years, this martial rationale for influencing population has been less often invoked, though interest in "demographic security", the study of how demographic profiles can impact national security, remains an area of investigation by researchers and others.

Today, the only region of the world expected to experience an overall population decrease in the immediate term (between 2022 and 2050)

is Europe, where fertility has been below the replacement level since the late 1970s, and where a minus 7 per cent growth is expected, according to the 2022 World Population Prospects report. Other regions' populations — in South-Eastern Asia, Central and Southern Asia, Latin America and the Caribbean, and North America — are projected to continue growing, but to reach their peak sizes before 2100 (UN DESA, 2022) (See Figure 24 on page 129).

Yet fears over so-called "population collapse" are pervasive, very often with a subtext: a heightened degree of concern over *whose* numbers are declining. That is, anxieties about slowing or reversing population growth typically centre around the low birth rates of specific subgroups in the population — underlining that much of this concern is not simply about fertility but about immigration, ethnicity, race and the politics of who should reproduce. Narratives of "underpopulation" are often invoked by political actors at the level of the nation state. Some politicians consider "strategic demography" — the use of demography in policy — to be an effective tool to garner support (Teitelbaum, 2015). In fact, many countries are seeing political leaders, parties and movements solicit support by generating fears about demographic change and by emphasizing low and declining fertility either as a stand-alone concern or alongside the changes brought about by immigration (Gietel-Basten, 2016).

While these anxieties are not necessarily ethno-nationalist, the response to these anxieties often is. Ethno-nationalism emphasizes a tight link between ethnicity and/or religion and nationality; such political movements can be found in different

> Extreme scenarios at work

One extreme form of ethno-nationalism in Europe and other majority-White nations, which transcends national boundaries, is the "great replacement" ideology. The terminology of "great replacement" was popularized by Renaud Camus, a French writer who claimed in 2011 that immigration from North Africa and the Middle East would inevitably result in the end of French "culture" (Camus, 2011). While Camus gave this viewpoint a name, the idea itself has been around for a long time, as shown by overt and covert discriminatory policies towards marginalized groups around the world.

The focus of the "threat" is often expressly racialized in many places, with claims that the White "race" is in danger of being outreproduced by the higher fertility of Black and Brown "races" and its culture diluted by immigration by these "races" — the terminology of "White genocide" is used alongside "great replacement". The theory is genetically ("races" cannot be genetically distinguished [AABA, 2019]), anthropologically (there is no single "White" identity, [Alba, 2018]) and demographically (the theory relies on particular demographic projections that are unlikely [Root, 2019]) unsound, but the ideology persists.

While this ideology is perhaps most commonly associated with countries in Europe and North America (a 2021 poll suggested two thirds of respondents in France were concerned about "great replacement" [Anon, 2021a]), versions of it appear in different contexts throughout the world, drawing divisions not only among races but also among religions, ethnicities and other classes of belonging. Indeed, the use or misuse of population statistics to fuel societal divisions is widespread and longstanding. In India, for instance, the rise of nationalism during the early twentieth century was accompanied by rhetoric regarding the increasing fertility rate of the country's Muslim population, which was linked to unfounded fears that the Hindu religion would be endangered (Mukerji, 1909). These concerns were influenced by a biased reading of demographic data collected during the previous censuses (Bhagat, 2012), illustrating how data can be misused. Dehumanizing and extremist rhetoric can, in the worst cases, lead to organized violence against groups of people, including genocide. More recently, researchers have begun to observe and investigate how such language can also incite violence by random and unknown third party actors, a concept termed "stochastic" violence (Amman and Meloy, 2021; DeCaprio, 2020).

Given how easily demographic data can be politicized, some countries have chosen not to collect or release demographic data. Kenya did not release census data on ethnicity in 1999 because of fears over how the political allegiance of different ethnic groups could be used to sow division (Balaton-Chrimes and Cooley, 2022). Lebanon has held only one census, in 1932 (Faour, 2007), and has not held another for fear that demographic data on the population sizes of its different religious groups would upset the balance of power between those groups (Maktabi, 1999). Likewise, Belgium does not collect data on the number of speakers of the country's official languages (Ronsijn, 2014; EFNIL, 2009).

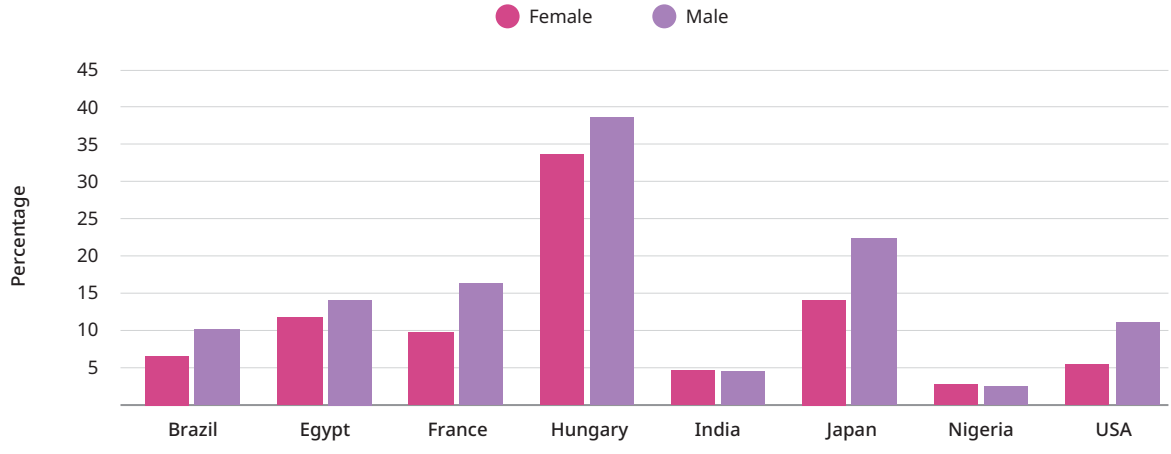
regions of the world and in low-, middle- and high-income countries. They generate support by raising alarm about the decline of a particular ethnic or religious group, often invoking the lower fertility rates of one group compared with other groups, or making claims about fertility differentials where few to none exist (Jeffery and Jeffery, 2022; Parrado, 2011). In higher-income countries and regions with significant migrant inflows, such as Europe and the United States, ethno-nationalist actors also raise concerns over immigration, which is presented as an economic and cultural peril (Huntington, 2004; Sartori, 2002). In countries with lower immigration but with diverse populations, ethnic or religious minority groups are often portrayed as a "threat" — examples of political movements targeting subpopulations are all too widespread, both historically and now. Such tactics have been identified as generating or deepening divisions between different groups in some countries (Layton and others, 2021).

Views from the population

Anxieties about "depopulation" and "population decline" appear to be a minority view. The YouGov survey asked a representative sample of nearly 8,000 adults across eight countries whether they thought their domestic population size was too large, too small or about right (respondents could also select don't know). In every country, more people said their national population size was too high or was about right than said it was too small. The highest level of respondents saying that their population was too small — 36 per cent — was seen in Hungary, but even there it remained a

> FIGURE 12

Proportion of men and women in eight countries surveyed who believed the current population size of their country was too low



Source: UNFPA/YouGov survey, 2022.

minority opinion. (Hungary was also the only country surveyed that has seen consistently negative population growth over the past four decades.)

An interesting gender difference emerged when looking at respondents who viewed their national population as being too small: these views were more likely to be held by men than women (Figure 12). In France, Japan and the United States, more men than women believed the country's population was too low (in France the figures were 16 per cent men versus 10 per cent women; in Japan, 22 per cent versus 14 per cent; and in the United States, 11 per cent versus 5 per cent).

A gender difference also emerged when looking at respondents who viewed their national *fertility* rate as too low. In most countries — and especially in Hungary, France, Nigeria and the United States — more women than men thought a lower fertility rate would have a neutral impact, while more men thought it would have a negative impact. In all countries, more men than women believed higher domestic

> Declining sperm counts: a cause for worry?

Concerns over population decline have popped up in surprising places, including academic research noting that sperm counts are declining. Indeed, there are reasons to believe increasing levels of microplastics, hormone-disrupting chemicals and carbon emissions may be altering human germplasm, potentially resulting in unexplained infertility. Some studies indicate that high levels of air pollution are beginning to affect sperm quality and viability (Zhao and others, 2022). This has prompted scientists to ask: is ambient air pollution a risk factor for fecundity (Pedersen, 2022)? Polluted water and river systems may be similarly shaping reproductive health (Brown, 2002). Moreover, there is now credible evidence that rising global temperatures are threatening health outcomes in terms of an increase in preterm births (Clougherty and Burris, 2022). This research has led some to declare the human race is "imperiled" (Swann, 2021). Still others point out, however, that while both environmental and lifestyle factors have likely contributed to decreased sperm counts, motility and morphology, these counts continue to be "above the normal reference limit for fertility by a significant margin" (Tong and others, 2022). As discussed in Chapter 2, the interplay between environmental degradation and fertility rates is reason for real concern, but caution and circumspection are needed.

fertility rates would have a positive impact (though in Brazil and India, the gender difference was within the margin of error). These findings raise the possibility that men may be more inclined to see smaller domestic populations and lower domestic fertility rates as problematic and to see increasing birth rates as a solution.

Views on immigration, meanwhile, were highly varied. In all countries except Japan and Nigeria, the most commonly held opinion about immigration was that current levels in their own country were too high. In France, Brazil and the United States, more than half of adults thought that current immigration levels were too high.

In every country except Hungary, exposure to rhetoric, messaging or media about global or domestic population size correlated to viewing immigration rates as too high. In Hungary, meanwhile, exposure to conversations and messaging about population correlated to viewing the population size as too low.

Concerns related to population change were also variable across countries and ages. In Hungary, for example, population decline was considered a top-5 priority among older respondents but not younger respondents, while for environmental concerns the reverse was true.

Together, these findings suggest that anxieties around low domestic population, low domestic fertility and rates of migration are subject to influence by social circumstances, including gender, age and exposure to media and rhetoric.

> Exposure to rhetoric, messaging or media about global or domestic population size correlated to viewing immigration rates as too high

Views from policymakers

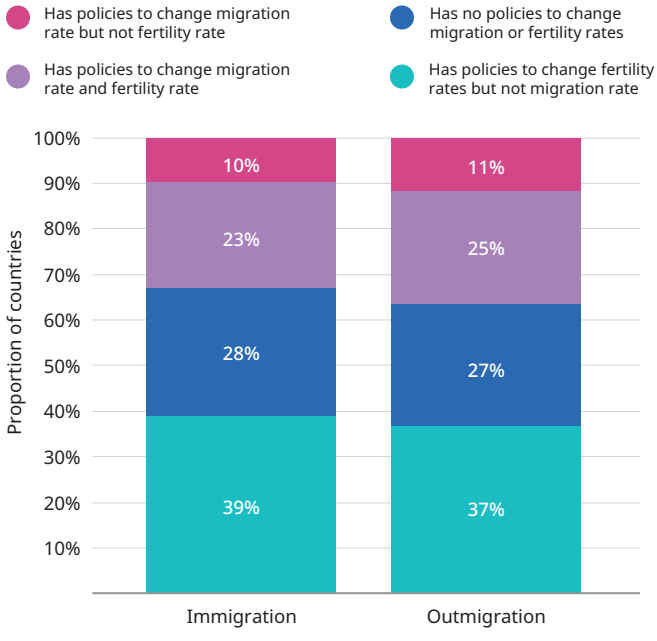
Fertility policies versus migration policies

Analysis of data from the United Nations Inquiry Among Governments on Population and Development shows that most countries express a desire to influence their fertility rates and most countries do *not* want to change their current migration rates (Figure 13). While there is an intricate and diverse mix of fertility and migration policy groupings, one pattern stands out: the largest policy grouping — with over one third of countries — seeks to influence current fertility rates (either raising or lowering) but *not to* change migration (either raising or lowering outmigration or immigration).

The groupings become more complex when including the direction of change desired by the policies — whether to raise or lower fertility, raise or lower outmigration, or raise or lower immigration (see Technical note on response rates, page 173) — but the overarching trend suggests that policymakers are more inclined to treat fertility rates (i.e., women's bodies) as tools for statist ends rather than embracing immigration or seeking to

> FIGURE 13

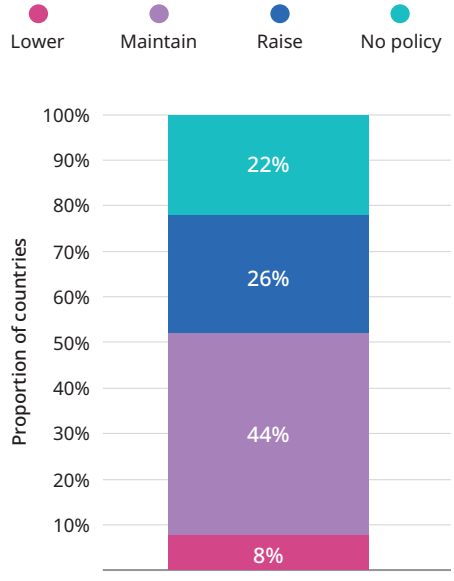
Proportion of countries by policy groupings for fertility and migration



Source: United Nations Inquiry Among Governments on Population and Development, 2019 and 2015.

> FIGURE 14

Proportion of countries by type of immigration policy*



Source: United Nations Inquiry Among Governments on Population and Development, 2019 and 2015.

*Policies refer to legally permitted channels of migration.

encourage the retention of potential emigrants through increased domestic opportunities.

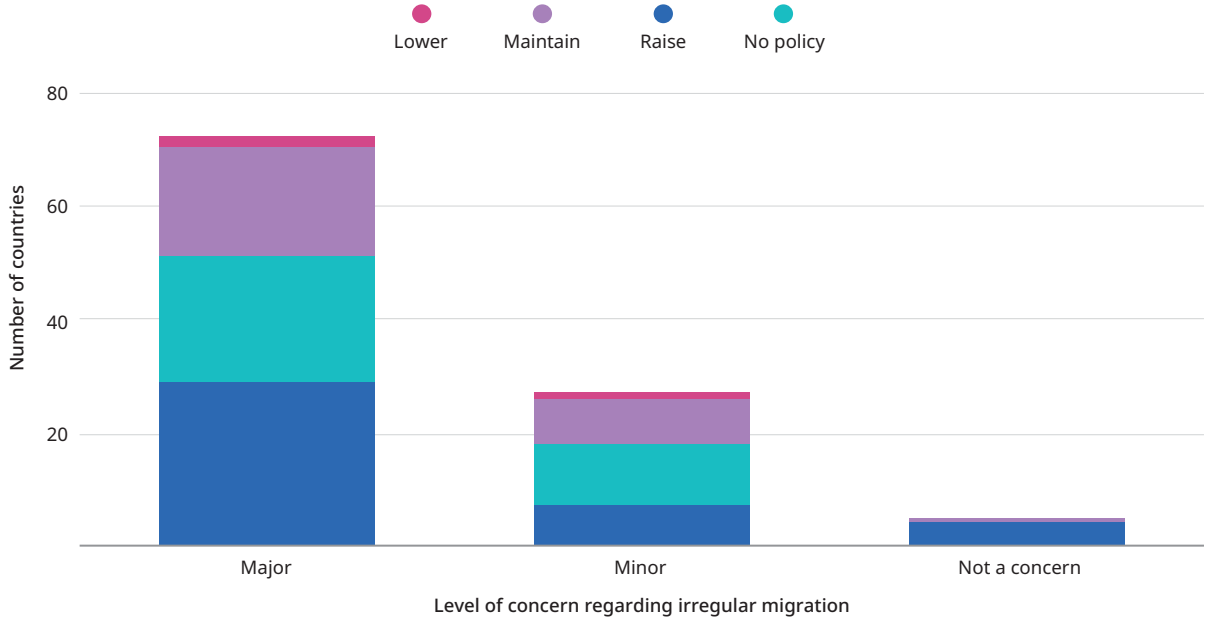
While the YouGov survey findings indicate that perceptions of immigration among the general public, at least in the countries surveyed, seem to be influenced by population rhetoric, policymakers overall express much less concern about immigration in their responses to the Inquiry. Only about 8 per cent of responding countries reported an intention to lower immigration rates (that is, immigration through legally accepted channels) (Figure 14). Two thirds of countries responded that their policy was to maintain current immigration rates. The remaining countries (one quarter) wanted to raise immigration. However, the vast majority (69 per cent) of countries responding to questions about *irregular* migration stated that it was a major concern, a reflection, perhaps, that concerns are more about who is entering the country, and how, rather than the level of immigration (Figure 15).

The Global Compact for Safe, Regular and Ordered Migration was adopted in December 2018, shifting conversations away from the size of migrant flows to the

> FIGURE 15

Number of countries grouped by type of immigration policy and level of concern regarding irregular migration*

While a majority of countries indicate irregular immigration is a major concern, less than 10 per cent of countries intend to reduce regular immigration (in pink).



Source: United Nations Inquiry Among Governments on Population and Development, 2019.

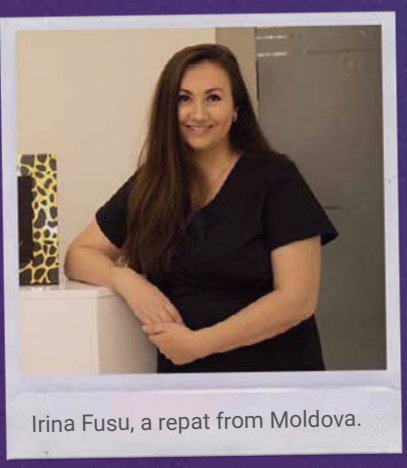
*Immigration policy refers to regular immigration; level of concern refers to irregular migration.

FEATURE

Wooing Balkan repats

They're called repatriates, or "repats" for short, people who move back to their home countries after having emigrated. Some parts of Central and Eastern Europe — under pressure from low birth rates and high outmigration (Armitage, 2019) — are working to convince emigrés to return home, hoping to see their populations grow and to develop demographic resilience.

The Balkan diaspora, for example, is huge. With an estimated 53 per cent of the people born in Bosnia and Herzegovina, 45 per cent of those born in Albania, and 12 per cent of people born in Serbia living outside their countries (Migration Data Portal, 2021), government incentives to woo them back are no surprise.



Irina Fusu, a repat from Moldova.

Image courtesy of Irina Fusu

The "I Choose Croatia" scheme offers up to €26,000 in subsidies to Croatians who come home and start a business (Hina, 2022). Serbia has a sophisticated combination of tax relief, start-up help and attractive technology parks, and Moldova's PARE 1+1 programme matches private investments into new businesses started by returnees (ODA, 2013).

"I received help from three different programmes in Moldova," says Irina Fusu, a dental surgeon who returned after five years in Russia. "It wasn't just money. I'm a doctor, and I didn't know management, so I was helped with business courses by the government." Her Da Vinci dental clinic won the "best dental clinic" award in 2020.

National governments are not the only ones helping people return. In Serbia, Returning Point is a non-governmental organization whose mission is to create a better climate for repats."When I decided to return to Serbia, I reached out to Returning Point," says Ivana Zubac, a financial controller who spent 20 years in Western Europe. "I took a chance to see what things were like here, and my quality of life is now much better." Zubac now helps mentor other newly returned Serbians.

Also returning to Serbia is Jelena Perić, a paediatric nurse who came back from Munich, where she had been working since 2011. She received support from yet another source: the German aid agency GIZ. "I wanted to help families learn about breastfeeding, which is not very popular in Serbia," she says.

Many countries are looking for longer-term solutions, as well. When people have a decent standard of living, secure and promising jobs, good education for their children, decent health care, and an enabling environment, there are fewer reasons for them to seek these abroad.

Senad Santic says a stronger private sector also helps retain young talent. He runs ZenDev, an IT company in Mostar, Bosnia and Herzegovina, and believes job opportunities like the ones ZenDev and similar companies provide will help keep young people from leaving.

"The idea," says Santic, "is to have conditions at home that prevent people from wanting to leave in the first place."

ways those flows are managed, with human rights agreements at its foundation. Yet among countries seeking to lower (regular) immigration, the present secondary analysis finds a reduction in the number of reported mechanisms to safeguard migrant rights and protections in 2021 compared with 2019. In contrast, in countries seeking to maintain or raise immigration, the reported safeguarding mechanisms increased over the same period. This raises the question: are migrant rights, like reproductive rights, at risk of being eroded as countries seek to achieve their population goals?

Fertility policies, development and human freedom

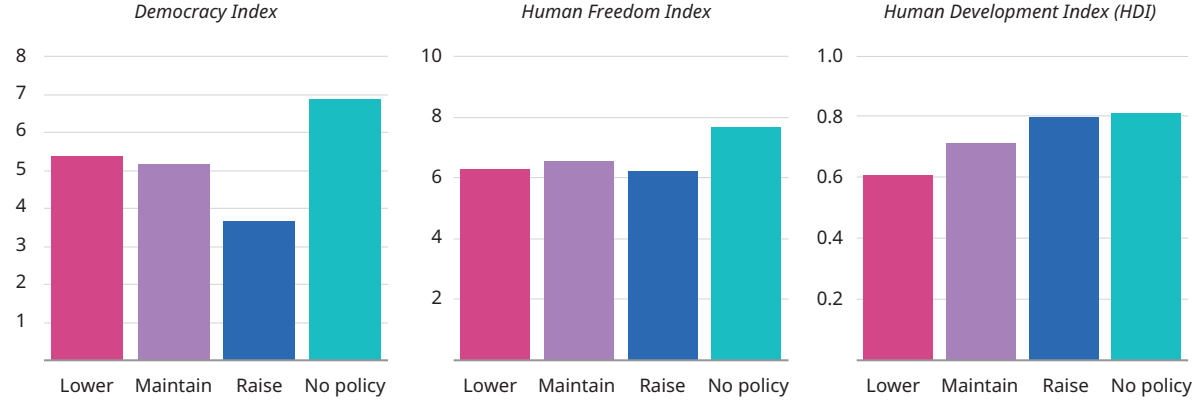
There are clear correlations between countries' self-reported fertility policies and other indicators of well-being (including and beyond the relationship to maternal health discussed in Chapter 2). Countries seeking to lower their fertility rate have the lowest levels of development as measured by the Human Development Index; countries seeking to maintain their level of fertility showed the second lowest level of human development; and countries seeking to increase their fertility and those with no fertility policy have similarly high levels of human development. These correlations align with the broader trends of demographic transitions, wherein development, lower fertility, and greater health and longevity go hand in hand.

Less expected were the findings when comparing countries' self-reported fertility policies against their scores on the Human Freedom Index and Democracy Index. As shown in Figure 16, countries with *no* professed policies to influence fertility have the highest average scores on the Human Freedom Index, while countries in all other policy categories (those seeking to lower, raise or maintain fertility) have almost identical and distinctly lower human freedom scores. Countries with *no* professed fertility policy also have the highest average scores on the Democracy Index, while countries with policies to *raise* fertility have by far the lowest average scores of any policy group. In fact, the average Democracy Index score of countries with *no* professed fertility policy is nearly twice as high as the average score of countries with policies to *raise* fertility. Countries looking to *lower* fertility,

> FIGURE 16

Average Human Development Index, Human Freedom Index and Democracy Index scores among countries with matching fertility policies

Countries with no policy to influence fertility rates have, on average, higher levels of human development, freedom and democracy.



Source: United Nations Inquiry Among Governments on Population and Development, 2021, 2019, 2015.

which otherwise see the lowest average health and development scores, have the second highest average Democracy Index scores, faring far better than countries with policies to *raise* fertility and slightly better than countries with policies to *maintain* fertility.

In short, places where individual freedoms and rights protections are highest tend to not have any fertility policies. This does not mean that all countries with no fertility policy necessarily have high levels of development, democracy and human freedom — there are many countries that defy this trend. Indeed, much of the difference is driven by a cluster of countries that have no fertility policies and also have the highest levels of freedom, democracy and development. Still, the global averages are telling, and perhaps indicative of a tendency within freer, more democratic and developed countries to prioritize human rights in their citizens' reproductive decision-making.

When rights and choices are secondary

The starting point for conversations about low fertility is, generally, what women are failing to do with their bodies and lives and what impact this will have on societies at large (Cronshaw, 2022). In fact, there have been headlines in some places that presume that women are overwhelmingly rejecting marriage and childbearing (Loh, 2022; Torgalkar, 2020), often with the implication that to do so is selfish. Missing from much of the conversation around low fertility is what individuals actually want for their own reproductive lives (discussed in more detail in Chapter 4).

An ethno-nationalist view of demography often similarly negates the reproductive agency of the individual, embracing a gender ideology that subordinates women's rights, particularly their reproductive rights, to the goals of an

> Women's bodies as problems and solutions

Curiously, just as anxieties about "too many" people can lead to the subordination of women's reproductive autonomy, anxieties about "too few" can do the same, even using the same language. As seen in Chapter 2, discourse about "too many" contributes to the view that contraception is a product of foreign influence. In low-fertility contexts, "anti-gender" rhetoric similarly views gender equality, LGBTQI+ rights, comprehensive sexuality education and reproductive autonomy as unwelcome imports from abroad (Human Rights Watch, 2019; Vida, 2019).

FEATURE

Expectations about women's roles at work and at home drag marriage and fertility rates to new lows

"I'm willing to marry if I meet someone who has the same view about marriage as I do and respects me," says Yeon Soo, a 35-year-old doctor in Gyeonggi-do, in the Republic of Korea. "But I don't feel the need to get married if there isn't anyone like that."

She is not alone. Fewer and fewer Koreans are marrying today. A survey of 30-year-olds by the Korea Population, Health and Welfare Association revealed that 30 per cent of women — and 18 per cent of men — said they would not get married in the future. Today, the marriage rate is about two thirds lower than it was in the 1980s (Ki Nam Park, personal communication). And those who are marrying are marrying later. In the 1980s, the average man and woman married at age 27 and 24, respectively. Today, the average ages are 33 and 31.

What accounts for this trend? As Yeon Soo indicated, one reason is concern among women that they will have to forfeit careers and become stay-at-home mothers shouldering the full burden of housework and childcare. "I think the most important thing in marriage is whether my potential partner can fully respect and support my career," she says. "Here in Korea, after marriage, a woman's status can change. She is no longer a woman, but someone's wife, a mother, a daughter-in-law."

Yeon Soo is not unlike thousands of Korean women who are rejecting long-standing views of marriage as an obligation, one that comes with responsibilities for raising a family, managing the home, and being an obedient daughter-in-law, and are increasingly seeing marriage as a choice, one that does not entail sacrificing university degrees or professional lives.

An unstable labour market, where a large share of young people, but especially women, have part-time or short-term jobs, is partly to blame for fewer and later marriages, explains Ki Nam Park, Secretary-General of the Korea Population, Health and Welfare Association. "About 72 per cent of women have at least a college degree," she says. "I think the increase in the age of first marriage

reflects a social trend in which young people are now investing more time in their academic background and job preparation and want to prioritize finding and holding onto a good job."

And with fewer and later marriages come fewer children. Unlike in many other developed countries, having children in the Republic of Korea happens almost exclusively within marriage, Park explains. So with marriage rates at a record low, the country's total fertility rate of 0.81 is the lowest in the world.

The decline in births alarms some policymakers because it means the share of the population that is older is growing rapidly, and covering the costs of medical care and services for them "will be a huge burden on the younger generation," Park says. "If the total population decreases, production and consumption will decrease, the economy will contract, and eventually the vitality of society will decrease."

The country's falling marriage and fertility rates are intertwined with gender-unequal attitudes about jobs, child-rearing and housework. Gains in opportunities outside of marriage — in the labour market and in wider society — together with increasing costs associated with raising children today mean that the traditional "marriage package", where the woman gives up her job, stays home and raises children while the man works long hours and devotes little time to housework and childcare, has lost its appeal for many young women, especially those with high levels of educational attainment, according to a recent OECD study on the Republic of Korea's rapidly changing society (OECD, 2019). And because childbirth remains strongly associated with marriage, the study says, the barriers young people face even in finding a partner while establishing themselves in the labour market also contribute to declining fertility.

The Republic of Korea is not the only country where fewer and later marriages go hand in hand with fewer children. In Japan, too, marriage rates have reached historic lows, and 25 per cent of women in their 30s say they have no intention of getting married (Government of Japan, 2022). Meanwhile, the average number of births per woman is about 1.3.

Like their Korean counterparts, many young Japanese women are saying maybe — or maybe not — to marriage and to having children because they want to keep their careers and avoid being saddled with unpaid house and care work.

"I want to be married one day, but only under certain conditions," says Hideko, a 22-year-old office worker in Tokyo. "I would want to continue my job, and my partner and I would have to share the burdens of house chores and child-rearing," she adds.

For many women considering marriage, the opportunity costs are high, explains Sawako Shirahase, a social demographer and senior vice-rector of the Tokyo-based United Nations University. The usual choice women have to make is between only two options, she says. "It's either A or B: keep your job or take care of your family."

But there are also economic reasons factoring into decisions about marriage and starting families, Shirahase says. Young people prefer not to marry or start a family until they can afford it, and that goal is becoming harder and harder to reach, with many young people today finding themselves in precarious work situations. "Having kids and raising them are expensive in Japan," Shirahase says. "The costs of sending children to good schools are often too high for single-income families."

But if both parents are working so the children can

go to good schools, she adds, “Who will take care of the children and do all the housework? It’s traditionally the woman who is expected to take on all these family responsibilities by herself.”

And for those couples who think they are ready to marry and have a family, it may be too late to have children. Nearly one in four couples in Japan has undergone testing or treatment for infertility, according to findings from the Japanese Fertility Survey (National Institute of Population and Social Security Research, 2022). In addition, some women in their 40s may never even have the chance to start a family because men may not want to marry someone they think won’t be able to have children.

Policymakers in both Japan and the Republic of Korea have implemented tax credits and taken other measures, such as expanding access to affordable childcare, to make it easier for couples to have children, if they want them. But some of the obstacles to marriage and starting families may take generations to dismantle. In Japan, this will inevitably entail changing deeply embedded norms, as well as economic systems, to make them more gender equal and conducive to balancing families and careers, Shirahase says.

Natsuko, a 32-year-old midwife in Yokohama, says that one day she’d like to spend her life with a partner and have children but adds that marriage and childbirth would greatly affect her career plan. “This would never happen to a man,” she says.

Similarly, in the Republic of Korea, Dr. Park says that what’s needed is “a social atmosphere in which men actively participate in housework and childcare”. At the same time, gender discrimination in employment and wages are a big part of the problem, she adds.

Saori Kamano, a sociologist at Japan’s National Institute of Population and Social Security Research, says that you can’t force people to get married and have children, so “you have to transform systems and institutions, as well as the norms”, starting with shifting attitudes about gender roles. “This will take a long time, but our recent National Fertility Survey shows there are signs of change.”

An unstable labour market is partly to blame for fewer and later marriages, explains Dr Ki Nam Park, Secretary-General of the Korea Population, Health and Welfare Association.

Image courtesy of Dr. Park

“The increase in the age of first marriage reflects a social trend in which young people want to prioritize finding and holding onto a good job.”

ethnic or political group. Examples include coercive reproductive policies (such as restricting abortion [Philbrick, 2022; Samuels and Potts, 2022] or contraceptive access [Council of Europe, 2017]) or policies that restrict women's rights in other domains, such as in the workplace, in order to confine them to the domestic sphere. Ethno-nationalism may use rhetoric aimed at convincing both women and men to increase fertility; this was found to be the case, for example, in four Asian countries (Whittaker, 2022). Researchers point to anxieties about ethnic dominance as contributing to rising fertility in Sri Lanka (De Silva and Goonatilaka, 2021). In Türkiye, analysts point out that, although abortion was decriminalized in 1983, rhetoric encouraging women to have more children has been accompanied by diminishing access to contraception in the public sector (MacFarlane and others, 2016).

Some of these views are tied to ethno-nationalism, but there are, of course, plenty of sociocultural norms that seek to subordinate the reproductive agency of women and girls to the desires of others. Many gender-unequal norms, widespread around the world, hold that a woman's primary societal function is to become a mother and caretaker, while a man's is to become a breadwinner for his family. This heteronormative model of the nuclear family is seen as both "traditional" and "natural" (EPF, 2018), even though definitions and manifestations of the family have varied widely over time and geography (see Chapter 4). Whether gender inequality is perpetuated through ethno-nationalist efforts or through pushback against changing gender norms, or both, the consequences for women's reproductive health and fertility are dire.

> Whether gender inequality is perpetuated through ethno-nationalist efforts or through pushback against changing gender norms, or both, the consequences for women's reproductive health and fertility are dire.

Generally speaking, contemporary policies like these are not coercive in the mould of the industrial-scale eugenics programmes seen in the twentieth century. Forced sterilization and forced pregnancy are universally recognized human rights abuses, rightly eschewed by all Member States. Still, by seeking to steer reproductive choices, some population policies elevate the fertility preferences of policymakers and politicians over the autonomy and choices of individuals. In their most benign form, these include incentives and disincentives, but for people facing multiple overlapping forms of vulnerability — poverty, stigmatization, discrimination, abuse — they can have the effect of eliminating choice all together. This is perhaps most obvious when access to reproductive and family planning services is reduced, a rollback of the commitments made in the 1994 ICPD Programme of Action. Heightened barriers to reproductive health care and services, including contraceptives and safe abortion, may be overcome by economically and socially empowered women, but others see their options

disappear altogether. The quality of services more broadly can also decline.

Limitations in family planning services in the public sector in Türkiye have led to "indebtedness of women through out-of-pocket payments" for sexual and reproductive health care (Dayi, 2019). Official 2018 data point to an increase in the unmet need for family planning to 12 per cent of currently married women, twice the rate recorded in 2013. In Poland, where abortion has long been legal only if a pregnancy is the result of a crime or if it poses an imminent threat to life, recent policy changes have included reducing access to emergency contraception (available now by prescription only) and limiting sexuality education (Human Rights Watch, 2019). In Iran, recent legislation has raised barriers to obtaining an abortion; the issue is now under the purview of the Ministry of Intelligence. Voluntary sterilization is banned, as is the provision of free contraception in public health facilities (Berger, 2021). Formal or informal restrictions to family planning services have been reported in many other parts of the world.

