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World Population Policies 2021

Policies related to fertility

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Department of Economic and Social Affairs
Population Division

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United Nations Department of Economic and Social Affairs, Population Division

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In this publication, data for countries and areas are often aggregated in six continental regions: Africa, Asia, Europe, Latin America and the Caribbean, Northern America, and Oceania. Further information on continental regions is available from https://unstats.un.org/unsd/methodology/m49/. Countries and areas have also been grouped into geographic regions based on the classification being used to track progress towards the Sustainable Development Goals of the United Nations (see https://unstats.un.org/sdgs/indicators/regional-groups/).

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The group of least developed countries (LDCs) includes 47 countries, located in sub-Saharan Africa (32), Northern Africa and Western Asia (2), Central and Southern Asia (4), Eastern and South-Eastern Asia (4), Latin America and the Caribbean (1), and Oceania (4). Further information is available at http://unohrlls.org/about-ldcs/.

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The classification of countries and areas by income level is based on gross national income (GNI) per capita as reported by the World Bank (June 2018). These income groups are not available for all countries and areas. Further information is available at https://datahelpdesk.worldbank.org/knowledgebase /articles/906519-world-bank-country-and-lending-groups.

Executive summary

The report provides a brief overview of global fertility levels and trends since the early 1960s and explores government's views and policies related to fertility. The analysis of views and policies draws on data gathered through 2019 and available in the *World Population Policies Database* (box 1), reflecting the situation before the outbreak of the coronavirus disease 2019 (COVID-19) pandemic. The report then presents five case studies of countries from different regions and with a range of fertility levels, exploring in more detail the origin and evolution of national fertility policies. The case studies are followed by an assessment of known or potential direct and indirect impacts of the COVID-19 pandemic on fertility patterns and trends. The report concludes with an exploration of policy options that governments may wish to consider in the current context.

Below are some key conclusions of the report:

- Globally, through 2019, nearly three quarters of governments had policies related to fertility. Of these, 69 governments had policies to lower fertility, 55 aimed to raise fertility, and 19 focused on maintaining current levels of fertility. A total of 54 governments did not have an official fertility policy.

- The data suggest an association between the kinds of policies in place between 2015 and 2019 and fertility levels observed in that period. Among the 69 countries with policies to lower fertility, 10 were high-fertility countries in 2019, and 50 had intermediate fertility levels. Of the 55 countries with policies to raise fertility, 40 had low levels of fertility in 2019, including 18 with very low levels.[1]

- In developed countries with older populations, governments were more likely to have policies intended to raise fertility. Among developing countries, nearly half had policies to lower fertility, while one quarter did not have an official policy related to fertility. Among the least developed countries (LDCs), whose combined population continues to grow rapidly, an increasing number of governments had policies seeking to lower fertility.

- Fertility policies show considerable variation across regions. In sub-Saharan Africa and Oceania (excluding Australia and New Zealand), governments were more likely to have policies to lower fertility, whereas in Europe and Northern America and in Eastern and South-Eastern Asia, policies to raise fertility were more prevalent. In Latin America and the Caribbean, around half of the countries had no specific policy designed to influence fertility levels.

- An overwhelming majority of governments (over 95 per cent, or 98 of 103 countries with available data in 2019) provided family planning services to their populations, either directly through public programmes or indirectly through non-governmental organizations. Direct support was provided by 80 governments, of which 68 reported supporting family planning both directly and indirectly. In addition, 18 governments provided only indirect support.

- For a large majority of the 11 countries with high levels of fertility and available data on policies in 2019, governments had adopted one or more policy measures aimed at (a) raising the age of marriage or union formation, (b) raising the age of the mother at the time of her first birth, or (c) increasing the duration of time between successive births. Of the 52 countries with intermediate fertility levels and available data on policies, about half aimed to raise both the age of marriage or union formation and the age of the mother at the time of her first birth. Although nearly half of the governments in these two groups (45) aimed to increase the time between successive births, only 31 did this in combination with the other two measures.

[1] In this report, "high fertility" refers to a level of total lifetime fertility of at least 5.0 births per woman; "intermediate fertility", between 2.1 and 5.0 births; and "low fertility", below 2.1 births. "Very low fertility", a sub-category of "low fertility", refers to a level below 1.5 births per woman, and "moderately low fertility", another sub-category of "low fertility", refers to a fertility level between 1.5 and 2.1 births per woman.

- Among the 81 countries with low fertility and available data on policies during 2015-2019, one measure adopted by almost all governments was paid or unpaid maternity leave with job security. Beyond that, the four most commonly adopted measures were (a) publicly subsidized childcare (88 per cent), (b) child or family allowances (78 per cent), (c) paid or unpaid parental leave (73 per cent) and (d) paid or unpaid paternity leave with job security (73 per cent). In addition, over half of these governments provided other incentives, such as flexible or part-time work hours for parents or tax credits for dependent children.

- Among the 102 countries with available data in 2019, 88 governments considered the fertility of adolescents to be a matter of concern. This was true for almost all of the countries in sub-Saharan Africa or in Latin America and the Caribbean that had adolescent fertility rates higher than 50 births per 1,000 women aged 15-19 years. Regardless of their specific views on adolescent fertility, the majority of governments adopted measures to improve the sexual and reproductive health of adolescents by providing school-based sexuality education and by raising rates of secondary school enrolment and retention among girls and young women.

- The country case studies illustrate the link between fertility policies adopted by governments and the fertility patterns and trends prevailing in their countries. Kenya, which had high levels of fertility as recently as 2000-2005, became the first country in sub-Saharan Africa to adopt a national family planning programme in 1967, contributing to a reduction in the country's fertility level from 8.1 births per woman in 1965-1970 to 3.5 in 2015-2020. In Argentina, a country where low levels of total lifetime fertility have been accompanied by high levels of adolescent fertility, government policies have focused specifically on lowering the adolescent birth rate.

- In Hungary, the Government has expressed concern about persistent low levels of fertility and has adopted a range of policies that explicitly encourage childbirth. By contrast, Australia does not have an official policy to raise the fertility level but has adopted a range of family policies that support childbearing and childrearing. China, after implementing a strict one-child policy for three decades, has in recent years changed course in response to persistent low fertility and rapid population ageing; it now allows all couples to have three children.

- The ongoing COVID-19 pandemic and resulting economic and social changes have affected fertility levels in many countries, but this impact may be short-lived. Based on both historical experience and available evidence about recent changes, it is expected that fertility fluctuations from 2021 to 2023 will be relatively minor and that fertility may return to pre-pandemic levels by around 2025. The COVID-19 pandemic is not expected to have a significant impact on fertility patterns and trends in the long run.

Introduction

National population policies and family planning programmes have a long history. Policies that aimed to lower fertility and curb population growth were a response to the rapid growth in populations, particularly in Asia, that became apparent after data became available from population censuses conducted in the early 1950s and later. Population experts and national and international leaders began calling for action to stem rapid population growth (May, 2012). Two academic conferences on population, organized or co-organized by the United Nations, were held in Rome in 1954 and Belgrade in 1965. Attended mostly by technical experts, including from less developed countries,[2] these meetings focused on the relationship between population growth and economic and social development, particularly in less developed countries, and on policies and programmes to lower fertility and slow population growth.

The World Population Conference, held in Bucharest in 1974, was the first of three intergovernmental conferences on population convened by the United Nations. It attracted a broader audience than the earlier academic conferences, including government officials from 135 countries, and led to the adoption of the *World Population Plan of Action*. Two years after the Bucharest meeting, the governments of 40 countries, including the most populous developing countries, initiated family planning policies with the aim of slowing population growth. By 2013, this number had risen to 160 (de Silva and Tenreyro, 2017). During the International Conference on Population, convened in Mexico City in 1984, and the International Conference on Population and Development, held in Cairo in 1994, governments continued to work towards building a global consensus around an approach to population policies that de-emphasized the pursuit of demographic targets in favour of promoting women's empowerment and improving maternal and child health, with an emphasis on the provision of sexual and reproductive health care, including for voluntary family planning (May, 2012).

In 1952, India became the first country to adopt an official population policy, committing the country to reduce substantially its level of fertility and establishing a national family planning programme. Other countries and areas of Asia, including Sri Lanka, Pakistan, Singapore, Taiwan Province of China and the Republic of Korea, followed suit.

Some population policies, especially in past decades, included specific quantitative targets and were not entirely voluntary, sometimes using strong incentives or coercion to ensure widespread adoption of family planning practices and leading in the most extreme cases to the use of forced sterilization or abortion as means of population control.[3] However, most national population policies were not coercive and focused instead on promoting a desire for smaller families with fewer, healthier and better educated children. Especially since the Cairo conference in 1994, it has been increasingly recognized that population objectives can be reached faster by giving priority to the needs of couples and individuals instead of focusing on demographic or numerical targets.

With declining fertility and the progressive ageing of many national populations, the discussion of population policies has increasingly emphasized objectives of raising the fertility level and promoting population growth. At the same time, rapid population growth remains a concern in countries with persistent high levels of fertility, whose governments continue their efforts to promote smaller families and facilitate access to sexual and reproductive health care and services (United Nations, 2013).

[2] A/RES/1838 (XVII), 18 December 1962.
[3] See https://publichealthreviews.biomedcentral.com/articles/10.1186/s40985-017-0060-9.

In 1962, the General Assembly requested the Secretary-General to "conduct an inquiry among the governments of States Members of the United Nations and members of the specialized agencies concerning the particular problems confronting them as a result of the reciprocal action of economic development and population changes".[4] To implement this mandate, the Population Division, currently part of the United Nations Department of Economic and Social Affairs, conducted the first *United Nations Inquiry among Governments on Population and Development* in 1963 and, since then, has periodically gathered information on official government's views and policies concerning a wide range of population issues, including fertility and family planning.

World Population Policies 2021: Policies related to fertility, provides a brief overview of past and present fertility trends and related policies. It features published data from the *World Population Policies Database* (box 1) with more recent updates from *the United Nations Twelfth Inquiry* conducted during 2018-2019. In addition, the report includes an in-depth analysis of fertility trends and related family policies in five countries from different world regions and with varying fertility levels. The impact of the socioeconomic disruptions caused by the COVID-19 pandemic on current and future fertility patterns and trends are then discussed. The report concludes with a set of policy recommendations that governments may wish to consider in the current context, taking into consideration possible impacts of the COVID-19 pandemic.

[4] A/RES/1838 (XVII), 18 December 1962.

Government fertility and family planning policies through 2019

Fertility levels and trends at the global and regional level

Global fertility started to decline since the early 1960s, from about 5.0 births per woman during 1960-1965 to about 3.0 births during 1990-1995 (United Nations, 2019). In 1994, when the landmark Cairo conference was held, about 46 per cent of the global population, mostly in Europe and Northern America, lived in countries with below-replacement fertility (under 2.1 births per woman). Total fertility continued to decline during the decades following the Cairo conference, reaching just under 2.5 births per woman globally during 2015-2020. In 2019, nearly half of the global population was living in countries with fertility below the replacement level.

Nonetheless, there have been significant variations in fertility by development level and by region. In many developed countries, fertility had declined to below-replacement levels by 2015-2020. In some countries, including Greece, Italy, Japan and Spain, fertility had been under 1.5 births per woman for several decades. Whereas all developing countries experienced fertility declines, with many countries reaching replacement or below-replacement levels, some 40 countries, mostly least developed countries (LDCs), still recorded fertility levels of more than 4 births per woman.

During 2015-2020, four out of eight world regions had below-replacement fertility, namely Europe and Northern America, Australia and New Zealand, Eastern and South-Eastern Asia, and Latin America and the Caribbean. Fertility in sub-Saharan Africa was still high, with, on average, about 4.7 births per woman. Average fertility levels in Northern Africa and Western Asia (3.5 births), Oceania excluding Australia and New Zealand (2.9) and Central and Southern Asia (2.4) remained at the intermediate level.

Evolution of government policies on fertility

An increasing number of governments have undertaken efforts to influence fertility levels over the past four decades (table 1). While more than half of all countries (52 per cent) did not intervene or did not have an official policy to influence fertility in 1976, this share had decreased to just over one quarter (27 per cent) during the period 2015-2019. Moreover, in 1976, only one out of every four countries aimed to lower fertility and only 9 per cent of all countries undertook efforts to increase birth rates. The growing number of countries that aim to increase birth rates appear to be a response to growing concerns about population ageing. Between 1986 and 2019, the proportion of countries that aim to lower fertility has oscillated between 33 and 35 per cent. The share of governments who focus on maintaining their current fertility levels has remained rather stable at around 10-15 per cent.

Policies concerning the current fertility level and support for family planning

Policies concerning the level of fertility

Globally, through 2019, nearly three quarters of the governments of the 197 Member and non-member States of the United Nations had policies to influence fertility levels. Among them, 69 governments had policies to lower fertility, 55 governments sought to raise fertility, while another 19 governments aimed to maintain current levels of fertility. Meanwhile, 54 governments did not have such official policies concerning the level of fertility (appendix table).

Table 1

Government policies to influence the level of fertility, 1976-2019 (in percentage)

Year	Raise	Maintain	Lower	No intervention/No official policy[1]	Total
1976	9	13	27	52	100
1986	12	10	33	46	100
1996	14	10	42	34	100
2005	20	16	40	24	100
2019	28	10	35	27	100

Source: *World Population Policies Database*, available at: www.un.org/development/desa/pd/data/world-population-policies.
[1] Information on "No official policy" was gathered separately from "No intervention" starting with the 2015 revision of the *World Population Policies Database*. In older revisions, "no official policy" was assumed to be included under "No intervention".