Restrictions and barriers to reproductive health and rights are not always the result of harmful gender norms, ethno-nationalism or other efforts to manipulate demographic trends. Access to a service or commodity can be reduced for any number of reasons — budgetary or supply issues, for example. But in some cases, there is the suggestion of a link between demographic targets and reduced access to reproductive health services. Some countries, such as Romania (Benavides, 2021) and the United States, have seen abortion access plummet in recent years (Lazzarini, 2022) at the same time that there has been an uptick in "great replacement" rhetoric (Samuels and Potts, 2022). In some places, reproductive health restrictions disproportionately impact particular groups, such as in Malaysia, where migrant women lack access to reproductive health information and contraception, and where those who fall pregnant can be subject to deportation (Brizuela and others, 2021; Loganathan and others, 2020).

Yet in many cases the connection to traditional gender norms or ethno-nationalist sentiment is overt. In one memorable example, abortion and contraception were identified as a "mass destruction weapon against European demography" (Scrinzi, 2017).

Putting people at the centre

Policies that seek to restrict choice are not the only tools available to policymakers. Many also implement policies to promote opportunities, empowerment and choice for women — funding parental leave programmes, offsetting the costs of child-rearing through payments or tax credits, or promoting gender equality in the workplace and home to lower the barriers to parenthood for women in the labour force, etc. Such programmes can be a model for improving conditions for families as they lower barriers to parenthood for those who desire it, improve parents' ability to invest in their children's health and futures, and support equality of opportunity and economic empowerment for women — to make it easier for people to realize their reproductive rights and to have the number of children they wish.

These policy responses promoting gender equality and women's participation in the labour market are a reflection of inequalities and challenges that persist within low-fertility countries. For example, women in low-fertility countries spend, on average, more than twice as much time on unpaid domestic work as men, according to the United Nations Population Division (UN DESA, 2020). Efforts to remedy such inequalities have the potential to improve welfare for not just women but all of society.

FEATURE

Family-friendly workplaces to support demographic resilience

When Diana Donțu, in Moldova, found out she was pregnant with triplets, she asked her boss for flexible working arrangements. He agreed — these had become more familiar during the COVID-19 pandemic, and it made good economic sense to retain skilled employees. Donțu worked from home after the births and later went back to the office three days a week as executive director of Panilino, a cake factory. "Without these policies, I would have had to find another company, or stay at home," she says.

And as her children grew older, Donțu was able to send them to a new day-care centre on Panilino's premises. "Now if something happens to one of my children while I am at work, I can simply go over and see them," she says.

Her experience is an exception rather than the rule in this region, where women often have to choose between career and family. A recent survey in Moldova revealed 9 in 10 women with children under 3 stay home (UNFPA and Ministry of Labour and Social Protection of the Republic of Moldova, 2022). The scarcity of family-friendly policies has had knock-on effects: people often have fewer children than they want, pushing birth rates down. In addition, businesses — already grappling with a shrinking pool of workers due to outmigration — fail to benefit from the skills of women who are unable to re-enter the labour force after giving birth.

Through a programme funded by Austria that supports gender-responsive family policies in Moldova and the Balkans, UNFPA advised Panilino executives on how to develop family-friendly workplaces and provided a grant to help open the day-care centre. Evidence shows that such policies — both at the national level and those implemented by the private sector — are powerful tools to shift discriminatory gender norms and redistribute unpaid care work so that both men and women can realize their career aspirations without foregoing having children. While the principal aim is to allow more people to balance work and family life, it also helps ease the pressure on young people to seek job opportunities outside of the country.

Albania is another country in the region adopting family-friendly policies, which include generous parental leave benefits — for women and men alike (UNFPA Albania and IDRA Research and Consulting, 2021). But even though paternity leave is now available, few men choose to take advantage of it. In South-Eastern Europe, only 3 per cent

of men say they have taken paternity leave (UNFPA and IDRA Research and Consulting, 2022).

Ardit Dakshi's experience suggests at least one reason why. His job as a systems engineer in Tirana made it easier for him to work from home when his wife gave birth to twins. "In the beginning, my co-workers laughed at me," he says. However, he adds, "When my colleagues saw all the benefits, they started using paternity leave too."

The populations of many countries in Eastern and Central Europe are falling quickly (Kentish, 2020). Some governments are worried that without more births, and in the absence of immigration, their economies will falter, and there will not be enough young workers to contribute to social support systems on which their ageing populations depend.

Some countries have resorted to government incentives to encourage people to have more children. Incentives vary widely and include payments to families who have more children, tax breaks for larger families, housing and car subsidies, and also awards for mothers with more than five children, and experience with "baby bonuses" shows that cash incentives or tax credits by themselves, particularly when they are modest, have a negligible impact on fertility rates in the long run (Stone, 2020).

A more resilient approach helps couples reconcile work and family to have the number of children they want.

Data and studies support the value of having workplaces that are family friendly and parental leave that is generous and equitable; in these conditions, women have more job opportunities and men share household tasks (Armitage, 2019).

"Taking paternity leave and connecting with my daughters is the single most important thing I've ever done in my life," says Dakshi.

As Donțu takes a Zoom call, her son Alexandru climbs onto her lap. "He was a bit sick today so I brought him to the office. I could not do this without these family-friendly policies."

For Donțu and Dakshi, flexible and adaptable working conditions have made all the difference.

Without family-friendly work policies, mother of triplets Diana Donțu explains that she would have had to find another company or stay at home.

Image courtesy of Diana Donțu

"Most governments of countries with low fertility, including those with no official policies to influence fertility levels, have adopted measures to incentivize childbearing, including paid or unpaid parental leave with job security, subsidised childcare, flexible or part-time work hours for parents, tax credits for dependent children, and child or family allowances," the United Nations Population Division has observed (UN DESA, 2022b). Many of these measures are, in fact, standard social and welfare policies recommended irrespective of fertility concerns.

But when these policies have as their primary objective influence over raising or lowering aggregate fertility, there are significant perils. Namely, the possibility that these policies will be reduced or even reversed when their aims are no longer considered politically or economically paramount. In fact, this report's assessment of Inquiry data found that many countries actually

reported *reducing* the number of measures designed to support families and gender equality: 38 countries, between 2015 and 2019, reduced childcare subsidies, lump-sum payments for children and child or family allowances (policies that not only support children but also help women to remain in, or return to, remunerated employment). This raises an important question: if human rights and welfare were a *primary* incentive for implementing family-supportive policies, would these measures be less subject to abrogation?

Then there are cases in which policymakers expressly set target fertility rates — even though the world has been moving away from focusing on specific demographic targets since the 1994 ICPD. In the past two decades such targets have been formulated by, among others, the governments of Belarus, Estonia, Japan, the Republic of Korea, Poland and Russia (Sobotka and others, 2019). For instance, the Government of Poland has recently published its "Demographic Strategy 2040", which focuses, despite its title, exclusively on family policies and strategies aiming to increase birth rates, to reach a replacement level of period fertility around 2.1 by the year 2040, which would be an increase of 50 per cent from its current level of 1.4 (Government of Poland, 2021). In Iran, increasing fertility rates, decreasing the age of marriage and lowering divorce rates (to increase marital fertility) are core components of a target to increase the country's population to 150 million (Ladier-Fouladi, 2022). In some cases, the preference for changing fertility rather than increasing immigration is made very explicit (see the box on "great replacement" on page 43) (Walker, 2020).

Sometimes targets take the form of incentives provided to couples who produce a certain number of children — a kind of reproductive quota. Unlike schemes that provide support to every child, these incentive programmes allocate financial value based upon a government-set numerical goal. In Hungary, a policy offers a 10-million-forint loan (~$25,000) to young married couples. With every child born, the loan repayment is deferred. If the couple have three children within the required time frame, no final repayment is required (Walker, 2019). Indeed, it has recently been estimated that Hungarians planning to have three children can "receive up to HUF 42 million (EUR 116,713) in non-refundable grants and HUF 73 million in subsidized loans over the years for the purchase of a net HUF 100 million home" (Anon, 2021b).

In the Russian Federation, the country rewards "mother heroines" who have 10 or more children with a payment of 1 million rubles (Anon, 2022b), or roughly $13,000. In Iran, a 2021 law provides incentives for childbirth and marriage, including financial incentives to reduce the age of marriage, with interest-free loans available to couples under 25 and women under 23 (Government of Iran, 2021).

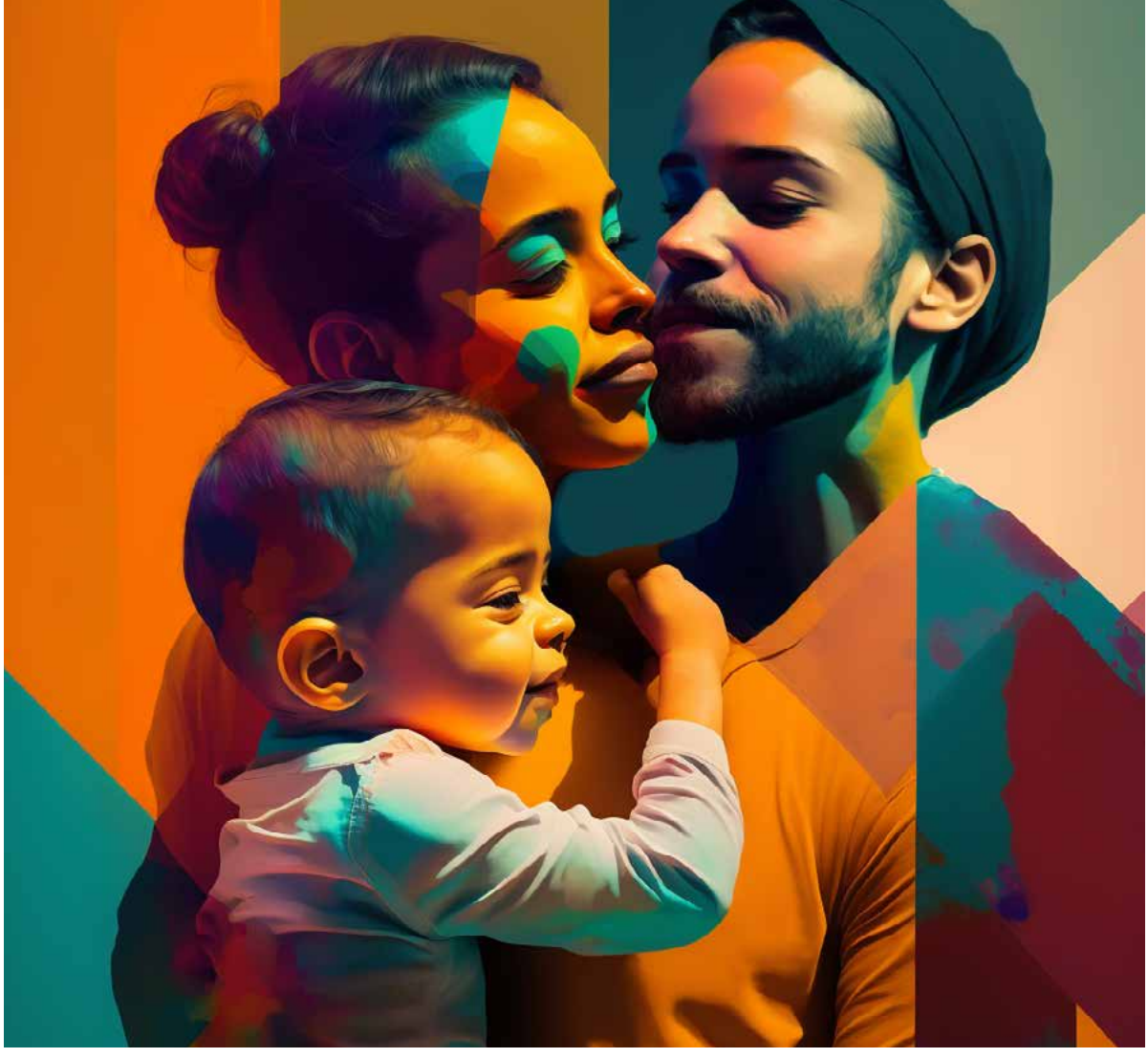
Some have even suggested pronatalist family policies that are punitive or exclusionary, such as taxing childless adults (Morland, 2022; Gao, 2018). In Hungary, newly developed national in vitro fertilization centres will offer free cycles for all women — apart from those over the age of 40 and lesbians.

The case for hope

Evidence shows us that there is no need to design policies to engineer population-wide fertility increases. Such policies, whether to meet targets or otherwise, do not have significant long-term effectiveness (Frejka and Gietel-Basten, 2016). Looking at the countries most recently associated with instituting such targets, there is very little discernible shift in the total fertility rate after adjusting for the tempo effect (i.e., some people may well decide to have children that they were planning to have in any case at a particular point in time in order to make the most of a new policy, but they do not increase their total planned family size) (see spread on page 60). This has been illustrated in the Russian Federation, the Islamic Republic of Iran, many countries in East Asia, and Thailand, among others (Gietel-Basten and others, 2022). Indeed, any increases that have occurred tend to be to *period* rather than *cohort* fertility — that is, they impact the *timing* of births, rather than the total number of births a woman might have over the course of her lifetime, which was the case, for example, in the Russian Federation (Frejka and Zakharov, 2013). It is also difficult to differentiate the impact of fertility-enhancement policies from other effects (Sobotka, 2017), as fertility rates have always fluctuated over time, both up and down, in every country.

In fact, countries with policies expressly designed to increase fertility often continue to see total fertility rates considerably lower than two children per woman (UN DESA, 2022). While some might contend that further declines would have been seen without such policies, this is impossible to substantiate. But even if such policies did have an impact, it would likely be marginal; the process of demographic momentum alone foretells that current low-fertility rates will be followed by slow population growth and ageing societies. This is likely to be the case unless countries experience a sudden, dramatic and prolonged upswing in fertility or increased immigration.

There have been historical efforts to trigger dramatic upswings in fertility. These policies have either failed or yielded dire consequences. One of the most telling examples is that of Romania (Mackinnon, 2019), which in 1966 completely outlawed abortion and contraception in an attempt to increase fertility rates. These policies worked in the short term, increasing the total fertility rate from 1.9 to 3.7 children per woman. But birth rates quickly fell again as women found ways to reassert their bodily autonomy by acquiring contraband contraceptives or turning to illicit abortions. Rather than eliminate women's control over their own fertility, these pronatalist policies only generated an underground industry beyond the reach of laws and regulations. So many women resorted to unsafe abortions that by 1989, when the restrictions ended abruptly, it was estimated that 10,000 women had died from these procedures (the number is likely to be an underestimate because anyone seeking or aiding an abortion was subject to imprisonment); over the same period, between 1965 and 1989, the maternal mortality ratio in Romania doubled. A second foreseeable and tragic effect was that many women were forced to give birth to children they then relinquished to State orphanages, which were quickly overwhelmed (Mackinnon, 2019). When these orphanages were opened to public scrutiny in 1989, they revealed that as many as 500,000



unwanted children had endured massive neglect and suffering over the previous two decades (Odobescu, 2016).

The facts are as follows: there is little immediate danger of global "underpopulation" or the extinction of humankind given that the world is currently home to more human beings than ever before in history and that demographic momentum ensures that population growth will continue for the next few decades (UN DESA, 2022). Two thirds of the world's population live in a country or area with fertility at or below replacement rates, yet not all of these countries or territories are experiencing population decline. In fact, out of 237 countries or areas, just 61 are projected to decrease by 1 per cent or more between 2022 and 2050 "owing to sustained low levels of fertility and, in some cases, elevated rates of emigration" (UN DESA, 2022). It also bears repeating that these numbers are, in many cases, falling from historical highs, the result of decades of improved health, development and survival.

"Empty world" (terminology taken from the title of a 1977 apocalyptic novel written by John Christopher) claims also paint an excessively confident picture of further

population change, given what is known about fertility. Statements such as "once global population decline begins, it will probably continue inexorably" (Gornall, 2020) are speculations. Fertility rarely drops below an average of one child per woman: total fertility rates have only ever dropped below 1.0 in a handful of countries although many countries have had below-replacement fertility for decades (Our World in Data, n.d.). Indeed, falling fertility rates are not predictive of sustained low fertility. There are examples of "stalling" fertility declines (e.g., in Kenya), and some populations have seen fertility fall to below replacement and then rebound to above replacement (Sri Lanka, Kazakhstan). Fertility fell to below replacement levels in some European countries between the two World Wars and then rose to significantly above replacement levels, so-called "baby booms" that took place within living memory.

While the language of ethno-nationalism can be effective in mobilizing political support, there is little evidence it can influence fertility rates without the use of coercive target setting and rights violations. In fact, many past predictions of national or ethnic demise have failed to materialize. Edward A. Ross (who coined the term "race suicide") predicted the "extinction" of White Americans in 1914 (Ross, 1914), roughly the same time as other population alarmists were forecasting the demise of White Australian, English and French people, all owing to lower birth rates (Emerick, 1909). Clearly, none of these predictions has come to pass.

When considering doom-laden demographic narratives, therefore, it is worth considering whose interests such arguments serve. The term "apocalyptic demography" was coined in the context of ageing populations in high-income countries (Robertson, 1982). These narratives claim rapid population ageing will put unbearable strain on national economies as their needs for pensions and health and social care outstrip the ability of the shrinking working-age population to pay for them. Such catastrophizing may emerge when it serves particular economic interests (such as businesses dependent on a cheap labour force) (Evans and others, 2011). Even literal apocalyptic claims — those alleging low fertility will cause whole populations to collapse — serve the economic interests of employers rather than employees (Coleman and Rowthorn, 2011). Low labour supply, by contrast, can benefit workers as it increases the value of labour (perhaps most strikingly seen in shifts in power relations between rich and poor after the fourteenth-century bubonic plague pandemic).

Institutional changes can balance out some of the supposedly negative effects of population decline. Low fertility, ageing or falling population totals are phenomena attended by opportunities as well as challenges. "Although low fertility will indeed challenge government programs and very low fertility undermines living standards, we find that moderately low fertility and population decline favor the broader material standard of living," researchers have found (Lee and others, 2014). Smaller workforces do not necessarily mean less productive ones. One effect of a tightening of labour markets can be the stimulation of technological development (Kosai and others, 1998) — in this case by moving away from labour-intensive industries (Elgin and Tumen, 2012). Technological advances, such as the expanding use of robotics, can contribute

> Older persons and the economy

The economic implications of population ageing have received notable attention in the academic literature, as well as the media (Rotman, 2019). It has been argued that the ageing of populations will challenge pension systems and health care, as well as social protection systems more broadly and that it can cause skills and labour shortages undermining further economic growth. Terms like "the grey tsunami" or "the ticking time bomb" have been used to describe the impact of population ageing on economies and societies. It is also argued that more older persons will negatively affect the innovative potential and productivity growth of economies. While the effects of population ageing on labour markets, pensions, health care and the financing of social policies are often real, it would be hasty to conclude that population ageing will inevitably have net negative effects on economies. These assumptions also neglect the important role that policies can play in ensuring more sustainable pathways.

Fears of population ageing generally rely on simplistic, but common, definitions of the dependency ratio. Accordingly, older persons are automatically viewed as dependants when they are above working age but in reality many of them remain important contributors to society. National Transfer Accounts use labour income and consumption expenditures to define dependencies (Council of Ageing of Ottawa, 2017) and show public and private transfers between people. Data from these National Transfer Accounts highlight that older persons are not only recipients — they often transfer resources to younger generations. World Health Organization data support this, indicating that older people make substantial contributions to their families and societies (WHO, 2015).

While countries should not be complacent about population ageing, they also should not panic. Population ageing is a sign of strong economic and social progress, and it need not undermine future economic and social progress. Furthermore, there are a number of things that countries can and should do to anticipate, address and manage population ageing.

First, they should use population data and projections to plan ahead, and adjust pension and health-care systems in ways such that they remain financially viable without losing their ultimate objective of extending essential social protection and reducing inequalities. Second, they should move beyond the narrow view of demographic dependency ratios and consider not only the spending on, but also the financial transfers by, older persons, as well as other contributions to society. Third, they should promote active and healthy ageing, which does not magically start at age 60 but must begin in earliest childhood — or even with the nutritional and reproductive well-being of girls and women who may aspire to have children. Fourth, they should create opportunities for older persons to engage for longer in society in a flexible manner, without denying them the right to retirement with an adequate pension and in dignity. Fifth, countries can do a great deal to counteract a potential skills and labour shortage, such as activating an inactive labour force, creating opportunities for women and men to better balance work and child-rearing, making critical investment in the education of future generations, and considering more active migration policies. Finally, there is a need for countries to invest in infrastructure and technology that continue to raise productivity of available human capital.

to improved productivity. In addition, in most low-population-growth countries, there is much room for increasing labour force participation by including more women, better integrating migrants into the workforce (Marois and others, 2021; Marois and others, 2020) and providing greater opportunities for older persons.

And ageing need not be viewed as a slide into obsolescence. To regard ageing populations as net burdens is to perpetuate ageist stereotypes that devalue and dehumanize older persons. In fact, when the conditions are amenable, increasing longevity can be accompanied by additional years of health and productivity. "Healthy lifestyles and employment can improve health, cognitive functioning and motivation across the life spans and limit reductions in age-related productivity… The onset of age-related poor health differs by up to 30 years across countries, and it typically occurs much later with old age structures. When it comes to sustainable welfare systems and strong economies, the health and education of the population can be much more important than age," researchers have remarked (Skirbekk, 2022a).

Ageing workforces did encounter significant challenges to continuing to work during the COVID-19 pandemic, as older workers faced heightened vulnerability to the disease. Still, the pandemic offered critical lessons: many countries implemented creative, and often inexpensive, programmes to support the safe retention of older workers in the workplace, or to aid the transition of older workers to self-employment. Such programmes included the creation of age-inclusive workstations, increased use of remote and flexible work arrangements, and new opportunities for intergenerational collaboration (Pit and others, 2021).

Migration, too, offers benefits alongside challenges. While maintaining long-term stable support ratios solely through migration is almost impossible (Coleman, 2002; UN DESA, 2001), attracting immigrants is the quickest, most certain way to slow the processes of population ageing and stagnation and to contribute to economic growth — not least because, unlike babies who take 15 to 20 years to start working, most migrants will be contributing to the economy and paying taxes immediately. With some exceptions, however, large immigration programmes are not being pursued by governments, likely for political reasons.

If the aim is to reduce population losses, policies designed to encourage labour retention are hard to implement as these require looking at, and addressing, the reasons why people — especially younger people — are emigrating. This may involve addressing an imbalance of opportunities (either economic or social) between the home and receiving country or region, efforts that are, in some cases, prohibitively difficult (e.g., following regional deindustrialization). Governments are aware of these challenges and are undertaking international initiatives, such as the UNFPA/Government of Bulgaria-sponsored Ministerial Conference on Demographic Resilience in 2021, which looked at evidence- and human rights-based approaches to addressing demographic changes such as outmigration.

Likewise, policies designed to encourage return migration ("attraction policies") have been instituted in various parts of the world. Such policies can include financial incentives, including preferential income tax (e.g., Portugal), flat-rate income tax or a one-time re-entry subsidy for returning experts (e.g., Slovakia) (ICMPD, 2019). However, in common with most general immigration policies, these tend to be targeted and focused on specific groups (IOM, 2015). They are also relatively limited in nature, have only a short-term effect and are subject to other limitations. For example, returnees might face "soft barriers" such as limited labour market opportunities (including wage differences), a restrictive business climate or unfavourable educational opportunities — factors that actually led to emigration in the first place and which cannot be overcome by a simple one-time subsidy (UN DESA, 2020a).

Clearly, holistic approaches are needed. As is explored later in this report, women (and men) in low-fertility settings often desire more children than they end up having. There are many reasons for this, but a major and constant theme appears to be the negative role of gender inequality, the high opportunity cost for women in systems where childcare and domestic work is highly gendered and where women (and parents) experience workplace discrimination. Not adapting social structures to meeting these needs will only hold back the ability of women and couples to realize their reproductive choices. It is perhaps ironic, then, that the preaching of "traditional family values" may actually impede rather than help parents to have the families they want and may serve to further decrease fertility.

And there is also, more broadly, a need to overcome the deepening pessimism experienced by people in their childbearing years, who, in many regions, face significant economic uncertainty and gaping intergenerational inequalities. In many countries, younger generations face grimmer prospects than their parents. The YouGov survey did indeed find that fears about the future are contributing to unrealized fertility intentions.

The genuine challenges of population ageing and decrease, then, are best tackled — at least in the short-to-medium term — by reforming the institutions stressed by structural changes in the population. This includes, in different places, reforms in pension, health/social welfare systems and labour markets; improving productivity; reducing inequality; closing the digital divide; delivering healthy and active ageing; and ensuring that the full economic and social potential of all of the population is fully realized.

Such policies require comprehensive, long-term and holistic perspectives on population well-being, rather than a simple focus on population numbers or fertility rates. They will come at a price and, as with any reform, threaten some vested interests. But these approaches can help us achieve something different from the fears we see proliferating today; they offer a path away from "apocalyptic demography" and towards "demographic resilience" — the path to a more equitable future.

IN FOCUS

Migration *is* part of the solution

Barely a day goes by without multiple media reports focusing on aspects of migration — frequently negative aspects. While this may reflect the changing nature of migration in some parts of the world, it is important to recognize that greater emphasis is often placed on "bad" news. In addition, disinformation tactics are increasingly being used by nefarious actors, with negative impacts on public, political and social media discourse, on societal values, and on public policy issues such as migration.

In the face of these skewed discussions, it can be easy to lose sight of the fact that international migration remains a relatively uncommon phenomenon. The total number of international migrants has increased in recent years to reach 281 million — a mere 3.6 per cent of the world's population. The great majority of people in the world do not move across borders to live.

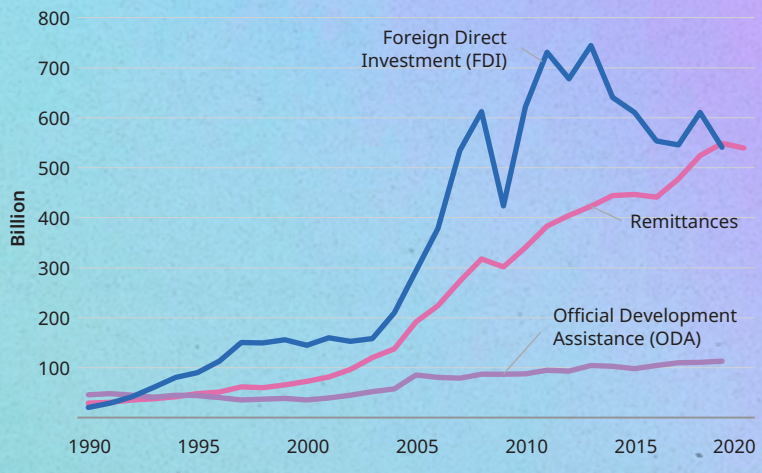
Migration as a driver of human development

Migration can generate significant benefits for migrants, their families and countries of origin. The wages that migrants earn abroad can be many multiples of what they could earn doing similar jobs at home, leading to considerable improvements in the welfare and human development of migrants' families and communities through remittances. International remittances have grown from an estimated $128 billion in 2000 to $702 billion in 2022, underscoring the salience of international migration as a driver of development. International remittances now far outstrip official development assistance to developing countries (Figure 17).

In origin countries, migration can also reduce unemployment and underemployment, contribute to poverty reduction, and foster broader economic and social development. For example, it can result in the transfer of skills, knowledge and technology, with considerable positive impacts on productivity and economic growth. Migration can also generate beneficial societal consequences for countries of origin, including poor and fragile States; it is increasingly recognized that migrants can play a significant role in post-conflict reconstruction and recovery.

> FIGURE 17

International remittance flows to low- and middle-income countries, 1990–2020



Source: IOM, 2022, World Migration Report 2022, p. 10.

Note: All numbers are in current (nominal) US dollars.

Migration as a skills boost

There is widespread agreement that migration can generate economic and other benefits for destination countries, as well. Immigration adds workers to the economy, thus increasing the GDP of the host countries (critically important for countries experiencing population declines). In addition to enhancing destination countries' income and average living standards, immigration can have a positive effect on the labour market by increasing labour supply in sectors with worker shortages and by helping address mismatches in the job market. Immigration increases both the supply of and the demand for labour, which means that labour immigration can generate additional employment opportunities for existing workers. These positive effects are not just evident in high-skilled sectors, but can also occur in lower-skilled occupations.

Research also shows that migrants provide a source of dynamism globally: they are overrepresented in innovation and patents, arts and sciences awards, start-ups and successful companies (McAuliffe and others, 2019). Of course, immigration can also have adverse labour market effects (e.g., on wages and employment of domestic workers), but most research finds these negative impacts tend to be small, at least on average (Goldin and others, 2018; Ruhs, 2013). Beyond the labour market and macroeconomy, the immigration of young workers can also help with easing pressures on the pension systems of high-income countries with rapidly ageing populations.

A gender gap?

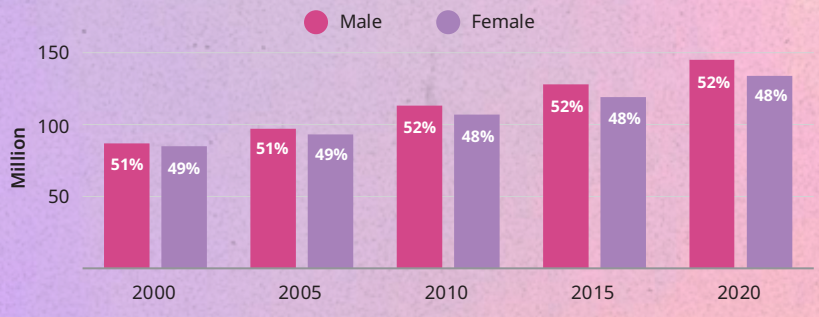
There are currently more male than female international migrants, a gap that has been growing over the past 20 years. In 2000, there were 88 million male migrants and 86 million female migrants; in 2020 the split was 146 million male migrants and 135 million female migrants. (See Figure 18) This growing gender gap is underpinned by systemic structural issues but it also points to vulnerabilities experienced by migrants, including women migrant workers.

The International Organization for Migration (IOM) recently launched a new initiative called GenMig — the Gender and Migration Research Policy Action Lab. GenMig is a multi-stakeholder initiative focused on impact research for supporting gender-responsive policies, operations, programming and practices in migration around the world. While everyone should have the same opportunities for safe and regular migration in dignity, research highlights continuing systemic gender inequalities throughout the migration cycle (IOM, 2022). Building on IOM's expertise and wide network, GenMig supports the many actors involved in migration to improve gender equality for the benefit of migrants and for societies of origin and destination. Designed as a highly collaborative venture, GenMig brings together a global network of partners from research institutions, governments, United Nations agencies, civil society and the private sector committed to gender equality.

Text contributed by the International Organization for Migration

> FIGURE 18

International migrants, by sex, 2000–2020



Source: IOM, 2022, World Migration Report 2022, p. 2.

The State of REPRODUCTIVE Choice

Ultimately, fears of growth or decline must not be a distraction from the primacy of human rights for a just and sustainable world. It is our basic right, both as individuals and as couples, to decide freely and responsibly the number, spacing and timing of our children and to receive the information and means to do so. We must be able to make reproductive and sexual health decisions free of discrimination, coercion and violence. The services to help meet our reproductive and sexual health goals must be affordable, acceptable, accessible and of quality (United Nations, 2014).

These rights are especially pivotal for women, whose bodies have long been used as tools of social, political and religious regulation. Restrictive codes of female behaviour chastise women for having children too early or too late, too fast or too slow, for having too many, too few or none at all (Scala and Orsini, 2022; Lynch and others, 2018; Paksi and Szalma, 2009). However, there are many pathways through reproductive life, and what is right for one woman is not necessarily right for another. Supporting women to have the number of children they want to have, at the time they want to have them, is key to healthy women and healthy societies.

Recent decades have seen a sorely needed shift in global development from the impersonal aggregate to the rights of the individual. For population issues, perhaps nowhere is this paradigm shift more clearly marked than in the ICPD Programme of Action, adopted in Cairo in 1994. The Programme of Action affirmed that reproductive rights are human rights, and stressed that empowering women and girls, and ensuring their reproductive rights, is essential to progress (United Nations, 2014). The 2019 Nairobi Summit recognized the globe's growing demographic diversity and that sexual and reproductive health and rights are an integral part of universal health coverage (Nairobi Summit, 2019). The SDGs, too, regard reproductive rights and women's empowerment to be essential drivers of global development.

Now, almost 30 years since the Cairo watershed, considerable progress has been made towards advancing and protecting sexual and reproductive health and rights, but there is still a long way to go. The latest, most reliable figures show us that an alarmingly high proportion of women — 44 per cent of partnered women in 68 countries — are not currently able to exercise bodily autonomy as measured by SDG indicator 5.6.1 (UNFPA, 2023). It is estimated that nearly half of all pregnancies are unintended, meaning they were either mistimed or unwanted (UNFPA, 2022). Nearly one third of all women in low- and middle-income countries enter motherhood in adolescence (UNFPA, 2022a). Tragically little progress has been made in reducing maternal mortality in recent years, with a 0.0 per cent global annual average rate of reduction recorded between 2016 and 2020, and with regress noted in East Asia and the Pacific, Europe and Central Asia, and North America (WHO and others, 2023). An estimated one in three women and girls across the globe have experienced intimate partner violence, non-partner sexual violence or both at least once in their lives (WHO, 2021). More than one fifth of countries do not have any legislation protecting women who experience marital rape, and penalties for non-consensual

sex within marriage in many more countries are significantly lower than in other cases (UNFPA, 2021).

Yet many population policies continue to regard reproductive rights and bodily autonomy as secondary ambitions — if they are considered at all. Such policies design family planning services to meet national and international fertility targets rather than to meet the fertility intentions of individuals. This creates conditions under which reproductive rights are insufficiently protected and upheld, or even conditions in which these rights are deliberately violated.

Are women meeting their reproductive goals?

As discussed in Chapters 2 and 3, both high and low-fertility rates are indeed cause for scrutiny and, often, policy intervention. But interventions — especially those affecting sexual and reproductive health and rights — should not arise because high or low fertility are assumed to be inherently good or bad. With the right tools and approaches, resilient societies can thrive even with high or low fertility rates. Instead, high and low-fertility are cause for scrutiny because such rates, in aggregate, suggest that individuals may not be meeting their reproductive goals.

> Forced pregnancy

Forced pregnancy is a form of reproductive coercion which occurs when an individual is forced to become pregnant against their will. In 1998, the Rome Statute of the International Criminal Court (ICC) became the first binding international instrument to recognize forced pregnancy as a crime against humanity and a war crime under international law (United Nations General Assembly, 1998). Although the ICC Statute's definition applied only to violations of sexual and reproductive rights during conflicts and other human rights crises, the crime has since been more widely interpreted by advocates to include, for instance, situations in which a pregnant person is denied an abortion (Equality Now, n.d.). As of 2023, 123 States have ratified the ICC Statute and at least 36 States have enacted domestic legislation criminalizing forced pregnancy as a crime against humanity, or a war crime or both (Amnesty International, 2021). Forced pregnancy represents a grave violation of individual rights and autonomy and typically results in serious harm to persons whose rights are violated, in addition to any children born as a result of the pregnancy. Persons who have experienced the crime have a right to full reparation to address the harm they have suffered. Effective reparation should include measures that address pre-existing forms of discrimination and gender inequality, which in many cases contribute to the crime.

Evidence from Demographic and Health Surveys and other similar sources shows that women's intended fertility often does not match their achieved fertility. When birth rates move towards extreme highs or lows, this can be a red flag that women's reproductive choices are being abridged in one direction or another — with profound consequences for their bodies, futures, families and communities.

Yet the number of children that women *want* to have is often omitted from conversations about birth rates. Indeed, there are many reasons that fertility intention data are excluded from policy-level dialogue, not least of which is uncertainty around the reliability of these data and what they ultimately mean. There exist, for instance, differences in women's fertility ideals and their concrete childbearing intentions, and both can change over the life course and in response to broader context (Trinitapoli and Yeatman, 2018; Basten and Verropoulou, 2015). For example, a woman may, over time, adjust her intended births downwards if she faces persistent economic precarity or cannot find a suitable partner. Another woman may, over time, adjust her intended births upwards to achieve a certain gender mix or to deepen a bond with a new partner. During the COVID-19 pandemic, some countries reported declines in childbirth, noting fertility rebounds were expected to take place afterwards (UN DESA, 2021). Early evidence shows this was the case (Sobotka and others, 2022), an example of the real-world adjustments individuals make in their fertility preferences.

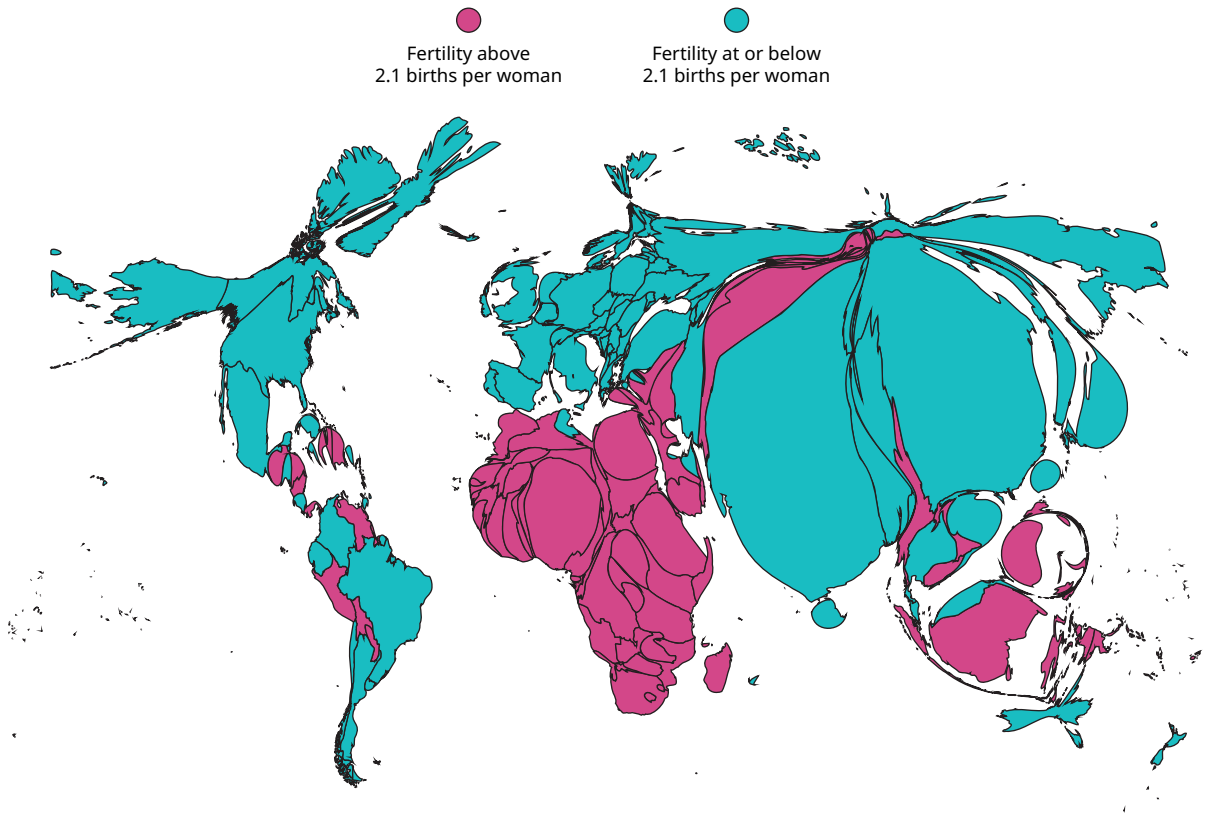
And yet to devise population policies without investigating what individuals want for their bodies and futures is to miss a central point: in order for a population to be maximally healthy and empowered to contribute, innovate and thrive, its people must enjoy — as a precondition — the fulfilment of their rights and choices.

Even with caveats about the certainty of fertility intention data, these data do ultimately point to an appreciable gap between desired and realized fertility across the globe (Cleland and others, 2020; Channon and Harper, 2019; Günther and Harttgen, 2016). Some women are having more children than they want, while others want more children than they are having. There are dramatic differences across countries, with high-fertility contexts generally seeing lower desired than achieved fertility — and higher unintended pregnancies — and low-fertility contexts generally seeing higher desired than achieved fertility. (Differences within countries and across different groups of women are also considerable and important to recognize; this is addressed on page 109 in the section, "Danger in simplicity".)

Aggregate patterns of underachieved and overachieved fertility have far-reaching implications for broader population change; this must be acknowledged and addressed at the policy level. But the implications for individual women also demand attention. For the individual, unrealized, over-realized or mistimed fertility are life altering. For example, involuntary childlessness can have particularly severe negative psychosocial and economic consequences for women in high-fertility, low-resource contexts where options for assisted reproduction technology are exceptionally limited (Ombelet and Goossens, 2017; Tanaka and Johnson, 2014). Voluntary childlessness is also met with significant and unwarranted prejudice that impacts women negatively (Hintz and Brown, 2019; Bays, 2016; Shapiro, 2014).

> FIGURE 19

World fertility map proportional to country and territory population size



Source: UN Population Prospects 2022.

Two thirds of the world's population live in countries where total fertility is at or below replacement levels of 2.1 births per woman, but this rate is not a perfect predictor of zero-growth fertility. See page 60 for details.

Overachieved fertility can perpetuate crushing cycles of poverty and limited schooling, and is strongly related to closely spaced pregnancies and births at very young ages, which carry a particularly high risk of mortality and morbidity for mothers and their children (UNFPA, 2022a; World Bank, 2010). Overachieved fertility can also be deadly: up to one in every 10 maternal deaths is estimated to be the result of an unsafe abortion (Singh and others, 2018; Say and others, 2014).

Higher fertility than intended

Just under one third of the world's population live in countries where the total fertility rate is above 2.1 births per woman (UN DESA, 2022a). Yet in many such contexts, especially in those with significantly higher fertility rates, women largely state a preference for smaller family sizes than they achieve. While total fertility among women living in higher-fertility countries with recent data is 3.2 births per

FEATURE

Needs of infertile couples can be overlooked in a world fixated on population growth

About five years into her marriage, Pat Kupchi began wondering whether something was wrong.

Why wasn't she pregnant?

Up to that point, she hadn't given it much thought because she was focused on pursuing a law degree in Ahmadu Bello University Zaria in Nigeria's Kaduna State. But once she finished her studies, people around her began wondering, too. "She's done with school, now what is she waiting for?" Kupchi says about the pressures.

In Nigeria, a woman has five children on average during her lifetime. "In Africa," Kupchi says, "you marry and 12 months later if you're still without a child, it's a problem."

Kupchi and her husband went to a doctor who determined that blocked fallopian tubes were preventing her from becoming pregnant.

In 1997, the year when Kupchi received this news, assisted reproductive technologies were just becoming available in Nigeria. She went to a clinic that offered hope — in vitro fertilization. Back then, the costs were prohibitive. "People were sceptical about the procedure," Kupchi says. "It was new, and it was expensive. Should I part with this much money?"

But the couple decided the prospect of having a child was worth the expense and the risk that it might not work. And in the end, the procedure resulted in the transfer of four fertilized embryos, one of which led to the birth, in 1998, of her daughter, Hannatu, the first publicly recognized "test-tube baby" in Nigeria.

"A child is a trophy, a diamond of life," says Ibrahim Wada, the obstetrician-gynaecologist who provided Kupchi's treatment. "People give great value to having a child."

Yet Dr. Wada acknowledges in vitro fertilization is often beyond the reach of many infertile couples. One cycle of in vitro fertilization in Nigeria costs between $2,000 and $3,000 (Fertility Hub Nigeria, n.d.), while per capita GDP is about $2,100 a year (World Bank, n.d.). To help, Dr. Wada set up a foundation that each year covers all or some of the costs of about 250 cycles of in vitro fertilization.

"I have encountered people who have had their backs to the wall in resource-poor settings," he says. "You feel the weight of it when you see they are at a dead end."

Some couples who cannot afford or access care resort to traditional, unproven and at times dangerous infertility treatments. Some involve plant-based remedies, Dr. Wada says, while others involve substances such as table salt and gin (Subair and Ade-Ademilua, 2022) or even "corrosives" that can cause permanent harm.

In Nigeria, when women cannot become pregnant, they are usually the ones blamed for the problem, even though male factors, such as low sperm counts, play a role in nearly three in five cases of infertility in the country (Umeora and others, 2008). Pregnancy and motherhood are "inextricably wrapped up in perceptions of femininity, and infertility can evoke a pervasive sense of failure as a woman" (Olarinoye and Ajiboye, 2019). "Women who can't have children are stigmatized," Dr. Wada says.

One study of Nigerian women with infertility found that 37 per cent of their male partners reported having taken another wife, and 12 per cent of husbands said they were planning to divorce their wives (Salie and others, 2021). For women, divorce can mean exclusion from family and community, as well as economic catastrophe for those who are not financially independent.

But attitudes may be changing, with some men acknowledging they are part of the problem — and need to be part of the solution. "Today, more men are accompanying women to fertility clinics. It's no longer just 'her fault'," Dr. Wada says. "Back in 1994, you would hardly ever see men together with their wives at consultations."

Still, Nigeria and many other countries have a long way to go to upend the view that a woman's value depends on how many children she bears.

One way to make fertility care more accessible is to start approaching infertility in the same way as any other condition that requires treatment, Dr. Wada says, rather than as elective procedures available to those who can afford them.

In 1994, at the ICPD, 179 governments agreed that "all countries" should strive to give everyone access to reproductive health care, including "prevention and appropriate treatment of infertility", through primary health-care systems. Yet few countries, if any, have reached that goal.

"Isn't it ironic that people are worried these days about having too many children, when there are so many who would be happy with just one?" Kupchi says.

Some couples who cannot afford or access care resort to traditional, unproven and at times dangerous infertility treatments.

woman, total wanted fertility is noticeably lower (see Technical note on page 174 for more information). In fact, in most sub-Saharan African countries where fertility rates remain among the highest in the world, women report two or more unwanted births, on average, a difference that has stayed fairly consistent for the past two decades (Günther and Harttgen, 2016).

These are precisely the issues that must be prioritized in the design of family planning and fertility policies. Evidence overwhelmingly demonstrates that women endure unacceptably high levels of unmet need for contraception, and places with the highest unmet need tend to also see the highest fertility rates. Worldwide, 13.2 per cent of women of reproductive age who want to avoid or delay pregnancy are not using a modern method of contraception (UN DESA, 2022c). In regions where unmet need is highest – in Oceania, Western Asia and sub-Saharan Africa – as many as 20.3 per cent of women who want to avoid pregnancy are not using modern contraception.

The underlying causes of unmet need vary considerably across countries, but over time, reasons for women's contraceptive non-use are increasingly attributed to side effects, opposition to contraception from themselves or others, or having sex infrequently. Knowledge, accessibility and affordability were once among the greatest barriers but today comparatively few women say that they cannot access or afford contraception, and even fewer lack information on at least one method (Machiyama and others, 2017; Sedgh and others, 2016). SDG data underline this discrepancy: in the 20 high-fertility countries where recent data exist for both indicators, 91 per cent of women report they make their own informed decisions regarding contraceptive use (a component of SDG indicator 5.6.1), but only 47 per cent of women in these countries have their need for family planning satisfied with modern methods (SDG indicator 3.7.1) (UN DESA, 2023).

Contraceptive uptake and continuance increases — and opposition to contraception decreases — when women (and men) receive more attentive

> Whose decision matters?

SDG 5.6.1 tracks whether women make their own informed decisions regarding sexual relations, contraceptive use and reproductive health care. If women report they make the decision alone or jointly with their partner, they are measured as having decision-making power over this issue. Most women report joint decision-making. However, research that probes the issue more deeply suggests that, in many contexts, women's decisions often *only* count when they are aligned with their husband's wishes. When there is disagreement, men almost overwhelmingly have the final say (Nazarbegian and others, 2022; Koffi and others, 2018).

and comprehensive information about a variety of contraceptive options and possible side effects (Puri and others, 2021; Chakraborty and others, 2019; Kriel and others, 2019; Jain and others, 2013). That is, more women use contraception, and use it for longer, when they and their partners have a better understanding of their contraceptive options, possible side effects and what to do when they experience problems. Full and accurate information is an essential component of a rights-based approach to reproductive health.

However, many women struggle to find a contraceptive method that suits their body and their needs. A rights-based approach must also trust women's experiences of negative side effects — not dismiss them as misinformation or exaggerated fears (Alvergne and Stevens, 2021; Inoue and others, 2015). Contraceptive discontinuation is common, and evidence suggests that unwanted side effects are a leading reason why women discontinue contraception, even when they still want to avoid pregnancy (Ali and others, 2012; Bradley and others, 2009). Severe side effects and high discontinuation rates among women in low-income settings could be connected to differences in their levels of reproductive hormones and

nutritional status compared with women in the high-income settings where most methods of modern contraception are developed and tested (Alvergne and Stevens, 2021). In effect, for women to be able to manage their reproductive lives, they need contraception that works for their individual bodies and for their individual life circumstances.

These nuanced and individual-level needs are easily overlooked when policies are not designed with the rights and health of individuals as their foremost consideration. And the simplistic rhetoric used to describe women in high-fertility contexts (producing "too many" children) erases nuance altogether, including the fact that women in low-fertility contexts (including countries in Eastern Europe and Asia) can and do experience unacceptably high rates of unmet need for contraception alongside low levels of demand for contraception being satisfied by modern methods (Haakenstad and others, 2022).

Lower fertility than desired

Even as women around the world grapple with an unmet need for contraception, many others are struggling with an unfulfilled desire for children. The rates of childlessness and levels of achieved fertility differ widely across low-fertility countries. Still, in most low-fertility contexts, women state preferences for larger family sizes than they actually achieve, and more women remain childless than had intended to do so.

Current evidence indicates that across Europe and the United States, for example, had women nearing the end of their reproductive years been able to achieve their fertility ideals, they would have had just over two children each on average — even in countries in Southern and Eastern Europe, such as Italy, Greece, Spain and Bulgaria, where realized fertility is at or below 1.5 children per woman. In these countries, the gap between ideal family size and realized family size was 0.3 children per woman on average (Beaujouan and Berghammer, 2019). Likewise, in many of the world's lowest-fertility countries in East Asia, a two-child family remains the ideal for a majority of women — even in countries where rates have been well below replacement-level fertility for decades, such as Japan, the Republic of Korea and Singapore (Brinton and others, 2018; Casterline and Gietel-Basten, 2018).

There has not been a comparative survey of desired family size in European countries since one was undertaken by Eurobarometer in 2011. However, in that survey, 87 per cent of women (and the same percentage of men) in 27 European Union countries said that their personal ideal family size was two or more children — 57 per cent saying that two children would be ideal and 30 per cent that three or more would be their preference. Indeed, in some countries, this was higher: in Denmark, 45 per cent of women expressed a desire for three or more children (Livingston, 2014). Given the average fertility rate at the time, which continues to this day, such a desired family size was far from being achieved.

Levels of childlessness contribute substantially to low-fertility rates, and existing evidence suggests that most childlessness is unintended. For example, rates of childlessness are highest in a handful of East Asian countries, where 20 to 30 per cent of women in their 40s are without children (Sobotka, 2021). Yet a study

in Japan found that, for a majority of these women, childlessness is involuntary (Konishi and Tamaki, 2016; Basten and Verropoulou, 2015). In fact, in many East Asian contexts, completed fertility among mothers remains at about two children per woman, but high levels of childlessness mean that average completed fertility is at or below 1.5 children (Sobotka, 2021). Likewise, across Europe, while a small, though not inconsequential, proportion of young women state intentions to remain childless, a much higher proportion do not have children by the end of their reproductive years. In countries in Southern Europe, for example, more than one fifth of women in their 40s are childless even though 2 per cent or fewer had intended to not have any children (Beaujouan and Berghammer, 2019). (This does not mean that the inevitable result of childlessness is regret [O'Driscoll and Mercer, 2018; Allen and Wiles, 2013]. Women can and do have fulfilled and fulfilling lives without having children. What it means is that, on the whole, women are not experiencing conditions amenable to realizing their reproductive choices.)

A compellingly large body of evidence indicates that fertility gaps are strongly related to economic barriers and inequitable gender systems, particularly in places with the lowest fertility. Economic uncertainty and financial insecurity curtail women's and couples' fertility plans. Additionally, many women face employment and childcare structures that make it difficult to combine motherhood with paid work. Finally, social norms can place a heavy dual burden on women, demanding that mothers manage formal employment while also carrying the brunt of family responsibilities without sufficient input from fathers or other individuals. These gender-unequal conditions are what ultimately limit women's achieved fertility — in addition, of course, to the issue of infertility.

Globally, infertility is seldom prioritized, even though it is commonplace and its impacts on individuals and families can be devastating (WHO, 2020). Worldwide, just under 2 per cent of women (aged 20 to 44 years) who are hoping to become mothers experience primary infertility, which means they are unable to have a first birth. Secondary infertility, or being unable to have an additional child after at least one live birth, affects as many as 10 per cent of mothers who are seeking to have another child (Mascarenhas and others, 2012). Interest in addressing infertility is increasing in many low-fertility contexts (Li, 2022; Kim, 2019; Inhorn 2009), but it remains insufficiently acknowledged in developing countries experiencing high-fertility rates — which paradoxically also face a disproportionate incidence of infertility (Inhorn and Patrizio, 2015) (see more on page 137).

Danger in simplicity

While aggregate high or low-fertility rates can be seen as an indication that reproductive rights may be going unfulfilled, it cannot be deduced that stable or replacement-level fertility rates indicate reproductive rights are being fulfilled. Any country's average fertility rate masks enormous differences within its given population. In truth, no matter the country or aggregate fertility rate, groups of women around the world are consistently missing their fertility ideals or are otherwise impeded from realizing their reproductive rights.

FEATURE

Imagining a better future

For half a century, scientists have been warning, with increasing urgency and ever-shortening timelines, of the impacts that climate change could exact on our future. After years of climate catastrophes, the reality of this threat has settled deeply in the psyches of younger generations, leaving many to question the most fundamental of human endeavours: whether to start a family.

A 2021 University of Bath study, the largest of its kind, found that 39 per cent of 10,000 people — aged 15 to 24 across 10 countries — felt hesitancy about having children "because of climate change" (Hickman and others, 2021). The percentages were higher in Brazil and the Philippines (48 per cent and 47 per cent, respectively) than in countries in the global North. The top-line results of a 2020 Morning Consult poll revealed 11 per cent of childless adults in the United States say climate change is a "major reason" they don't currently have children (Jenkins, 2020).

Population alarmists might assume that planned childlessness is an effort to avoid contributing to greenhouse gas emissions. But a 2020 study found that "concern about the carbon footprint of procreation was dwarfed by respondents' concern for the well-being of their existing, expected or hypothetical children in a climate-changed future" (Schneider-Mayerson and Ling, 2020). One 31-year-old woman in the study wrote, " I dearly want to be a mother, but climate change is accelerating so quickly, and creating such horror already, that bringing a child into this mess is something I can't do."

Josephine Ferorelli first heard about climate change in the late 1980s, as an 8- or 9-year-old child in the United States. The experience felt surreal because of the resounding silence — like a taboo — about something so immense and consequential. Why weren't people talking about it? When she met Meghan Kallman, a sociologist and activist who now serves as a Rhode Island state senator, about a decade ago, "We had a shared interest in climate activism," she says, "and then it went into another direction." Together, she and Kallman created Conceivable Future, described on its website as "A women-led network of Americans bringing awareness to the threat climate change poses to our reproductive lives, and demanding an end to US fossil fuel subsidies."

"We suspected that other people needed to have this conversation, too," says Ferorelli. That suspicion proved well founded: "Can we have three kids and truly be good to the Earth?" asks an anonymous 21-year-old on the site. "I keep hoping if I raise them well they will create a future better than the one we currently see looming in front of us."

Many questions arise as well: How do you talk to kids about climate change? How do you channel despair? Is it selfish to have kids? Is it selfish not to? And if we don't, where do we place the love in our hearts? The co-founders reject prescriptive

answers, especially ones that generate guilt or point fingers at global population growth as the cause of climate change. An emphasis on individual sacrifice and responsibility is misplaced, they say, and does not reflect the actual large-scale, systemic causes of climate change, or the possible solutions to address it. "Our organization doesn't take a position on what people should be doing with their reproductive lives at all. We just make space for people to talk about what they feel," Kallman says.

"What we're both most interested in is: how do you make sense of this in a way that takes us somewhere better instead of letting us stew in our juices about what a bad situation this is?" Kallman explains. For both women, the only right answer is decisive action on climate change. "The kids angle is a way to talk about, to connect with who has skin in the game and what that feels like," Kallman continues, adding that they want to see action "around decarbonization and sustainability of the economy, not around policing women's bodies. It's just so weird to me that it's so much easier to tell a bunch of women what to do than it is to tell a bunch of fossil fuel companies what to do".

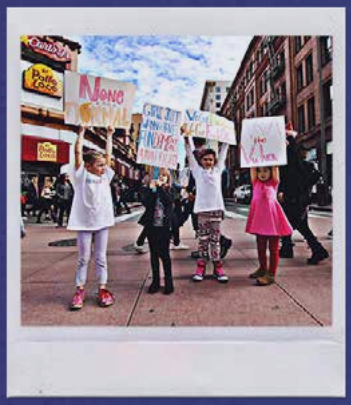


Photo by Nicole Adams on Unsplash

Photo by Markus Spiske on Unsplash

A 2020 Morning Consult poll revealed 11 per cent of childless adults in the United States say climate change is a "major reason" they don't currently have children.

Photo by Li-An Lim on Unsplash

Generally, the highest rates of unintended pregnancies occur among the poorest and most marginalized women (Bearak and others, 2020). Adolescents regularly have the highest unmet need for contraception, with current estimates for low- and middle-income countries indicating that 43 per cent of adolescents aged 15 to 19 who want to avoid a pregnancy have an unmet need for contraception compared with 24 per cent of all women with an unmet need (Sully and others, 2020). Very young adolescents, aged 10 to 14, also continue to experience pregnancy in alarming numbers, a sign of many overlapping forms of harm and neglect that persist for the most vulnerable (see page 124 for more).

And many countries, particularly those in the throes of rapid fertility change, are facing a *double* burden where considerable proportions of the population continue to overachieve their fertility goals while a growing segment underachieves their fertility ideals (Iran, Ghana and Türkiye, among others) (Hosseini and others, 2021; Yeboah and others, 2021; Eryurt, 2018). In fact, as few as one quarter to one third of women in low- and middle-income regions appear to be meeting their fertility ideals, with most women instead under- or over-achieving them. Estimates for Latin America and the Caribbean indicate that even in places where fertility is at or below replacement levels, there remain considerable numbers of women overachieving their fertility goals.

Conversely, estimates for West and Central Africa, where fertility rates are among the highest in the world, indicate that many women are underachieving their fertility ideals. In fact, women in sub-Saharan Africa see some of the least concordance between their ideal and achieved fertility (Channon and Harper, 2019; Casterline and Han, 2017). In other words, a region so often blamed for producing "too many" people actually has needs more complex than just the slowing of rapid growth — needs that would be better met by efforts to help women realize their fertility aspirations.

Ultimately, a numerical lens — reviewing averages, rates and proportions — provides a critical glimpse into understanding just how far there is yet to go in building a world where every individual has the knowledge and ability to realize their reproductive goals. But just as important is understanding how words and language — and how we view the role of the family (see page 117) — matter for the journey as well.

Views from the population

In the YouGov survey of nearly 8,000 respondents across eight countries, a small but strikingly consistent gender difference was seen in opinions about fertility rates. Looking at the respondents all together, the most commonly held opinion about the global fertility rate, in six of the eight countries, was that it was too high. Yet in all countries, more men than women said the global fertility rate was too high, with substantially more men than women holding this view in Hungary, Japan and the United States.

In all countries but India, more men than women thought *national* fertility was too low, with gender gaps especially notable in Hungary, France and the United States.

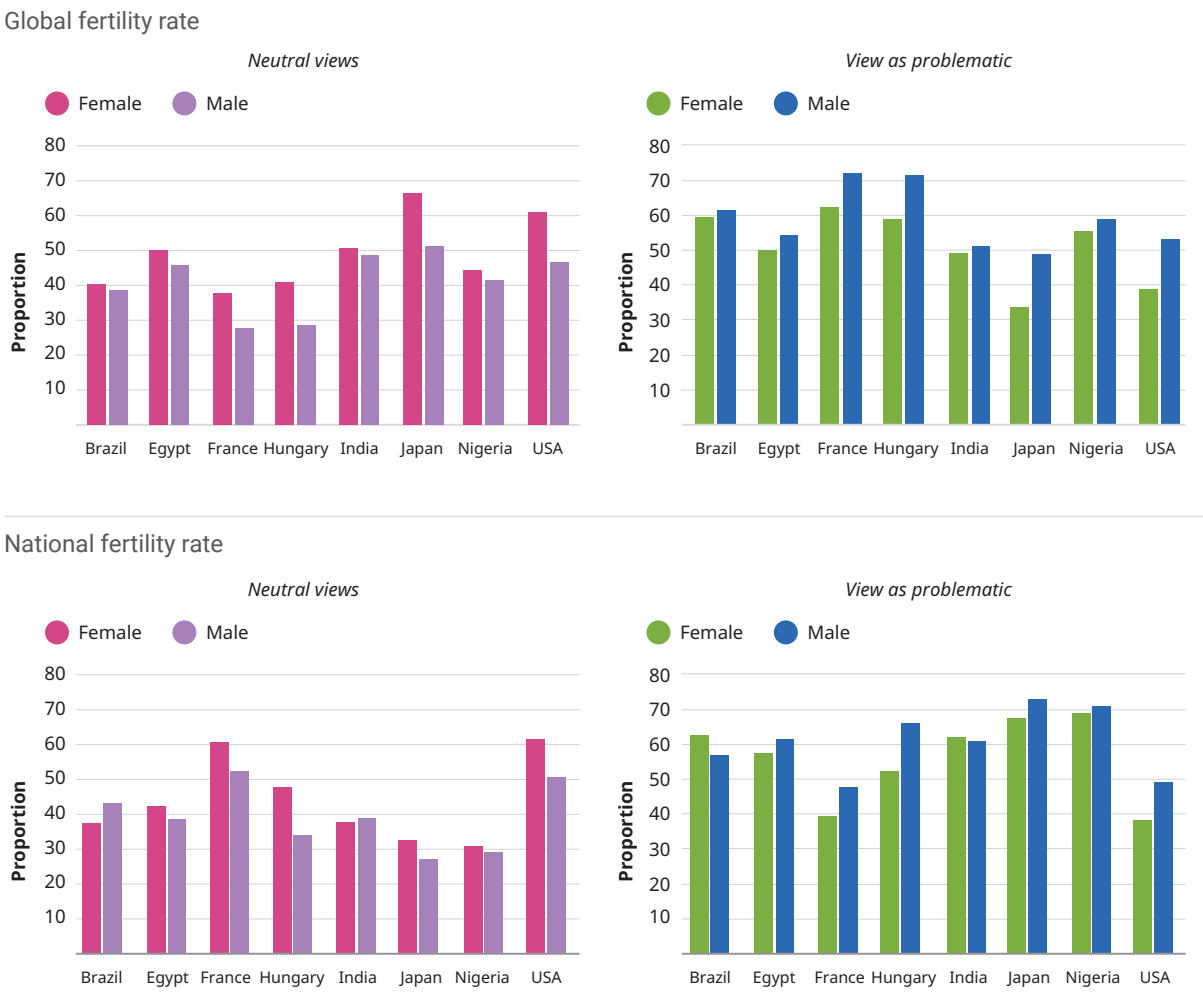
When the categories "too high" and "too low" are aggregated as views that fertility rates are problematic, and when the categories "don't

know" and "about right" are aggregated as views that are neutral, more men than women in all countries saw the global fertility rate as problematic, and more men than women in all countries except Brazil and India saw the domestic fertility rate as problematic (Figure 20). However, in half of the countries (Brazil, India, Egypt and Nigeria), these differences were slight, falling within the margin of error.

Views from these eight countries cannot be globally generalized. Still, they hint that women may be slightly less inclined to view the global fertility rate as a problem in need

> FIGURE 20

Proportions and views of men and women regarding the global fertility rate and their country's national fertility rate



Source: UNFPA/YouGov survey, 2022.

of solving, and that women may be slightly less inclined to believe domestic fertility rates should be higher. These possibilities raise the question: are women less inclined to see fertility rates as problematic and less inclined to desire increased fertility rates because they identify as the people most likely to be impacted if fertility norms or policies change?

As discussed earlier, human rights and policies on sexual and reproductive health and rights were not far from the minds of respondents asked about their population concerns. Survey respondents were asked to name their top concerns related to population change, with options ranging from general to specific concerns (designed to capture overall areas of sentiment, see Technical note on page 173). When aggregated into eight broad categories, human rights and sexual and reproductive health and rights were, together, ranked as the third most commonly cited priority overall.

Views from policymakers

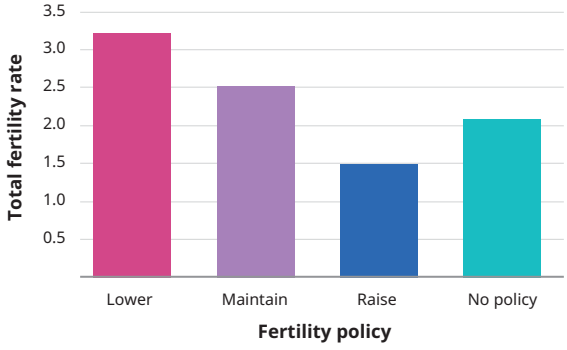
Responses to the eleventh and twelfth United Nations Inquiry Among Governments on Population and Development (from 2015 and 2019, respectively) are also telling. Links between domestic fertility policies, fertility levels and other indicators of women's rights often yield unexpected patterns, which suggests that such policies may not be rooted in the goal of helping citizens realize their reproductive and sexual health and rights. But the secondary analysis of the Inquiry data also finds that a country's type of self-reported fertility policy — or whether a country has a policy or not — is far from a perfect bellwether of the status of women in the country.

Countries with policies to lower fertility have the highest average total fertility rates, and countries with policies to raise fertility have the lowest average total fertility rates — as one would expect — but countries aiming to *maintain* fertility actually have noticeably higher total fertility on average than do countries without fertility policies (Figure 21). Tellingly, among countries with data on SDG 5.6.1, those countries with policies to maintain fertility and those countries with policies to lower fertility see, on average, similarly low proportions of women who make their own informed decisions regarding sexual relations, contraceptive use and reproductive health care. That is, only about 45 per cent of women can exercise these rights in these countries.

Countries looking to lower fertility perform the worst on the Gender Inequality Index, and countries looking to maintain fertility perform

> FIGURE 21

Average total fertility rate among countries with matching fertility policies



Source: United Nations Inquiry Among Governments on Population and Development, 2019 and 2015.

second worst (Figure 22), meaning that levels of gender-based disadvantage on several dimensions are highest in these groups of countries (just as total fertility is highest). This outcome is to be expected given these countries' lower measures of female education and labour force participation and higher rates of adolescent births and maternal mortality.

Meanwhile, the countries looking to raise fertility perform best on the Index, meaning they appear more gender equal — even better, on average, than countries without fertility policies. This is a departure from the trend seen with the democracy, development and freedom indexes, in which countries with no stated fertility policy ranked the best (see Figure 16). However, when looking beyond averages, a small number of countries emerge as the most gender equal — and these are all countries without fertility policies. Additionally, as discussed elsewhere in this report, women in countries with the lowest fertility levels (and policies to raise fertility) often face stiff gender-based disadvantages in many aspects not captured by the Gender Inequality Index — like limited childcare and little help from partners on child-rearing and household tasks — that make it exceptionally difficult for women to realize their fertility ideals.

> FIGURE 22

Gender Inequality Index scores and total fertility rate by fertility policy

Source: United Nations Inquiry Among Governments on Population and Development, 2019 and 2015.

When analysing changes between the 2015, 2019 and 2021 Inquiry responses (among countries with responses to all three Inquiries), a concerning trend emerges. According to countries' self-reporting, it appears that adolescents are facing increasing restrictions to contraceptive access over time, representing a regression in global efforts to empower adolescents to manage their reproductive lives and futures. The implications of this finding could be far-reaching, including increased vulnerability to unintended pregnancy, decreased school completion rates and escalated risk of maternal injury or death.