The available data show a close association between the types of fertility policies adopted by governments and the prevailing levels of fertility in the country. Among the 69 countries where governments adopted policies to lower fertility, 10 countries had high levels of fertility and another 50 countries had intermediate fertility levels. Also, for the 55 countries with policies to raise fertility, 40 had low fertility levels, of which 18 were lower than 1.5 births per woman on average. For the 19 countries that chose to maintain current levels of fertility, most had fertility levels around the replacement level.

For governments with policies to lower fertility, one major underlying reason was to curb rapid population growth. Conversely, the major reasons for governments with policies to raise fertility were to counter population decline and address population ageing. Aside from these specific motivations, a significant number of governments stated that ensuring sustainability for future generations was a major driver for their policies on fertility.

Governments in developed countries were more likely to adopt policies to raise levels of fertility. Most of these countries had already reached below-replacement fertility levels many years ago. Some countries, including Greece, Italy, Japan and Spain, have had fertility levels below 1.5 births per woman for decades. However, 14 out of 30 developed countries with moderately low levels of fertility (between 1.5 and 2.1 births per woman), such as Australia, Canada, Germany, Sweden, and the United States of America, had no official policies to influence fertility levels.

Nearly half of governments (46 per cent) in developing countries had policies to lower fertility levels, whereas about one quarter did not have such policies.[5] Several developing countries from different parts of the world and with varying fertility levels have adopted policies to maintain current fertility levels. These include Argentina (2.3 births per woman), Viet Nam (2.1) and the United Republic of Tanzania (4.9).

Most LDCs continue to experience rapid population growth driven mainly by high fertility, particularly in sub-Saharan Africa. In recent decades, a growing number of governments of LDCs had policies to address rapid population growth (United Nations, 2017). During the period 2015-2019, nearly 80 per cent of the LDCs had policies to lower fertility. Some LDCs, which already reached below replacement-level fertility, such as Bangladesh, Bhutan and Nepal, had policies in place to lower fertility.

Significant regional variations exist in policies concerning present fertility levels (table 2). In sub-Saharan Africa and Oceania (excluding Australia and New Zealand), where relatively high fertility and rapid population growth are more common than in other regions, governments were more likely to adopt policies to lower fertility. By contrast, countries with persistent low levels of fertility in Europe and Northern Africa,

[5] Developing countries without policies to lower fertility included countries with low fertility, such as Brazil, and countries with intermediate fertility, such as South Africa.

as well as in Eastern and South-Eastern Asia, were more likely to adopt policies to raise fertility. Several countries with moderately low fertility in these two regions did not have an official policy to influence the level of fertility, including Canada, Czechia, Denmark, Germany, Norway, Sweden, the United Kingdom of Great Britain and Nothern Ireland and the United States of America. Australia and New Zealand, also with moderately low fertility, had no such policies in place. Most countries in Latin America and the Caribbean either did not have policies targeting fertility levels or had policies to maintain current levels.

Table 2

Policies concerning the present fertility level of countries or areas, by region, 2015-2019
(Number of countries or areas in each region and the world)

	Policies concerning the present level of fertility (Number of countries or areas)				
Region	Raise	Lower	Maintain current levels	No official policy	Total
Sub-Saharan Africa	3	35	2	8	48
Northern Africa and Western Asia	9	6	4	5	24
Central and Southern Asia	4	7		3	14
Eastern and South-Eastern Asia	7	3	1	5	16
Latin America and the Caribbean	3	8	6	16	33
Europe and Northern America	27	1	4	14	46
Australia and New Zealand				2	2
Oceania*	2	9	2	1	14
World	55	69	19	54	197

Source: World Population Policies Database, available at www.un.org/development/desa/pd/data/world-population-policies.
* Oceania excluding Australia and New Zealand.

Government's support to family planning

Access to family planning and reproductive health services is critical to the health of women and children worldwide. Improving such access can help to prevent maternal deaths and reduce unwanted pregnancies. Target 3.7 of the Sustainable Development Goal (SDG) 3 on "Good health and well-being: Ensure healthy lives and promote well-being for all at all ages" calls on countries "to ensure universal access to sexual and reproductive health-care services, including for family planning, information and education, and the integration of reproductive health into national strategies and programmes by 2030". In 2019, 80 governments, or nearly 80 per cent of 103 governments with available data, reported providing direct support for family planning. Of these governments, 68 provided both direct and indirect support.[6] In addition, another 18 countries supported the provision of family planning services through non-governmental organizations only. Together, over 95 per cent of governments among those with available data (103) provided either direct or indirect support for family planning.

[6] Direct support for family planning refers to governments providing contraceptive methods directly through governmental sources, while indirect support refers to governments providing financial support for the provision of contraceptive methods by non-governmental organizations.

Box I. Data sources and limitations

Data used in preparing this report were obtained primarily from the *World Population Policies Database*, maintained since 1976 by the Population Division of the United Nations Department of Economic and Social Affairs. The most recent update of the database is based on the *Twelfth United Nations Inquiry among Governments on Population and Development* conducted between September 2018 and August 2019.

The *World Population Policies Database* provides comprehensive information on national population policies and programmes for 197 countries or areas, including all 193 Member States, 2 Observer States (Holy See and State of Palestine) and 2 non-member States (Cook Islands and Niue) of the United Nations. The database shows the evolution of government's views, policies and programmes with respect to population size and growth; population age structure; spatial distribution of populations, internal migration and urbanization; fertility, reproductive health and family planning; health and mortality; and international migration.

Between 1976 and 2015, the Database was updated biennially by conducting a detailed country-by-country review of national plans and strategies, programme reports, legislative documents, official statements and various international, inter-governmental and non-governmental sources, as well as by using official responses to the *United Nations Inquiry among Governments on Population and Development*, conducted quinquennially since 1963.

The 2017 revision of the Database focused on abortion laws and policies in all countries of the world, based on a global survey on abortion issues and a careful assessment of legislative documents, conducted jointly with the World Health Organization during 2016-2017.

Starting with the 2019 revision, the Database has been updated based entirely on official government's responses to *the Inquiry*. The 2019 revision of the Database was based on 86 government responses to the ageing and urbanization module, 107 responses to the fertility, family planning and reproductive health module, and 111 responses to the international migration module of *the Twelfth Inquiry*, conducted during 2018-2019.

The most recent revision of the Database (2021) is based on 109 government responses to the reproductive health module, and 89 responses to the international migration module of *the Thirteenth Inquiry,* conducted between November 2020 and October 2021.

In this report, data on selected fertility-related policies from the 2015 and 2019 revisions of the Database have been combined to create a pooled dataset for all 197 countries or areas covering the period 2015-2019. For countries or areas with information available in both revisions, the more recent information from the 2019 revision was used. The pooled variables describing the policy situation during the 2015-2019 period include (a) policies on fertility, (b) measures to improve family/work balance for childbearing and childrearing, and (c) measures to improve sexual and reproductive health of adolescents.

For other policy questions discussed in this report, including (a) underlying reasons for the current fertility policy, (b) policies concerning age of marriage or union formation, mother's age at the time of her first birth, and spacing between successive births, (c) official views on adolescent childbearing, and (d) policies concerning the provision of modern contraceptive methods, the data are from the 2019 revision of the Database for 107 countries or areas that responded to the fertility, family planning and reproductive health module of *the Twelfth Inquiry*. The most recent (2021) revision of the Database based on *the Thirteenth Inquiry* does not include data on fertility-related policies.

Policy measures to lower fertility in high and intermediate fertility countries

Raising the age of marriage or union formation and the age at first birth, increasing the spacing between births, and expanding access to modern contraceptive methods are considered to be effective means to improve sexual and reproductive health and to help reduce fertility levels. Many governments have adopted some or all of these measures.

High fertility countries

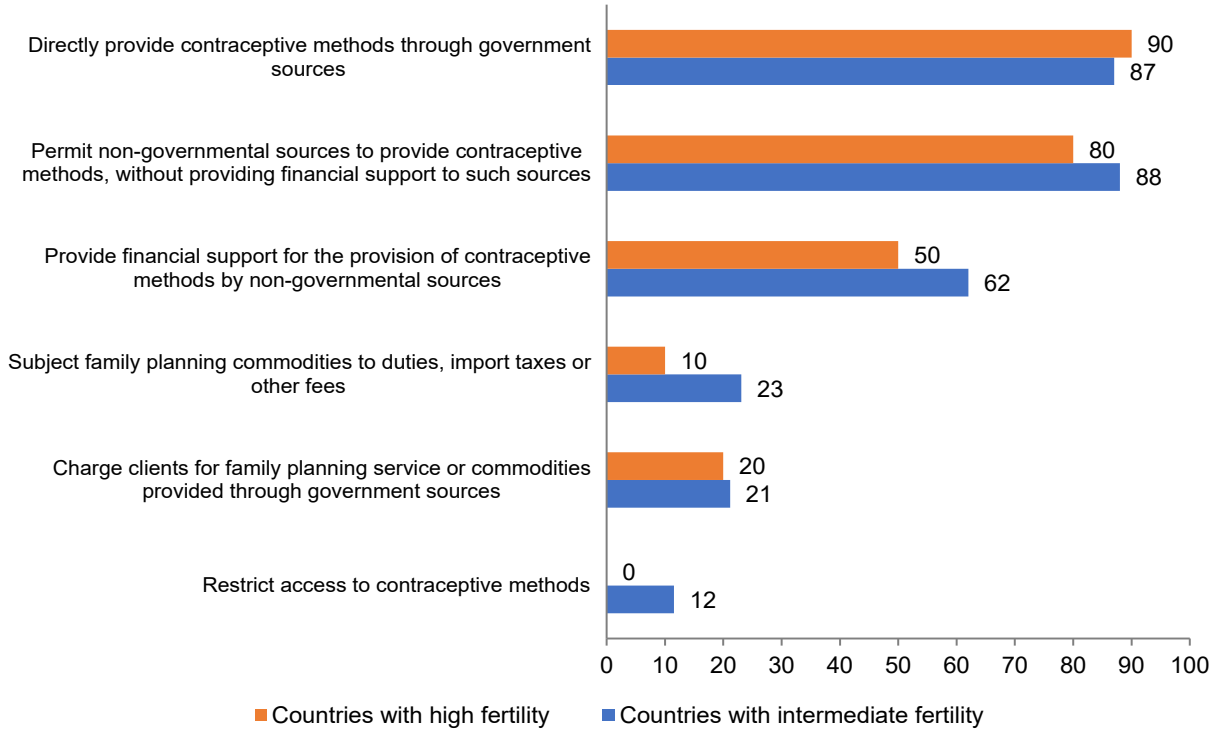
In 2019, there were 11 countries (all LDCs in sub-Saharan Africa) with fertility levels above 5.0 births per woman (United Nations, 2019). Nine of them also had relatively high adolescent birth rates (ABR), above 100 births per 1,000 women aged 15-19 years.

Among the 11 countries in sub-Saharan Africa with fertility higher than 5.0 births per woman, all except Somalia had policies to lower fertility, mainly to curb rapid population growth and ensure sustainability for future generations by: (a) raising the age of marriage or union formation, (b) raising the age of the mother at the time of her first birth, or (c) increasing the duration of time between successive births.

Ninety per cent of governments in high fertility countries provided contraceptive methods directly through public programmes as well as indirectly through government's permission (80 per cent) or financial support (50 per cent) to non-governmental sources. None of the governments in high fertility countries restricted access to contraceptive methods (figure 1).

Figure 1

Policy measures taken by governments concerning the provision of modern contraceptive methods, 2019 (in percentage)



Source: *World Population Policies Database*, available at www.un.org/development/desa/pd/data/world-population-policies.
Note: Data refer to 10 high fertility countries and 52 intermediate fertility countries in 2019.

Intermediate fertility countries

In 2019, for countries covered in the *World Population Policies Database*, there were 92 countries with intermediate fertility (between 2.1 and 5 births per woman) (United Nations, 2019). Of these, 29 countries, mostly in sub-Saharan Africa, had fertility levels higher than 4.0 births per woman. Meanwhile, there were also a number of countries with fertility approaching the replacement level, including Argentina, India, Iran, Mexico, Sri Lanka and Tunisia. Over half of these governments (50) had policies to lower fertility during 2015-2019, while over one fifth (22) did not have official policies. During this time, governments in a number of countries in Central Asia and Western Asia, had policies to raise the fertility level, including Saudi Arabia, Iran, Israel, Kazakhstan, Kuwait, Kyrgyzstan, Mongolia and Turkmenistan.

About half of the 52 countries with intermediate fertility levels and available data on policy measures to influence fertility levels, located in sub-Saharan Africa, Central and Southern Asia, Eastern and South-Eastern Asia, or Latin America and the Caribbean, sought to raise the age at marriage or union formation as well as the age at first birth. Although nearly half of the governments promoted the spacing of birth, few adopted such a policy in combination with the other two measures.