Another worrying trend is found in the 2021 Inquiry data: countries reporting more restrictions in one domain of sexual and reproductive health and rights tend to also have more restrictions in another domain (see Figure 2 in Chapter 1), which, taken together, is suggestive of a dangerous disregard for the lives of women and girls. Specifically, countries with more restrictions in access to contraception also tend to have more restrictions in access to and provision of maternity care. Similarly, countries with more restrictions on abortion and postabortion care also tend to see more restrictions in access to contraception.

> Measuring intention

Reproductive intention is a challenging area for study and measurement due to the sheer complexity of reproductive decision-making. Reproduction is seldom an issue of unfettered choice. Even in the best circumstances, where rights are not being violated, reproductive decision-making is complicated by a host of external factors and internal ambiguity (Johnson-Hanks and others, 2011). The continuum between definitely wanting a pregnancy now and definitely not wanting a pregnancy now contains vast grey areas of ambivalence, constraints, accidents and contraceptive failures, all of which contribute to nearly half of all pregnancies being unintended (UNFPA, 2022; Bell and Fissell, 2021). In the worst circumstances, choice is absent entirely, due to reproductive coercion, patriarchal dominance or sexual violence. In every context, there are external influences — whether environmental, religious, political, cultural, social or relational — all of which are powerful and affect different women differently (Virgo and Sear, 2016; Geronimus, 1996). But rather than ignoring reproductive intention as a factor in the development of population policies, this issue must be raised with care and circumspection. Policies and rhetoric must avoid censuring women for their reproductive trajectories and avoid assigning choice to matters where women have actually had no say. For example, women who choose to become mothers certainly do not also choose the considerable financial penalty that disproportionately attends parenthood for women but not men (Hanson, 2018). Women who choose to use contraception do not choose the problematic and disagreeable side effects that might follow.

The connection is not driven by development levels, which might otherwise suggest a lack of resources is to blame. Instead, the patterns may well be ideologically driven, whereby policies that aim to ensure more women become and remain pregnant are not matched by an equal enthusiasm to ensure those same women have safe pregnancies and deliveries.

The phenomenally flexible family

While families are often imagined to be formed around tidy and predictable nuclear structures, the reality is that families are, by nature, tremendously flexible and cooperative (Budds, 2021; Schacht and Kramer, 2019; Bogin and others, 2014; Hrdy, 2006; Hrdy, 2005). Both historical evidence and present trends show that across time and cultures, parents have received considerable help from an array of individuals in the extended family, such as grandparents, and beyond the kinship circle, to care for their offspring. In modern times, professional childcare services and schools provide a vital system of cooperation whereby parents can safely leave their children to develop the skills needed for adulthood while parents work. Yet an isolated nuclear family with a male breadwinner and female child-rearer continues to be idealized as standard, even though rigidly adhering to these roles can be counterproductive for families facing dynamic challenges and opportunities (Sear, 2021; Ruggles, 2015).

In fact, when childcare falls exclusively to mothers, without support from extended family or professional services, outcomes for both women and children are often suboptimal (Sear, 2021; Yerkes and others, 2021). This was perhaps most vividly demonstrated during the COVID-19 pandemic, when lockdowns and school closures produced adverse impacts, including poorer mental health, poorer social development, learning loss and school dropout — the list goes on (Moscoviz and Evans, 2022; Connor and others, 2020; Singh and others, 2020). Reliance on a single male provider, too, can be economically risky, as the entire family can be plunged into precarity in the face of a job loss, sickness, injury or death.

There are also societal-level implications when family roles are fixed and gendered. Such societies can fail to accommodate women's participation in the labour market (Constantinou and others, 2021), men's participation in caregiving, and the need for flexibility and support in any family structure (Hrdy, 2009). This is at odds with formal work today, which generally cannot be combined with looking after children full-time. Workplaces require very substantial commitments from employees, in terms of long working hours and lack of flexibility to take time off (for parental leave when a new child arrives, or to care for a sick child). Childcare must come from outside the home, but is often difficult to access, is prohibitively expensive, or is provided for insufficient hours.

There is also a risk that the lessons of demographic transitions — the transition from high to low fertility regimes, and from high to low mortality — will be misapplied. For instance, the spread of mass education has long been seen as one of the strongest drivers of demographic transition. Education, particularly girls' education, is a core feature of many population policies in high-fertility countries seeking to reduce their fertility rates (Canning and others, 2015). Schooling

is known to increase women's economic engagement, and both education and economic autonomy play a role in women's use of family planning (Ní Bhrolcháin and Dyson, 2007; Drèze and Murthi, 2001; Caldwell, 1980). In fact, education is one of the strongest predictors of how many children a woman will have, and on average, as her years of schooling increase, the number of children she has decreases (Behrman, 2015; Brand and Davis, 2011; Ainsworth and others, 1996; Caldwell, 1980). But it does not follow that education makes women hostile to marriage and childbearing: evidence in low-fertility settings shows that highly educated women often have higher intended fertility than less-educated women, but have a harder time realizing their fertility ideals (Beaujouan and Berghammer, 2019; Testa and Stephany, 2017).

Yet too often, when fertility rates are considered by policymakers to be too low, the value of educating women and girls falls into question. In some cases, the success of women and girls in education systems is framed as the result of an excessively "feminized" style of education that disadvantages boys (AFP, 2022a; Leathwood and Read, 2009; Okopny, 2008). Higher-level education among women and girls has been blamed for making women either disinclined to marry and reproduce (McCurry, 2018) or undesirable to men (Feldshuh, 2018), and for directly contributing to falling fertility levels (AFP, 2022a), as though having aspirations beyond child-rearing is to blame.

In fact, there is a more nuanced connection between women's roles outside the home and fertility rates overall. For example, measures of female labour force participation and economic development usually manifest a U-shaped relationship. In low-income countries, women often have high labour force participation because subsistence economies discourage single-earner households. In middle-income countries, the rise of wage labour pushes women out of the workplace, and women only return again when development is high (González and Marcelo Virdis, 2021; Choudhry and Elhorst, 2018).

Evidence and the way forward

If dynamic family structures, female education levels and female labour market participation are not to blame for fertility mismatch, then what is? An ever-growing body of evidence from lower-fertility European and East Asian countries points to economic systems and gender inequities. For example, where men work longer hours on average (likely limiting their contributions to child-rearing), educated women have fewer children and are more likely to remain childless. Where men work shorter hours, this educational gradient largely disappears (Brini, 2020). Similarly, in places where a higher proportion of the population believes that, when jobs are scarce, men have a greater right to work than women, childlessness is higher and family size is smaller (Brini, 2020).

Those concerned about both high and low fertility would do well to make it easier for women to combine their fertility goals with economic security. This includes a greater accommodation of cooperative child-rearing practices and more flexible gender roles, rather than rigid ideologies that expect men to be sole providers and women to intensively parent children alone.

Indeed, the policy prescriptions for both high- and low-fertility countries should be roughly the same. They should recognize that (1) parents need support for raising children and that individuals struggle to do it alone; (2) it is the nature of work, not the fact that women work, which affects reproductive decisions, and as such, female education and empowerment are key to realizing reproductive rights; and (3) gender equality is essential — crucial both in the home (especially in regard to the fair division of childcare and domestic duties) and in the workplace. And rather than seeking to achieve the goal of broadly raising or lowering fertility,

> A brief history of the breadwinner

The male breadwinner model is a relatively novel invention. In the West, it is most notably linked to the Industrial Revolution and the post-World War II middle class of the 1950s (Horrell and Humphries, 1997), as economies shifted away from family-based subsistence strategies towards wage labour and separation between the private and public spheres. This model of family was also expressly promoted in certain countries for reasons including attempting to increase fertility (Ogden and Huss, 1982) and evicting women from the workplace to make space for men (Coontz, 2016). Colonialism played a role in spreading the model across borders (Evans, 2012; Sen, 1997), but the model also exists across many cultures and regions, such as in the example of Purdah, the practice of veiling and secluding women (VerEecke, 1989; Pastner, 1972).

Yet throughout human history, breadwinning or child-rearing have not been the exclusive province of any one person (Sen, 1997). Instead, women, men, children and grandparents have all contributed to family sustenance and food production (Lee and Boe, 2022; Hooper and others, 2015; Lee, 2003). Evidence from across history and academic disciplines shows that women have routinely made substantial contributions to the family economy (Hadfield, 1999), and often made use of other carers, such as grandmothers and older children (Hrdy, 2009; Hadfield, 1999). Of course gendered labour divisions are not new; they, too, have been common throughout history. Women are and almost always have been responsible for the bulk of childcare, especially in children's early years. But women have also been heavily involved in asset generation, either in roles compatible with child-rearing or with the support of other caretakers (Hrdy, 2009; Hadfield, 1999).

This history does not suggest there is anything undesirable about the single-earner model. Rather it highlights the utility and commonality of having flexible family roles depending upon circumstance and need, and indicates that the removal of women from income-generating roles, which remains common in many places, is the result of norms and policies rather than a so-called natural state.

FEATURE

Viewing vasectomy as an empowering act of love

"I love my career," says Joseph Mondo, a vasectomy provider in the rugged highlands of Papua New Guinea. His work takes him into the bush for weeks at a time, accompanied by four or five volunteers to carry the equipment needed to conduct non-scalpel vasectomies for men who have chosen not to have more children. They serve communities with little access to health care. An outreach officer for Marie Stopes Papua New Guinea, Mondo says he cannot keep up with the demand for his services. Most of his clients have already fathered six or seven children, he says. Often, he works late into the night to attend to men who shy away when others are around.

Everywhere, but especially in isolated rural areas where family planning services are not available, vasectomy — a quick and almost foolproof means of preventing pregnancy — makes sense and can save lives for those whose families are complete. It's far safer and more affordable than female sterilization, which is globally more common — by an order of magnitude (UN DESA, 2019).

Beyond giving men their own method of contraception, vasectomy liberates partners from the burden, side effects, expense, inconvenience and uncertainties of the available female contraceptive methods. A higher uptake of vasectomy could radically reduce the high percentage of unintended pregnancies, which is about one in every two (UNFPA, 2021). In short, vasectomy seems like it should be an attractive option for couples who don't want more (or any) children. But its global prevalence, which has never been much higher than 2.4 per cent, seems to have declined since 1994, according to United Nations figures (UN DESA, 2019).

Vasectomy is more common in a number of developed countries, with Canada, the United Kingdom, New Zealand and the Republic of Korea all having a prevalence of more than 17 per cent — and in Bhutan, where vasectomy is eight times more common than tubal ligation.

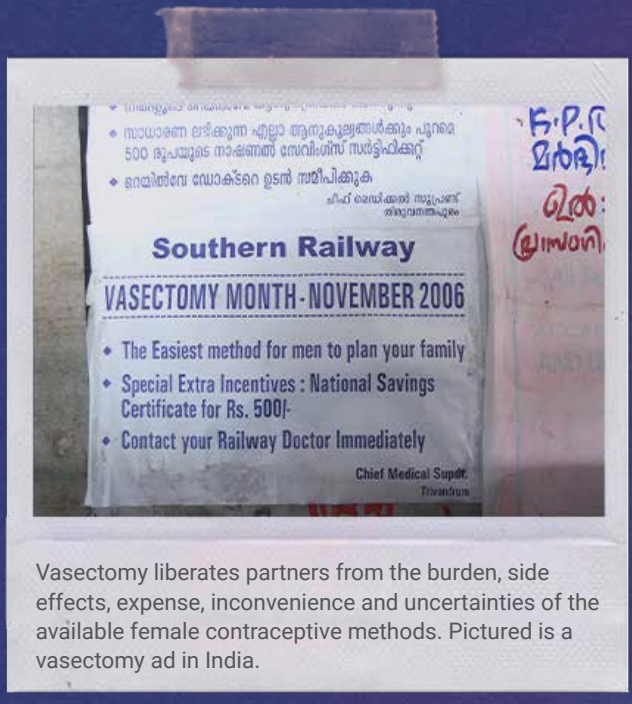
Why aren't vasectomies more common globally? The idea of tampering with such a sensitive part of a man's anatomy plays a role. Moreover, misperceptions about vasectomy abound: in sub-Saharan Africa, for example, where vasectomy prevalence is statistically negligible, the procedure may be seen as a loss of manhood on the one hand, or linked to promiscuity on the other (Izugbara and Mutua, 2016). There's another contributing factor too: since the advent of "the pill", contraception has more or less been relegated to the female sphere. Dozens of contraceptive products have been brought to market, all targeted for women.

But there's a more fundamental logic at work, in the view of Jonathan Stack, co-founder

of World Vasectomy Day, an organization responsible for providing around 100,000 vasectomies since 2013. "It's like everything in the world: where's the money?" he says. "There's been no investment in marketing vasectomies because there's nothing to market. All of the new contraceptive options on the market for women are big money," he adds. "Vasectomy doesn't make money. It saves you money." According to a 2020 Johns Hopkins University publication, each vasectomy in the United States saves the health system close to $10,000 over a two-year period (USAID and Breakthrough Action, n.d.). The same publication notes that among countries involved in the FP2020 (now called FP2030) global partnership to support family planning, only 20 per cent of couples have access to vasectomy.

Stack says he is engaging and empowering men, unleashing what he sees as an "innate human desire to care for and protect their families". Each year in November, the World Vasectomy Day organization launches its annual push, via social media channels, free vasectomy clinics, provider training programmes and multiple forms of advocacy. In 2022, a tenth anniversary campaign included a full month-long roster of events in Mexico and elsewhere, with the slogan: *Rising up together out of love for self, each other, and our future!* Through an agreement with the Ministry of Health, 400 doctors were mobilized to perform 10,000 voluntary vasectomies across all 32 Mexican states.

November 2022 also marked the launch of a World Vasectomy Day Academy, an online programme to teach the basics of vasectomy and a directory with links to more than 500 vasectomy providers worldwide.



Vasectomy liberates partners from the burden, side effects, expense, inconvenience and uncertainties of the available female contraceptive methods. Pictured is a vasectomy ad in India.

Stack is passionate about the power that can arise from the positive inclusion of men in family planning and reproductive health, especially at a time when a new kind of masculine consciousness is emerging.

"What I can tell you is there's a change happening, and the family planning world would do well to recognize it," he says. "We can do a better job of getting men to show up as positive contributors to society… If you ask a guy why he's getting a vasectomy — and I've spoken to hundreds — he's going to talk about the love of his children or his family or the love of the planet — some expression of love will come up. Which is why we emphasize celebrating responsible men and talk about vasectomy as an act of love."

"If you ask a guy why he's getting a vasectomy… some expression of love will come up."

such policies should instead embrace the rights-affirming goal of closing gaps between intended and experienced fertility.

The Republic of Moldova offers an instructive example of rights-affirming population policy design. The country recently made dramatic and far-reaching shifts in its policy approach — moving away from alarmist targets to evidence-driven agendas that put people and their rights and choices first (UNFPA, 2021a). Moldova has experienced one of the fastest declining populations globally — from a peak of 4.5 million in the early 1990s to an estimated 3.4 million in 2023, and further decline is projected over the coming decades (UN DESA, 2022). Amid fears that its reduced population could lead to security threats, the country launched a programme in 2011 that sought to address low fertility (Buzu and Lutenco, 2016), even though population decline was due almost entirely to outmigration. The situation required, instead, a policy environment focused less on demographic security and more on demographic resilience.

With support from experts and partners (including UNFPA), Moldova adopted a demographic resilience approach, which helped to transform the policy climate in just a few short years. The national agenda, which once focused on numbers and quantities, now focuses on quality of life, individual dignity and demographic well-being. Once a single-ministry issue, the agenda now encompasses a whole-government mission of sustainable development. The new evidence-driven policies seek to help women better combine work and child-rearing, while, importantly, reducing inequalities so that, with improved conditions at home, fewer people feel compelled to leave the country (Armitage, 2021; UNFPA, 2021a).

The policy shift was also marked by an altered approach to data. Migration statistics were included in national demographic data for the first time, thus offering a more balanced perspective of outmigration and low fertility (UNFPA, 2021a). Likewise, rather than simply counting births, a new population survey asked women and men about their fertility ideals, childbearing intentions and impediments to actualizing their reproductive goals (UNFPA and Ministry of Labour and Social Protection of the Republic of Moldova, 2022). Notably, the survey indicated that the ideal family size in Moldova is significantly higher than the average number of children being born, which leaves room for policies to help women and couples better achieve their fertility aims. Additionally, the survey confirmed that, among Moldovans, financial pessimism is linked to lower intentions of childbearing while higher socioeconomic status and education — as well as more gender-egalitarian divisions of family labour and childcare — are linked to higher intentions of childbearing (Nadaraia, 2022).

Like Moldova, the world must work together to adapt and innovate its way to a just and sustainable future. Indeed, an enlightened and compassionate approach to public health focuses on changing features of the environment, rather than features of individuals, to promote equity (Geronimus and others, 2016). Systems should serve people, not the other way around.

We have seen, with centuries of accumulated evidence, that threats to human rights, welfare and life are especially acute when it comes to

> Population data – more than numbers

Data are indispensable to understanding population dynamics and preparing for future needs. Yet how data are collected and used is not neutral. Which data are collected, where they come from and how they are analysed all matter. There are power imbalances in data, even in data that are not deliberately weaponized to promote politically useful narratives (D'Ignazio and Klein, 2020; Lazer and others, 2018). Take, for example, biases in the availability of data related to reproduction and fertility. While official United Nations estimates of population size and total fertility exist for all the world's countries (and over many, many decades), the proportion of countries that have data on measures of reproductive rights is markedly lower.

For example, only 21 per cent of countries have official data (and generally only data for a single year) on SDG indicator 5.6.1 measuring the proportion of women who make their own informed decisions regarding sexual relations, contraceptive use and reproductive health care. Only 44 per cent of countries have recent data for indicator 3.7.1 measuring the proportion of women of reproductive age who have their need for family planning satisfied with modern methods (UN DESA, 2022c). The United Nations produces yearly regional estimates of unmet need, but official country-level detail and disaggregation by age and other markers of vulnerability are exceptionally scarce.

reproduction. Rights, bodies and futures are on the line for all people, but especially for women and girls. Policymakers and service providers must recognize how vulnerable women are to being coerced into using or not using contraception (Senderowicz, 2019), and they should similarly understand how women experience pressure, even bullying, to have children, all in order to meet prescriptive fertility goals that do not make space for their own desires and circumstances. A rights-based approach recognizes that policies must empower, not direct, given that reproductive journeys are so closely tied to the broader cultural, social, political and economic climate.

Decision makers can better build resilient populations by pursuing policies that enable individuals to realize their own reproductive ideals and broader well-being, rather than tell individuals the limits of what their life roles should be. Humanity's way forward must be defined by demographic resilience, not demographic control. The realization of reproductive rights is essential to well-being. Whether women and men choose to have and raise children or not, the journey is a fundamental and beautiful part of human life — infinite variations on a universal theme.

IN FOCUS

A look at the most vulnerable: early adolescent pregnancies and the violation of rights

This report underlines the importance of placing human rights at the centre of population policies. Where rights are not prioritized, the most vulnerable and marginalized suffer. Nowhere is this clearer than in cases of very early adolescent pregnancy. Pregnancy among girls aged 10 to 14 years is uncommon when compared with pregnancy among older adolescents, yet it exists everywhere, varying greatly by country. Each of these pregnancies signals grave circumstances beyond a girl's control (UNFPA, 2013), and they point to conditions in which a girl's human rights are greatly circumscribed. Yet information about early adolescent pregnancy has been scarce until recently.

An invisible crisis

Why has there been a longstanding dearth of information about childbearing among very young adolescents? Tragically, these girls generally fell through the cracks of demographic data collection. Until recently, demographers were primarily interested in how many children women have on average — using a measure of total fertility calculated from age-specific fertility rates for women in age groups from 15 to 49 years. Births to girls under age 15 have a negligible impact on the overall number of births, and so fertility rates for this age group have generally not been reported.

In other words, experts have long asked certain questions of the data (e.g., what are the ages at which women and girls are giving birth?) but not others (e.g., how can data on childbirth reveal human rights violations among the most vulnerable?). This changed with the SDGs. Indicator 3.7.2 of the SDGs looks at birth rates among adolescents, including those aged 10 to 14 years — a powerful motivator for the compilation and analysis of these data.

New methods, including the compilation and evaluation of available data from surveys, vital registration and other sources, have since been developed (Kisambira and Schmid, 2022; Schoumaker and Sánchez-Páez, 2022; UN DESA, 2020b; Pullum and others, 2018). For the first time, World Population Prospects 2022 (UN DESA, 2022) published global, regional and country estimates of age-specific fertility rates for the age group 10 to 14 years and by single age for ages 15 to 49 years. These estimates fill the gaps in missing data and reconcile differences across data sources and across estimation methods, improving international comparability and analysis of trends over time.

Half a million

In 2021, it is estimated there were half a million births to girls aged 10 to 14 years globally — an enormous number by any standard. Pregnancy complications are a known leading cause of death among girls aged 15 to 19 years, and these risks are only exacerbated among younger girls.

The incidence of these births varies considerably across the world. The experience of becoming a mother for girls below age 15 is most common in sub-Saharan Africa, with nearly 5 births per 1,000 girls aged 10 to 14 years in 2021. The highest rates are observed in countries of Western and Central Africa, and parts of Eastern Africa. Birth rates to girls below age 15 are also high in Latin America and the Caribbean, at 2.4 births per 1,000 girls aged 10 to 14 years, and in Oceania (excluding

Australia and New Zealand), at 2.2 births per 1,000 girls aged 10 to 14 years. While childbearing below age 15 is relatively uncommon in other regions, countries such as Afghanistan, Bangladesh and Lao People's Democratic Republic still have more than 2 births per 1,000 girls aged 10 to 14 years.

Becoming a mother below the age of 15 is even less common in Australia and New Zealand, Europe and North America (fewer than 0.1 births per 1,000 girls aged 10 to 14 years in 2021). Nevertheless, the estimates from vital registration data indicate that two countries — Bulgaria and Romania — have more than 1 birth per 1,000 girls aged 10 to 14 years.

Uneven progress

There has been progress in reducing adolescent birth rates (Figure 23). In 2021, there were more than 5 million births to girls below age 18, a decline from the 8 million births in 2000. Among girls aged 10 to 14 years, this number was more than halved: in 2000 there were 3.3 births per 1,000 girls aged 10 to 14 years, while in 2021 it stood at 1.6 births per 1,000.

All regions experienced declines in adolescent birth rates, but progress has been uneven. The greatest declines were observed in Central and Southern Asia — an 89 per cent decrease among girls aged 10 to 14 years and a 70 per cent decrease among those aged 15 to 19 years. By comparison, sub-Saharan Africa, Latin America and the Caribbean, and Oceania (excluding Australia and New Zealand) made less progress towards reducing the burden of early childbearing. In sub-Saharan Africa, the numbers of births among girls under age 18 even increased due to the confluence of population growth and slow progress in reducing early childbearing.

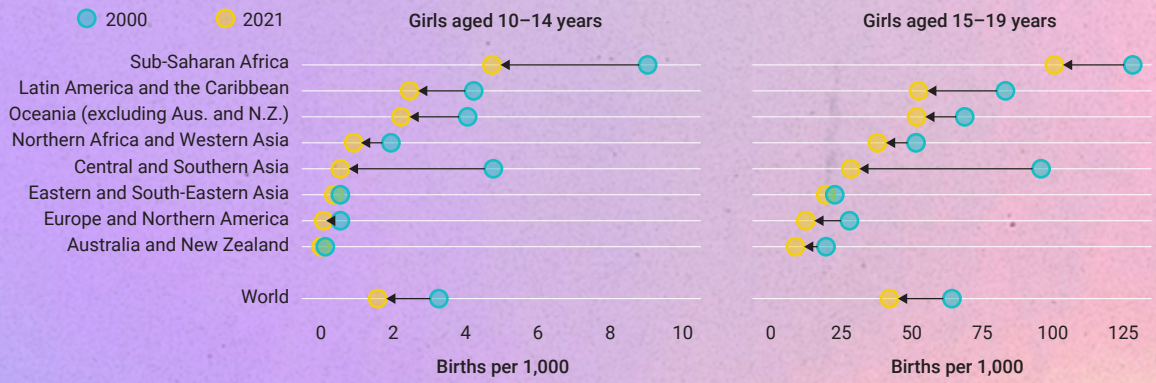
The development of global comparative estimates for levels and trends in early childbearing is an achievement, but extensive data gaps remain and need to be addressed, such as evaluation of the reporting for completeness and the accuracy of the reported age of mother (UN DESA, 2020b). Within countries, considerable socioeconomic, geographic or other disparities in early childbearing might persist despite overall declines. Data disaggregated by other relevant characteristics are needed to identify populations with the greatest need.

These efforts must continue, with data used to illustrate not only broad demographic trends but to shine a light on those who are most vulnerable, most marginalized and most in need. It is only by asking the right questions that we can ensure no girl is left behind.

Text contributed by the United Nations Population Division.

> FIGURE 23

Adolescent birth rate (aged 10–14 years; 15–19 years) per 1,000 women in that age group, 2000 and 2021, SDG regions



Source: UN DESA, 2020.

Rights Are the Key

"Are there too many people in the world?" "Are there too few people in the world?" "Is the population growing too fast — or too slow?" The world is asking the wrong questions.

People are not procreation units who are designed to fulfil some perceived ideal level of reproduction or who are constrained to reproduce according to some quota or formula. People — humans — inherently possess a number of rights, including, very importantly, rights about the reproductive choices they make.

These rights were laid out extensively and conclusively in the Programme of Action of the ICPD, the landmark agreement adopted by the world's nations in 1994: "Everyone has the right to the enjoyment of the highest attainable standard of physical and mental health. States should take all appropriate measures to ensure, on a basis of equality of men and women, universal access to health-care services, including those related to reproductive health care, which includes family planning and sexual health. Reproductive health-care programmes should provide the widest range of services without any form of coercion. All couples and individuals have the basic right to decide freely and responsibly the number and spacing of their children and to have the information, education and means to do so."

The question that needs to be asked is not just how fast are people reproducing, but are all individuals and couples able to exercise their basic human right to choose how many, if any, children that they want? The answer to that latter question, tragically, is no.

It has been elaborated elsewhere in this report, but it bears repeating. Data from 2023 show only 56 per cent of women are able to make their own decisions over their sexual and reproductive health and rights (UNFPA, 2023). Just 65 per cent of countries guarantee access to comprehensive sexuality education (UNFPA, 2023). And 9 per cent of all women aged 15-49 have an unmet need for family planning (UN DESA, 2022c). These figures show that, at present, only a proportion of humanity can and does have its desired family and is able to give its children the basics as defined in the ICPD Programme of Action of "an adequate standard of living for themselves and their families, including adequate food, protection, housing, water and sanitation".

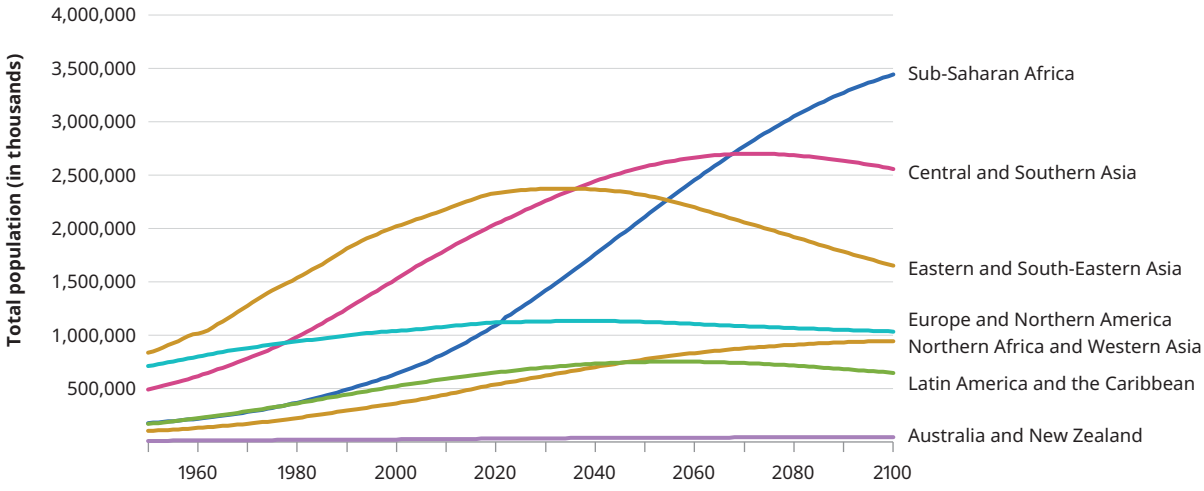
Population anxieties exist; it is time to ask why

It is a reality that anxiety about population is widespread. As this report has detailed, some fear that the world is facing an unmanageable number of people in terms of energy and food needs, ability to invest in children, and in terms of stress on the environment. On the other hand, more and more countries are facing decreasing populations, which is stoking worries of a declining workforce, a dependent ageing population, and stress on pension funds as well as worries about a loss of political and military strength.

These differing anxieties are a reflection of reality — never in human history has there been such a wide divergence in population growth rates among the countries and regions of the world (Figure 24). The median age of countries is further apart than it has ever been. This is

> FIGURE 24

Growth in total population size in different countries and regions of the world



Source: UNFPA Technical Division, 2023.

a unique period in human history when, for example, the median age in Europe is 42.5 years while in sub-Saharan Africa it is less than half of that — 18.7 years (UN DESA, 2022).

A recurring theme of this report has been that, when faced with these kinds of demographic changes, it has sometimes seemed obvious to many societies and policymakers to look for purely demographic solutions — ways to move numbers up or down — rather than tackling the challenges created by demographic change. This focus can and has led to what can be called demographic engineering, such as forced sterilization or coercive use of contraception in order to slow population growth or providing short-term financial incentives (paying people) to encourage more births. Such methods have been shown to be both ineffective and, in the cases of force or coercion, a clear violation of human rights (Gietel-Basten and others, 2022). Human rights standards require that all individuals are empowered with information, education and services, and that they are supported by positive social norms, in order to make choices about family size freely. These reproductive choices belong to individuals and couples, not their families, their peer groups, societal strictures — or their governments.

Whatever the rate of population change, governments and societies can craft policy tools based on individual choice and reproductive rights to foster resilience in the face of demographic change. Pioneering work is being done in countries around the world to advance demographic resilience, helping to move past alarmist responses and towards an embrace of the dynamic opportunities available no matter how populations are changing. “Demographically

resilient societies understand and anticipate the population dynamics they are experiencing," one UNFPA programme description states. "They have the skills, tools, political will and public support to manage them so that they can mitigate potentially negative effects for individuals, societies, economies and the environment, and harness the opportunities that come with demographic change for people, prosperity and the planet" (UNFPA EECA, 2020).

The starting point for achieving demographic resilience is data. Policymakers need accurate demographic data to understand their population's trends and, critically, the underlying causes for demographic developments. They also need the expertise to analyse these developments in all their complexity, including examining the societal structures and conditions that fuel demographic change, like gender relations and marginalization of different groups of people.

Of primary importance, too, are the questions we ask of that data. For example, we would do well not to ask whether there are too many people or too few (as if there were a magical correct number of human beings) but, rather, to ask whether people, especially women, girls and the most marginalized among us, are able to exercise reproductive autonomy. Are they able to realize their fertility goals, and if not, why not? Are their reproductive rights upheld, can they live with dignity and equality? These questions are much more useful to policymakers than broad notions of human excess or dearth. These questions about rights and choices leave no space for anyone — whether policymakers, pundits, service providers or anyone else — to interpret that some people are worthy of reproducing while others are not. These questions ensure no one, rightly or wrongly, infers that fertility goals are the prerogative of a State, a community, an employer or anyone else.

When those questions are included in the effort to understand demographic changes and dynamics, the value of data on fertility intention becomes clearer. It is true that, in terms of data collection and analysis, it is decidedly messier to look at intentions, wants and hopes for the future. These are simply not as clear cut as numerals representing live births per woman, and they are subject to change as people's lives and desires evolve. Even so, the information behind individual fertility goals, realized and unrealized, is extremely rich. Those data can tell us whether barriers to reproductive choice take the form of access to contraception, jobs, education or childcare. When individuals have large families, are those families happy and well supported? Are they struggling? When individuals have no children, is it because they cannot afford them? Or is it because they cannot balance work and childcare? Because they struggle with infertility? Or because they have found security and fulfilment without children? This information is much more specific, and more actionable, than "too many" or "too few".

These are the questions that will help us identify how barriers to choice manifest differently within and across communities, ages, genders, income levels and more. They acknowledge the different needs of people with different levels of power and status in society, and they highlight the importance of representation of those with unaddressed challenges. If we understand the real problems, we can look for durable solutions. Asking these questions will

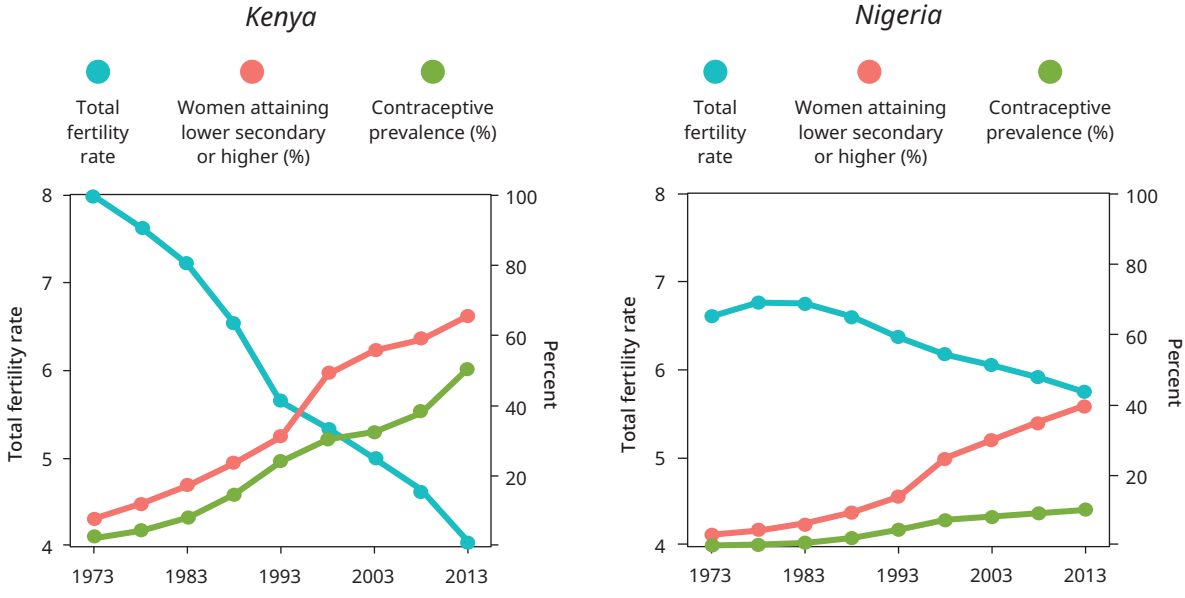
encompass an inclusive view of population and reproductive health and contribute to a framework for inclusive societies that are demographically resilient — able to adapt to the demographic realities they face, rather than trying to artificially bend population trends in one direction or another.

Education for all people at all ages

The history of human development has clearly demonstrated the extraordinary power of girls' and women's education to empower women and to equip them to claim their reproductive rights. This is true in high-fertility contexts where the correlation between education and reduced total fertility rates has long been recognized. The literature on the topic is extensive. One important recent study carried out a statistical analysis of population and education data for all the world's developing countries (Liu and Raftery, 2020); it found that a mother's education makes a difference in fertility levels, with faster declines strongly correlated to the rate of increase in the number of girls being educated (importantly, the study found that the correlation only existed for women who had reached at least lower secondary education attainment). The study highlighted, for example, the correlation between rising education and declining fertility in two African countries — Kenya and Nigeria (Figure 25).

> FIGURE 25

Correlation between education level and fertility in Kenya and Nigeria



Source: Liu and Raftery, 2020.

> A toolkit for demographic resilience

UNFPA is working with governments around the world to promote resilience in the midst of demographic change. Key tools to achieve this are as follows.

Use population data to plan ahead: Assure the availability of demographic intelligence, including national and subnational population projections and population situation analysis.

Understand the ways in which demographic trends will impact the economy and the need for new social policies, using tools such as demographic dividend profiles, National Transfer Accounts and National Time Transfer Accounts.

Interrogate the human rights implications of potential policy responses: Avoid policies focused on demographic engineering — and instead, have confidence in the further realization of reproductive rights and choices.

Support the fertility preferences and aspirations of people: Understand whether people in all income categories, at all ages, and in all social groups are having the number of children they want. If the answer is no, reproductive rights are compromised. If the answer is unclear, then conduct research to understand aspirations for fertility, and obstacles to meeting those aspirations.

Assure universal access to sexual and reproductive health and rights, including sexuality education, modern methods of family planning, and sexual and reproductive health services, including assisted reproductive technologies.

Enable young people to build a future in a place of their choice: Where young people are migrating out of or into the country, pursue an understanding of their reasons for migration, and address them through targeted investments and social policies.

(Comprehensive Care Systems) Establish family policies that help to build strong, diverse and resilient families, including financial support for families, quality and affordable childcare and care arrangements for older persons, flexible work schemes, and more equal parental leave provisions for both parents. Assure the social and legal recognition of a diversity of partnership and family forms.

Relentlessly advance gender equality, addressing what is needed to promote the empowerment of women through economic and labour policies and structural change, and promote more equitable gender norms in the home and the workplace.

Promote more inclusive societies, including through education and lifelong learning and investment in human capital; open up labour markets to young people, women, minorities, older persons and persons with disabilities — enabling more people to actively contribute to the economy.

Promote the inclusion of migrants in the world of work, and society at large.

While some might wring their hands, then, about educated women rejecting motherhood, the truth is that women's and girls' education is just as critical in low-fertility contexts. Expansion of lifelong education and training opportunities is important for countries with ageing populations as it expands the pool of available labour to meet changing economic circumstances (Lutz, 2019). Lifelong learning is also essential for the millions who have missed receiving a decent childhood education, who still have decades of life ahead of them — and this particularly applies to girls who curtailed their education because of early marriage and/or pregnancy. Studies have demonstrated that economic growth reflects education at all ages in a population (and if the focus is only on the young it will be decades before results are seen) (Lutz, 2019). And education is not itself a disincentive to have children. In fact, in low-fertility settings, highly educated women often have higher intended fertility than less educated women, but face barriers to realizing their goals (Beaujouan and Berghammer, 2019; Channon and Harper, 2019; Testa and Stephany, 2017).

In the simplest terms, universal education that includes women and girls helps to fulfil a basic requirement of the ICPD Programme of Action: that everyone has the information and education they need to understand their bodies and control their fertility — hence the importance of comprehensive sexuality education. Of course, the role of education to empower people goes far beyond enabling them to control their reproductive lives, but its importance in this respect is hard to overstate.

Contraceptive access in all demographic contexts

Also hard to overstate is the importance of contraception — no matter the demographic context. Unintended pregnancies pose health and human rights challenges on both individual and societal levels (UNFPA, 2022). For pregnancy and parenthood to be an act of affirmative choice, of hope, individuals must also be able to prevent unintended pregnancies — a fact as true in low-fertility countries as it is in high-fertility countries.

UNFPA has five decades of programme experience on what it takes to help women avoid unwanted and unplanned pregnancies. This includes years of optimizing modern contraceptives and the requisite services and public information to increase access. It means ensuring the fertility preferences of couples and individuals, even as they evolve over time. It means assuring sexual and reproductive health services are provided through means that are culturally appropriate, stigma free, rights affirming and tailored to the needs of the individual, whether that person wants contraceptives or fertility care. It even means reaching beyond service points to non-health settings, such as classrooms and community spaces, to provide comprehensive sexuality education and promote respect for bodily autonomy.

It is important, too, to understand the relationship between contraception and fertility intention, since this relationship is so often misrepresented or misunderstood. Research from 26 countries over two decades shows that increasing contraceptive prevalence rates are

FEATURE

For accurate and credible data, participation and trust are key

Good policymaking depends on good population data. To prioritize investment, address inequities and promote overall well-being, governments need to know how many people there are, and where and how they live. That, in turn, requires the participation of individuals. In recent years, governments in Ghana, Moldova, Nepal and elsewhere have adopted innovative approaches to collecting and analysing data, including measures to raise awareness of, and build trust in, the process.

In 2021, Ghana set the stage for the country's most comprehensive, detailed and accurate population and household census since independence. But confusion about the purpose of the census, and misinformation about who would or would not be counted, led some groups to voice concerns about participating, according to Samuel Annim of the Ghana Statistical Service. "We knew we needed a solid public awareness campaign to help everyone understand that the 2021 census would count everyone and that the data we would collect would be critical to advancing social and economic development and reducing inequalities," Annim says.

That meant both outreach to the general public and also direct engagement with religious institutions, schools and universities, the media and members of parliament. Organizers created the slogan, "You count, get counted." The Ghana Statistical Service even commissioned one-act plays performed by student drama clubs to raise awareness about the census and help communities understand what to expect when census-takers came to town. Ghana also employed often-overlooked communities and vulnerable groups, such as persons with disabilities, in census operations as trainers, advocates and data collectors. "We wanted to be sure everyone who had a stake in the census had a role to play in it," Annim says.

In Moldova, the government, the National Youth Council and UNFPA mobilized youth to go door-to-door and encourage people to participate in the 2014 census. While the effort led to greater participation, many Moldovans nevertheless went uncounted. To have a more complete picture of the country's population size, the

For a census to have real value, the data must tell the truth and people need to feel confident that the information will benefit them.

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government took the unusual step of comparing data on energy consumption with the data generated through the census. In addition, border-crossing data were used to estimate, for the first time, how many people were living in the country and how many were leaving and returning. These data contributed to a better estimate of the number of people with "usual residence" in Moldova, leading the World Bank to revise the country's economic status upward and to subsequent revision of other statistical indicators, including the country's SDG baseline and targets.

Nepal in 2021 set out to count its entire population — no small task in a country with 125 ethnic groups and castes speaking 123 languages across seven provinces, 753 localities and 6,743 smaller "wards". Building trust entailed launching an information campaign using the slogan, "My census, my participation." Organizers also emphasized the data would be used to inform actions to achieve the SDGs, including measuring the extent to which Nepalis enjoyed their rights and had access to services. They also made sure that marginalized and vulnerable groups, including persons with disabilities, were involved in census operations. Women accounted for about half of all census takers and data processors.

In the end, for a census to have real value, the data must tell the truth and people need to feel confident that the information will benefit them, explains Annim. "That means aggressively pursuing a non-political agenda and engaging all stakeholders, including civil society organizations, religious bodies and vulnerable groups in the process," he adds. "We need to make it clear that census data are key to ensuring that no one is left behind."

not primarily the result of changes in fertility preferences — women and couples desiring fewer children — but rather greater use among those who *already* wanted smaller families; that is, the rates are dependent more on increased supply rather than increased demand. The study found that "substantial increases in contraceptive prevalence in the period since the 1970s in Latin America, Asia and Africa were less the result of increased demand for smaller families and more the result of the satisfaction of existing demand. The satisfaction of demand dominated in all 26 countries, representing more than 70 per cent of the increase in contraceptive prevalence in 24 countries and exceeding 80 per cent in two out of three… This implies that most of the observed increase in contraceptive prevalence would have occurred even if there had been no change in couples' fertility preferences" (Feyisetan and Casterline, 2000).

That said, there are data showing that desired family size can shift alongside contraceptive access and information. One study from the 1990s in Bangladesh found that key determinants of the desire for smaller families were the age of the mother, whether she was currently using contraceptives, whether she worked outside the home, and, significantly, whether she had met with family planning workers (Kabir and others, 1994). In other words, the accessibility of reproductive health services had a direct effect on a woman's understanding of her own fertility and her desire to have more children. Another study in Papua New Guinea found that non-literate women in a remote area were more likely to want smaller families if they had access to contraception and had received family planning counselling. Importantly, these women's view of desired births was consistent with their understanding of the chances of the baby dying in childbirth or infancy — they reported wanting to have two more children than their overall desired family size because they understood the survival odds of their children (Pust and others, 1985). Thus, as has been shown since the nineteenth century, improved maternal health services and improved infant survival rates also reduce the desired family size — once children are assured of surviving to adulthood the desire for larger families is reduced (albeit with a significant time lag).

Despite their near-universally agreed value, contraceptive services are not universally available — far from it. Unmet need for contraception has barely fallen in decades, moving from 12.2 per cent in 2000 to 10.6 per cent in 2023 among partnered women. Looking forward, projections to the year 2030 indicate an increase in the number of women with a need for family planning to 1.2 billion and, because of population growth, 262 million women would still have an unmet need for modern

contraception, up from the absolute number of 257 million in 2023. The proportion of need satisfied by modern methods is projected to increase only slightly, to 78.2 per cent, by 2030 (UN DESA, 2022c). In other words, supply will only very, very slowly catch up with demand unless more is done to accelerate family planning programmes (Kantorová and others, 2020).

Sexual and reproductive health beyond contraception

The most commonly mentioned, and perhaps least debated, sexual and reproductive health services are contraceptive counselling and care, screening and treatment for sexually transmitted infections, including HIV, and maternal health care. All of these are fundamental, and providing access to these services for everyone is necessary if we are to achieve the ICPD Programme of Action and the SDGs. However, *comprehensive* sexual and reproductive health services include more than these essential services.

While it may be challenging to call for an expansion of sexual and reproductive health services — which are often constrained by budgetary and social concerns, or even legal restrictions — there are clear human rights and economic reasons for working towards this goal, even in resource-poor and socially conservative settings. These services can, in particular, be expanded to include the prevention and treatment of infertility, access to safe abortion where legal, and access to post-abortion care no matter the legal status of abortion.

Infertility care

It is estimated that approximately 48 million couples and 186 million individuals live with infertility globally (Mascarenhas and others, 2012). Despite these numbers, addressing infertility is a largely neglected area in many reproductive health programmes, with costs seldom covered by public health schemes (WHO, 2020). Access to infertility treatment is particularly challenging in developing countries, partly because the expectation of family planning programmes in the past has been (explicitly or implicitly) the lowering of high fertility. The term "family planning" itself is often used as a synonym for contraception, when in fact it should be inclusive of all aspects of reproductive planning, including interventions that help individuals and couples realize their desire for children.

Yet studies indicate high-fertility countries may actually have a disproportionate share of infertility cases (ESHRE Task Force on Ethics and Law, 2009). Researchers note that many countries, particularly in Africa, paradoxically experience both high rates of infertility and high fertility (sometimes called "barrenness amid plenty"), and point out that "those parts of the world with the highest rates of infertility are least likely to offer reliable diagnosis and treatment" (Inhorn and Patrizio, 2015). But the rights of individuals to enjoy the highest attainable standard of physical and mental health and to decide the number, timing and spacing of their children should not be contingent upon the country they live in or the health system they fall under, nor, of course, should these rights be curtailed because individuals live in high-fertility countries which prioritize lowering fertility rates.

The World Health Organization recognizes this: "A wide variety of people, including heterosexual

couples, same-sex partners, older persons, individuals who are not in sexual relationships and those with certain medical conditions, such as some HIV sero-discordant couples and cancer survivors, may require infertility management and fertility care services. Inequities and disparities in access to fertility care services adversely affect the poor, unmarried, uneducated, unemployed and other marginalized populations" (WHO, 2020).

For reproductive health services to fully enable individuals and couples to realize their reproductive ambitions, prevention and treatment of infertility must be made available. The World Health Organization has called for more research into the global incidence and aetiology of infertility so that it can be better addressed, no matter the income level or location of those affected. The agency notes that all countries can introduce policies that reduce inequities in access to fertility care, such as recognizing infertility as a disease that can be prevented, addressing fertility in comprehensive sexuality education programmes, and by working to eliminate environmental pollutants and toxins known to impact human fertility (WHO, 2020).

Health-care economists also note that infertility prevention efforts can yield significant savings to health systems as well, helping individuals avoid the prohibitive expense of technologies like in vitro fertilization (Bourrion and others, 2022). Prevention efforts can include addressing lifestyle factors such as smoking and excessive alcohol intake, as well as preventing and treating reproductive tract infections, sexually transmitted infections and complications associated with unsafe abortion. And while many forms of assisted reproductive technologies remain costly, they are increasingly becoming available in low- and middle-income countries (Inhorn and Patrizio, 2015) (which also means overcoming legal barriers; Costa Rica became the last country in the world to legalize in vitro fertilization in 2016 [Mora-Bermúdez, 2016]). Efforts to develop low-cost assisted reproductive technologies, including low-cost and low-complexity in vitro fertilization, are also under way (Ombelet, 2014).

The benefits of infertility care extend beyond the primary goal of empowering individuals to plan their families — it can also help to ease significant suffering associated with deep gender inequality and discrimination. While infertility can affect both men and women, some estimates indicate that 20 to 30 per cent of infertility cases are solely due to the male partner and that the male partner contributes to about half of all cases of infertility (Agarwal and others, 2015) — yet, in many societies, blame for infertility is automatically assigned to women, with consequences including divorce (with few protections), social stigma, emotional distress, anxiety, depression and even violence, mistreatment and abuse. Fear of infertility can also be a deterrent to the use of contraception by a woman or man who feels pressure to prove their fertility (WHO, 2020). There are financial consequences as well, such as being disinherited by family and forgoing the elder care that might have been provided by one's children (ESHRE Task Force on Ethics and Law, 2009). In addition, there are certain individuals, such as many LGBTQI+ individuals and same-sex couples, who are disproportionately faced with infertility

issues and may be discriminated against in accessing solutions.

Abortion care

Induced abortion is legal in the majority of the world's countries — in 96 out of 147 United Nations Member States that reported data (Center for Reproductive Rights, 2023) — an overwhelming affirmation that the procedure is an essential part of reproductive health care. Still, the availability of this procedure is often restricted, with gestational limits or limits based upon the reason for seeking an abortion. Most States permit abortion to save a woman's life, to preserve her health, in cases of rape and in cases of fetal impairment, but beyond these indications, regulations vary widely. In 28 per cent of countries where abortion is legal on some or all grounds, married women require consent from their spouse to obtain an abortion; in 36 per cent of these countries judicial consent is required for minors. In 63 per cent of countries women can be criminally charged for receiving an illegal abortion (UNFPA, 2023).

Legal restrictions are not the only impediments to safe abortion. Costs, health infrastructure issues and stigma also pose barriers to safe abortion (defined as procedures carried out by a person with the required skills, using an appropriate World Health Organization-approved method under safe conditions [WHO, 2021a]), leading to unacceptably large numbers of unsafe abortions, with catastrophic costs to individuals, economies and societies.

About 73.3 million abortions take place annually (Bearak and others, 2020). Data from 2010 to 2014 indicated about 45 per cent of abortions were unsafe (and nearly all of these unsafe abortions are in developing countries) (Ganatra and others, 2017). Unsafe abortion is one of the leading causes of maternal death globally (Say and others, 2014), responsible for an estimated 4.7 to 13.2 per cent of all maternal deaths each year (WHO, 2021a) — an estimated 22,800 deaths (Guttmacher Institute, 2018) — as well as widespread illness and disability. About 7 million women are treated in health facilities each year in developing countries because of complications of unsafe abortions, with an annual treatment cost of roughly $553 million (Singh and Maddow-Zimet, 2016). Studies from sub-Saharan Africa and Latin America and the Caribbean show that about *half* of women who receive an unsafe abortion experience at least moderate complications (Qureshi and others, 2021). Morbidity and mortality from unsafe abortion results in 5 million disability-adjusted life-years (a measure of the loss of an individual's productive life) per year among women of reproductive age — a massive figure that is still considered a likely underestimate (Grimes and others, 2006).

Demand for abortion — safe or unsafe — is unlikely to disappear given the persistently high incidence of unintended pregnancy (121 million per year, representing nearly half of all pregnancies [Bearak and others, 2020]), the horrifying ubiquity of sexual violence globally, and the fact that no method of contraception is foolproof. Still, policymakers continue to enact legal barriers to safe abortion, even as extensive research shows that restricting abortion does not result in fewer abortions. It only makes abortion unsafe, thereby ensuring that women are maimed or killed as a result (Bearak and others, 2020).

Levels of abortion are about the same in countries where it is illegal as they are in countries where it is legal (Bearak and others, 2020). (Importantly, rates of *unintended pregnancies* tend to be lower in countries with more liberal abortion laws, likely the result of sexual and reproductive health services that are more accommodating to the needs of sexually active people [UNFPA, 2022].) Restricting abortion, therefore, has the effect of worsening women's health rather than reducing abortion incidence (PLOS Medicine Editors, 2022). Abortion restrictions may also have greater adverse effects on certain groups; for example, setting short time limits on access to legal abortion effectively makes it harder for women without regular menstrual cycles to access abortion (Nobles and others, 2021). These negative consequences are a significant concern, particularly given that access to abortion is increasingly fragile and subject to opposition (Miani and Razum, 2021).

There may in fact be "spillover" effects of promoting policies that support reproductive rights rather than restricting abortions: in Uruguay, legalization of abortion was associated with a decline in adolescent fertility, for example (Cabella and Velázquez, 2022). Increasing access to safe abortion could also reduce infertility associated with complications of unsafe abortion, say researchers looking at data from Central and Eastern Europe and sub-Saharan Africa (Mascarenhas and others, 2012), meaning that safe abortion can actually improve women's ability to have children, should they desire it.

But no matter the legal status of abortion, States have committed to providing post-abortion care. "In all cases, women should have access to quality services for the management of complications arising from abortion," the ICPD Programme of Action states.

Sexual and reproductive health services for all

Data on unmet need for modern contraception, and for reproductive health services more broadly, make clear that, despite the tremendous progress that has been made in recent decades, certain communities continue to be left behind. These include adolescent girls, persons with disabilities, elderly populations, marginalized ethnic groups, refugees and migrants, infertile couples and individuals, and women who do not have access to abortion.

To achieve universal access to sexual and reproductive health-care services, a much more inclusive view of reproductive health and rights programming is needed, one that does not passively presume to reach the most marginalized but that instead proactively seeks to address the needs of these groups (see "Who is being left behind?" on page 142). But advocates and researchers caution against approaches that simply "target" those marginalized or high-risk groups, which can result in top-down decision-making that narrows rather than expands choices for those in need (Gomez and others, 2014). Rather, the voices of those left behind must be elevated, and programme designs must respond to the needs, solutions and leadership of these communities themselves.

Inclusive societies are resilient societies

To achieve demographic resilience, societies should adopt a broad view of human capital development, one that considers, for example, the inclusion of migrants in the world of work and society at large. In many countries, immigrants find it almost impossible to participate in local labour markets and to secure decent work (Zetter and Ruaudel, 2018). Migrants are often relegated to the most vulnerable, most risky, lowest paid and least secure work (Orrenius and Zavodny, 2009). Far more can be done to promote the accreditation of qualifications received abroad, for instance, and tear down other barriers to participation.

From a global perspective, the current combination of countries with ageing populations on the one hand, and countries with youthful populations on the other, would in theory offer an opportunity for partnering, exchange and shared resilience. If ageing countries partner with young and high-fertility countries to support economic migration, such migration flows could boost the working-age population, stabilize pension systems and even possibly also contribute to a short-term increase in fertility. Some ageing countries have taken this path (Canada is an often-cited example) (Cheatham, 2022). As outlined in Chapter 3, there are reasons this approach is not more common. However, given the demographic diversity of the world today, an increasingly inclusive view of society that benefits from migration can be one key way to address population concerns.

> Who is being left behind?

Adolescents

Adolescents could well count as the most underserved of all populations. They are often denied access to sexual and reproductive health information and services, or overlooked in the provision of these services (Brittain and others, 2018), because of the widespread belief that young people should not be having sex, especially outside the confines of marriage. But because they receive so little information and so little access to contraceptives and reproductive health care, adolescents continue to face unacceptably high rates of early and unintended pregnancy. Many more are denied comprehensive sexuality education that would greatly improve their lives, health and rights (Advocates for Youth, 2011).

Global statistics compiled by the World Health Organization (WHO, 2022c) illustrate the scope of the problem: approximately 12 million girls aged 15 to 19 years and at least 777,000 girls under 15 years of age give birth each year in developing regions. At least 10 million unintended pregnancies occur each year among adolescent girls aged 15 to 19 years in the developing world. Complications during pregnancy and childbirth are the leading cause of death for 15- to 19-year-old girls globally. Of the estimated 5.6 million abortions that occur each year among adolescent girls aged 15 to 19 years, 3.9 million are unsafe, contributing to maternal mortality, morbidity and lasting health problems. Adolescent mothers (aged 10 to 19 years) face higher risks of eclampsia, puerperal endometritis and systemic infections than women aged 20 to 24 years, and babies of adolescent mothers face higher risks of low birth weight, preterm delivery and severe neonatal conditions.

Persons with disabilities

Persons with disabilities have faced too many violations of their human rights to catalogue. From eugenics programmes and forced sterilizations and non-consensual contraception use to rampant sexual violence, persons with disabilities have had their reproductive rights and choices abridged throughout history and throughout the world (OHCHR, 2017; Hansen and King, 2001). But such abuses are not at an end. In a statement to the United Nations General Assembly in October 2017, Catalina Devandas, United Nations Special Rapporteur on the Rights of People with Disabilities, said: “We can no longer ignore the widespread practices of forced sterilization, forced abortion and forced contraception inflicted on girls and young women with disabilities around the world” (OHCHR, 2017).

Even when such egregious violations of human rights are not being practised systematically, there is no assurance that former targets of discrimination are being provided with services adapted to their needs. One study in the Philippines, for example, found that service providers were often unaware of the special sexual and reproductive health needs of women with disabilities and had an inadequate understanding of their rights, the result of insufficient training and resources (Lee and others, 2015).

Marginalized ethnic groups

Just as eugenics policies targeted persons with disabilities, they also sought to limit the reproductive rights of different ethnic groups, including through forced sterilization and forced contraception, efforts that weaponize reproductive health technologies against whole groups and classes. Such groups have included religious minorities, indigenous people, Romani, people of African descent and more. In response to such possible occurrences, in 2014 the heads of a number of United Nations programmes (OHCHR, UNAIDS, UNDP, UNFPA, UNICEF, UN Women and WHO) issued a statement on "Eliminating forced, coercive, and otherwise involuntary sterilization" (OHCHR and others, 2014). To that end, relevant United Nations bodies continue to monitor allegations of forced sterilization. Following a visit to China by the United Nations High Commissioner for Human Rights in 2022, the Office of the High Commissioner for Human Rights reported finding "credible" accusations of forced intrauterine device placement, forced sterilizations and forced abortions among Uyghur and Kazakh women in the Xinjiang Uyghur Autonomous Region (OHCHR, 2022); the Government of China subsequently refuted these allegations in its own report (Information Office of the People's Government of Xinjiang Uyghur Autonomous Region, 2022).

Even without overt discrimination, many marginalized ethnic groups suffer from worse reproductive health indicators than the population as a whole, discrepancies that are often readily known but insufficiently addressed. For example, the Government of the United States has widely recognized that African-American women face significantly worse reproductive health vulnerabilities and outcomes, including risks of pregnancy complications and maternal death that are three or four times higher than the risks experienced by White women, irrespective of income or education level (Beim, 2020).

Older persons

Because postmenopausal women (even when they are not elderly) can no longer reproduce without assisted reproductive technology and older men are seen as not likely to want children, the sexual (and reproductive) health of many older people who are still sexually active is often overlooked. Studies investigating these needs are few, but they all confirm that this is an overlooked aspect of the lives of a fast-increasing segment of humanity. One study looking at the Islamic Republic of Iran concluded, "caring for this increasing generation should be regarded as a necessity" (Shakour and others, 2018).

Refugees and migrants

An increasingly prominent issue is that of people on the move. As of mid-2022, the United Nations High Commissioner for Refugees (UNHCR) estimated that there were 103 million forcibly displaced persons worldwide (UNHCR, 2022). The total number of migrants is much larger, with the International Organization for Migration reporting 281 million international migrants in 2020 (IOM, 2022). Reproductive health services are often the first to go in emergencies, and few if any countries provide migrants (legal or otherwise) with free reproductive health services or access to insurance plans.

Here, again, there has been progress, though not enough. UNHCR reports that "in recent years, sexual and reproductive health care services to refugees… have improved" (UNHCR, n.d.). Much of this can be attributed to the development and implementation of the Minimum Initial Service Package (MISP) for sexual and reproductive health in emergencies, which represents an international standard of care that should be offered at the onset of every emergency (UNFPA, 2020a). But UNHCR also recognizes gaps, particularly when it comes to adolescents in emergency settings (UNHCR, 2019).

Access and entitlement to sexual and reproductive health services differ depending on whether a person is classed as a refugee, asylum seeker or migrant (and whether they are a regular or irregular migrant). For example, researchers note that "rights and entitlements vary across the 28 countries of the European Union and across different parts of national health systems. The lack of entitlement to receive care, including primary and secondary care, is a significant barrier for many asylum seekers and refugees and an even greater barrier for undocumented migrants" (O'Donnell, 2018). And there are, of course, other barriers, including lack of translation services and possible provider bias, that together mean migrants and refugees are unable to realize their right to have the families they desire.

LGBTQI+ people

LGBTQI+ individuals suffer widespread challenges in seeking to realize their reproductive rights and choices. For example, same-sex and gender-diverse couples are particularly impacted by laws regulating whether and how people can become parents. Only 54 countries in the world legally allow same-sex couples to adopt children (Equaldex, 2022). Many countries permit in vitro fertilization only for married couples — provisions that exclude many LGBTQI+ couples considering that only 24 countries in the world allow same-sex marriage (World Population Review, 2023). Finally, surrogacy laws vary widely around the world (Genetic Literacy Project, 2022), with human rights concerns over surrogates' vulnerability to exploitation and their bodily autonomy still unresolved (UNFPA, 2021).

In most of the world, options are limited for LGBTQI+ individuals who want to exercise their human right to have children. In seeking to fulfil this right, some may be coerced into unwanted or exploitative opposite-sex marriages (Dearden, 2019). Transgender and non-binary persons may face particular barriers in that only one third of countries in the world make it possible to change legal gender, giving such persons the same recognition as their fellow citizens (Aliksaar, 2022). Even in countries where persons can exercise this right, care for their reproductive and sexual needs lags far behind — a study in the United States, for example, found that "the lack of education in transgender care continues among providers across all levels of medical education from medical students and physician trainees to primary care providers, endocrinologists and other specialists involved in transgender care" (Korpaisarn and Safer, 2018).

Without gender equality there is no progress

The goal of resilience cannot be achieved without gender equality. The importance of gender equality is often highlighted as a prerequisite for resilience and development in high-fertility settings. But it is no less critical in low-fertility settings. The latest research shows that gender inequality is a long-term barrier to economic growth irrespective of population growth rates (Santos Silva and Klasen, 2021).

In countries with declining fertility and ageing populations, "the needed rate of improvement [to labour productivity] depends on achieving gender parity in labour force participation" alongside increases in retirement age and increased or maintained levels of international migration, says the 2023 World Social Report, released by the United Nations Population Division (UN DESA, 2023). "Among the three factors, attaining gender parity in labour force participation makes the biggest difference for 99 countries out of 167 sampled." The same study found that a push for higher fertility "would have a limited impact in increasing per capita income between 2020 and 2050", and would also result in more dependent children, which would effectively undercut prospects for greater economic growth.

A leading sociologist has shown that extremely low fertility is more likely to occur in countries where career advancement for women is technically possible but in practical terms they have to make a choice between career and family (Rosenbluth, 2007). Gender inequalities at home mean women still shoulder the burden of household chores and the care of children, and private or state investments offer little to no support for working parents (childcare, parental leave, etc.). This triumvirate — gender inequality in the workplace, gender inequality at home and lack of structural support for working families — characterizes low-fertility countries as opposed to countries with similar income levels but higher fertility.

One clear step forward is to increase flexibility in how families generate and share resources and labour. This of course does not mean doing away with single-breadwinner families, the so-called "traditional" family structure (for more, see page 117); this is a valid choice, and sometimes the only choice available to families. But it does mean embracing a more expansive view of the family economy, one that recognizes the considerable labour of childbearing and child-rearing, one that values the caretaking contributions of fathers, extended family and childcare services, and one that enables the economic empowerment of all adults, not just adult men. This, of course, is an approach long advocated by feminist scholars and policymakers: more gender-equal conditions in both formal and informal labour markets, in the workplace and in the home, produce benefits for all.

In low-fertility contexts, the data are sometimes misread as implying that women's education, employment and empowerment are anathema to childbearing (Cusack, 2018). Yet the experience of France defies these assumptions. France is the European Union Member State with the highest fertility rate (Statista, 2022); the country's fertility rate in 2020 was 1.8, compared to a European Union average of 1.5 live births per woman (World Bank, 2022). France also has one of the highest percentages of women in

the workforce. This may not be coincidental: "Fertility in Europe is higher in countries where women go out to work, lower in those where they generally stay at home… The map of the fertility rate in European countries more or less overlaps with that of women in work" (Chemin, 2015). Once again, women's successful exercise of their autonomy produces societal benefits. "Women's freedom of decision is essential to [the working of the] system," according to demographer Laurent Toulemon from the French Institut National d'Études Démographiques (Chemin, 2015).

The specific societal policies to support families and working women will necessarily vary by the circumstances and means available to different societies. The systems in place in France, for example, are the result of many years of adaptation and innovation — moving from an incentive system to one that empowers women to realize their fertility desires (UN DESA, 2015).

In fact, this transition from rewards to empowerment is a critical one. Demographers are often asked whether improvements in gender equality will help countries increase their fertility rates. There is no agreement on this, with some studies showing only a weak link (Kolk, 2019). Yet in many ways, this framing is inherently problematic in that it excludes the intentions and desires of the very people whose fertility is in question. The better question is to ask how many children women want and whether conditions exist to allow them to realize that desire.

Moving from incentives for childbearing to empowering reproductive agency has vast societal benefits, not only in the form of human rights but also in economic terms. Measures that enable women to choose to balance motherhood and careers result in both immediate productivity gains (by encouraging more household members to join the paid workforce) and in future gains (by increasing the lifetime productivity of children with a "head start") (Penn Wharton, 2021). Gender inequality, on the other hand, is negatively associated with economic growth (Klasen, 2000; Wiley, 2014). The evidence base for this is strong, with examples from many countries and regions (Tsani and others, 2013; Thévenon and others, 2012).

What the data do *not* suggest is that human capital development in the form of education, gender-equality programmes, female employment or other such development drivers should be used as tools to steer individuals' desired reproductive aims. Rather, study after study highlights the importance of empowering women to realize their choices, even as those choices evolve with time and circumstance: "Achievement of the desired number and healthy timing of births has important benefits for women, families, and societies," researchers concluded in *The Lancet* in 2013 (Darroch and Singh, 2013).

Statistics released for 2021 show that the Republic of Korea has the lowest birth rate in the world, declining for the sixth year to reach 0.81 children per woman (Yoon, 2022). The reason that Koreans are not having more children is not necessarily that they do not want them but that they cannot exercise their choice responsibly given the lack of support structures, it has been reported (Yoon, 2022). But rigid gender norms continue to prevail: the country has the largest gender pay gap among countries in the OECD — 31 per cent, more than double the OECD average — and it ranks the worst in the

OECD on The Economist's glass-ceiling index for working women (Ahn, 2022).

Of course, every community's social and economic conditions vary and the particular structures that need to be in place to support reproductive choice differ. Many balk at the cost of implementing programmes to support families and to encourage gender equality in the workplace, and certainly the resources available to make those kinds of investments vary widely between countries. But the World Bank has argued that, in a middle-income country like Sri Lanka, a *lack* of structures to support childbearing and child-rearing actually has considerable costs for the country because of the loss of the economic and social benefits arising from having more women in the paid labour force. Sri Lanka's female labour force participation rate is 36.6 per cent, which a World Bank study attributed to challenges faced by Sri Lankan women in terms of household responsibilities, especially childcare. "As nuclear families become more common, women are less likely to have extended family living with them who can help raise their children" (World Bank, 2018). This is both a constraint on development and on the ability of women to exercise their rights to autonomy. Advancing a more inclusive image of what a family looks like — who can be an income earner and who can be a caretaker — is well worth the investments required in terms of providing educational opportunities and family support services.