Most countries with intermediate fertility levels facilitated the provision of modern contraceptive methods, regardless of whether they had explicit policies targeting fertility. Nearly 90 per cent of these countries or areas directly provided contraceptive methods through governmental sources, while also nearly 90 per cent of governments permitted non-government organizations to provide contraceptive methods without providing financial support to these NGOs. In addition, over 60 per cent of governments provided financial support for the provision of contraceptive methods by non-governmental sources. About three quarters of governments in intermediate fertility countries provided both direct and indirect support for the provision of modern contraceptive methods. Only a few governments in these countries (6) applied restrictive policies in the provision of contraceptive methods, with 12 subjecting family planning commodities to duties, import taxes or other fees.

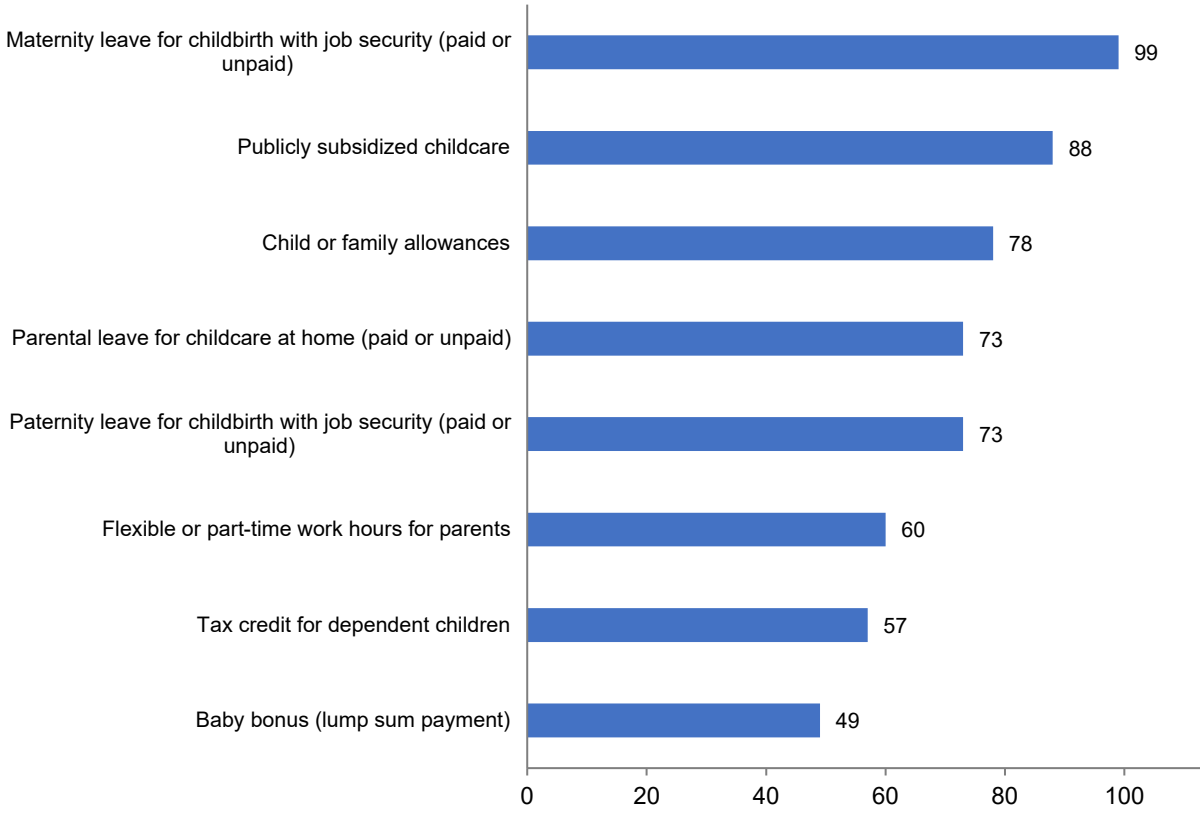
Policy measures to improve family/work balance for childbearing and childrearing in low fertility countries

Among countries with available data on policy measures regarding family/work balance during 2015-2019, 81 countries had fertility below the replacement level (2.1 births per woman), of which 20 had fertility levels below 1.5 births per woman. While most of these countries were developed countries located in Europe and Northern America, plus Japan, Australia and New Zealand, some were developing countries located in Latin America and the Caribbean, Northern Africa and Western Asia, or Eastern and South-Eastern Asia. About half of the low-fertility countries had adopted policies to raise fertility, (figure 2), about one third of these countries had no fertility-related policies, mostly in Europe and Northern America or in Latin America and the Caribbean. Most of these countries were concerned about population decline and population ageing, and some expressed concerns regarding sustainability for future generations.

All low-fertility countries, with the exception of the United States of America, had introduced paid or unpaid maternity leave for childbirth with job security. The other four commonly adopted measures were publicly subsidized childcare (88 per cent), child or family allowances (78 per cent), paid or unpaid parental leave for childcare at home and paid or unpaid paternity leave for childbirth with job security (both 73 per cent). In addition, over half of the countries offered flexible or part-time work hours for parents or tax credits for dependent children.

Figure 2

Percentage of governments in low-fertility countries with policy measures to improve work/family balance, 2015-2019



Source: *World Population Policies Database*, available at www.un.org/development/desa/pd/data/world-population-policies.
Note: Data refer to 82 countries or areas with below replacement fertility during 2015-2019. Multiple responses possible.

Although many governments did not have officially promulgated policies on fertility, the above measures help balance work and family life and are therefore greatly beneficial for childbearing and childrearing. For example, maternity leave, publicly subsidized childcare and flexible work arrangements can help many working parents to have children and remain employed. Tax credits for dependent children and baby bonuses are measures adopted by some governments as financial incentives for childbearing.

Increasingly, governments in countries with high and intermediate levels of fertility have also adopted measures to help balance work and family life. Almost all of these governments have instituted paid or unpaid maternity leave with job security, while over half of these governments have instituted paid or unpaid paternity leave with job security, or child allowances.

Measures to improve adolescent sexual and reproductive health

Adolescent pregnancies and births are closely associated with negative outcomes in sexual and reproductive health and in the social and economic well-being of adolescents. Achieving SDG target 3.7, which calls for universal access to sexual and reproductive health-care services, including for family planning, information and education, is critical for improving adolescent sexual and reproductive health.

Among the 102 countries with data available on government's views on the fertility of adolescents in 2019, a large majority (86 per cent) considered it as either a major or a minor concern. Sixty-eight governments, mostly in countries with adolescent birth rates (ABRs) above 50 births per 1,000 women aged 15-19 years, considered it as a major concern. This includes almost all governments of countries in sub-Saharan Africa and in Latin America and the Caribbean that responded to *the Inquiry*. Another 20 governments, mostly in countries with ABRs below 50 per 1,000, considered the ABR level to be a minor concern. Another 14 governments were not concerned about the level of the ABR in their countries.

Regardless of their views on adolescent fertility, most governments have adopted policies to improve the sexual and reproductive health of adolescents, although this was more often the case in countries with relatively high levels of adolescent fertility. During 2015-2019, more than three quarters of governments provided school-based sexuality education, and 55 per cent had adopted measures to expand girls' secondary school enrolment and retention, particularly in countries with high levels of adolescent fertility.[7]

[7] Over 50 births per 1,000 women aged 15 to 19 years.

Government policies and related responses: Case studies

This chapter contains five case studies of policies related to fertility and family planning for countries with a range of fertility levels from different parts of the world, namely Kenya, Argentina, Hungary, Australia and China. These case studies provide a more detailed analysis of the evolution of policies related to fertility, population and family planning that should be understood in the respective historical, cultural and political context of a given country.

The first case involves Kenya, a high-fertility country in sub-Saharan Africa with policies to lower fertility and curb rapid population growth. Kenya was the first country in sub-Saharan Africa to adopt a family planning programme in 1967, which helped to bring the country's fertility level down from 8.1 births per woman during 1965-1970 to 3.5 births per woman during 2015-2020. The second case, Argentina, also focuses on government's efforts to reduce fertility, but with a specific focus on the country's history of high adolescent fertility. The third case is that of Hungary, which has experienced a steady decline in population size since 1980 and has a long tradition pursuing pronatalist policies. The fourth case, Australia, concerns a country with no official population policy but with a range of family policies that support childbearing and childrearing. The fifth case, China, examines the renowned one-child policy that was in place from the late 1970s to the mid-2010s for the purpose of lowering the country's fertility level, as well as its phasing out in recent years in response to concerns about the rapid ageing of the population.

Policies to lower fertility: Kenya

Kenya has a long tradition of addressing rapid population growth, including efforts to reduce fertility levels through the promotion of family planning and other indirect government interventions to influence demographic trends. Kenya was the first sub-Saharan country to launch a family planning programme.

The use of modern contraception in the country dates back to the pre-independence period when, in 1957, the Family Planning Association of Kenya (FPAK) was formed. When the FPAK became an affiliate of the International Planned Parenthood Federation (IPPF) in 1962, the campaign to control fertility was intensified (Ndeti and Koesoebjono, 1973). Shortly after gaining independence in 1963, the Government had several population concerns, first and foremost of which was high population growth. In 1965, the Kenyan Government invited the United States-based Population Council to make recommendations on the optimal rate of population growth, on a programme for achieving this rate, on the administration of the programme, and on procedures for obtaining funds and technical assistance for carrying out the programme (Population Council of the United States of America, 1966).

National population policy

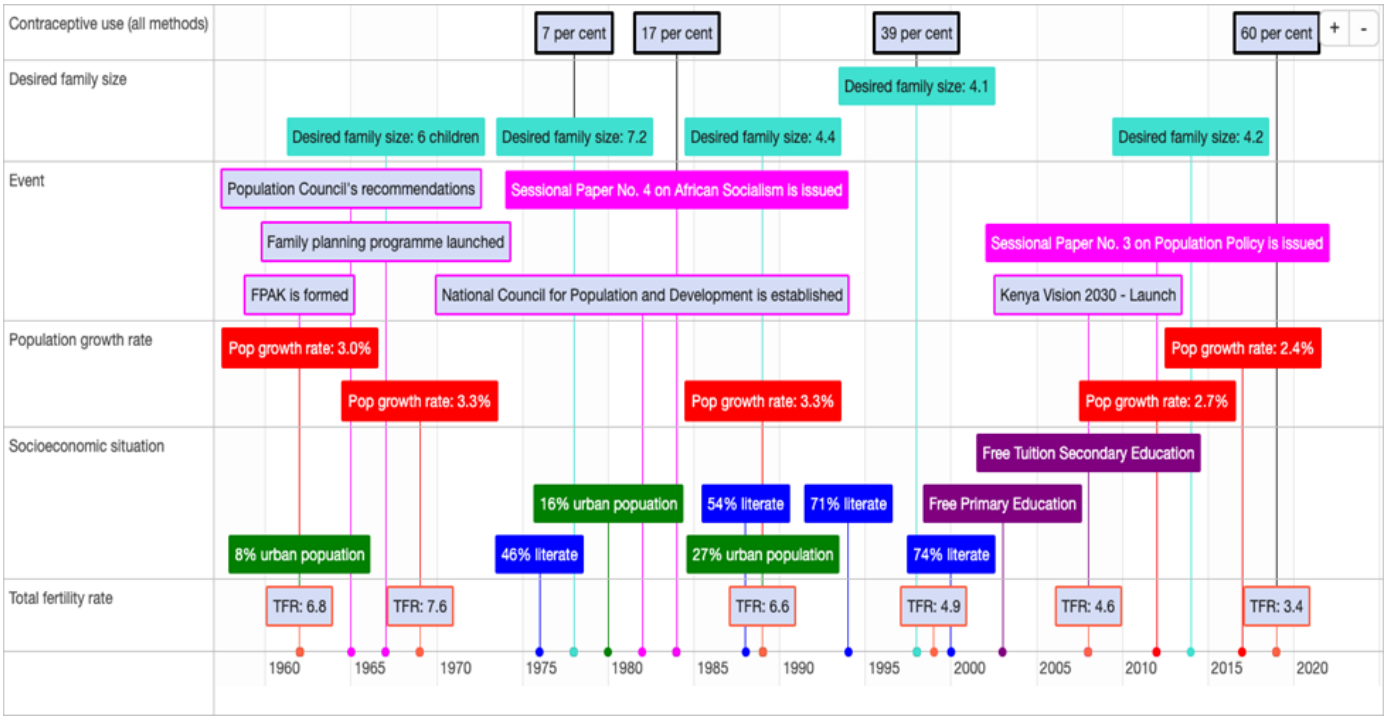
A delegation of the Population Council arrived in June 1965 and submitted its report three months later to the Ministry of Economic Planning and Development (Republic of Kenya, 1967; Population Council of the United States of America, 1966). The report and recommendations served as the basis for formulating a national population policy. The aim of the family planning programme would be to achieve a decline in the population growth rate by limiting the number of children. It recommended that the Government declare its goal to reduce the population growth rate and to embark on a national programme "to make the means of limiting the number of their children, as well as assistance to infertile women desiring children, available to every family" with the ambitious goal of reducing fertility by as much as 50 per cent in 10 to 15 years.

National family planning programme

The Kenyan Government incorporated many of the recommendations of the Population Council into government directives and in the 1966-1970 and 1970-1974 development plans. A National Family Planning Council was established in February 1967, followed by the launch of a national family planning programme in May 1967 (Frank and McNicoll, 1987). The family planning programme would make information and supplies available free of charge through government and private facilities to families wishing to avail themselves of those services through voluntary means and within religious prescriptions. A timeline of Kenya's fertility policy is shown in figure 3.