Population is about people — and their rights

The evidence marshalled in this report can be broadly summarized as: policies restricting reproductive rights do not work and harm societies as a whole; policies supporting reproductive rights, on the other hand, unlock the potential of all people to thrive and adapt to the changing realities of our world. In fact, rights are merely theoretical unless there are strong policies in place to support them.

A further pillar for ensuring sexual and reproductive well-being is the emerging principle of sexual and reproductive justice, which calls for "addressing intersecting oppressions" and focusing on "the experiences of those who have often gone unheard while permitting a systematic analysis of the power and privilege that punitively regulate reproduction" (McGovern and others, 2022). Gender inequality, racial inequities, class and other systemic injustices all undermine the realization of sexual and reproductive well-being, yet are not sufficiently addressed by legal or health systems. Civil society organizations, grass-roots organizations, women's organizations and other fora that elevate the views and experiences of the most marginalized are essential leaders and partners in order to advance reproductive justice and ensure accountability by legal and health systems that can otherwise intentionally or unintentionally perpetuate harm. The High-Level Commission on the Nairobi Summit on ICPD25 Follow-up, tasked with carrying forward the momentum on reproductive health and rights achieved at the 2019 Nairobi Summit on ICPD25, has called for countries to achieve sexual and reproductive justice as a precondition to realizing universal sexual and reproductive health and rights (McGovern and others, 2022; Luchsinger, 2021).

Only by expanding efforts across all of these fronts will the world achieve the entire vision of the ICPD Programme of Action and the SDGs' target of providing universal access to reproductive health care. Only realizing these agreed-upon ambitions will enable the world to reach its full potential across all spheres. One extensive review of the status of reproductive health programmes around the world concluded: "Improvements in reproductive health do lead to improvements in women's economic empowerment; expanding contraceptive use improves women's agency, education and labor force participation; higher maternal age at first birth (reducing adolescent childbearing) increases the likelihood of school completion and participation in the formal labor market; and having fewer children increases labor force participation" (Finlay and Lee, 2018).

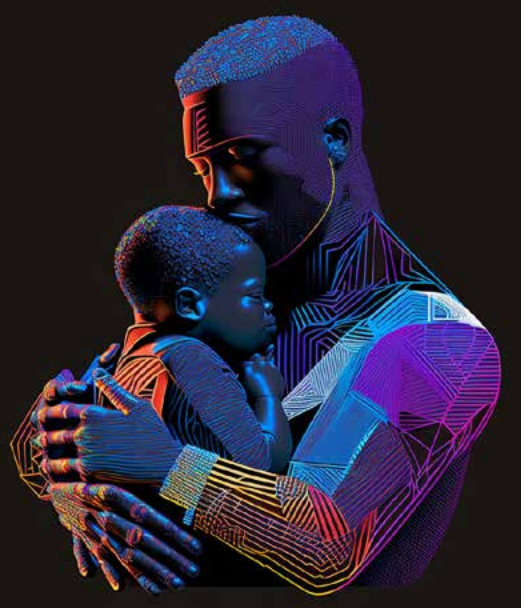
Infinite possibilities

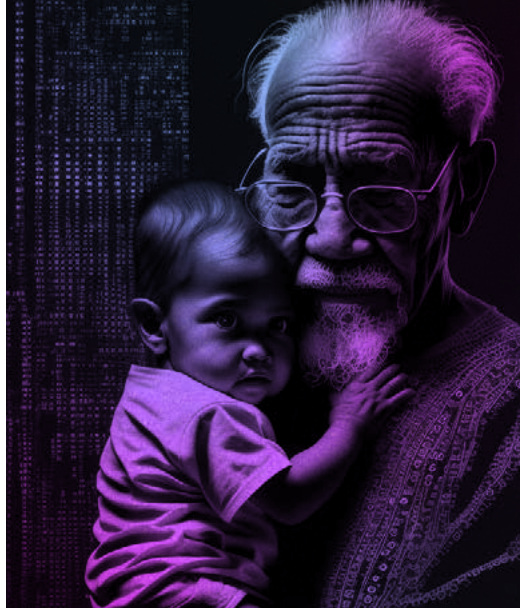
Many of the anxieties explored in this report arise from the lack of clarity and humanity in the language used to describe concerns. Without specificity when we talk about so-called "population concerns", it is all too easy to locate fear and blame in the bodies of women, foreigners and the most marginalized. The language of "population control" — still in use in many parts of the world (Yu, 2022; Kates, 2005) — and the rhetoric of "too many" and "too few" are therefore both harmful and too vague to be productive. Contraceptive quotas and admonishments to raise or lower fertility rates are dehumanizing ways of looking at people in aggregate, as tools for the production of future generations.

To speak of the utility of population to achieve economic, military, social or other goals is in many ways backwards. Population is, fundamentally, human beings. Economic, military and other systems are tools to be used in the service of humanity, not the other way around. People are the purpose, not the means to an end. Evidence shows that when people achieve their full potential, when they are healthy, educated and supported with opportunities, systems flourish because humanity does.

The word population is also used interchangeably to describe groups that are local or national, ethnic or religious, regional or global. This leads to ambiguity over who, exactly, is being counted. Is the population of the country inclusive of irregular migrants and refugees? If not, do those people have the necessary mechanisms by which to secure their rights? When policymakers speak generally of populations growing too quickly or too slowly, are they implicitly referring to certain people or certain minority groups, and not others? When commentators wring their hands over impending "population collapse", are they saying that women are failing in their role as reproductive machines, or are they saying that social and legal conditions are failing to enable women and couples to realize their reproductive goals? When leaders call for increasing contraceptive use to reduce fertility rates in underserved communities, are they saying those communities should have fewer children, or that those individuals are not sufficiently enabled to exercise reproductive agency on their own terms?

To speak more meaningfully about population, we need to use rights-affirming language and specificity — both of which help us to





recognize the considerable achievements made by humanity in recent decades while also articulating concrete issues that have identifiable solutions. Moving away from "too many" means recognizing gains in human survival and longevity. Moving away from "too few" means recognizing that women are increasingly able to plan their families according to their circumstances. We can recognize and celebrate these victories while also noting the worrying gap between wanted fertility and achieved fertility, while also calling for more robust pension funding mechanisms, while also implementing policies that enable orderly, safe and regular flows of migrants across sending, in transit and receiving contexts, while also seeking higher labour participation.

This interdisciplinary report has examined population as seen through the lens of ecologists, economists, defence planners and feminists. It has noted the language used and concerns voiced by policymakers, journalists, health workers, heads of state and ordinary people. What we see is that population anxieties permeate all these spheres of discourse, but the nature of those anxieties is variable and often contradictory. This report does not, and cannot, have all the answers; as seen over and over, population concerns are diverse and context specific. Solutions must be tailored as well. But we do know that the abridgement of rights and choices will only make matters worse.

We also know that hope does not require us to have all the answers; it requires inoculating against despair and the weaponization of despair to undermine human rights. Our collective vision of the world's demographic destiny needs regrounding in the optimism and promise of a rights-based approach. A roadmap exists in efforts to achieve demographic resilience, which seeks to enable populations — in all their diversities — to find resiliency no matter their fertility or migration rates. A core feature of demographic resilience is that solutions cannot be implemented within a single sector alone.

"This requires working with civil society, the private sector, and families to adopt holistic policies for healthy and active ageing, labour market and pension reform, family friendliness, and better [migration management] as

well as promoting reproductive rights and empowerment," say demographers helping to advance this vision of demographic resilience. "Securing political support to bring about such reforms is not easy, as shown by the slow progress since the ICPD Programme of Action. However, we must learn from history and push back against attempts to fix the problem by telling women how many babies they should have" (Gietel-Basten and others, 2022).

This moment requires us to realize the potential of *all* people. That means women educated and employed alongside men. That means giving marginalized communities a seat at every table where decisions are made. That means investing in all people so every individual, regardless of their gender, ethnicity, nationality or disability, can contribute to our collective future — a future for all 8 billion of us, a future of infinite possibilities.

// Indicators

> Our collective vision of the world's demographic destiny needs regrounding in the optimism and promise of a rights-based approach.

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Sexual and reproductive health

	Maternal mortality ratio (MMR) (deaths per 100,000 live births)	Range of MMR uncertainty (UI 80%), lower estimate	Range of MMR uncertainty (UI 80%), upper estimate	Births attended by skilled health personnel, per cent	Number of new HIV infections, all ages, per 1,000 uninfected population	Contraceptive prevalence rate, women aged 15–49, per cent				Unmet need for family planning, women aged 15–49, per cent		Proportion of demand satisfied with modern methods, all women aged 15–49	Laws and regulations that guarantee access to sexual and reproductive health care, information and education, per cent	Universal health coverage (UHC) service coverage index
						Any method		Modern method						
						All	Married or in union	All	Married or in union	All	Married or in union			
World and regional areas	2020	2020	2020	2014–2020	2020	2023		2023		2023		2023	2022	2019
World	**223**	**202**	**255**	**82**	**0.19**	**50**	**65**	**46**	**59**	**9**	**11**	**78**	**76**	**68**
More developed regions	12	10	14	99	0.15	58	70	52	62	7	8	79	87	82
Less developed regions	244	221	279	81	0.20	49	64	45	59	9	11	77	72	65
Least developed countries	377	338	431	65	0.44	32	43	29	38	15	20	60	71	45
UNFPA regions														
Arab States	145	110	194	86	0.04	34	53	29	45	10	15	66	65	61
Asia and the Pacific	113	101	128	86	0.06	54	71	50	65	7	8	82	74	68
Eastern Europe and Central Asia	21	19	25	99	0.14	46	64	35	49	8	11	66	84	74
Latin America and the Caribbean	88	79	99	95	0.19	59	75	56	71	8	9	83	75	74
East and Southern Africa	360	313	441	70	1.16	36	45	33	41	15	20	64	72	47
West and Central Africa	750	625	986	55	0.36	20	23	17	19	17	22	46	70	43
Countries, territories, other areas	2020	2020	2020	2004–2020	2021	2023		2023		2023		2023	2022	2019
Afghanistan	620	406	1050	59	0.04	21	28	18	25	17	24	49	56	37
Albania	8	4	16	100	0.03	33	45	5	6	12	16	11	79	62
Algeria	78	41	164	99	0.04	–	–	–	–	–	–	–	–	75
Angola	222	148	330	50	0.52	17	18	16	16	27	35	36	62	39
Antigua and Barbuda	21	11	36	100	–	42	63	40	61	10	13	77	–	72
Argentina	45	38	53	100	0.11	58	71	57	68	10	11	82	92	73
Armenia	27	19	42	100	–	39	60	21	32	8	12	45	87	69
Aruba	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Australia	3	2	4	99	0.02	59	67	56	64	8	10	85	–	87
Austria	5	4	8	98	–	66	73	63	71	5	7	89	–	82
Azerbaijan	41	22	69	99	0.03	37	57	15	24	9	13	34	–	65
Bahamas	77	51	128	99	0.24	46	66	44	65	10	12	79	–	70
Bahrain	16	13	19	100	0.05	29	63	20	44	6	12	59	73	71
Bangladesh	123	89	174	59	0.01	51	64	45	55	9	12	74	–	51
Barbados	39	22	61	99	0.24	50	63	47	60	12	15	75	44	75
Belarus	1	1	2	100	0.12	54	62	46	53	11	11	72	83	74
Belgium	5	4	6	–	–	59	67	58	66	6	8	90	–	86
Belize	130	105	161	94	0.42	45	58	42	54	14	17	72	43	67
Benin	523	397	768	78	0.14	17	19	15	16	24	30	35	91	38
Bhutan	60	40	82	96	0.10	40	62	38	60	8	12	81	83	62
Bolivia (Plurinational State of)	161	103	272	81	0.13	48	68	36	50	12	16	61	94	67
Bosnia and Herzegovina	6	4	8	100	–	39	50	20	22	9	13	41	70	65
Botswana	186	151	230	100	3.48	59	70	58	69	8	10	87	64	54
Brazil	72	57	93	99	0.24	67	80	65	78	6	8	90	–	75
Brunei Darussalam	44	30	61	100	–	–	–	–	–	–	–	–	41	77
Bulgaria	7	5	10	100	0.03	67	81	51	59	5	6	72	62	70
Burkina Faso	264	169	394	80	0.08	30	33	29	32	19	23	59	81	43
Burundi	494	353	694	85	0.14	20	33	18	30	16	27	49	65	44
Cabo Verde	42	26	65	97	0.24	45	59	44	58	12	16	76	84	69
Cambodia	218	156	326	89	0.07	43	64	32	48	7	10	64	98	61
Cameroon	438	332	605	69	0.56	23	24	19	18	16	21	50	–	44

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Countries, territories, other areas	2020	2020	2020	2004–2020	2021	2023		2023		2023		2023	2022	2019
Canada	11	9	15	98	–	73	82	71	80	3	4	92	–	89
Central African Republic	835	407	1519	40	0.58	21	24	17	18	22	25	39	77	33
Chad	1063	772	1586	24	0.21	7	8	7	8	19	24	26	59	28
Chile	15	13	17	100	0.20	64	78	60	72	6	8	85	–	80
China	23	19	27	100	–	71	85	69	83	4	3	92	–	82
China, Hong Kong Special Administrative Region	–	–	–	–	–	48	70	46	67	8	9	81	–	–
China, Macao Special Administrative Region	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Colombia	75	65	86	99	0.17	65	82	61	77	6	7	87	96	78
Comoros	217	131	367	82	0.01	20	28	17	23	19	29	43	–	44
Congo	282	194	429	91	2.39	43	45	30	29	14	18	53	55	41
Costa Rica	22	18	26	99	0.21	57	74	56	72	9	10	84	84	78
Côte d'Ivoire	480	318	730	74	0.21	27	26	23	22	21	26	48	64	45
Croatia	5	3	7	100	0.02	50	71	36	46	5	8	64	98	73
Cuba	39	35	44	100	0.17	69	72	68	71	8	9	88	–	80
Curaçao	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Cyprus	68	47	99	99	0.04	–	–	–	–	–	–	–	72	79
Czechia	3	2	5	100	–	62	85	55	76	4	4	83	79	78
Democratic People's Republic of Korea	107	46	249	100	–	61	75	58	72	8	8	84	83	68
Democratic Republic of the Congo	547	377	907	85	0.18	26	30	16	17	20	25	35	–	39
Denmark	5	4	6	95	0.02	64	77	61	73	5	6	88	87	85
Djibouti	234	105	530	87	0.13	17	31	16	30	14	26	53	–	48
Dominica	–	–	–	100	–	45	64	43	62	10	13	78	–	–
Dominican Republic	107	87	133	100	0.39	54	67	52	66	10	13	82	–	66
Ecuador	66	52	86	96	0.11	59	80	53	73	7	6	82	92	80
Egypt	17	13	22	92	–	45	62	43	60	9	12	81	–	70
El Salvador	43	31	61	100	0.17	53	74	50	69	8	10	82	92	76
Equatorial Guinea	212	122	374	68	3.80	18	19	16	15	23	31	38	–	43
Eritrea	322	207	508	34	0.06	9	14	8	14	15	28	34	–	50
Estonia	5	3	9	100	–	58	71	50	60	5	7	78	98	78
Eswatini	240	147	417	88	7.65	52	69	51	67	9	12	83	98	58
Ethiopia	267	189	427	50	0.12	30	41	29	40	15	21	66	73	38
Fiji	38	28	55	100	0.19	35	51	30	44	12	16	65	–	61
Finland	8	6	13	100	–	79	82	74	77	3	4	90	98	83
France	8	6	10	98	0.09	66	78	64	76	4	4	91	–	84
French Guiana	–	–	–	–	–	–	–	–	–	–	–	–	–	–
French Polynesia	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Gabon	227	141	383	89	0.80	39	39	31	28	18	23	54	58	49
Gambia	458	333	620	84	0.80	14	21	13	19	16	24	45	–	48
Georgia	28	22	33	100	0.14	33	47	24	34	13	18	52	94	65
Germany	4	4	5	99	–	55	68	54	67	7	9	87	87	86
Ghana	263	180	376	79	0.57	27	35	23	31	19	26	51	66	45
Greece	8	5	12	100	0.07	54	75	39	51	5	7	67	72	78
Grenada	21	12	34	100	–	46	65	43	61	10	12	76	–	70

Sexual and reproductive health

	Maternal mortality ratio (MMR) (deaths per 100,000 live births)	Range of MMR uncertainty (UI 80%), lower estimate	Range of MMR uncertainty (UI 80%), upper estimate	Births attended by skilled health personnel, per cent	Number of new HIV infections, all ages, per 1,000 uninfected population	Contraceptive prevalence rate, women aged 15–49, per cent				Unmet need for family planning, women aged 15–49, per cent		Proportion of demand satisfied with modern methods, all women aged 15–49	Laws and regulations that guarantee access to sexual and reproductive health care, information and education, per cent	Universal health coverage (UHC) service coverage index
						Any method		Modern method						
						All	Married or in union	All	Married or in union	All	Married or in union			
Countries, territories, other areas	2020	2020	2020	2004–2020	2021	2023		2023		2023		2023	2022	2019
Guadeloupe	–	–	–	–	–	40	59	37	53	10	15	73	–	–
Guam	–	–	–	–	–	37	66	32	56	7	10	74	–	–
Guatemala	96	85	106	70	0.07	43	64	37	54	9	12	71	–	57
Guinea	553	404	808	55	0.49	14	14	13	13	18	23	42	79	37
Guinea-Bissau	725	475	1135	54	1.12	32	24	30	23	16	19	63	80	37
Guyana	112	83	144	96	0.62	29	38	28	37	20	28	56	87	74
Haiti	350	239	550	42	0.38	29	39	26	36	23	33	51	65	47
Honduras	72	58	91	74	0.08	50	73	47	67	8	10	79	80	63
Hungary	15	11	21	100	–	50	70	45	63	7	9	80	93	73
Iceland	3	1	4	98	0.03	–	–	–	–	–	–	–	–	87
India	103	93	110	81	0.05	51	68	45	59	7	9	78	74	61
Indonesia	173	121	271	95	0.10	44	62	42	60	8	11	81	77	59
Iran (Islamic Republic of)	22	14	32	99	0.03	58	81	47	66	3	4	77	63	77
Iraq	76	50	121	96	–	38	57	27	40	8	12	58	59	55
Ireland	5	4	7	100	0.07	65	70	63	66	6	9	89	–	83
Israel	3	2	4	–	–	41	73	32	56	5	8	69	–	84
Italy	5	4	6	100	0.02	60	67	49	52	6	9	75	–	83
Jamaica	99	80	122	100	0.50	44	73	42	70	9	9	79	76	70
Japan	4	3	6	100	–	47	52	40	42	12	17	69	85	85
Jordan	41	26	62	100	–	31	55	22	39	8	14	57	56	60
Kazakhstan	13	10	18	100	0.18	43	54	40	51	11	14	76	65	76
Kenya	530	382	750	70	0.73	48	64	46	62	12	14	78	48	56
Kiribati	76	33	146	92	–	24	32	20	26	17	23	49	–	51
Kuwait	7	5	11	100	–	37	60	30	49	8	13	68	–	70
Kyrgyzstan	50	37	70	100	0.10	29	42	28	40	12	17	67	73	70
Lao People's Democratic Republic	126	92	185	64	0.11	38	61	34	55	9	13	72	96	50
Latvia	18	14	25	100	0.29	59	72	52	62	6	8	81	70	72
Lebanon	21	18	24	98	0.03	33	62	25	46	7	12	63	–	72
Lesotho	566	385	876	87	4.76	52	67	51	66	9	14	83	–	48
Liberia	652	499	900	84	–	27	27	26	27	25	32	50	–	42
Libya	72	31	165	100	0.07	25	41	16	26	16	25	40	–	60
Lithuania	9	5	14	100	0.08	48	72	39	57	6	8	73	87	70
Luxembourg	6	4	12	100	0.07	–	–	–	–	–	–	–	–	87
Madagascar	392	311	517	46	0.35	42	52	37	46	13	14	68	–	35
Malawi	381	269	543	90	1.13	49	66	49	65	13	14	79	79	48
Malaysia	21	18	29	100	0.17	35	58	26	42	9	14	58	83	76
Maldives	57	40	83	100	–	17	23	14	18	22	29	35	93	69
Mali	440	335	581	67	0.26	19	21	18	20	21	24	46	–	42
Malta	3	2	5	100	–	61	79	49	63	4	5	75	–	81
Martinique	–	–	–	–	–	40	61	37	55	10	14	74	–	–
Mauritania	464	337	655	69	0.13	10	14	9	13	22	32	29	65	40
Mauritius	84	62	115	100	0.54	43	67	29	45	7	9	58	75	65
Mexico	59	46	74	97	0.13	55	74	53	70	9	10	82	86	74
Micronesia (Federated States of)	74	32	169	100	–	–	–	–	–	–	–	–	–	48

Sexual and reproductive health

Countries, territories, other areas	Maternal mortality ratio (MMR) (deaths per 100,000 live births)	Range of MMR uncertainty (UI 80%), lower estimate	Range of MMR uncertainty (UI 80%), upper estimate	Births attended by skilled health personnel, per cent	Number of new HIV infections, all ages, per 1,000 uninfected population	Contraceptive prevalence rate, women aged 15–49, per cent				Unmet need for family planning, women aged 15–49, per cent		Proportion of demand satisfied with modern methods, all women aged 15–49	Laws and regulations that guarantee access to sexual and reproductive health care, information and education, per cent	Universal health coverage (UHC) service coverage index
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	2020	2020	2020	2004–2020	2021	2023		2023		2023		2023	2022	2019
Mongolia	39	28	55	99	0.01	41	57	38	52	12	15	70	–	63
Montenegro	6	3	11	99	0.03	23	27	16	16	15	21	42	52	67
Morocco	72	51	96	87	0.02	43	71	37	62	7	11	75	–	73
Mozambique	127	99	157	73	–	29	31	27	30	18	21	59	–	47
Myanmar	179	125	292	60	0.20	34	59	33	57	8	13	79	91	61
Namibia	215	154	335	88	2.91	53	62	52	61	10	15	83	88	62
Nepal	174	125	276	77	–	41	54	37	48	16	21	64	48	53
Netherlands (Kingdom of the)	4	3	6	–	0.01	63	72	61	70	6	7	89	100	86
New Caledonia	–	–	–	–	–	–	–	–	–	–	–	–	–	–
New Zealand	7	5	9	96	0.02	65	81	61	75	5	5	88	95	86
Nicaragua	78	54	109	96	0.08	59	82	57	79	6	6	88	75	70
Niger	441	305	655	39	0.04	12	14	11	14	16	19	41	–	37
Nigeria	1047	793	1565	43	0.34	18	21	14	16	15	19	42	–	45
North Macedonia	3	1	6	100	–	44	54	20	20	9	13	38	–	68
Norway	2	1	3	99	0.01	66	85	61	79	3	3	89	100	86
Oman	17	12	25	99	0.05	22	36	15	25	15	25	42	70	69
Pakistan	154	109	226	71	–	26	39	20	30	11	17	54	69	45
Panama	50	46	54	93	–	49	60	46	57	14	17	74	72	77
Papua New Guinea	192	126	293	56	0.43	28	39	24	32	18	24	51	–	33
Paraguay	71	60	82	98	0.13	60	73	56	68	8	8	83	76	61
Peru	69	59	80	94	0.17	51	77	39	58	5	6	71	85	78
Philippines	78	67	96	84	0.19	36	58	27	44	10	15	59	80	55
Poland	2	1	3	100	–	54	74	43	58	6	7	73	89	74
Portugal	12	8	18	100	0.07	59	74	51	63	5	7	79	95	84
Puerto Rico	34	25	54	–	–	51	82	47	74	7	5	81	–	–
Qatar	8	5	11	100	0.07	33	49	28	42	10	15	65	71	74
Republic of Korea	8	7	9	100	–	56	81	51	74	6	5	82	–	87
Republic of Moldova	12	9	17	100	0.30	49	59	39	46	12	15	64	–	67
Réunion	–	–	–	–	–	52	72	50	71	8	9	84	–	–
Romania	10	7	14	95	0.04	54	71	45	58	6	8	75	98	72
Russian Federation	14	9	20	100	–	49	68	42	58	7	9	75	70	75
Rwanda	259	184	383	94	0.34	39	66	36	61	9	13	75	82	54
Saint Kitts and Nevis	–	–	–	100	–	49	61	46	57	12	14	75	–	–
Saint Lucia	73	44	127	100	–	49	61	46	57	12	14	76	33	72
Saint Vincent and the Grenadines	62	40	92	99	–	51	67	48	64	10	12	80	81	73
Samoa	59	26	137	89	–	14	21	13	20	28	42	32	22	53
San Marino	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Sao Tome and Principe	146	74	253	97	0.05	38	51	35	47	20	25	61	46	60
Saudi Arabia	16	11	22	99	–	21	32	18	27	16	24	48	–	73
Senegal	261	197	376	75	0.10	22	30	20	29	15	21	57	75	49
Serbia	10	8	14	100	0.02	49	58	28	28	7	11	51	99	71
Seychelles	3	3	4	99	–	–	–	–	–	–	–	–	–	70
Sierra Leone	443	344	587	87	0.50	28	26	27	26	20	24	58	65	39
Singapore	7	5	11	100	0.01	40	69	36	61	6	10	78	46	86

Sexual and reproductive health

Countries, territories, other areas	Maternal mortality ratio (MMR) (deaths per 100,000 live births)	Range of MMR uncertainty (UI 80%), lower estimate	Range of MMR uncertainty (UI 80%), upper estimate	Births attended by skilled health personnel, per cent	Number of new HIV infections, all ages, per 1,000 uninfected population	Contraceptive prevalence rate, women aged 15–49, per cent				Unmet need for family planning, women aged 15–49, per cent		Proportion of demand satisfied with modern methods, all women aged 15–49	Laws and regulations that guarantee access to sexual and reproductive health care, information and education, per cent	Universal health coverage (UHC) service coverage index
						Any method		Modern method						
						All	Married or in union	All	Married or in union	All	Married or in union			
	2020	2020	2020	2004–2020	2021	2023		2023		2023		2023	2022	2019
Sint Maarten (Dutch part)	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Slovakia	5	3	6	98	0.02	55	79	47	66	5	6	79	86	77
Slovenia	5	3	7	100	0.00	52	79	44	67	4	5	79	–	80
Solomon Islands	122	75	197	86	–	24	32	20	27	13	18	54	–	50
Somalia	621	283	1184	32	–	7	10	2	2	17	26	8	–	27
South Africa	127	99	154	97	4.19	51	58	51	58	11	14	82	95	68
South Sudan	1223	746	2009	19	1.27	7	8	6	8	21	29	22	16	32
Spain	3	3	4	100	0.08	62	64	60	62	7	13	87	–	86
Sri Lanka	29	24	38	100	0.01	45	68	37	56	5	7	74	86	67
State of Palestine[1]	20	15	26	100	–	40	62	30	46	7	11	64	68	–
Sudan	270	174	420	78	0.07	11	17	10	16	17	27	36	57	44
Suriname	96	70	128	98	0.71	34	48	34	48	15	22	70	–	67
Sweden	5	3	6	–	–	59	70	56	68	6	8	87	100	87
Switzerland	7	5	11	–	–	73	73	68	68	4	7	89	94	87
Syrian Arab Republic	30	19	47	96	–	34	62	25	46	7	12	62	81	56
Tajikistan	17	9	31	95	0.10	24	33	22	31	16	22	56	–	66
Thailand	29	24	34	99	0.09	49	77	48	75	4	6	90	–	83
Timor-Leste	204	147	283	57	0.10	19	33	18	30	13	23	54	–	53
Togo	399	253	576	69	0.38	25	28	23	25	23	30	48	–	44
Tonga	126	55	289	98	–	20	33	17	29	14	25	49	–	56
Trinidad and Tobago	27	19	36	100	–	41	49	36	45	14	19	66	27	73
Tunisia	37	24	49	100	0.04	33	60	29	51	8	12	70	–	70
Türkiye	17	13	23	97	–	48	71	33	50	6	9	62	78	79
Turkmenistan	5	3	9	100	–	36	53	33	50	8	12	77	94	73
Turks and Caicos Islands	–	–	–	–	–	37	39	35	38	19	23	63	–	–
Tuvalu	–	–	–	93	–	20	27	18	24	20	28	45	–	–
Uganda	284	191	471	74	1.30	38	50	33	44	16	21	62	–	50
Ukraine	17	13	22	100	0.15	54	68	45	55	7	9	74	95	73
United Arab Emirates	9	5	17	99	–	38	52	31	42	12	16	61	–	78
United Kingdom of Great Britain and Northern Ireland	10	8	12	–	–	72	76	65	69	4	6	86	96	88
United Republic of Tanzania	238	174	381	64	0.96	38	46	33	41	15	19	63	–	46
United States of America	21	16	27	99	–	61	76	54	67	5	6	81	–	83
United States Virgin Islands	–	–	–	–	–	44	75	41	70	8	8	79	–	–
Uruguay	19	15	23	100	0.27	59	79	57	77	6	7	87	97	79
Uzbekistan	30	23	40	100	0.11	49	70	46	66	6	8	84	92	71
Vanuatu	94	43	211	89	–	38	49	33	41	15	19	61	–	52
Venezuela (Bolivarian Republic of)	259	191	381	99	–	56	76	52	72	8	10	82	–	70
Viet Nam	124	81	190	94	0.06	58	79	48	66	4	5	78	54	70
Western Sahara	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Yemen	183	120	271	45	0.04	28	45	21	33	14	23	50	65	44
Zambia	135	100	201	80	2.17	38	54	36	51	15	18	69	91	55
Zimbabwe	357	255	456	86	1.51	51	69	50	69	8	9	86	73	55

NOTES

– Data not available.
1 On 29 November 2012, the United Nations General Assembly passed Resolution 67/19, which accorded Palestine "non-member observer State status in the United Nations..."

DEFINITIONS OF THE INDICATORS

Maternal mortality ratio: Number of maternal deaths during a given time period per 100,000 live births during the same time period (SDG indicator 3.1.1).

Births attended by skilled health personnel: Percentage of births attended by skilled health personnel (doctor, nurse or midwife) (SDG indicator 3.1.2).

Number of new HIV infections, all ages, per 1,000 uninfected population: Number of new HIV infections per 1,000 person-years among the uninfected population (SDG indicator 3.3.1).

Contraceptive prevalence rate: Percentage of women aged 15 to 49 years who are currently using any method of contraception.

Contraceptive prevalence rate, modern method: Percentage of women aged 15 to 49 years who are currently using any modern method of contraception.

Unmet need for family planning: Percentage of women aged 15 to 49 years who want to stop or delay childbearing but are not using a method of contraception.

Proportion of demand satisfied with modern methods: Percentage of total demand for family planning among women aged 15 to 49 years that is satisfied by the use of modern contraception (SDG indicator 3.7.1).

Laws and regulations that guarantee access to sexual and reproductive health care, information and education: The extent to which countries have national laws and regulations that guarantee full and equal access to women and men aged 15 years and older to sexual and reproductive health care, information and education (SDG indicator 5.6.2).

Universal health coverage (UHC) service coverage index: Average coverage of essential services based on tracer interventions that include reproductive, maternal, newborn and child health, infectious diseases, non-communicable diseases and service capacity and access, among the general and the most disadvantaged population (SDG indicator 3.8.1).

MAIN DATA SOURCES

Maternal mortality ratio: United Nations Maternal Mortality Estimation Inter-agency Group (WHO, UNICEF, UNFPA, The World Bank and the United Nations Population Division), 2023.

Births attended by skilled health personnel: Joint global database on skilled attendance at birth, 2021, United Nations Children's Fund (UNICEF) and World Health Organization (WHO). Regional aggregates calculated by UNFPA based on data from the joint global database.

Number of new HIV infections, all ages, per 1,000 uninfected population: UNAIDS 2021 HIV Estimates.

Contraceptive prevalence rate: United Nations Population Division, 2022.

Contraceptive prevalence rate, modern method: United Nations Population Division, 2022.

Unmet need for family planning: United Nations Population Division, 2022.

Proportion of demand satisfied with modern methods: United Nations Population Division, 2022.

Laws and regulations that guarantee access to sexual and reproductive health care, information and education: UNFPA, 2022.

Universal health coverage (UHC) service coverage index: WHO, 2021.