Figure 3

Timeline of fertility policy in Kenya, 1960-2019



Source: Prepared by the Population Division of the United Nations Department of Economic and Social Affairs.

Kenya framed population growth and its implications primarily as a national development issue, emphasizing the voluntary nature of family planning, taking into account individual and family needs as well as social, cultural and other sensitivities. It integrated population issues in every sector of government and established the National Council for Population and Development to guide the Government's ministries, agencies and sectors in identifying how to integrate population issues in their programmes. It provided the resources and devolved its implementation down from the Office of the Vice-President to district planning committees, district population and family planning committees, and local communities. It encouraged and allowed private entities and NGOs to participate in implementing the national family planning programmes and tasked the National Council for Population and Development to coordinate the activities and efforts of the Government, private agencies, NGOs, and donors. The partnership with the private sector helped to sustain the family planning services and to reach remote rural areas, particularly when the number of new acceptors stalled. Kenya became, in a way, a laboratory of policy development and programme implementation in sub-Saharan Africa.

Kenya accommodated the views of a foreign advisory mission, which stayed and assured the implementation and modifications of the policy. The delegation of the Population Council provided support in several areas of programme implementation, including training of local personnel in population matters, funding and supervising critical research. The uninterrupted presence and involvement of the Population Council in implementing and adjusting the national population policy inspired several foreign agencies, institutions and donors to participate in Kenya's effort to manage its own population growth. Many of those entities still have a physical presence in the country.

Although the family planning programme was conceived to contain population growth, it became eventually an essential part of the country's maternal and child health care programmes. Indeed, the implementation of the national population policy shifted to integrate family planning into the national health programme under the umbrella of maternal and child health. Even as the Programme of Action from the Cairo conference in 1994 shifted the emphasis of population policies and programmes towards improving the quality of people's lives, including by expanding access to sexual and reproductive health services, Kenya stayed the course in its efforts to limit population growth and mitigate its negative impacts on national development. Consistent with the Programme of Action, the high level of adolescent fertility was identified in 1997 as one of the key challenges that needed to be addressed (Republic of Kenya, 1997).

The National Council for Population and Development and the Population Studies and Research Institute at the University of Nairobi played critical roles in tracking the progress in the implementation of the national population policy, assessing its challenges and constraints, providing modifications to implementation and governance, among other activities. These two national institutions, together with other entities, produced seminal papers and policy briefs that were the basis of programme implementation.

Perhaps the most critical factor in the evolution and implementation of the national population policy has been the continued commitment of the Kenyan Government and its emphasis on a participatory process in formulating, implementing and adjusting the policy. The Government's efforts were buoyed, to this day, by sustained donor funding and internal high-level political support. In particular, the government's role in population matters was enshrined in the 2010 Constitution (Constitution of Kenya, 2010). In accordance with the Constitution, every Kenyan is guaranteed to receive health-care services, including for reproductive health and family planning. The Constitution requires that the programmes and projects are implemented in close consultation and collaboration with local governments.

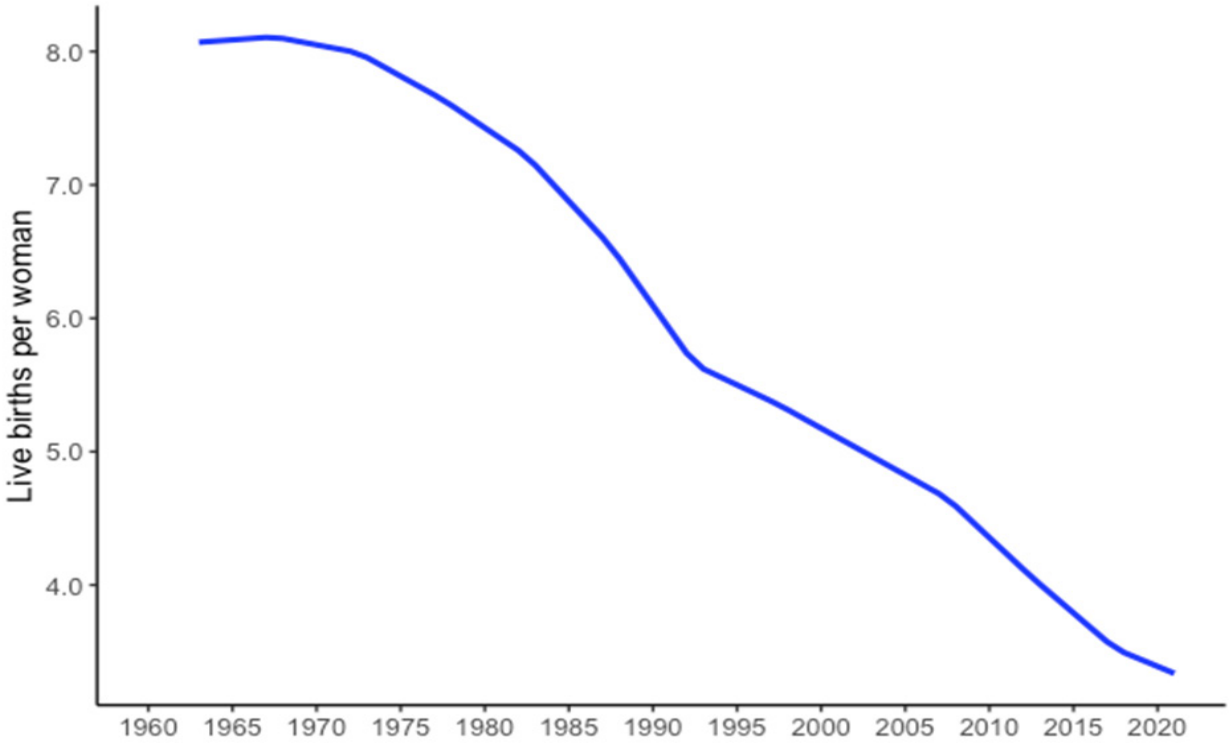
In 2012, the Government launched consultations at the local, regional and national levels on the country's population policy for national development. Following those consultations, the Government launched a new policy to manage its persistent rapid population growth and youthful population structure through a multi-sectoral approach (National Council for Population and Development, 2012). Between 2009 and 2030, the new policy aims to reduce the number of children a woman has over her lifetime from 4.6 to 2.6; increase contraceptive use of modern methods from 40 to 70 per cent; reduce the population growth rate from 2.5 to 1.5 per cent; reduce the dependency ratio from 87 to 54; and increase the median age of the population from 17 to 25 years in line with Vision 2030, the 2010 Constitution, the SDGs and other national goals and international aspirations. The United Nations Population Fund (UNFPA) has supported Kenya's population policies by strengthening reproductive health services, improving supply chains for contraceptives, advocacy against gender-based violence, and facilitating integration of population dynamics into policy formulation (UNFPA, 2021a).[8]

[8] See https://kenya.unfpa.org/en.

Already, in 2019, the proportion of married women using modern methods of contraception was 56 per cent, up from 39 per cent in 2009, and the total fertility rate had declined to 3.4 children per woman, down from 4.5 children per woman in 2012 (figure 4). The Government is cognizant of the challenges in implementing the policy, which includes the diminished share of resources for population and family planning activities due to competing or new and emerging issues, such as the fight against HIV/AIDS, and high levels of adolescent fertility partly attributed to early marriages and polygamy, and during the last two years, efforts to contain the spread of COVID-19.

Figure 4

Total fertility rates in Kenya, 1960-2021



Source: United Nations (2019).

When the family planning programme was first launched, the population was not ready in many ways, including materially, culturally and psychologically. Nonetheless, the Government and donors consistently supported the population policy and family planning programme. Generations have since been born and grown up surrounded by ubiquitous family planning services and information that defy the shame associated with the use of family planning services in many other sub-Saharan countries.[9] As the population became more accepting, the family programme succeeded in more than halving the total fertility rate from 7.7 to 3.3 children per woman between 1984 and 2021. By all accounts, Kenya is deemed to have led a successful family planning programme (Aliyu, 2018; May, 2017), alongside Ethiopia, Madagascar, Malawi, Rwanda, South Africa and Zimbabwe.

[9] A recent study associated the implementation of high-quality programmes in sub-Saharan Africa with rapid changes in reproductive behaviour (Bongaarts, 2020).

Policies to discourage adolescent childbearing: Argentina

Today, Argentina is a low-fertility country that has historically been either a pronatalistor or pro-maternalistic country, or both (Cepeda, 2014). Like most countries in Latin American and the Caribbean, a majority of the country's population ascribe to the Roman Catholic faith, a religion that influenced many policies, including those related to fertility. Historically, Argentina is also a country of immigrants, well beyond the colonization period. After gaining independence in 1816, Argentina became one of the world's top receivers of immigrants, most of them from Spain, Italy and other European countries. Despite its relatively overall low level of fertility since the twentieth century, Argentina exemplifies the persistence of high fertility among adolescents in the region (figure 5) and an increasing contribution of adolescent births to total fertility.

Population policies in the country should be placed within the larger context of major socio-political changes in Argentina (Novick, 2001). In the period preceding 1930, women were mostly confined to family roles. After 1930, women were granted some liberties and civil rights, were allowed into the labour force and given certain protections in the workplace: their employment could not be terminated because of marriage, they were granted maternity protection, including medical care and financial compensation, and pregnant women were prohibited to work during the 30 days preceding a birth and during the 45 days following a birth.

First population congress, 1940

At the first population congress, or Primer Congreso de la Población (PCP), convened in 1940, major concerns were raised about the slowdown in population growth. During the period 1935-1940, the population growth rate had declined to 1.6 per cent, down from 2.7 per cent for the period 1925-1930. The slow population growth rate and the decline in fertility were seen as posing serious limitations for the future economic growth of the nation (Novick, 2001).

The PCP generated a lot of media attention, editorial commentary and public discussions. It was a watershed event that informed population policy in the ensuing years. During 1945-1955, the Government assumed greater responsibility for women and children's health (Novick, 2001; Ramacciotti, 2003). It provided subsidies for births, granted employment preference in hiring and retention of parents and exempted or reduced taxes for large families (Ramacciotti, 2003). Children previously classified as legitimate or illegitimate were now classified as born in wedlock or out of wedlock, with other discriminatory categories and designations phased out. For the first time, parents who did not meet their paternal obligations could be imprisoned (Novick, 2001).

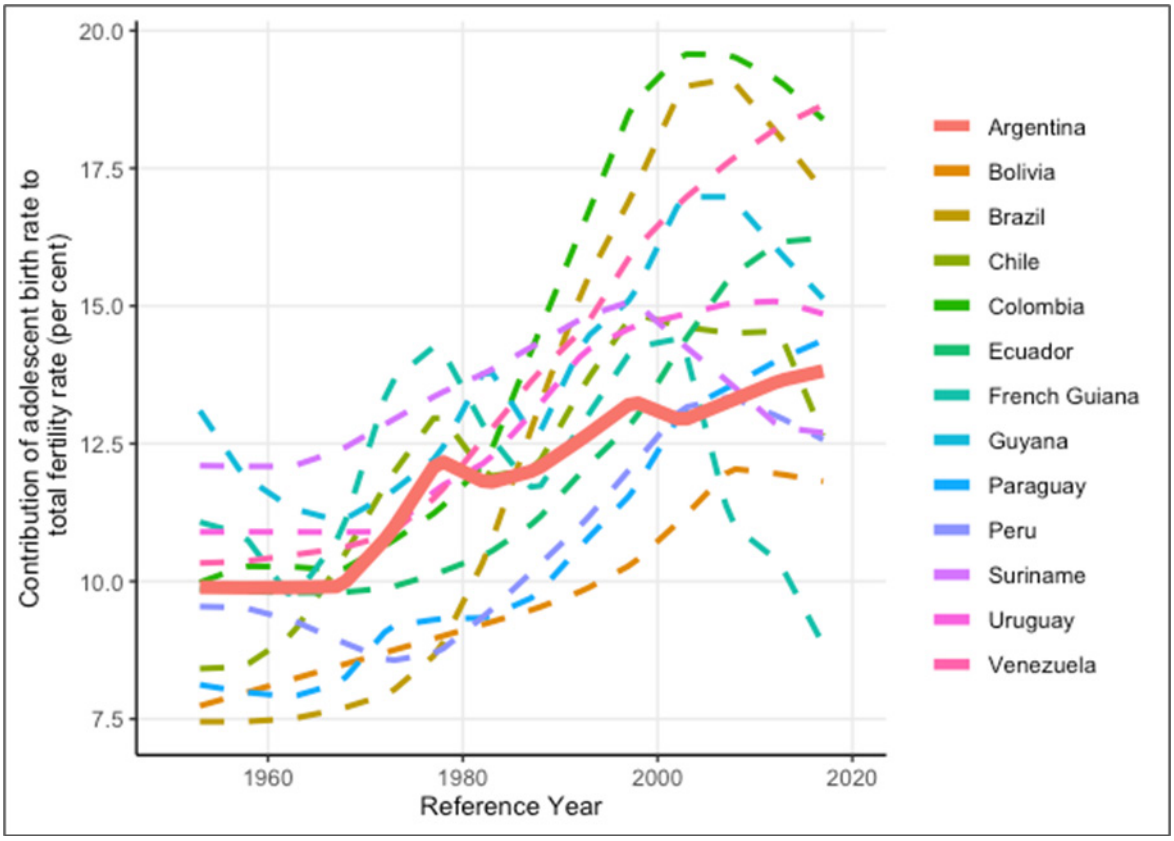
From the 1950s through the early 1970s, the Government continued to expressly declare its responsibility for the health of mothers and children, implementing a policy that guaranteed free medical care and basic foodstuffs. In 1974, the Government created a national commission on demographic policy, the Comisión Nacional de Política Demográfica, to support population growth. In that same year, at the World Population Conference in Bucharest, Argentina joined other countries in the argument against the Malthusian view of population growth. In the meantime, however, adolescent fertility had begun to become a concern in the 1970s, a decade later than in Europe and the United States of America (Gogna and others, 2008), because of the strong pronatalist sentiments in Argentina.

Petracci, Ramos and Szulik (2005) have summarized the evolution of policies on reproductive health in Argentina since the 1980s as involving three phases. First, the gradual opening of public space and receptivity of reproductive health issues. Second, the passing of a national sexual and reproductive health law. Third, the successful development of public policy and programmes, despite the pressures from conservative groups and contradicting policies over the lifetime of several different governments to date.[10]

[10] As Robinson and Ross (2007) have observed, governments implement policies by enacting laws, creating implementing agencies, and expending public resources. These actions provide the framework within which policy responses and endurance occur. Argentina is emblematic that the

Figure 5

Contribution of adolescent birth rate (births to women aged 15-19 years) to total fertility rate, South American countries (in percentage)



Source: United Nations (2019).

International agreements

Following the ratification of the Convention on the Elimination of All Forms of Discrimination against Women in 1985, and the agreements reached at the International Conference on Population and Development in 1994 and the Fourth World Conference on Women in 1995, a strong public consensus emerged around key reproductive health issues (Petracci, Ramos and Szulik, 2005). After the unsuccessful attempt to include a section penalizing abortion in the amendment of the National Constitution in 1994, many provinces and municipalities established local reproductive health programmes, undeterred by the position against abortion adopted by the Argentine Government together with the Vatican in Cairo in 1994.[11]

Adolescent fertility as an issue

The adolescent fertility rate rose and peaked towards the end of the 1980s at 80 births per 1,000 adolescent girls.[12] By 2001, Argentina was experiencing a serious socioeconomic and political crisis, with almost half of its population living in poverty and 19 per cent of the labour force unemployed. Millions of young people were neither in school nor working (Reina and Castelo-Branco, 2014).

political and social context might change but, often, the policy responses endure.

[11] Novick (2001) has observed that the Argentine Government's position against abortion at the Cairo conference in 1994 did not necessarily imply a pro-birth policy at the domestic level.

[12] Census and survey data show that half of adolescent mothers aged 15-19 were living with their spouse or consensual partner in 2001 and 1 in 10 were divorced or separated (Gogna and others, 2008; López, 2006).

In 2003, the Government created a National Programme for Sexual Health and Responsible Procreation, which was tasked with the development and implementation of public policies on sexual and reproductive health. The programme is aimed at the population in general, without discriminating against any sector or population group.[13] The tasks specific to adolescents included the prevention of unwanted pregnancy and the promotion of sexual health. This programme distributes contraceptive commodities free of charge throughout the country. Under the 2006 National Comprehensive Sexual Education Programme, (Ministerio de Justicia y Derechos Humanos, 2006), comprehensive sexual education became a right of all children, adolescents and young people who attend the public and private schools at the primary and secondary levels (Malnis, 2018).[14]

Argentina launched a conditional cash transfer programme (Asignación Universal por Hijo) in 2009, a monthly cash allowance for each unmarried child under the age of 18 years—or with no age limit for a child with a disability—whose household members are unemployed or informal workers. The programme provides the subsidy to only one of the parents, prioritizing the mother, and for up to five children (Administración Nacional de la Seguridad Social, 2021; Badaracco, Gasparini and Marchionni, 2016).

Discussion

Argentina experienced a peculiar trend in fertility levels. The fertility transition in Argentina occurred long before hormonal contraceptives were available, indicating that fertility was traditionally controlled by the use of periodic abstinence, withdrawal and abortion (Gogna and Pantelides, 2009). Despite the decades-long pro-maternal and pronatalistpolicies and programmes, and the intermittent ban on family planning activities and restrictions on abortion, the present fertility levels were reached, in part, by using modern contraception and abortion. The overall fertility decline was associated mostly with a reduction in inequality and poverty in Argentina and in Latin America more generally (Badaracco, Gasparini and Marchionni, 2016).

The current level of fertility in Argentina is comparable to average total fertility rates in the Latin American and Caribbean region. Concern remains, though, about the trends in the adolescent fertility rate, which are above the regional average, despite the policies and programmes that have been implemented. The adolescent birth rate has declined at a slower pace than the total fertility rate and it remains high at 61.7 per 1,000 adolescent women, sustained by the high birth rates among girls in the poorer socioeconomic strata, a reflection of inequity (Reina, and Castelo-Branco, 2018). Estimates of the contribution of abortion to fertility decline show that in the late 2000s, an average of 450,000 unsafe abortions per year were performed in Argentina, or 0.64 abortions per birth, suggesting a shortfall in policy effectiveness or conflicting impacts on wanted fertility.[15]

The availability of contraceptive commodities and services is not necessarily associated with fertility intentions. Studies in Argentina and elsewhere have observed that many women and adolescents—especially those in the lower socioeconomic strata—desire motherhood from a very young age because it increases self-esteem, social approval and prestige within a woman's family and community (UNICEF, 2001; López, 2006; Dyer, 2007; Ombelet and others, 2008; Kane and others, 2019). A study by López (2006) shows that three out of five sexually active adolescent girls aged 15-19 were using contraception in Argentina, although a majority were already mothers, some with more than one child. Subsequent research shows that more than 80 per cent of adolescents in Argentina were not using a contraceptive method when they became pregnant, even though they did not necessarily want to have a child (Reina, and Castelo-Branco, 2018; Gogna and others, 2008). Also, access and use of contraception by adolescents in Argentina is still controversial, particularly in

[13] The law that established the National Programme of Sexual Health and Responsible Procreation is reproduced in Reina and Castelo-Branco (2014).
[14] However, 75 per cent of the adolescents in the last two years of high school indicate that the school does not offer them sex-education topics that are of interest and relevant to them (Equipo Latinoamericano de Justicia y Género (ELA), 2020).
[15] Even though abortion is legally restricted, studies in 2008 show that 5 per cent of adolescents in Argentina had an abortion (Gogna and others, 2008) and that 16 per cent of the hospital admissions for abortion complications were girls under 20 years of age (Reina and Castelo-Branco, 2014).

some poor provinces where the influence of the Catholic Church and other conservative forces is still strong (Gogna and Pantelides, 2009).

There are suggestions that the high levels of adolescent fertility in Argentina could be partly the unintended result of policies and programmes, such as the cash transfers for young mothers, that were designed to mitigate the negative association between socioeconomic inequalities and adolescent fertility (ECLAC, 2012; Garganta and others, 2017). Young mothers are then most likely to use family planning when the challenges of parenthood dawn on them. Also, unlike countries such as Mexico, where adolescent births occur mostly within marriage or a union (Quick, 2014), childbearing among adolescents in Argentina appears to have become more socially tolerable, especially after the Government ended the discrimination against children born out of wedlock (Novick, 2001).

Policies to encourage childbearing and raise fertility: Hungary

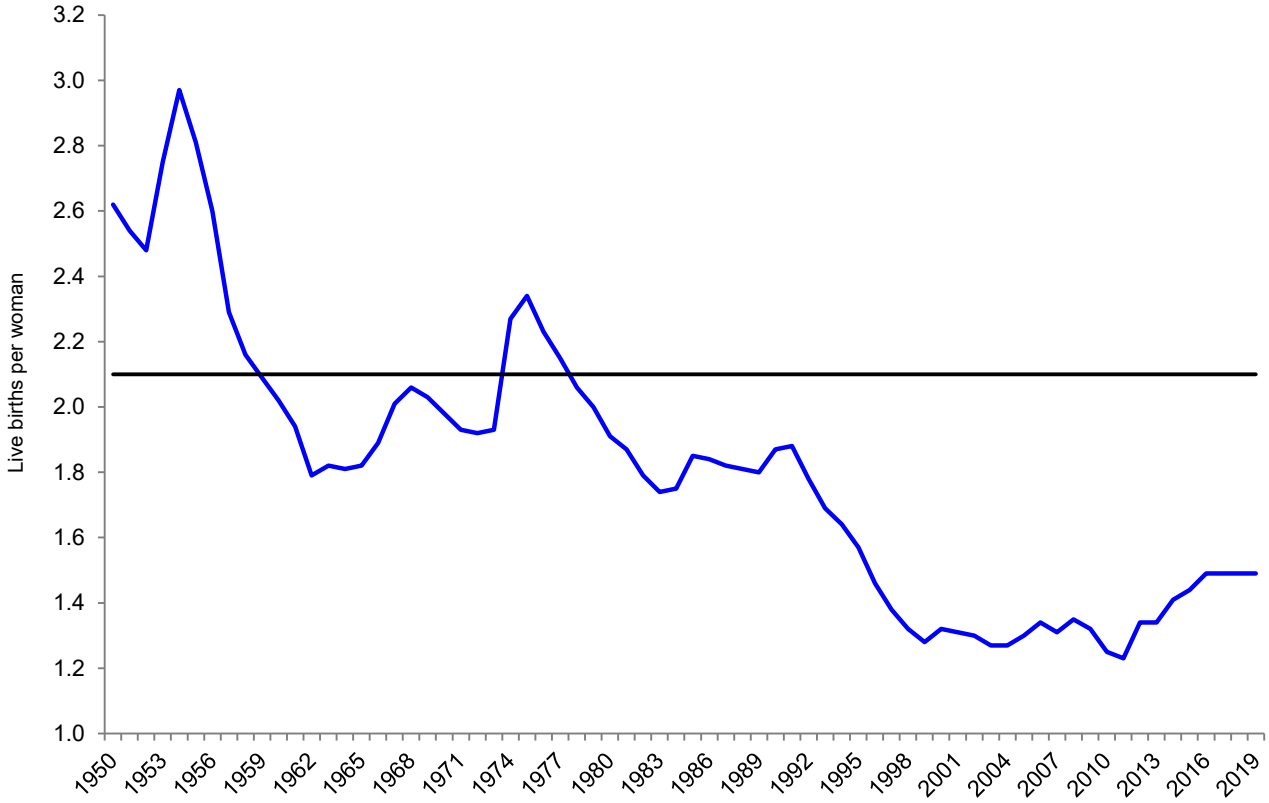
Since the late 1940s, Hungary has continuously implemented policies to raise fertility, with short and temporary changes towards less pronatalist approaches. Nonetheless, fertility in Hungary declined below the replacement level for the first time in 1960 and has continued to decline further to about 1.5 births per women during 2015-2020. Unlike many other developed countries, Hungary experienced only a moderate baby boom after the Second World War. The total fertility rate was 2.6 births per woman in 1950, but quickly declined below the replacement level in the 1960s, reaching a level of 1.8 births in 1962. The country's population size has been falling since 1980.

Policies intended to raise the fertility level and promote population growth were adopted by the Hungarian Government both during the period of the centrally planned economy (1949-1989) and during the period of the current market economy (1989 to present). There were frequent changes in policies and programmes associated with different political regimes during the 1990s and early 2000s (Spéder, 2015). The current Government coalition, which has been in power since 2010, has steadily expanded policies to encourage families to have more children.

Maternity and family allowances introduced in 1967 and 1973 may have been the cause of a rebound that raised fertility levels for a short period even above the replacement level in the mid-1970s. However, past medium-term trends towards lower fertility resumed quickly thereafter and stabilized around 1.8 births until the early 1990s. The 1990s were marked by the collapse of the Soviet Union and the transition to a new political system that also included economic reforms, including the adoption of a fiscal austerity programme that led to a sharp economic downturn. The constraints and uncertainties associated with these drastic political, social and economic transformations led many couples to delay the starting of a family and childbearing in general. Total fertility dropped to a low level of 1.3 births per women in 1999 and stayed around that level until 2011. The country's total fertility rate has risen slightly to nearly 1.5 births per women over the past five years (figure 6).

Figure 6

Total fertility rates in Hungary, 1950-2019



Source: Hungary Central Statistical Office (2021).

Responding to changing population dynamics, population and family policies in Hungary have evolved over time. In the 1950s, the Government first introduced policy measures restricting access to abortions and contraception that were quickly relaxed in response to public objections to these measures. This led to an increase in the number of abortions and a decline in the number of births until the early 1960s (United Nations, 1989a). In 1967, the Government introduced the maternity allowance, a paid maternity leave with job security for mothers to take care of a young child until the child's third birthday. In 1973, family allowances were introduced, whereby families and young couples received benefits to improve their housing conditions, such as low-rent public housing and interest-free housing loans. Later on, in 1985, the Government adopted new population policies to address fertility decline and negative population growth. The measures included a wage-adjusted parental leave, tax relief for large families and the expansion of the family allowances to unemployed parents.