Gender, rights and human capital

World and regional areas	Adolescent birth rate per 1,000 girls aged 15–19	Child marriage by age 18, per cent	Female genital mutilation prevalence among women aged 15–49, per cent	Intimate partner violence, past 12 months, per cent	Decision-making on sexual and reproductive health and reproductive rights, per cent	Decision-making on women's own health care, per cent	Decision-making on contraceptive use, per cent	Decision-making on sexual intercourse, per cent	Total net enrolment rate, lower secondary education, per cent	Gender parity index, total net enrolment rate, lower secondary education	Total net enrolment rate, upper secondary education, per cent	Gender parity index, total net enrolment rate, upper secondary education
	2023	2006–2022	2004–2021	2018	2007–2022	2007–2022	2007–2022	2007–2022	2020	2020	2020	2020
World	**41**	**21**	**–**	**13**	**56**	**75**	**89**	**76**	**85**	**1.00**	**67**	**1.01**
More developed regions	11	4	–	–	82	97	95	87	99	1.00	95	1.01
Less developed regions	45	22	–	–	55	74	89	76	83	1.00	63	1.01
Least developed countries	91	38	–	22	46	67	88	70	–	–	44	0.90
UNFPA regions												
Arab States	43	21	64	15	58	92	91	67	82	0.95	60	0.92
Asia and the Pacific	25	18	–	13	62	79	91	81	87	1.02	66	1.06
Eastern Europe and Central Asia	19	10	–	9	70	89	91	81	98	1.00	84	0.99
Latin America and the Caribbean	52	23	–	8	72	86	91	90	94	1.02	79	1.03
East and Southern Africa	94	31	35	24	47	75	88	68	–	–	–	–
West and Central Africa	103	35	25	15	26	44	81	55	61	0.97	41	0.87
Countries, territories, other areas	2000–2021	2006–2022	2004–2021	2018	2007–2022	2007–2022	2007–2022	2007–2022	2010–2022	2010–2022	2010–2022	2010–2022
Afghanistan	62	28	–	35	–	–	–	–	–	–	44	0.56
Albania	13	12	–	6	62	92	83	77	98	–	84	1.10
Algeria	12	4	–	–	–	–	–	–	–	–	–	–
Angola	163	30	–	25	39	75	74	62	76	0.76	18	0.71
Antigua and Barbuda	33	–	–	–	–	–	–	–	97	0.98	87	0.98
Argentina	42	15	–	5	–	–	–	–	98	0.99	91	1.09
Armenia	14	5	–	5	62	96	83	75	91	1.02	95	–
Aruba	13	–	–	–	–	–	–	–	–	–	–	–
Australia	8	–	–	3	–	–	–	–	98	1.00	93	1.04
Austria	5	–	–	4	–	–	–	–	99	1.01	91	1.02
Azerbaijan	42	11	–	5	–	–	–	–	99	1.00	100	1.01
Bahamas	26	–	–	–	–	–	–	–	78	1.02	73	1.07
Bahrain	9	–	–	–	–	–	–	–	96	1.07	87	1.14
Bangladesh	74	51	–	23	64	77	94	86	90	–	64	1.25
Barbados	48	29	–	–	–	–	–	–	96	1.00	94	1.04
Belarus	12	5	–	6	–	–	–	–	100	–	93	1.03
Belgium	5	0	–	5	–	–	–	–	99	–	98	1.00
Belize	51	34	–	8	–	–	–	–	96	0.98	74	1.08
Benin	108	31	9	15	25	47	81	57	58	0.89	34	0.76
Bhutan	8	26	–	9	–	–	–	–	87	1.13	80	1.15
Bolivia (Plurinational State of)	71	20	–	18	–	–	–	–	88	1.00	78	1.01
Bosnia and Herzegovina	10	3	–	3	–	–	–	–	–	–	81	1.04
Botswana	50	–	–	17	–	–	–	–	90	1.01	72	1.06
Brazil	43	26	–	7	–	–	–	–	97	1.02	87	1.00
Brunei Darussalam	8	–	–	–	–	–	–	–	100	–	70	1.06
Bulgaria	38	–	–	6	–	–	–	–	83	0.99	82	0.95
Burkina Faso	127	51	68	11	20	32	91	62	52	1.12	32	1.12
Burundi	58	19	–	22	40	72	88	60	70	1.10	38	1.16
Cabo Verde	40	8	–	11	–	–	–	–	87	0.98	73	1.08
Cambodia	57	19	–	9	76	91	89	93	82	1.08	56	1.11
Cameroon	122	30	1	22	35	55	74	67	51	0.90	35	0.86

Gender, rights and human capital

Countries, territories, other areas	Adolescent birth rate per 1,000 girls aged 15–19	Child marriage by age 18, per cent	Female genital mutilation prevalence among women aged 15–49, per cent	Intimate partner violence, past 12 months, per cent	Decision-making on sexual and reproductive health and reproductive rights, per cent	Decision-making on women's own health care, per cent	Decision-making on contraceptive use, per cent	Decision-making on sexual intercourse, per cent	Total net enrolment rate, lower secondary education, per cent	Gender parity index, total net enrolment rate, lower secondary education	Total net enrolment rate, upper secondary education, per cent	Gender parity index, total net enrolment rate, upper secondary education
	2000–2021	2006–2022	2004–2021	2018	2007–2022	2007–2022	2007–2022	2007–2022	2010–2022	2010–2022	2010–2022	2010–2022
Canada	6	–	–	3	–	–	–	–	100	–	90	0.99
Central African Republic	184	61	22	21	–	–	–	–	48	0.68	19	0.59
Chad	139	61	34	16	27	47	81	63	42	0.71	24	0.55
Chile	19	–	–	6	–	–	–	–	98	0.99	95	0.99
China	6	3	–	8	–	–	–	–	–	–	–	–
China, Hong Kong Special Administrative Region	1	–	–	3	–	–	–	–	99	–	99	–
China, Macao Special Administrative Region	1	–	–	–	–	–	–	–	100	–	95	1.03
Colombia	53	23	–	12	–	–	–	–	99	1.01	83	1.03
Comoros	38	32	–	8	21	47	71	47	81	1.02	50	1.07
Congo	72	27	–	–	27	41	87	71	71	0.94	59	0.91
Costa Rica	27	17	–	7	–	–	–	–	96	1.01	92	1.03
Côte d'Ivoire	119	27	37	16	25	43	82	67	62	0.91	43	0.80
Croatia	8	–	–	4	–	–	–	–	99	–	89	1.05
Cuba	48	29	–	5	–	–	–	–	90	1.00	80	1.06
Curaçao	18	–	–	–	–	–	–	–	85	1.01	77	1.08
Cyprus	8	–	–	3	–	–	–	–	99	–	93	0.99
Czechia	9	–	–	4	–	–	–	–	100	–	95	1.00
Democratic People's Republic of Korea	1	0	–	–	–	–	–	–	–	–	–	–
Democratic Republic of the Congo	109	29	–	36	31	47	85	74	–	–	–	–
Denmark	1	1	–	3	–	–	–	–	100	–	92	1.00
Djibouti	21	6	94	–	–	–	–	–	60	1.02	47	0.99
Dominica	50	–	–	–	–	–	–	–	99	–	87	0.88
Dominican Republic	42	31	–	10	77	88	92	93	84	1.02	68	1.09
Ecuador	58	22	–	8	87	100	92	95	98	–	79	1.03
Egypt	47	17	87	15	–	–	–	–	98	1.02	77	0.98
El Salvador	50	20	–	6	–	–	–	–	–	–	59	1.02
Equatorial Guinea	176	30	–	29	–	–	–	–	–	–	–	–
Eritrea	76	41	83	–	–	–	–	–	61	0.88	52	0.88
Estonia	8	–	–	4	–	–	–	–	99	0.99	96	1.03
Eswatini	87	5	–	18	49	72	89	74	97	1.00	84	0.96
Ethiopia	73	40	65	27	38	82	90	46	53	0.92	26	0.91
Fiji	31	4	–	23	62	86	84	77	99	–	77	1.18
Finland	4	0	–	8	–	–	–	–	100	–	97	1.00
France	6	–	–	5	–	–	–	–	100	–	97	1.00
French Guiana	65	–	–	–	–	–	–	–	–	–	–	–
French Polynesia	23	–	–	–	–	–	–	–	–	–	–	–
Gabon	114	22	–	22	48	60	90	86	70	1.04	58	1.06
Gambia	65	23	73	10	19	49	87	45	87	1.17	58	1.22
Georgia	27	14	–	3	82	95	98	88	99	–	96	1.02
Germany	7	–	–	–	–	–	–	–	96	1.03	83	1.00
Ghana	78	19	2	10	52	82	90	72	92	1.04	75	1.00
Greece	9	–	–	5	–	–	–	–	97	0.99	95	0.98

Gender, rights and human capital

Countries, territories, other areas	Adolescent birth rate per 1,000 girls aged 15–19	Child marriage by age 18, per cent	Female genital mutilation prevalence among women aged 15–49, per cent	Intimate partner violence, past 12 months, per cent	Decision-making on sexual and reproductive health and reproductive rights, per cent	Decision-making on women's own health care, per cent	Decision-making on contraceptive use, per cent	Decision-making on sexual intercourse, per cent	Total net enrolment rate, lower secondary education, per cent	Gender parity index, total net enrolment rate, lower secondary education	Total net enrolment rate, upper secondary education, per cent	Gender parity index, total net enrolment rate, upper secondary education
	2000–2021	2006–2022	2004–2021	2018	2007–2022	2007–2022	2007–2022	2007–2022	2010–2022	2010–2022	2010–2022	2010–2022
Grenada	36	–	–	8	–	–	–	–	90	–	100	–
Guadeloupe	14	–	–	–	–	–	–	–	–	–	–	–
Guam	34	–	–	–	–	–	–	–	–	–	–	–
Guatemala	59	29	–	7	65	77	91	89	65	0.95	34	0.98
Guinea	120	47	95	21	15	41	76	40	46	0.74	24	0.63
Guinea-Bissau	84	26	52	–	–	–	–	–	–	–	–	–
Guyana	65	30	–	11	71	92	90	83	93	1.02	70	1.11
Haiti	55	15	–	12	57	76	93	79	–	–	–	–
Honduras	97	34	–	7	70	84	88	94	66	1.04	47	1.16
Hungary	21	–	–	6	–	–	–	–	98	0.99	88	1.01
Iceland	3	–	–	3	–	–	–	–	99	–	85	1.01
India	11	23	–	18	66	82	92	83	86	1.03	59	1.01
Indonesia	36	16	–	9	–	–	–	–	84	1.07	77	1.01
Iran (Islamic Republic of)	24	17	–	18	–	–	–	–	98	0.98	83	0.99
Iraq	70	28	7	–	–	–	–	–	–	–	–	–
Ireland	5	–	–	3	–	–	–	–	99	–	99	1.02
Israel	7	–	–	6	–	–	–	–	100	–	98	–
Italy	3	–	–	4	–	–	–	–	98	1.00	94	1.01
Jamaica	36	8	–	7	–	–	–	–	–	–	77	1.03
Japan	3	–	–	4	–	–	–	–	98	1.00	99	1.02
Jordan	27	10	–	14	58	92	91	67	76	1.00	63	1.06
Kazakhstan	23	7	–	6	–	–	–	–	100	–	99	–
Kenya	73	23	21	23	56	81	89	77	–	–	–	–
Kiribati	51	18	–	25	–	–	–	–	–	–	–	–
Kuwait	5	–	–	–	–	–	–	–	94	1.05	82	1.03
Kyrgyzstan	33	13	–	13	77	94	95	85	100	1.00	79	1.08
Lao People's Democratic Republic	83	33	–	8	–	–	–	–	68	1.01	50	0.92
Latvia	10	–	–	6	–	–	–	–	98	1.01	95	1.02
Lebanon	17	6	–	–	–	–	–	–	–	–	–	–
Lesotho	85	16	–	17	61	90	93	71	85	1.08	55	1.14
Liberia	128	25	32	27	59	79	84	82	64	1.04	63	1.04
Libya	11	–	–	–	–	–	–	–	–	–	–	–
Lithuania	8	0	–	5	–	–	–	–	100	–	98	1.02
Luxembourg	4	–	–	4	–	–	–	–	99	–	82	1.04
Madagascar	143	39	–	–	72	87	93	88	70	1.03	36	0.97
Malawi	136	38	–	17	45	68	91	69	81	1.01	31	0.64
Malaysia	8	–	–	–	–	–	–	–	89	1.04	61	1.09
Maldives	5	2	13	6	54	89	84	70	96	–	70	0.88
Mali	164	54	89	18	5	20	66	26	47	0.86	25	0.74
Malta	11	–	–	4	–	–	–	–	98	–	95	1.03
Martinique	13	–	–	–	–	–	–	–	–	–	–	–
Mauritania	90	37	64	–	25	63	79	44	72	1.08	39	1.12
Mauritius	21	–	–	–	–	–	–	–	97	1.03	78	1.12
Mexico	51	21	–	10	–	–	–	–	92	1.03	72	1.07

Gender, rights and human capital

Countries, territories, other areas	Adolescent birth rate per 1,000 girls aged 15–19	Child marriage by age 18, per cent	Female genital mutilation prevalence among women aged 15–49, per cent	Intimate partner violence, past 12 months, per cent	Decision-making on sexual and reproductive health and reproductive rights, per cent	Decision-making on women's own health care, per cent	Decision-making on contraceptive use, per cent	Decision-making on sexual intercourse, per cent	Total net enrolment rate, lower secondary education, per cent	Gender parity index, total net enrolment rate, lower secondary education	Total net enrolment rate, upper secondary education, per cent	Gender parity index, total net enrolment rate, upper secondary education
	2000–2021	2006–2022	2004–2021	2018	2007–2022	2007–2022	2007–2022	2007–2022	2010–2022	2010–2022	2010–2022	2010–2022
Micronesia (Federated States of)	33	–	–	21	–	–	–	–	79	1.01	70	1.14
Mongolia	27	12	–	12	63	85	84	80	100	–	89	1.06
Montenegro	9	6	–	4	–	–	–	–	97	1.00	87	1.03
Morocco	22	14	–	11	–	–	–	–	94	0.97	75	1.00
Mozambique	180	53	–	16	49	77	85	67	62	0.91	39	0.79
Myanmar	25	16	–	11	67	85	98	81	79	1.03	57	1.16
Namibia	64	7	–	16	71	91	83	93	99	–	84	0.94
Nepal	63	33	–	11	48	59	86	90	93	0.94	78	0.97
Netherlands (Kingdom of the)	2	–	–	5	–	–	–	–	98	1.01	96	1.02
New Caledonia	17	–	–	–	–	–	–	–	–	–	–	–
New Zealand	10	–	–	4	–	–	–	–	100	–	99	1.01
Nicaragua	104	35	–	6	–	–	–	–	88	1.03	64	1.08
Niger	132	76	2	13	7	21	77	35	28	0.88	13	0.78
Nigeria	75	30	15	13	29	46	81	56	–	–	–	–
North Macedonia	16	8	–	4	88	99	99	90	–	–	–	–
Norway	2	0	–	4	–	–	–	–	100	–	92	1.00
Oman	7	4	–	–	–	–	–	–	96	1.04	90	–
Pakistan	54	18	–	16	31	52	85	55	–	–	–	–
Panama	62	26	–	8	79	94	89	95	88	1.01	56	1.08
Papua New Guinea	68	27	–	31	57	86	84	76	72	0.90	45	0.80
Paraguay	52	22	–	6	–	–	–	–	90	0.90	70	1.05
Peru	34	14	–	11	–	–	–	–	97	–	96	–
Philippines	35	17	–	6	80	96	94	87	88	1.05	78	1.13
Poland	8	–	–	3	–	–	–	–	98	1.00	98	0.99
Portugal	6	–	–	4	–	–	–	–	100	–	99	–
Puerto Rico	16	–	–	–	–	–	–	–	90	1.07	76	1.05
Qatar	8	4	–	–	–	–	–	–	90	1.00	91	0.97
Republic of Korea	1	–	–	8	–	–	–	–	98	1.00	91	1.00
Republic of Moldova	25	12	–	9	73	96	96	79	99	–	89	1.02
Réunion	21	–	–	–	–	–	–	–	–	–	–	–
Romania	35	–	–	7	–	–	–	–	89	0.99	79	1.03
Russian Federation	16	6	–	–	–	–	–	–	100	–	98	1.01
Rwanda	31	7	–	24	61	83	95	76	97	–	61	1.06
Saint Kitts and Nevis	–	–	–	–	–	–	–	–	99	–	89	0.96
Saint Lucia	38	24	–	–	–	–	–	–	91	0.99	84	0.95
Saint Vincent and the Grenadines	55	–	–	–	–	–	–	–	96	1.05	84	1.01
Samoa	55	7	–	18	–	–	–	–	98	–	84	1.12
San Marino	1	–	–	–	–	–	–	–	92	1.08	39	0.72
Sao Tome and Principe	86	28	–	18	46	69	78	79	90	1.06	83	1.03
Saudi Arabia	8	–	–	–	–	–	–	–	99	0.98	99	1.00
Senegal	71	31	25	12	6	27	81	18	59	1.06	36	0.93
Serbia	14	6	–	4	96	100	98	98	97	1.00	86	1.05
Seychelles	61	–	–	–	–	–	–	–	96	–	88	1.09
Sierra Leone	102	30	83	20	28	44	78	68	51	0.99	35	0.93

Gender, rights and human capital

Countries, territories, other areas	Adolescent birth rate per 1,000 girls aged 15–19	Child marriage by age 18, per cent	Female genital mutilation prevalence among women aged 15–49, per cent	Intimate partner violence, past 12 months, per cent	Decision-making on sexual and reproductive health and reproductive rights, per cent	Decision-making on women's own health care, per cent	Decision-making on contraceptive use, per cent	Decision-making on sexual intercourse, per cent	Total net enrolment rate, lower secondary education, per cent	Gender parity index, total net enrolment rate, lower secondary education	Total net enrolment rate, upper secondary education, per cent	Gender parity index, total net enrolment rate, upper secondary education
	2000–2021	2006–2022	2004–2021	2018	2007–2022	2007–2022	2007–2022	2007–2022	2010–2022	2010–2022	2010–2022	2010–2022
Singapore	2	0	–	2	–	–	–	–	99	1.00	99	0.99
Sint Maarten (Dutch part)	–	–	–	–	–	–	–	–	88	1.06	78	0.95
Slovakia	27	–	–	6	–	–	–	–	96	1.00	89	1.00
Slovenia	4	–	–	3	–	–	–	–	99	1.00	99	1.01
Solomon Islands	78	21	–	28	–	–	–	–	–	–	60	0.98
Somalia	116	45	99	–	–	–	–	–	–	–	–	–
South Africa	41	4	–	13	61	94	85	72	89	1.02	82	1.03
South Sudan	158	52	–	27	–	–	–	–	44	0.72	36	0.65
Spain	5	–	–	3	–	–	–	–	100	–	99	–
Sri Lanka	17	10	–	4	–	–	–	–	100	1.00	84	1.06
State of Palestine[1]	43	13	–	19	–	–	–	–	97	1.04	79	1.20
Sudan	87	34	87	17	–	–	–	–	66	0.97	48	1.08
Suriname	49	36	–	8	–	–	–	–	85	1.09	62	1.15
Sweden	2	–	–	6	–	–	–	–	100	–	99	–
Switzerland	1	–	–	2	–	–	–	–	100	–	81	0.97
Syrian Arab Republic	54	13	–	–	–	–	–	–	62	0.97	34	1.00
Tajikistan	42	9	–	14	27	47	79	54	94	0.94	61	0.74
Thailand	27	20	–	9	–	–	–	–	93	1.12	68	1.17
Timor-Leste	42	15	–	28	36	93	92	40	89	1.05	75	1.06
Togo	79	25	3	13	30	47	84	75	82	0.93	46	0.76
Tonga	21	10	–	17	–	–	–	–	89	1.15	59	1.33
Trinidad and Tobago	36	11	–	8	–	–	–	–	–	–	74	1.02
Tunisia	4	1	–	10	–	–	–	–	–	–	–	–
Türkiye	15	15	–	12	–	–	–	–	98	0.99	82	0.98
Turkmenistan	27	6	–	–	59	85	90	70	–	–	–	–
Turks and Caicos Islands	16	23	–	–	–	–	–	–	89	0.91	66	1.01
Tuvalu	40	2	–	20	–	–	–	–	76	1.00	43	1.34
Uganda	128	34	0	26	58	74	88	86	51	0.99	25	0.81
Ukraine	14	9	–	9	81	98	95	86	96	1.01	94	1.03
United Arab Emirates	5	–	–	–	–	–	–	–	99	–	98	1.01
United Kingdom of Great Britain and Northern Ireland	10	0	–	4	–	–	–	–	100	–	97	1.01
United Republic of Tanzania	139	31	10	24	47	66	89	76	28	1.05	14	0.76
United States of America	15	–	–	6	–	–	–	–	100	–	97	1.00
United States Virgin Islands	25	–	–	–	–	–	–	–	–	–	–	–
Uruguay	29	25	–	4	–	–	–	–	99	–	88	1.06
Uzbekistan	34	3	–	–	70	89	90	85	99	–	86	0.99
Vanuatu	81	21	–	29	–	–	–	–	75	1.04	44	1.14
Venezuela (Bolivarian Republic of)	81	–	–	9	–	–	–	–	86	1.02	77	1.12
Viet Nam	29	15	–	10	–	–	–	–	–	–	–	–
Western Sahara	29	–	–	–	–	–	–	–	–	–	–	–
Yemen	67	32	19	–	–	–	–	–	72	0.85	44	0.59
Zambia	135	29	–	28	47	81	87	64	–	–	–	–
Zimbabwe	108	34	–	18	60	87	93	72	78	–	39	–

NOTES

– Data not available.

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

DEFINITIONS OF THE INDICATORS

Adolescent birth rate: Number of births per 1,000 adolescent girls aged 15 to 19 (SDG indicator 3.7.2).

Child marriage by age 18: Proportion of women aged 20 to 24 years who were married or in a union before age 18 (SDG indicator 5.3.1).

Female genital mutilation prevalence among girls aged 15-49: Proportion of women and girls aged 15 to 49 years who have undergone female genital mutilation (SDG indicator 5.3.2).

Intimate partner violence, past 12 months: Percentage of ever-partnered women and girls aged 15 to 49 who have experienced physical and/or sexual partner violence in the previous 12 months (SDG indicator 5.2.1).

Decision-making on sexual and reproductive health and reproductive rights: Percentage of women aged 15 to 49 years who are married (or in a union), who make their own decisions on three areas — their health care, use of contraception, and sexual intercourse with their partners (SDG indicator 5.6.1).

Decision-making on women's own health care: Percentage of women aged 15 to 49 years who are married (or in a union), who make their own decisions on their health care (SDG indicator 5.6.1).

Decision-making on contraceptive use: Percentage of women aged 15 to 49 years who are married (or in a union), who make their own decisions on use of contraception (SDG indicator 5.6.1).

Decision-making on sexual intercourse: Percentage of women aged 15 to 49 years who are married (or in a union), who make their own decisions on sexual intercourse with their partners (SDG indicator 5.6.1).

Total net enrolment rate, lower secondary education: Total number of students of the official age group for lower secondary education who are enrolled in any level of education, expressed as a percentage of the corresponding population.

Gender parity index, total net enrolment rate, lower secondary education: Ratio of female to male values of total net enrolment rate for lower secondary education.

Total net enrolment rate, upper secondary education: Total number of students of the official age group for upper secondary education who are enrolled in any level of education, expressed as a percentage of the corresponding population.

Gender parity index, total net enrolment rate, upper secondary education: Ratio of female to male values of total net enrolment rate for upper secondary education.

MAIN DATA SOURCES

Adolescent birth rate: United Nations Population Division, 2023. Regional aggregates are from World Population Prospects: The 2022 revision. United Nations Population Division, 2022.

Child marriage by age 18: UNICEF, 2023. Regional aggregates calculated by UNFPA based on data from UNICEF.

Female genital mutilation prevalence among women and girls aged 15–49: UNICEF, 2023. Regional aggregates calculated by UNFPA based on data from UNICEF.

Intimate partner violence, past 12 months: Violence Against Women Inter-Agency Group on Estimation and Data (WHO, UN Women, UNICEF, United Nations Statistics Division, United Nations Office on Drugs and Crime, and UNFPA), 2021.

Decision-making on sexual and reproductive health and reproductive rights: UNFPA, 2023.

Decision-making on women's own health care: UNFPA, 2023.

Decision-making on contraceptive use: UNFPA, 2023.

Decision-making on sexual intercourse: UNFPA, 2023.

Total net enrolment rate, lower secondary education: UNESCO Institute for Statistics, 2023.

Gender parity index, total net enrolment rate, lower secondary education: UNESCO Institute for Statistics, 2023.

Total net enrolment rate, upper secondary education: UNESCO Institute for Statistics, 2023.

Gender parity index, total net enrolment rate, upper secondary education: UNESCO Institute for Statistics, 2023.

Demographic indicators

	POPULATION	POPULATION CHANGE	POPULATION COMPOSITION					FERTILITY	LIFE EXPECTANCY	
	Total population, millions	Population annual doubling time, years	Population aged 0–14, per cent	Population aged 10–19, per cent	Population aged 10–24, per cent	Population aged 15–64, per cent	Population aged 65 and older, per cent	Total fertility rate, per woman	Life expectancy at birth, years, 2023	
World and regional areas	2023	2023	2023	2023	2023	2023	2023	2023	male	female
World	**8,045**	**76**	**25**	**16**	**24**	**65**	**10**	**2.3**	**71**	**76**
More developed regions	1,276	–	16	11	17	64	20	1.5	77	83
Less developed regions	6,769	65	27	17	25	65	8	2.4	70	74
Least developed countries	1,151	30	38	22	31	58	4	3.9	63	68
UNFPA regions										
Arab States	468	38	33	19	28	63	5	3.1	69	74
Asia and the Pacific	4,176	104	23	16	23	68	10	1.9	72	77
Eastern Europe and Central Asia	248	64	24	15	21	66	11	2.1	71	78
Latin America and the Caribbean	661	92	23	16	24	68	9	1.8	73	79
East and Southern Africa	671	28	41	23	32	56	3	4.2	61	66
West and Central Africa	503	28	43	23	33	55	3	4.8	57	59
Countries, territories, other areas	2023	2023	2023	2023	2023	2023	2023	2023	male	female
Afghanistan	42.2	26	43	24	34	55	2	4.4	61	67
Albania	2.8	-	16	12	19	67	17	1.4	76	81
Algeria	45.6	46	30	17	23	63	7	2.8	76	79
Angola	36.7	23	45	23	32	53	3	5.1	61	66
Antigua and Barbuda	0.1	126	18	13	21	71	11	1.6	77	82
Argentina	45.8	111	23	16	23	65	12	1.9	75	81
Armenia	2.8	-	20	13	18	66	14	1.6	71	80
Aruba[1]	0.1	-	16	13	19	67	17	1.2	74	80
Australia[2]	26.4	70	18	12	18	65	17	1.6	82	86
Austria	9.0	-	14	10	15	65	20	1.5	80	85
Azerbaijan[3]	10.4	138	23	16	22	69	8	1.7	71	76
Bahamas	0.4	110	18	15	23	72	9	1.4	71	78
Bahrain	1.5	77	20	13	18	76	4	1.8	80	82
Bangladesh	173.0	68	26	18	28	68	6	1.9	72	76
Barbados	0.3	-	17	12	19	67	17	1.6	76	80
Belarus	9.5	-	17	11	16	66	18	1.5	70	80
Belgium	11.7	-	16	12	17	64	20	1.6	80	85
Belize	0.4	49	27	18	28	67	5	2.0	72	78
Benin	13.7	26	42	23	31	55	3	4.8	59	62
Bhutan	0.8	110	22	17	26	72	6	1.4	71	74
Bolivia (Plurinational State of)	12.4	48	30	20	29	65	5	2.5	66	71
Bosnia and Herzegovina	3.2	-	15	10	16	67	19	1.3	74	78
Botswana	2.7	42	32	20	28	64	4	2.7	63	69
Brazil	216.4	121	20	14	22	70	10	1.6	73	79
Brunei Darussalam	0.5	92	22	15	22	72	7	1.7	72	77
Bulgaria	6.7	-	14	10	14	64	22	1.6	70	76
Burkina Faso	23.3	28	43	24	33	54	3	4.6	59	62
Burundi	13.2	26	45	25	34	52	2	4.9	61	64
Cabo Verde	0.6	72	26	18	27	69	6	1.9	73	81
Cambodia	16.9	65	29	19	26	65	6	2.3	69	74
Cameroon	28.6	27	42	23	32	55	3	4.3	60	63

Demographic indicators

	POPULATION	POPULATION CHANGE	POPULATION COMPOSITION					FERTILITY	LIFE EXPECTANCY	
	Total population, millions	Population annual doubling time, years	Population aged 0–14, per cent	Population aged 10–19, per cent	Population aged 10–24, per cent	Population aged 15–64, per cent	Population aged 65 and older, per cent	Total fertility rate, per woman	Life expectancy at birth, years, 2023	
Countries, territories, other areas	2023	2023	2023	2023	2023	2023	2023	2023	male	female
Canada	38.8	82	15	11	17	65	20	1.5	81	85
Central African Republic	5.7	24	48	27	37	50	3	5.8	53	58
Chad	18.3	23	47	24	33	51	2	6.1	52	55
Chile	19.6	-	18	12	19	68	13	1.5	79	83
China[4]	1,425.7	-	17	12	18	69	14	1.2	76	82
China, Hong Kong Special Administrative Region[5]	7.5	-	12	8	12	67	21	0.8	83	89
China, Macao Special Administrative Region[6]	0.7	54	15	8	13	71	14	1.1	83	88
Colombia	52.1	-	21	15	23	70	9	1.7	75	80
Comoros	0.9	38	38	21	30	58	4	3.8	63	67
Congo	6.1	31	41	24	32	57	3	4.0	62	65
Costa Rica	5.2	103	20	14	22	69	11	1.5	78	83
Côte d'Ivoire	28.9	28	41	24	33	56	2	4.3	59	61
Croatia	4.0	-	14	10	15	63	23	1.4	77	82
Cuba	11.2	-	16	11	17	68	16	1.5	76	81
Curaçao[7]	0.2	-	17	13	20	68	15	1.6	73	80
Cyprus[8]	1.3	103	16	10	16	69	15	1.3	80	84
Czechia	10.5	-	16	11	15	63	21	1.7	77	83
Democratic People's Republic of Korea	26.2	-	19	12	19	69	12	1.8	71	76
Democratic Republic of the Congo	102.3	21	47	23	32	51	3	6.1	59	63
Denmark[9]	5.9	-	16	11	17	63	21	1.7	80	84
Djibouti	1.1	50	30	20	29	65	5	2.7	61	66
Dominica	0.1	-	19	14	22	71	10	1.6	71	78
Dominican Republic	11.3	77	27	18	26	65	8	2.2	71	78
Ecuador	18.2	67	25	17	26	67	8	2.0	76	81
Egypt	112.7	45	33	19	27	62	5	2.8	68	73
El Salvador	6.4	138	25	18	27	67	8	1.8	69	78
Equatorial Guinea	1.7	30	38	21	28	59	3	4.1	60	64
Eritrea	3.7	39	39	25	35	57	4	3.7	65	69
Estonia	1.3	-	16	11	16	63	21	1.7	75	83
Eswatini	1.2	85	34	22	31	62	4	2.8	54	62
Ethiopia	126.5	28	39	23	33	58	3	4.0	64	70
Fiji	0.9	98	28	18	26	66	6	2.4	67	70
Finland[10]	5.5	-	15	11	17	61	24	1.4	80	85
France[11]	64.8	-	17	12	18	61	22	1.8	80	86
French Guiana[12]	0.3	28	32	19	27	62	6	3.4	75	80
French Polynesia[13]	0.3	84	21	15	22	69	11	1.7	81	86
Gabon	2.4	35	36	20	29	60	4	3.4	64	69
Gambia	2.8	28	43	24	34	55	2	4.5	63	66
Georgia[14]	3.7	-	21	13	19	64	15	2.1	68	77
Germany	83.3	-	14	9	14	63	23	1.5	80	84
Ghana	34.1	36	37	22	31	60	4	3.5	62	67
Greece	10.3	-	14	10	16	63	23	1.4	80	84
Grenada	0.1	121	24	15	22	66	10	2.0	73	78

Demographic indicators

	POPULATION	POPULATION CHANGE	POPULATION COMPOSITION					FERTILITY	LIFE EXPECTANCY	
	Total population, millions	Population annual doubling time, years	Population aged 0–14, per cent	Population aged 10–19, per cent	Population aged 10–24, per cent	Population aged 15–64, per cent	Population aged 65 and older, per cent	Total fertility rate, per woman	Life expectancy at birth, years, 2023	
Countries, territories, other areas	2023	2023	2023	2023	2023	2023	2023	2023	male	female
Guadeloupe[15]	0.4	-	18	13	21	62	21	2.0	80	86
Guam[16]	0.2	103	26	17	25	62	12	2.5	75	82
Guatemala	18.1	49	32	21	31	63	5	2.3	67	73
Guinea	14.2	29	41	23	33	55	3	4.2	58	61
Guinea-Bissau	2.2	33	40	24	33	58	3	3.8	58	63
Guyana	0.8	95	28	18	27	65	6	2.3	66	73
Haiti	11.7	57	32	20	29	64	5	2.7	62	68
Honduras	10.6	44	30	20	30	66	4	2.3	71	76
Hungary	10.2	-	14	10	16	66	20	1.6	74	80
Iceland	0.4	109	18	13	19	66	16	1.7	82	84
India	1,428.6	75	25	18	26	68	7	2.0	71	74
Indonesia	277.5	84	25	17	25	68	7	2.1	69	73
Iran (Islamic Republic of)	89.2	94	23	14	21	69	8	1.7	74	80
Iraq	45.5	31	37	22	32	59	3	3.4	70	74
Ireland	5.1	106	19	14	20	65	15	1.8	81	85
Israel	9.2	46	28	17	24	60	12	2.9	82	85
Italy	58.9	-	12	9	14	63	24	1.3	82	86
Jamaica	2.8	-	19	15	23	73	8	1.3	70	75
Japan	123.3	-	11	9	14	58	30	1.3	82	88
Jordan	11.3	-	32	20	29	65	4	2.7	73	77
Kazakhstan	19.6	64	30	17	23	62	8	3.0	67	74
Kenya	55.1	35	37	24	33	60	3	3.2	61	66
Kiribati	0.1	41	36	20	29	60	4	3.2	66	70
Kuwait	4.3	74	20	14	18	74	5	2.1	79	83
Kyrgyzstan	6.7	45	34	19	27	61	5	2.9	67	76
Lao People's Democratic Republic	7.6	51	30	19	29	65	5	2.4	67	71
Latvia	1.8	-	15	10	15	62	22	1.6	72	80
Lebanon	5.4	-	27	19	27	62	10	2.1	74	78
Lesotho	2.3	62	34	21	30	62	4	2.9	52	58
Liberia	5.4	32	40	24	34	57	3	4.0	61	63
Libya	6.9	62	28	19	28	67	5	2.4	70	77
Lithuania	2.7	-	15	10	15	63	21	1.6	72	81
Luxembourg	0.7	65	16	11	16	69	15	1.4	81	85
Madagascar	30.3	29	39	23	32	58	3	3.7	64	69
Malawi	20.9	27	42	25	35	55	3	3.8	60	67
Malaysia[17]	34.3	65	22	15	23	70	8	1.8	74	79
Maldives	0.5	-	22	13	19	73	5	1.7	80	82
Mali	23.3	23	47	25	34	51	2	5.8	59	61
Malta	0.5	-	13	8	13	67	20	1.2	82	86
Martinique[18]	0.4	-	16	12	18	61	23	1.9	80	86
Mauritania	4.9	26	41	24	33	56	3	4.3	64	67
Mauritius[19]	1.3	-	16	13	20	71	13	1.4	73	79
Mexico	128.5	94	24	17	25	67	9	1.8	72	78
Micronesia (Federated States of)	0.1	75	30	20	30	64	6	2.6	68	75