Following the end of socialism in Hungary, successive governments continued the family policies to support families aimed at raising fertility, even though priorities and the extent of support evolved (Spéder, 2015). The current Government, in power since 2010, has a strong demographic focus with an objective to raise fertility to a level of 2.1 births per woman by 2030. The existing family welfare system has been modified and expanded over the past decade and currently provides family allowances and tax credits as well as universal maternity leave, childcare support and flexible employment to help parents return to the labour market. However, due to the complexity of the various programmes, many Hungarians are reportedly unfamiliar with them (Albert, 2018). The current scope of public financial support for families and children in Hungary ranks second only after France among OECD countries as a percentage of GDP (OECD, 2021).

One characteristic of the Hungarian family policy is its support for families with three or more children. In 2016, a family "home creation" scheme was introduced to support couples who have or plan to have three children, with an allowance equivalent to €32,250. Starting in 2018, families with three or more children and who have a mortgage on their home can deduct their debt. The deduction is of one million Hungarian forint (equivalent to €3,200) after the birth of their third child, and a further 1 million forints after the birth of each subsequent child. On 1 January 2020, a new tax allowance was introduced for mothers raising four or more children, applicable before any other tax allowance (Albert, 2018, 2020). In early 2020, the Government also announced that Hungary would provide free in-vitro fertilization (IVF) treatment to couples at State-run clinics.

It will take time to observe whether these latest family policies will have a lasting effect in raising fertility towards the replacement level and reversing the trend of population decline. In the meantime, the total fertility rate has increased to just under 1.5 births per woman, with the latest figure for 2020 was 1.56 births (Hungary Central Statistical Office, 2021).

Policies to support families and encourage childbearing: Australia

Australia has enjoyed a moderately low fertility for several decades compared to other developed countries. Australia does not have an official policy concerning the fertility level, although the Government expressed a desire to raise the fertility level in recent United Nations inquiries (United Nations, 2018). There have been various social security payments ranging from family tax benefits and allowances for childcare aimed at alleviating poverty, which are also beneficial for families to raise children in Australia. These measures have been attributed to maintaining current levels of fertility (McDonald, 2015).

Australia experienced an extended baby boom from 1946 to 1964 with total fertility peaking at 3.6 births per woman in 1961 (figure 7). Fertility declined shortly thereafter, reaching the below-replacement level of 2.1 births per women in 1976. Fertility levels declined further and finally stabilized between 1.8 and 1.9 births since the late 1970s with a continued downward trend that was only interrupted briefly in the period between 2007 and 2009, when fertility increased to about 2 births per women. In 2019, the total fertility rate reached a historic low of just below 1.7 (1.66) births per woman.

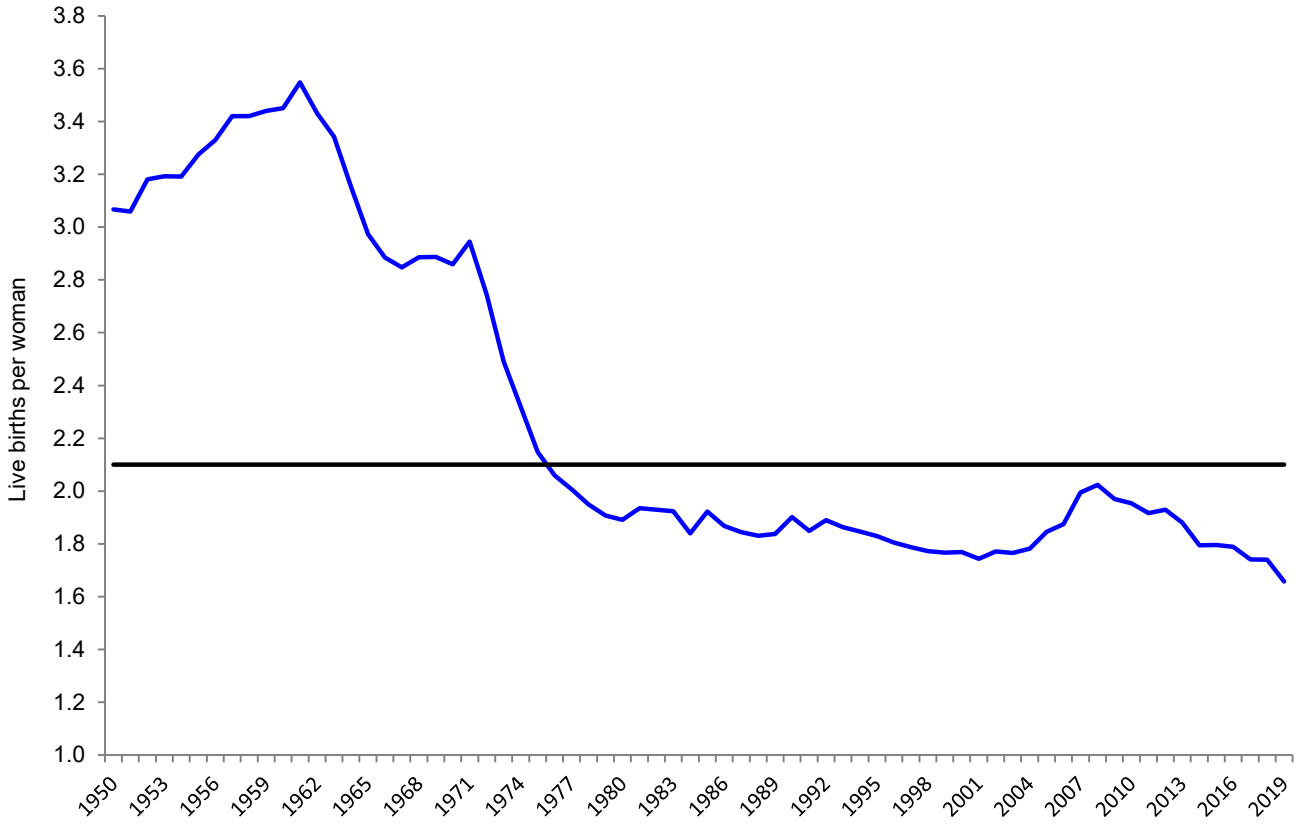
Australia has provided support to families with children since the early twentieth century. For example, a maternity allowance of £5 (over two weeks wages for an unskilled worker) was introduced in 1912 (Daniels, 2009). Over the years, the Government has introduced various welfare payment schemes to help families with children. Nonetheless, the type and strength of support vary depending on which major party is in power (McDonald, 2015). The current family payment scheme, that consists of two components, was instituted in the late 1990s: the Family Tax Benefit Part A, an income-tested assistance for each dependent child, and the Family Tax Benefit Part B, a family-based payment to give extra help to single parents and some couples with only one main income.[16] The Government started to provide an income-tested childcare allowance in 1983. In the early 2000s, a childcare tax rebate was introduced for out-of-pocket childcare costs, from which eligible families can claim 30 per cent tax rebate for up to 50 hours for each child per week. Australia's first national paid parental leave scheme was introduced in 2011, and revised in 2014, although many employers had already provided such a benefit on a voluntary basis. In 2009, the Australian Parliament passed the Fair Work Act 2009 which stipulated that a parent, or someone having responsibility for the care of a child of school age or younger, can request flexible working arrangements, including the hours, patterns and locations of work, if she or he has worked with the same employer forat least 12 months. These family-friendly policies help women to participate in the labour force and to

[16] More details about Australia's family tax benefits are available at www.servicesaustralia.gov.au/individuals/services/centrelink/family-tax-benefit.

balance work and family life through flexible work arrangements. For example, during 2019-20, 78 per cent of women aged 30-39 years participated in the labour force and nearly 60 per cent of employed mothers worked part-time (Australian Bureau Statistics, 2020).

Figure 7

Total fertility rates in Australia, 1950-2019



Source: Australian Bureau of Statistics (2021).

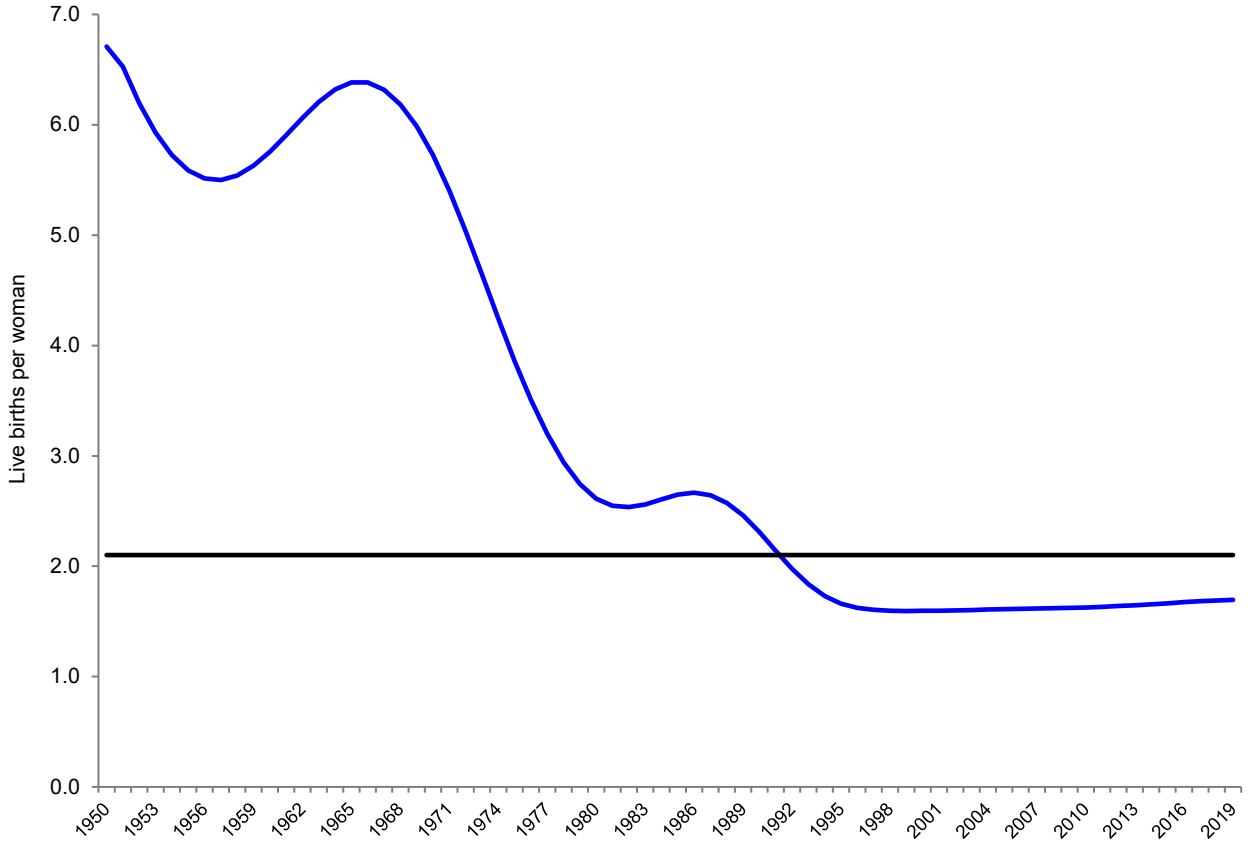
For a decade (2004-2013), the Government directly paid a lump sum and non-means tested maternity payment to all mothers for each newborn child and each young child adopted, in response to declining fertility and population ageing. In 2001, total fertility had declined to 1.74 births per woman, the lowest level since 1950. The Government released its first intergenerational report in 2002 highlighting significant ageing-related challenges, such as potential labour supply shortages, reduced economic growth and domestic revenue, increased medical costs and increased demand for old-age care, if no action would be taken. In this context, in May 2004 the Government introduced a baby bonus for new mothers. The pronatalist motivation was illustrated by the famous slogan coined by the Australian Treasurer at that time, Mr. Peter Costello, who encouraged each couple to have three children: "one for mum, one for dad and one for the country" (Costello, 2004). From 1 July 2004 onwards, all women with newborns or adopted children under the age of two years, regardless of her marital status and household income, were to be paid AU$3,000, an amount that increased to AU$4,000 in 2006 and to AU$5,000 in 2008. Because of its high cost, the policy generated considerable controversy in the country and became a topic of debate in every election over the following decade; it underwent a series of revisions that increasingly restricted the size of benefits paid, until finally the policy was revoked in 2013.

Policies to lower and then raise fertility: China

In China, the total fertility rate declined from 6.3 births per woman in 1965-1970, just before the start of the nationwide family planning programme, to 1.7 births during 2015-2020 (figure 8). During the past half century, China has developed, maintained and adjusted population policies with a family planning programme focused on limiting the number of births per couple, with the intention to lower fertility. A strict policy, allowing each couple to have only one child with few exceptions, termed the "one-child policy", was implemented between 1979 and 2015. In 2015, it was replaced by a policy allowing each couple to have two children. After further revisions, the formal policy as of mid-2021 allows each couple to have up to three children, with the explicit intention of raising the country's fertility level and countering the situation of sustained low fertility and rapid population ageing.

Figure 8

Total fertility rates in China, 1950-2019



Source: United Nations (2019).

Like most developing countries, China experienced rapid population growth in the 1950s and 1960s with its total population increasing from 554 million in 1950 to 828 million in 1970 and its growth rate peaking at 2.7 per cent in 1968 (United Nations, 2019). After the implementation of the family planning programme, the total fertility rate fell from 5.4 births per woman in 1971 to 2.8 births in 1979 (Coale, 1984). During the following decade, total fertility rate fluctuated well above the replacement level despite the strict "one child" policy already referred to. In 1992, the total fertility rate declined below the replacement level and has remained below this level since. Exactly how far below the replacement level did fertility decline after the

early 1990s has been a topic of considerable debate. According to the latest census in 2020, the total fertility rate had fallen to 1.3 births per woman in 2020, a level comparable to Italy, Japan, the Republic of Korea and Spain. A continuation of the long-term trend of fertility decline is likely, possibly reinforced by the COVID-19 pandemic (United Nations, 2021).