Demographic indicators

	POPULATION	POPULATION CHANGE	POPULATION COMPOSITION					FERTILITY	LIFE EXPECTANCY	
	Total population, millions	Population annual doubling time, years	Population aged 0–14, per cent	Population aged 10–19, per cent	Population aged 10–24, per cent	Population aged 15–64, per cent	Population aged 65 and older, per cent	Total fertility rate, per woman	Life expectancy at birth, years, 2023	
Countries, territories, other areas	2023	2023	2023	2023	2023	2023	2023	2023	male	female
Mongolia	3.4	50	32	17	24	63	5	2.7	68	78
Montenegro	0.6	-	18	12	19	65	17	1.7	75	81
Morocco	37.8	70	26	17	25	66	8	2.3	73	77
Mozambique	33.9	25	43	24	33	54	3	4.5	59	65
Myanmar	54.6	96	24	16	25	69	7	2.1	64	71
Namibia	2.6	47	36	21	29	60	4	3.2	56	63
Nepal	30.9	62	29	19	30	65	6	2.0	69	73
Netherlands (Kingdom of the)[20]	17.6	-	15	11	17	64	21	1.6	81	84
New Caledonia[21]	0.3	68	22	15	22	67	11	2.0	78	85
New Zealand[22]	5.2	85	19	13	19	65	17	1.8	81	85
Nicaragua	7.0	50	29	19	28	65	5	2.3	72	78
Niger	27.2	19	49	24	33	49	2	6.7	62	64
Nigeria	223.8	29	43	23	33	54	3	5.1	54	54
North Macedonia	2.1	-	16	11	18	69	15	1.4	73	77
Norway[23]	5.5	95	16	12	18	65	19	1.5	82	85
Oman	4.6	46	27	14	20	70	3	2.5	77	81
Pakistan	240.5	35	36	22	32	60	4	3.3	65	70
Panama	4.5	51	26	17	25	65	9	2.3	76	82
Papua New Guinea	10.3	38	34	21	30	63	3	3.1	64	69
Paraguay	6.9	55	29	18	27	65	6	2.4	71	77
Peru	34.4	72	26	17	25	66	9	2.1	75	79
Philippines	117.3	46	30	19	28	64	6	2.7	70	74
Poland	41.0	-	15	10	16	67	19	1.5	75	82
Portugal	10.2	-	13	10	15	64	23	1.4	80	85
Puerto Rico[24]	3.3	-	13	11	17	63	23	1.3	76	84
Qatar	2.7	90	16	9	13	83	2	1.8	81	83
Republic of Korea	51.8	-	11	9	14	70	18	0.9	81	87
Republic of Moldova[25]	3.4	-	19	12	19	68	13	1.8	65	74
Réunion[26]	1.0	89	22	15	23	64	14	2.2	80	86
Romania	19.9	-	16	11	17	66	18	1.7	72	79
Russian Federation	144.4	-	18	12	16	66	16	1.5	70	79
Rwanda	14.1	31	38	23	32	59	3	3.7	65	69
Saint Kitts and Nevis	0.0	-	19	13	21	70	11	1.5	69	76
Saint Lucia	0.2	-	18	13	21	73	9	1.4	71	78
Saint Vincent and the Grenadines	0.1	-	22	15	22	67	11	1.8	68	73
Samoa	0.2	48	37	22	30	57	5	3.8	70	76
San Marino	0.00	-	12	10	15	67	21	1.1	82	85
Sao Tome and Principe	0.2	36	39	24	33	57	4	3.7	66	72
Saudi Arabia	36.9	48	26	16	23	71	3	2.4	77	80
Senegal	17.8	27	41	23	32	56	3	4.3	67	72
Serbia[27]	7.1	-	15	10	15	65	20	1.5	72	78
Seychelles	0.1	120	23	14	21	69	8	2.3	71	79
Sierra Leone	8.8	33	39	23	33	58	3	3.8	59	62
Singapore	6.0	108	12	8	14	72	16	1.0	82	86

Demographic indicators

	POPULATION	POPULATION CHANGE	POPULATION COMPOSITION					FERTILITY	LIFE EXPECTANCY	
	Total population, millions	Population annual doubling time, years	Population aged 0–14, per cent	Population aged 10–19, per cent	Population aged 10–24, per cent	Population aged 15–64, per cent	Population aged 65 and older, per cent	Total fertility rate, per woman	Life expectancy at birth, years, 2023	
Countries, territories, other areas	2023	2023	2023	2023	2023	2023	2023	2023	male	female
Sint Maarten (Dutch part)[28]	0.0	-	10	14	26	78	12	1.6	73	79
Slovakia	5.8	-	16	10	16	67	17	1.6	75	82
Slovenia	2.1	-	15	10	15	64	21	1.6	80	85
Solomon Islands	0.7	32	39	22	31	58	3	3.9	69	73
Somalia	18.1	23	47	24	33	50	3	6.1	55	59
South Africa	60.4	77	28	18	25	66	6	2.3	60	66
South Sudan	11.1	42	43	27	37	54	3	4.3	55	58
Spain[29]	47.5	-	13	10	16	66	21	1.3	81	87
Sri Lanka	21.9	-	22	16	24	66	12	2.0	73	80
State of Palestine[30]	5.4	30	38	22	32	58	4	3.4	72	77
Sudan	48.1	27	41	22	31	56	4	4.3	64	69
Suriname	0.6	77	26	17	26	66	8	2.3	69	76
Sweden	10.6	118	17	12	17	62	20	1.7	82	85
Switzerland	8.8	110	15	10	15	65	20	1.5	83	86
Syrian Arab Republic	23.2	14	30	25	36	66	5	2.7	69	76
Tajikistan	10.1	37	36	20	29	60	4	3.1	69	74
Thailand	71.8	-	15	11	17	69	16	1.3	76	84
Timor-Leste	1.4	49	34	23	33	61	5	3.0	68	71
Togo	9.1	30	40	23	32	57	3	4.1	61	62
Tonga	0.1	82	34	22	31	60	6	3.2	69	74
Trinidad and Tobago	1.5	-	19	13	19	69	12	1.6	71	78
Tunisia	12.5	79	25	15	21	66	9	2.0	74	80
Türkiye	85.8	132	23	15	22	68	9	1.9	76	82
Turkmenistan	6.5	54	31	18	25	64	5	2.6	66	73
Turks and Caicos Islands[31]	0.0	86	17	11	17	73	11	1.6	73	79
Tuvalu	0.0	99	32	19	27	62	7	3.1	61	70
Uganda	48.6	25	44	25	35	54	2	4.4	62	66
Ukraine[32]	36.7	19	15	11	13	64	20	1.3	68	78
United Arab Emirates	9.5	87	15	9	14	83	2	1.4	79	83
United Kingdom of Great Britain and Northern Ireland[33]	67.7	-	17	12	18	63	19	1.6	81	84
United Republic of Tanzania[34]	67.4	24	43	23	33	54	3	4.6	65	70
United States of America[35]	340.0	129	18	13	19	65	18	1.7	77	82
United States Virgin Islands[36]	0.1	-	19	13	17	60	21	2.1	71	82
Uruguay	3.4	-	19	14	21	65	16	1.5	74	82
Uzbekistan	35.2	47	30	17	24	64	5	2.8	69	74
Vanuatu	0.3	30	39	22	30	57	4	3.7	68	73
Venezuela (Bolivarian Republic of)	28.8	35	27	19	27	64	9	2.2	69	77
Viet Nam	98.9	105	22	14	21	68	10	1.9	70	79
Western Sahara	0.6	36	24	15	22	70	6	2.2	70	73
Yemen	34.4	32	39	23	32	58	3	3.6	61	68
Zambia	20.6	25	42	24	34	56	2	4.2	60	66
Zimbabwe	16.7	33	40	24	34	56	3	3.4	59	64

NOTES

1 For statistical purposes, the data for Netherlands do not include this area.

2 Including Christmas Island, Cocos (Keeling) Islands and Norfolk Island.

3 Including Nagorno-Karabakh.

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

5 As of 1 July 1997, Hong Kong became a Special Administrative Region (SAR) of China. For statistical purposes, the data for China do not include this area.

6 As of 20 December 1999, Macao became a Special Administrative Region (SAR) of China. For statistical purposes, the data for China do not include this area.

7 For statistical purposes, the data for Netherlands do not include this area.

8 Refers to the whole country.

9 For statistical purposes, the data for Denmark do not include Faroe Islands, and Greenland.

10 Including Åland Islands.

11 For statistical purposes, the data for France do not include French Guiana, French Polynesia, Guadeloupe, Martinique, Mayotte, New Caledonia, Réunion, Saint Pierre and Miquelon, Saint Barthélemy, Saint Martin (French part), Wallis and Futuna Islands.

12 For statistical purposes, the data for France do not include this area.

13 For statistical purposes, the data for France do not include this area.

14 Including Abkhazia and South Ossetia.

15 For statistical purposes, the data for France do not include this area.

16 For statistical purposes, the data for United States of America do not include this area.

17 Including Sabah and Sarawak.

18 For statistical purposes, the data for France do not include this area.

19 Including Agalega, Rodrigues and Saint Brandon.

20 For statistical purposes, the data for Netherlands do not include Aruba, Bonaire, Sint Eustatius and Saba, Curaçao, and Sint Maarten (Dutch part).

21 For statistical purposes, the data for France do not include this area.

22 For statistical purposes, the data for New Zealand do not include Cook Islands, Niue, and Tokelau.

23 Including Svalbard and Jan Mayen Islands.

24 For statistical purposes, the data for United States of America do not include this area.

25 Including Transnistria.

26 For statistical purposes, the data for France do not include this area.

27 For statistical purposes, the data for Serbia do not include Kosovo (United Nations administered region under security council resolution 1244).

28 For statistical purposes, the data for Netherlands do not include this area.

29 Including Canary Islands, Ceuta and Melilla.

30 Including East Jerusalem.

31 For statistical purposes, the data for United Kingdom do not include this area.

32 Including Crimea.

33 Refers to the United Kingdom of Great Britain and Northern Ireland. For statistical purposes, the data for United Kingdom do not include Anguilla, Bermuda, British Virgin Islands, Cayman Islands, Falkland Islands (Malvinas), Gibraltar, Guernsey, Isle of Man, Jersey, Montserrat, Saint Helena, Turks and Caicos Islands.

34 Including Zanzibar.

35 For statistical purposes, the data for United States of America do not include American Samoa, Guam, Northern Mariana Islands, Puerto Rico, and United States Virgin Islands.

36 For statistical purposes, the data for United States of America do not include this area.

DEFINITIONS OF THE INDICATORS

Total population: Estimated size of national populations at mid-year.

Population annual doubling time, years: The number of years required for the total population to double in size if the annual rate of population change remained constant. It is calculated as ln(2)/r where r is the annual population growth rate. Doubling time is computed only for fast growing populations with growth rates exceeding 0.5 per cent.

Population aged 0–14, per cent: Proportion of the population aged between 0 and 14 years.

Population aged 10–19, per cent: Proportion of the population aged between 10 and 19 years.

Population aged 10–24, per cent: Proportion of the population aged between 10 and 24 years.

Population aged 15–64, per cent: Proportion of the population aged between 15 and 64 years.

Population aged 65 and older, per cent: Proportion of the population aged 65 and older.

Total fertility rate, per woman: Number of children who would be born per woman if she lived to the end of her childbearing years and bore children at each age in accordance with prevailing age-specific fertility rates.

Life expectancy at birth, years: Number of years newborn children would live if subject to the mortality risks prevailing for the cross section of population at the time of their birth.

MAIN DATA SOURCES

Total population: World Population Prospects: The 2022 revision. United Nations Population Division, 2022.

Population annual doubling time, years: World Population Prospects: The 2022 revision. United Nations Population Division, 2022.

Population aged 0–14, per cent: UNFPA calculation based on data from World Population Prospects: The 2022 revision. United Nations Population Division, 2022.

Population aged 10–19, per cent: UNFPA calculation based on data from World Population Prospects: The 2022 revision. United Nations Population Division, 2022.

Population aged 10–24, per cent: UNFPA calculation based on data from World Population Prospects: The 2022 revision. United Nations Population Division, 2022.

Population aged 15–64, per cent: UNFPA calculation based on data from World Population Prospects: The 2022 revision. United Nations Population Division, 2022.

Population aged 65 and older, per cent: UNFPA calculation based on data from World Population Prospects: The 2022 revision. United Nations Population Division, 2022. Total fertility rate: World Population Prospects: The 2022 revision. United Nations Population Division, 2022.

Total fertility rate, per woman: World Population Prospects: The 2022 revision. United Nations Population Division, 2022.

Life expectancy at birth, years: World Population Prospects: The 2022 revision. United Nations Population Division, 2022.

Technical notes

The statistical tables in *State of World Population 2023* include indicators that track progress toward the goals of the Framework of Actions for the follow-up to the Programme of Action of the International Conference on Population and Development (ICPD) and the Sustainable Development Goals (SDGs) in the areas of maternal health, access to education, and sexual and reproductive health. In addition, these tables include a variety of demographic indicators. The statistical tables support UNFPA's focus on progress and results towards delivering a world where every pregnancy is wanted, every birth is safe, and every young person's potential is fulfilled.

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

The statistical tables draw on nationally representative household surveys such as Demographic and Health Surveys (DHS) and Multiple Indicator Cluster Surveys (MICS), United Nations organizations estimates, and inter-agency estimates. They also include the latest population estimates and projections from *World Population Prospects: The 2022 revision* and *Model-based Estimates and Projections of Family Planning Indicators 2022* (United Nations Department of Economic and Social Affairs, Population Division). Data are accompanied by definitions, sources and notes. The statistical tables in *State of World Population 2023* generally reflect information available as of February 2023.

Tracking progress towards ICPD goals

Sexual and reproductive health

Maternal mortality ratio: This indicator presents the number of maternal deaths during a given time period per 100,000 live births during the same time period. The estimates are produced by the Maternal Mortality Estimation Inter-agency Group (MMEIG) using data from vital registration systems, household surveys and population censuses. Estimates and methodologies are reviewed regularly by MMEIG and other agencies and academic institutions and are revised where necessary, as part of the ongoing process of improving maternal mortality data. Estimates should not be compared with previous inter-agency estimates.

Births attended by skilled health personnel: This is the percentage of deliveries attended by health personnel trained in providing life-saving obstetric care, including giving the necessary supervision, care and advice to women during pregnancy, labour and the post-partum period; conducting deliveries on their own; and caring for newborns. Traditional birth attendants, even if they receive a short training course, are not included.

Number of new HIV infections, all ages, per 1,000 uninfected population. Source: UNAIDS 2021 HIV Estimates. Number of new HIV infections per 1,000 person-years among the uninfected population (SDG indicator 3.3.1).

Contraceptive prevalence, any method and any modern method: Model-based estimates are based on data that are derived from sample survey reports. Survey data estimate the proportion of all women of reproductive age, and married women (including women in consensual unions), currently using, respectively, any method or modern methods of contraception. Modern methods of contraception include female and male sterilization, the intra-uterine device (IUD), the implant, injectables, oral contraceptive pills, male and female condoms, vaginal barrier methods (including the diaphragm, cervical cap and spermicidal foam, jelly, cream and sponge), lactational amenorrhea method (LAM), emergency contraception and other modern methods not reported separately (e.g., the contraceptive patch or vaginal ring).

Unmet need for family planning (any method): Model-based estimates are based on data that are derived from sample survey reports. Women who are using a traditional method of contraception are not considered as having an unmet need for family planning. All women or all married and in union women are assumed to be sexually active and at risk of pregnancy. The assumption of universal exposure to possible pregnancy among all women or all married or in union women may lead to lower estimates compared to the actual risks among the exposed. It might be possible, in particular at low levels of contraceptive prevalence that, when contraceptive prevalence increases, unmet need for family planning also increase. Both indicators, therefore, need to be interpreted together.

Proportion of demand satisfied, any modern method: Modern contraceptive prevalence divided by total demand for family planning. Total demand for family planning is the sum of contraceptive prevalence and unmet need for family planning.

Laws and regulations that guarantee access to sexual and reproductive health care, information and education, per cent. Source: UNFPA, 2022. The extent to which countries have national laws and regulations that guarantee full and equal access to women and men aged 15 years and older to sexual and reproductive health care, information and education (SDG indicator 5.6.2).

Universal health coverage (UHC) service coverage index. Source: WHO, 2021. Average coverage of essential services based on tracer interventions that include reproductive, maternal, newborn and child health, infectious diseases, non-communicable diseases and service capacity and access, among the general and the most disadvantaged population (SDG indicator 3.8.1).

Gender, rights and human capital

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

Child marriage by age 18, per cent.
Source: UNICEF, 2021. Regional aggregates calculated by UNFPA based on data from UNICEF. Proportion of women aged 20 to 24 years who were married or in a union before the age of 18 (SDG indicator 5.3.1).

Female genital mutilation prevalence among girls aged 15– 49, per cent.
Source: UNICEF, 2021. Regional aggregates calculated by UNFPA based on data from UNICEF. Proportion of girls aged 15 to 49 years who have undergone female genital mutilation (SDG indicator 5.3.2).

Intimate partner violence, past 12 months, per cent.
Source: Violence Against Women Inter-Agency Group on Estimation and Data (WHO, UN Women, UNICEF, United Nations Statistics Division, United Nations Office on Drugs and Crime and UNFPA), 2021. Percentage of ever-partnered women and girls aged 15 to 49 years who have experienced physical and/or sexual partner violence in the previous 12 months (SDG indicator 5.2.1).

Decision-making on sexual and reproductive health and reproductive rights, per cent.
Source: UNFPA, 2023. Percentage of women aged 15 to 49 years who are married (or in a union), who make their own decisions on three areas — their health care, use of contraception, and sexual intercourse with their partners (SDG indicator 5.6.1).

Decision-making on women's own health care, per cent.
Source: UNFPA, 2023. Percentage of women aged 15 to 49 years who are married (or in a union), who make their own decisions about their health care.

Decision-making on contraceptive use, per cent.
Source: UNFPA, 2023. Percentage of women aged 15 to 49 years who are married (or in a union), who make their own decision about use of contraception.

Decision-making on sexual intercourse, per cent.
Source: UNFPA, 2023. Percentage of women aged 15 to 49 years who are married (or in a union), who make their own decisions about sexual intercourse with their partners

Total net enrolment rate, lower secondary education, per cent.
Source: UNESCO Institute for Statistics, 2022. Total number of students of the official age group for lower secondary education who are enrolled in any level of education, expressed as a percentage of the corresponding population.

Gender parity index, total net enrolment rate, lower secondary education.
Source: UNESCO Institute for Statistics, 2022. Ratio of female to male values of total net enrolment rate for lower secondary education.

Total net enrolment rate, upper secondary education, per cent.
Source: UNESCO Institute for Statistics, 2022. Total number of students of the official age group for upper secondary education who are enrolled in any level of education, expressed as a percentage of the corresponding population.

Gender parity index, total net enrolment rate, upper secondary education.
Source: UNESCO Institute for Statistics, 2022. Ratio of female to male values of total net enrolment rate for upper secondary education.

Demographic indicators

Population

Total population, millions.
Source: World Population Prospects: The 2022 revision. United Nations Population Division, 2022. Estimated size of national populations at mid-year.

Population change

Population annual doubling time, years:
The number of years required for the total population to double in size if the annual rate of population change would remain constant. It is calculated as ln(2)/r where r is the annual population growth rate. Doubling time is computed only for fast growing populations with growth rates exceeding 0.5 per cent.

World Population Prospects: The 2022 revision. United Nations Population Division, 2022. Average exponential rate of growth of the population over a given period, based on a medium variant projection.

Population composition

Population aged 0–14, per cent.
Source: UNFPA calculation based on data from the United Nations Population Division, 2022. Proportion of the population between age 0 and age 14.

Population aged 10–19, per cent.
Source: UNFPA calculation based on data from the United Nations Population Division, 2022. Proportion of the population between age 10 and age 19.

Population aged 10–24, per cent.
Source: UNFPA calculation based on data from the United Nations Population Division, 2022. Proportion of the population between age 10 and age 24.

Population aged 15–64, per cent.
Source: UNFPA calculation based on data from the United Nations Population Division, 2022. Proportion of the population between age 15 and age 64.

Population aged 65 and older, per cent.
Source: UNFPA calculation based on data from the United Nations Population Division, 2022. Proportion of the population aged 65 years and older.

Fertility

Total fertility rate, per woman.
Source: World Population Prospects: The 2022 revision. United Nations Population Division, 2022. Number of children who would be born per woman if she lived to the end of her childbearing years and bore children at each age in accordance with prevailing age-specific fertility rates.

Life expectancy

Life expectancy at birth, years.
Source: World Population Prospects: The 2022 revision. United Nations Population Division, 2022. Number of years newborn children would live if subject to the mortality risks prevailing for the cross section of population at the time of their birth.

Regional classifications

UNFPA regional aggregates presented at the start of the statistical tables are calculated using data from countries and areas as classified below.

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

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

Eastern Europe and Central Asia Region
Albania; Armenia; Azerbaijan; Belarus; Bosnia and Herzegovina; Georgia; Kazakhstan; Kyrgyzstan; Moldova, Republic of; North Macedonia; Serbia; Tajikistan; Türkiye; Turkmenistan; Ukraine, Uzbekistan.

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

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

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

More developed regions are intended for statistical purposes and do not express a judgment about the stage reached by a particular country or area in the development process, comprising UNPD regions Europe, Northern America, Australia/New Zealand and Japan.

Less developed regions are intended for statistical purposes and do not express a judgment about the stage reached by a particular country or area in the development process, comprising all UNPD regions of Africa, Asia (except Japan), Latin America and the Caribbean plus Melanesia, Micronesia and Polynesia.

The **least developed countries,** as defined by the United Nations General Assembly in its resolutions (59/209, 59/210, 60/33, 62/97, 64/L.55, 67/L.43, 64/295 and 68/18) included 46 countries (as of January 2022): 33 in Africa, 8 in Asia, 4 in Oceania and one in Latin America and the Caribbean – Afghanistan; Angola; Bangladesh; Benin; Bhutan; Burkina Faso; Burundi; Cambodia; Central African Republic; Chad; Comoros; Congo, Democratic Republic of the; Djibouti; Eritrea; Ethiopia; Gambia; Guinea; Guinea-Bissau; Haiti; Kiribati; Lao People's Democratic Republic; Lesotho; Liberia; Madagascar; Malawi; Mali; Mauritania; Mozambique; Myanmar; Nepal; Niger; Rwanda; Sao Tome and Principe; Senegal; Sierra Leone; Solomon Islands; Somalia; South Sudan; Sudan; Timor-Leste; Togo; Tuvalu; Uganda; United Republic of Tanzania; Yemen and Zambia. These countries are also included in the less developed regions. Further information is available at https://www.un.org/en/conferences/least-developed-countries.

Notes on YouGov survey

1. About the YouGov survey process (pages 16-17, 44, 71, 75, 112-113)

The surveys were conducted by YouGov, an international online research and analytics technology group with one of the world's largest research networks, including 22+ million registered panel members. An email invited panel members to take part in a survey that they were most required for, according to the sample definition and quotas. In this case the sample definitions were the adult population of each respective country. The responding sample was weighted to the profile of the sample definition to provide a representative reporting sample. The profile is normally derived from census data or, if not available from the census, from industry-accepted data. For more information on the sampling method, refer to yougov.co.uk/about/panel-methodology/ and yougov.co.uk/about/panel-methodology/research-qs/.

YouGov plc makes every effort to provide representative information. All results are based on a sample and are therefore subject to statistical errors normally associated with sample-based information.

2. Sample country selection and representation

Sample countries were selected to have a diversity in geographic region and demographic profile and include some of the most populous countries in the world. Together, these eight countries represent just under one third of the world's population. Details from the sample are as follows:

Brazil: Total sample size was 1,015 adults in Brazil. Fieldwork was undertaken between 5th–14th December 2022. The survey was carried out online. The analysis has been weighted and is representative of a national urban sample of adults in Brazil (aged 18+).

Egypt: Total sample size was 1,003 adults in Egypt. Fieldwork was undertaken between 9th–16th December 2022. The survey was carried out online. The analysis has been weighted and is representative of adults online in Egypt (aged 18+).

France: Total sample size was 1,006 adults in France. Fieldwork was undertaken between 5th–15th December 2022. The survey was carried out online. The analysis has been weighted and is representative of adults online in France (aged 18+).

Hungary: Total sample size was 1,013 adults in Hungary. Fieldwork was undertaken between 5th–14th December 2022. The survey was carried out online. The analysis has been weighted and is representative of adults in Hungary on age, gender, region, education and recalled past vote (aged 18+).

India: Total sample size was 1,007 adults in India. Fieldwork was undertaken between 6th–8th December 2022. The survey was carried out online. The analysis has been weighted and is representative of a national urban sample of adults in India (aged 18+).

Japan: Total sample size was 1,019 adults in Japan. Fieldwork was undertaken between 7th–15th December 2022. The survey was carried out online. The analysis has been weighted and is representative of adults in Japan on age, gender, region and education (aged 18+).

Nigeria: Total sample size was 504 adults in Nigeria. Fieldwork was undertaken between 6th–8th December 2022. The survey was carried out online. The analysis has been weighted and is online representative according to age and gender of adults in Nigeria (aged 18–50).

United States of America: Total sample size was 1,230 adults in the United States of America. Fieldwork was undertaken between 6th–7th December 2022. The survey was carried out online. The analysis has been weighted and is representative of all adults in the United States (aged 18+).

3. Concerns related to population (pages 46, 95)

To identify top population-related concerns, respondents were asked to identify up to three concerns related to changes to their countries' populations. The options were: environmental impact, the impact of specific ethnic groups, increased spread of slums and urban areas, population decline (such as in rural areas or overall), labour market shortages, increase competition for jobs, changes to wages, loss of human rights, government imposing policies on family size or number of children, government imposing policies on abortion and reproductive health care, impacts on public services, higher cost of living, food shortages, conflict or tensions between different groups within the country, conflict or tensions between countries, racism, inequality, large-scale disasters (e.g. pandemics), impact on traditional culture in the country, other, none of these, and don't know.

The responses were then classified by the authors into categories of concern: economic; environmental; sexual and reproductive health and human rights; culture, ethnicity and racism; conflict and tensions; slums and urban sprawl; population decline; and other/don't know.

4. Supplemental information

More information on the YouGov survey and its analysis is available at www.unfpa.org/swp2023/YouGovData

Notes on secondary analysis of data from the Inquiry Among Countries on Population and Development

Response rates

Throughout the secondary analysis, the most recent Inquiry responses were used. These Inquiries varied in their response rates.

The 2019 Inquiry has responses from the following numbers of countries on each of the following policy questions: 103 country responses on fertility policy; 106 country responses on immigration through regular channels; 101 on emigration of their citizens; and 108 regarding migrants in an irregular situation.

The 2015 Inquiry has responses from 196 countries on fertility, immigration and emigration policies.

In analyses using both data sets, about 54 per cent of country responses are from the 2019 Inquiry while the remaining 46 per cent are from 2015 Inquiries because those countries did not respond to the 2019 Inquiry.

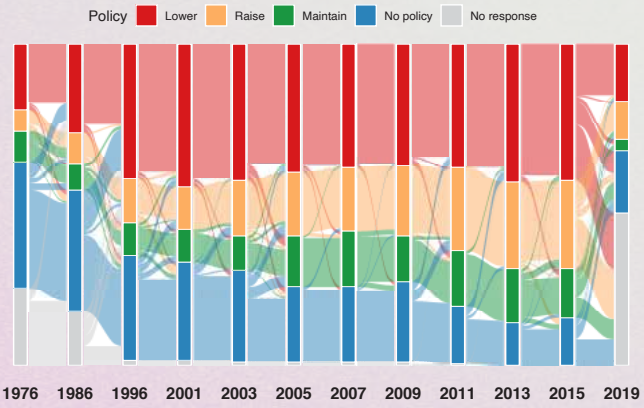
For example, figure 14 incorporates 196 countries with responses in the 2015 and 2019 Inquiries. Figure 15 only has 104 countries that responded to 2019 Inquiry questions on both regular immigration policy and irregular immigration concern. The irregular immigration question was not asked in the 2015 Inquiry.

The 2021 Inquiry has responses from 109 countries on reproductive health questions and 88 countries on migration questions, though the exact number varies for each specific question.

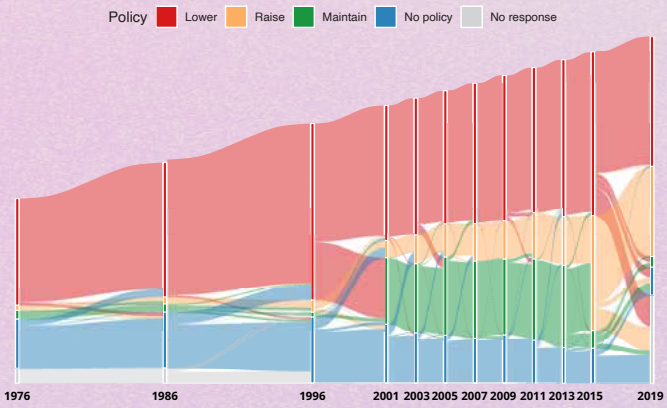
Uptick in policies to influence fertility (page 19)

Over the long term, Inquiry responses reveal that an ever growing number of governments have been adopting policies to influence their domestic fertility rates. That is, the share of countries without any fertility policy has diminished, while the share looking to either raise, maintain or lower fertility has increased. Considerable policy adjustments in the earliest decades reflect a high number of countries initiating campaigns to lower fertility rates, but policy adjustments in the most recent decades have pivoted towards raising or maintaining fertility rates. High non-response rates in the most recent Inquiry make firm conclusions about changes within the last half decade rather uncertain, but the longer-term trends point towards a steady expansion of explicit policy interventions on fertility.

Simplified alluvial plot of reported fertility policies, 1976–2019
Share of countries reporting fertility policies by policy type and Inquiry year



Population-weighted alluvial plot, country fertility policies, 1976–2019
Share of people living under government fertility policies by policy type and Inquiry year



These policy shifts become even more dramatic when examined from the perspective of individuals. The majority of the globe's population – and a share that has only grown over time – lives under governments that have a stated intent to influence individual childbearing. Furthermore, a dramatic shift occurred about a decade ago in the share of people living under policies to raise fertility, such that, according to responses in the two most recent Inquiries, the vast majority of people now live in countries that either want to raise or lower – as opposed to maintain or have no intervention on – domestic fertility. Simultaneously, an ever-diminishing minority of people live in countries where governments declare they have no explicit policy to influence fertility.

To be sure, simply having a fertility policy is neither inherently bad or good. What matters is whether those policies advance and protect individual rights or not. Ultimately, the growing government interest in influencing fertility through policy, makes calls for a rights-based approach all the more relevant and urgent.

Indexes used in secondary analysis (pages 19, 47, 74–78)

The Human Development Index tracks national development levels along three dimensions: long and healthy life, knowledge and decent standard of living. To measure this it takes the average life expectancy at birth, expected and/or mean years of schooling, and Gross National Income per capita in 2017 dollars adjusted for purchasing power parity. The index score comprises the geometric mean of the normalized indices for each of the three dimensions.

The Human Freedom Index scores national standing on 82 indicators of personal and economic freedom in the following areas: the rule of law; relationships; security and safety; size of government; movement; legal system and property rights; religion; sound money; association, assembly, and civil society; freedom to trade internationally; expression and information; and regulation.

Restrictions in abortion/post-abortion care, maternity care and maternity services were derived from questions in the 2019 and 2015 Inquiry data. Restrictions in abortion and post abortion care included gestational limits, judicial consent requirements, partner consent requirements and others. Restrictions in maternity care included lack of guaranteed access to maternity care and limits to access arising from contradictory plural legal systems or other restrictions based on age, marital status or third-party authorization (e.g., spousal, parental, medical). Restrictions in maternity services include the absence of essential medicines used in maternal care from the national list of recommended or authorized drugs

Healthy life expectancy is the average number of years that a person can expect to live in full health. Life expectancy at birth is the number of years a person can expect to live based on the risk conditions in a given year. The analysis on page 49 uses both definitions; i.e., countries with higher fertility rates see a strong correlation with both definitions of lower female life expectancy.

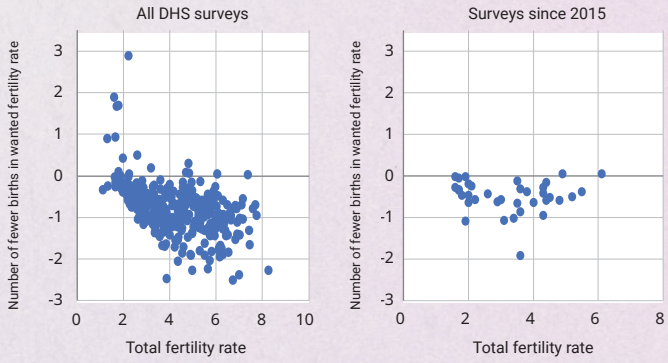
Note on wanted fertility compared to realized fertility (pages 101–109)

While total fertility among women living in countries with above-replacement fertility is currently at 3.2 births per woman, total wanted fertility is noticeably lower. While there are no data that can provide a representative estimate of what current wanted fertility is, Demographic and Health Survey (DHS) data give some indication. The DHS offers data points that represent 86 per cent of the current world population in countries with above-replacement fertility. However, many of these data points come from surveys that were conducted decades ago, when both wanted and realized fertility rates tended to be higher than today.

The figures below compare wanted fertility rate to total fertility rate. They show the number of fewer births implied in the difference between the wanted fertility rate and total fertility rate from each survey. The first figure shows all data points while the second shows only those from surveys since 2015.

The DHS calculates wanted fertility much like it does the total fertility rate, but only includes births that, at the time of conception, were less than the ideal number of children as reported by the respondent. (dhsprogram.com/data/Guide-to-DHS-Statistics/Wanted_Fertility.htm). Despite this being a highly imperfect measure of wanted fertility — as well as the issues related to the datedness of many surveys — it is nevertheless revealing that in the vast majority of countries with data, particularly in recent years, wanted fertility was noticeably lower than total fertility.

Number of fewer births in wanted fertility rate than in total fertility rate



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