The national fertility policy during 1971-1979, termed the "later, longer and fewer" policy, had three components: a) encouraging later marriage and childbearing, b) requiring longer birth spacing, and c) allowing at most three children each couple can have (United Nations, 1989b). Despite a rapid fertility decline during this period, the population kept increasing, to 1 billion people in 1980. In the late 1970s, the Chinese Government started a "reform and open-up" policy making economic development a top priority while considering rapid population growth a major impediment to economic advancement. As noted above, in late 1979, the Government introduced a stricter policy, allowing each couple to have one child only, with a few exceptions in urban areas and more exceptions in rural areas. The policy was in general successful in cities but faced some resistance in rural areas. As a result, the Government relaxed the policy in rural areas in 1984, allowing couples to have a second child if the first one was a girl. This modified policy was maintained until the mid-2010s. To accommodate the diversity in such a large country, the policy was translated into regulations at the provincial level. It was estimated that the fertility level based on the provincial regulations would be 1.6 births per woman (Gu and others, 2007). To legalize this policy at the national level, a Population and Family Planning Law was enacted in 2001.

In response to the surprising results of the 1990 population census that revealed that China's population had increased to nearly 1.2 billion and its total fertility rate was still above the replacement level (2.4 births per woman), the Chinese Government tightened the policy enforcement, requiring the heads of Government at all levels to take personal responsibility for its strict implementation, and couples violating the policy to pay a significant "social compensation" fee (Greenhalgh and Winkler, 2002). These practices were maintained until the mid-2010s. Realizing the challenges arising from the growing labour shortage, rapid ageing and the social consequences of the long-standing unbalanced sex ratio at birth (more males than females than expected), the Chinese Government eased the policy in 2013, allowing couples to have two children if one of the parents was from a single-child family, and later in 2015, replaced it with a universal policy allowing each couple to have two children.

The policy relaxation brought a short-lived increase in the annual number of births in 2016 and 2017. However, during the following three years, births continued to decline, which would result in zero or negative population growth in the very near future. Following the release of the 2020 population census results in May 2021, the Chinese Government decided to apply a three-child policy, aimed at raising the fertility level to maintain population growth with a more balanced age structure. This occurred exactly 40 years after introducing a fertility policy to lower fertility levels in an effort to curb rapid population growth. It had long been argued that China's low fertility was not the sole result of the one-child policy, and that rapid socioeconomic development since the 1990s had played an important role in driving down fertility (Zhao and Zhang, 2018). Realizing that many factors are at play, the Chinese Government also plans to take a range of measures to support couples to have more children, including providing support for childcare through widely available facilities, encouraging local governments to provide paid parental leave, and abolishing the social compensation fee for those violating the policy. In August 2021, an amended Population and Family Planning Law was passed to incorporate the new policy.

Mothers and infants at Primary Health Centre, Madagascar, by UN Photo/Eskinder Debebe, 2006

The impact of the COVID-19 pandemic on fertility

Since early 2020, the COVID-19 pandemic has caused great economic disruptions, with major impacts on people's health and livelihoods. From a demographic perspective, COVID-19 has impacted all three components of population change, namely fertility, mortality and migration. By the end of December 2021, more than 300 million people had been infected and more than 5 million people had died due to the disease. The pandemic has hit countries across the world at different times and with a range of intensity and duration. The effects on fertility appear to differ as a function of the severity and duration of the epidemic, the country's socioeconomic level and its policy responses.[17] While some countries have registered a decline in births during the pandemic and may perhaps see a fertility rebound thereafter, other countries might see a short-term increase in fertility from unintended pregnancies due to disruptions in access to family planning services, which could pose challenges especially in sub-Saharan Africa and in some countries of Latin America and the Caribbean.

How the COVID-19 pandemic affects fertility

Historically, the response of human fertility to external shocks such as famine, epidemics and economic crises have followed a fairly common pattern: fertility declined in response to rising mortality, normally with a nine-month lag, and rebounded one or two years after the crisis (Lee, 1990; Livi Bacci, 2000). This phenomenon was clearly observed in the 1918 influenza pandemic and more recently in the context of 2015 Zika virus outbreak in Brazil (Mamelund 2004; Rangel, Nobles and Hamoudi, 2020).

Past experiences can help to understand the impact of the current pandemic on fertility. However, it is important to recognize the differences between the COVID-19 pandemic and previous pandemics and epidemics in disease transmission, progression, morbidity and mortality profiles as well as differences in the socioeconomic consequences of the related disease containment measures. While the influenza and Zika epidemics mainly affected younger people, in the early stages of the coronavirus disease 2019 pandemic, COVID-19 morbidity, and especially mortality, has disproportionately affected older persons (Aassve and others, 2020).

Existing research identifies three major mechanisms through which the COVID-19 pandemic can affect fertility. The first mechanism is widespread fear and uncertainty about the future, particularly at the early stage of the pandemic. Being confronted with a new and highly contagious virus-based illness for which neither cure, treatment or vaccination were available, caused fear of infection, illness and death of individuals and family members. In addition, concerns about an uncertain future resulting from strict and extended lockdowns adopted to curb the spread of the disease triggered additional worries about the future in general. The broad coverage of the socioeconomic as well as health related aspects of the pandemic in the mass media and social media platforms may have contributed to the creation of a "pandemic of fear" (Mencarini, 2021; Mamelund, 2021) that could have led to postponement of childbearing at least temporarily, causing a temporary dip in fertility levels, particularly in some of the countries that were affected in the early stages of the pandemic.

The second possible factor that could continue to impact fertility is the increase in unemployment and rising job insecurity. Since the start of the pandemic, unprecedented measures to control the spread of the virus by governments across the world resulted in major economic and social disruptions. Global GDP fell by an

[17] This chapter is based on the Expert Group Meeting on the Impact of the COVID-19 Pandemic on Fertility, organized virtually by the Population Division in May 2021. The key findings of the meeting, which brought together more than 100 experts from across the world, are provided here with a view to providing Governments and other stakeholders with empirical information to assess and as needed, revise and adjust fertility and family planning related policies and programmes in order to cope with the impact of the pandemic. Further information on the expert group meeting can be found here.

estimated 4.3 per cent in 2020, compared to a reduction of 1.7 per cent during the Great Recession in 2009 (United Nations, 2021). Hundreds of millions of people lost their jobs and income, and those who still have jobs continue to face increasing job insecurity. Previous research shows that fertility decline was correlated significantly with a rise in unemployment at different reproductive ages during the Great Recession (Sobotka, Skirbekk and Philipov, 2011; Matysiak, Sobotka and Vignoli, 2021). In the United States, the fertility decline continued even after the recession had ended (Seltzer, 2019).

The third possible mechanism is the increase in unintended pregnancies in less developed countries that have experienced and continue to experience disruptions in the supply of and access to family planning services and commodities. The 2014-2016 Ebola outbreak in Guinea, Liberia and Sierra Leone led to disruptions in access to family planning services. Fertility data from Liberia point towards an early sign of an apparent "post-Ebola baby boom" attributed to increased unintended pregnancies in January 2016 (McBain and others, 2016; Sochas, Channon and Nam, 2017). Early in the pandemic, there were widespread concerns about a shortage of and access to essential sexual and reproductive health-care services, including family planning. A more recent study found that disruptions in family planning services were largely concentrated in April and May 2020. It was estimated that about 12 million women had experienced contraceptive interruptions, leading to 1.4 million unintended pregnancies during 2020 across 115 low- and middle-income countries (UNFPA, 2021b). To secure access to sexual and reproductive health services many governments declared sexual and reproductive health-care services to be essential services and service providers developed innovative methods for service delivery, with broad support from international and non-governmental organizations. Such joint efforts by the national entities and the international community are expected to help reduce the risk of unintended pregnancies and births in parts of the less developed countries.

At this point in time, it is not known how the evolution of the pandemic, the increased availability of vaccines and more recently, treatments, along with global efforts to rebuild global economies, will affect people's perceptions of the threats of the pandemic to their health and economic well-being, nor is it known how all this will impact on couples' decisions to start a family or expand an existing one. Learning to live with the virus and building confidence in a better post-COVID-19 world could trigger an uptick in births when parents decide to catch up on postponed childbearing intentions. Intensified efforts to restore sexual and reproductive health services, including access to family planning where the service supply chains were severely disrupted, will hopefully limit the number of unintended pregnancies.

Early data from selected countries and regions

Early data from a number of low-fertility countries, mostly in Europe and Northern America, indicate a fertility decline in 2020. For example, the *Short-Term Fertility Data* series available in the *Human Fertility Database*,[18] showed that in many European countries the monthly number of births fell sharply between October 2020 and March 2021, compared with the same period a year earlier (October 2019 to March 2020). However, no fertility declines were noted in the Nordic countries. Data for March 2021 even point towards unexpected upturns in the number of births in some countries. Overall, a continuation of the present downward trajectory of fertility after 2021 appears likely in most European countries (Sobotka, 2021). In the United States of America, the total fertility rate declined from a previous low of 1.7 births per woman in 2019 to 1.6 births in 2020. It is expected that in the short term the United States of America will continue to observe declines in both the number of births as well as the fertility level.

In line with the pre-pandemic declining fertility trends in Asia, China's birth registration system reported a significant drop in fertility in late 2020, reaching an all-time low of 1.3 births per woman in 2020. These record low fertility levels were confirmed by the latest population census data (National Bureau of Statistics,

[18] Human Fertility Database, available at www.humanfertility.org/cgi-bin/main.php.

China, 2021). Continued fertility declines were also observed in Japan and the Republic of Korea. For these three countries as well as for low- and middle-income countries in Eastern and South-Eastern Asia, available data point towards a continuation of pre-pandemic fertility trajectories.

Australia and New Zealand had adopted strict zero-COVID-19 strategies[19] to contain the spread of the virus, that included lockdowns, quarantines and border closures. Although both countries were not as heavily hit by the pandemic as were Europe and Northern America, the pandemic appears to have had some effect on the total fertility rate in both Australia and New Zealand, which fell from 1.66 to 1.58 births per woman and from 1.72 to 1.66 birth per woman from 2019 to 2020, respectively (Australian Bureau of Statistics, 2021; Statistics New Zealand, 2021).

In Latin America and the Caribbean, early evidence points to a decrease in fertility in some countries strongly affected by the first wave of the COVID-19 pandemic,[20] with preliminary data suggesting a postponement of childbearing in Brazil and an accelerated drop in adolescent fertility in Chile. A significant decline in the number of births was also observed in Cuba and Peru (UNFPA, 2021c). However, in the longer term, the region is expected to return to pre-pandemic fertility patterns and trends.

In countries with available data in sub-Saharan Africa, access to and use of family planning seem to have been stable since the outbreak of the pandemic. In some instances, contraceptive use increased, and women switched to more effective methods (implants and injectables) rather than to discontinue contraceptive use altogether. However, early data for Northern Africa and Western Asia, Central and Southern Asia reported disruptions to family planning services, with poorer women and women in remote rural areas being more likely affected and therefore possibly exposed to a higher risk of unintended pregnancies. Early statistics reported that Bangladesh experienced a significant increase in the number of births in late 2020 and early 2021 (UNFPA, 2021c).

Caution is required in interpreting these early statistics. For low-income countries, timely and accurate birth registration data are not available and high- and middle-income countries experienced delays in timely registration of births. Also, it is important to take into consideration the lag of nine months between conception and birth of a child, and that available fertility data reflect births from conceptions during the early stages of the pandemic. Continued monitoring of fertility data will be necessary to obtain a better understanding of the impact of the pandemic on fertility levels and trends.

Post-pandemic fertility levels and trends

Judging from historical experiences, the current status of the pandemic and the available evidence to date (as of May 2021), fertility fluctuations during 2021 to 2023 are likely to be minor in general, and fertility levels to likely return to pre-pandemic levels between 2023 and 2025. High vaccination rates in some countries along with efforts to revitalize their economies, could lead some countries to focus on a post COVID-19 future, whereas in poorer countries, especially in some parts of Asia and sub-Saharan Africa, vaccination drives could take years to complete, portending future waves of infection, the spread of new virus variants and potentially a different or more prolonged impact on fertility.

[19] Zero-COVID-19 strategies were ended in Australia on 31 August 2021 and in New Zealand on 5 October 2021.
[20] Latin America was declared by the World Health Organization (WHO) as the epicenter of the COVID-19 pandemic in May 2020, accounting for more than 40 per cent of the world's COVID-19 death then, with the total infection rate exceeding 6.5 million cases and a loss of over 350,000 lives; in: OECD (2020): Tackling coronavirus (COVID-19): Contributing to a global effort; COVID-19 in Latin America and the Caribbean: an overview of government response to the crisis, 11 November 2020.

People wait to receive a COVID-19 vaccine at Javits Center in New York City, by Spencer Platt/Getty Images, 2021

Summary and policy considerations

Seventy years ago, with the adoption of the first national population policy in India in 1952, the focus of population and family policies in developing countries with rapidly growing populations, was to lower fertility and curb population growth. According to the *World Population Policies database*, more than 20 years later, in 1976, 40 countries, accounting for almost two thirds of the world's population at that time and including almost all the largest developing countries, except for Nigeria, Ethiopia, Brazil and the Former USSR, had explicit policies to reduce fertility levels.

Total fertility has fallen markedly over recent decades in many countries (United Nations, 2019), and it has begun to fall even in countries where fertility levels remain high. It is difficult to determine the direct effects of fertility and population policies on fertility levels within a country, since individual national policies are generally embedded in a wider institutional, economic, social and cultural context. However, it seems likely that direct measures, such as the provision of sexual and reproductive health care and broad access to family planning, in combination with the indirect impact of broader developments, such as the advancement of women in education and employment, the increased costs of raising a family and cultural shift towards more egalitarian approaches by couples within households, have contributed to the global decline in fertility and family size.

As of 2019, more than 60 per cent of governments globally (124 out of 197 countries or areas) had policies attempting to influence the current level of fertility with another 19 governments aiming to maintain its current fertility level, albeit with a growing number adopting pronatalist measures (55 countries or areas out of 143 countries or areas with such policies – see also table 1). Many governments have adopted implicit or explicit pronatalist family policies, such as offering baby bonuses and parental leave and/or tax-incentives as well as housing and income allowances related to the birth of a child. Subsidized fertility treatment, long-term job guarantees for new mothers/parents and affordable childcare and after-school care are some of the additional incentives adopted to raise fertility.

While various approaches and initiatives to lower fertility have shown results globally (United Nations, 2019), reversing the long-term downward trends in total fertility that are the outcome of social, economic and cultural transformations, has proven to be much more difficult (United Nations, 2015). While some countries in Europe have been able to maintain their fertility levels or have even seen slight increases over a relatively short period (for example, France, Germany, and Hungary), there is a lack of evidence that these increases are stable and long term, and not merely a reaction by couples to take advantage of incentives provided by advancing the birth of their next child without increasing their ultimate family size.

Even the COVID-19 pandemic, with direct and indirect implications for the health and socioeconomic well-being of populations worldwide, appears not to have interrupted the global trend towards lower fertility levels (United Nations, 2021).

In summary, governments should anticipate that fertility will continue to decline globally. This ongoing trend is expected to lead, inevitably, to population ageing and also, potentially, to smaller populations in many countries worldwide. Countries near the onset of this transition need to take advantage of the demographic window of opportunity created by a shifting age distribution to bolster their economies, by providing education and job opportunities to their growing working-age populations, whereas countries with declining populations need to adjust to the new realities of an older and possibly smaller population. Continued support by governments, the private sector, civil society and international development partners to sustain sexual and reproductive health-care services, including access to family planning, is needed to continue to enable men and women to freely decide on marriage and family formation, including the timing and spacing of the children they wish to have.

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Annex table

Key indicators of Member and non-member States of United Nations, globally through 2019

Region, country or area	Population (thousand)	Total fertility rate (live births per woman)	Adolescent fertility rate (live births per 1,000 girls aged 15-19 years)	Policy concerning current fertility level	Whether providing maternity leave	Whether providing public subsidized childcare	Whether providing direct support for family planning	Whether providing indirect support for family planning	Whether expanding girls' secondary school enrolment/ retention	Whether providing school-based sexuality education
Reference period	2019	2015-20	2015-20	2015-19	2015-19	2015-19	2019	2019	2015-19	2015-19
SUB-SAHARAN AFRICA										
Eastern Africa										
Burundi	11531	5.5	55.6	Lower	Yes		Yes	Yes	Yes	Yes
Comoros	851	4.2	65.4	Lower	Yes				Yes	Yes
Djibouti	974	2.8	18.8	Lower	Yes				Yes	Yes
Eritrea	3497	4.1	52.6	Lower	Yes				Yes	Yes
Ethiopia	112079	4.3	66.7	Lower	Yes				Yes	Yes
Kenya	52574	3.5	75.1	Lower	Yes				Yes	Yes
Madagascar	26969	4.1	109.6	Lower	Yes				Yes	Yes
Malawi	18629	4.3	132.7	Lower	Yes		Yes	Yes	Yes	Yes
Mauritius	1270	1.4	25.7	Raise	Yes	Yes	Yes	Yes		Yes
Mozambique	30366	4.9	148.6	Lower	Yes		Yes	No	Yes	Yes
Rwanda	12627	4.1	39.1	Lower	Yes				Yes	Yes
Seychelles	98	2.5	62.1	No policy	Yes					Yes
Somalia	15443	6.1	100.1	No policy	Yes		Yes	No		
South Sudan	11062	4.7	62.0	Raise	Yes		Yes	No	Yes	Yes
Uganda	44270	5.0	118.8	Lower	Yes				Yes	Yes
United Republic of Tanzania	58005	4.9	118.4	Maintain	Yes		Yes	Yes	Yes	Yes
Zambia	17861	4.7	120.1	Lower	Yes		Yes	Yes	Yes	Yes
Zimbabwe	14645	3.6	86.1	Lower	Yes				Yes	Yes
Middle Africa										
Angola	31825	5.6	150.5	Lower	Yes		Yes	No	Yes	Yes
Cameroon	25876	4.6	105.8	Lower	Yes		Yes	Yes	Yes	Yes
Central African Republic	4745	4.8	129.1	No policy	Yes		Yes	Yes	Yes	Yes
Chad	15947	5.8	161.1	Lower	Yes		Yes	Yes	Yes	
Congo	5381	4.5	112.2	No policy	Yes	Yes	Yes	Yes	Yes	Yes
Democratic Republic of the Congo	86791	6.0	124.2	Lower	Yes		No	Yes	Yes	Yes
Equatorial Guinea	1356	4.6	155.6	Lower	Yes		Yes	Yes		
Gabon	2173	4.0	96.2	Raise	Yes	Yes	Yes	Yes	Yes	Yes
Sao Tome and Principe	215	4.4	94.6	No policy	Yes		Yes	No	Yes	Yes
Southern Africa										
Botswana	2304	2.9	46.1	Maintain	Yes		Yes	No		Yes
Eswatini	1148	3.0	76.7	Lower	Yes				Yes	Yes
Lesotho	2125	3.2	92.7	Lower	Yes	Yes			Yes	Yes

Region, country or area	Population (thousand)	Total fertility rate (live births per woman)	Adolescent fertility rate (live births per 1,000 girls aged 15-19 years)	Policy concerning current fertility level	Whether providing maternity leave	Whether providing public subsidized childcare	Whether providing direct support for family planning	Whether providing indirect support for family planning	Whether expanding girls' secondary school enrolment/ retention	Whether providing school-based sexuality education
Reference period	2019	2015-20	2015-20	2015-19	2015-19	2015-19	2019	2019	2015-19	2015-19
Namibia	2495	3.4	63.6	No policy	Yes		Yes	Yes	Yes	Yes
South Africa	58558	2.4	67.9	No policy	Yes		Yes	Yes	Yes	Yes
Western Africa										
Benin	11801	4.9	86.1	Lower	Yes	Yes	Yes	Yes	Yes	Yes
Burkina Faso	20321	5.2	104.3	Lower	Yes	Yes	Yes	Yes	Yes	
Cabo Verde	550	2.3	73.8	Lower	Yes				Yes	Yes
Côte d'Ivoire	25717	4.7	117.6	Lower	Yes		Yes	Yes	Yes	Yes
Gambia	2348	5.3	78.2	Lower	Yes	Yes	Yes	No	Yes	Yes
Ghana	30418	3.9	66.6	Lower	Yes				Yes	
Guinea	12771	4.7	135.3	Lower	Yes	Yes	Yes	Yes	Yes	Yes
Guinea-Bissau	1921	4.5	104.8	Lower	Yes		No	Yes	Yes	Yes
Liberia	4937	4.4	136.0	No policy	Yes		No	Yes	Yes	Yes
Mali	19658	5.9	169.1	Lower	Yes		Yes	Yes	Yes	
Mauritania	4526	4.6	71.0	Lower			Yes	Yes	Yes	
Niger	23311	7.0	186.5	Lower	Yes		Yes	Yes	Yes	Yes
Nigeria	200964	5.4	107.3	Lower	Yes		Yes	No	Yes	Yes
Senegal	16296	4.7	72.7	Lower	Yes		Yes	Yes	Yes	Yes
Sierra Leone	7813	4.3	112.8	Lower	Yes		Yes	No	Yes	
Togo	8082	4.4	89.1	Lower	Yes		Yes	Yes	Yes	Yes
NORTHERN AFRICA AND WESTERN ASIA										
Northern Africa										
Algeria	43053	3.1	10.1	Lower	Yes	Yes			Yes	
Egypt	100388	3.3	53.8	Lower	Yes	Yes	Yes	Yes	Yes	Yes
Libya	6777	2.3	5.8	No policy	Yes		No	No	Yes	
Morocco	36472	2.4	31.0	Maintain	Yes	Yes			Yes	Yes
Sudan	42813	4.4	64.0	No policy	Yes	Yes	No	..	Yes	
Tunisia	11695	2.2	7.8	Maintain	Yes		Yes	..		
Western Asia										
Armenia	2958	1.8	21.5	Raise	Yes	Yes	Yes	Yes		Yes
Azerbaijan	10048	2.1	55.8	Maintain	Yes	Yes			Yes	Yes
Bahrain	1641	2.0	13.4	Lower	Yes				Yes	Yes
Cyprus	1199	1.3	4.6	Raise	Yes	Yes				Yes
Georgia	3997	2.1	46.4	Raise	Yes	Yes	No	No	Yes	Yes
Iraq	39310	3.7	71.7	No policy	Yes	Yes	No	No		Yes
Israel	8519	3.0	9.6	Raise	Yes	Yes			Yes	Yes
Jordan	10102	2.8	25.9	Lower	Yes				Yes	
Kuwait	4207	2.1	8.2	Raise	Yes					
Lebanon	6856	2.1	14.5	No policy	Yes				Yes	Yes
Oman	4975	2.9	13.1	Maintain	Yes	Yes			Yes	Yes
Qatar	2832	1.9	9.9	Raise	Yes	Yes				

Region, country or area	Population (thousand)	Total fertility rate (live births per woman)	Adolescent fertility rate (live births per 1,000 girls aged 15-19 years)	Policy concerning current fertility level	Whether providing maternity leave	Whether providing public subsidized childcare	Whether providing direct support for family planning	Whether providing indirect support for family planning	Whether expanding girls' secondary school enrolment/ retention	Whether providing school-based sexuality education
Reference period	2019	2015-20	2015-20	2015-19	2015-19	2015-19	2019	2019	2015-19	2015-19
Saudi Arabia	34269	2.3	7.3	Raise	Yes		Yes	Yes		
State of Palestine	4981	3.7	52.8	No policy	Yes	Yes	Yes	Yes		
Syrian Arab Republic	17070	2.8	38.6	Lower	Yes	Yes	Yes	Yes	Yes	Yes
Turkey	83430	2.1	26.6	Raise	Yes	Yes	..	..	Yes	
United Arab Emirates	9771	1.4	6.5	Raise	Yes					
Yemen	29162	3.8	60.4	Lower	Yes		Yes	..	Yes	
CENTRAL AND SOUTHERN ASIA										
Central Asia										
Kazakhstan	18551	2.8	29.8	Raise	Yes	Yes	No	No		
Kyrgyzstan	6416	3.0	32.8	Raise	Yes	Yes	Yes	No		Yes
Tajikistan	9321	3.6	57.1	Lower	Yes	Yes			Yes	
Turkmenistan	5942	2.8	24.4	Raise	Yes	Yes			Yes	Yes
Uzbekistan	32982	2.4	23.8	No policy	Yes	Yes	Yes	No	Yes	Yes
Southern Asia										
Afghanistan	38042	4.6	69.0	Lower	Yes	Yes	Yes	Yes	Yes	Yes
Bangladesh	163046	2.1	83.0	Lower	Yes		Yes	No	Yes	Yes
Bhutan	763	2.0	20.2	Lower	Yes	Yes				Yes
India	1366418	2.2	13.2	Lower	Yes	Yes	Yes	Yes	Yes	Yes
Iran (Islamic Republic of)	82914	2.2	40.6	Raise	Yes		Yes	No	Yes	
Maldives	531	1.9	7.8	No policy	Yes		Yes	No		Yes
Nepal	28609	1.9	65.1	Lower	Yes		Yes	No	Yes	Yes
Pakistan	216565	3.6	38.8	Lower	Yes	Yes	Yes	Yes	Yes	
Sri Lanka	21324	2.2	20.9	No policy	Yes		Yes	No	Yes	Yes
EASTERN AND SOUTH-EASTERN ASIA										
Eastern Asia										
China	1433784	1.7	7.6	Raise	Yes	Yes	Yes	Yes		
Dem. People's Republic of Korea	25666	1.9	0.3	Raise	Yes	Yes	Yes	Yes		Yes
Japan	126860	1.4	3.8	Raise	Yes	Yes	No	No		Yes
Mongolia	3225	2.9	31.0	Raise	Yes	Yes				Yes
Republic of Korea	51225	1.1	1.4	Raise	Yes	Yes				
South-Eastern Asia										
Brunei Darussalam	433	1.8	10.3	No policy	Yes					
Cambodia	16487	2.5	50.2	No policy	Yes		Yes	No	Yes	Yes
Indonesia	270626	2.3	47.4	Lower	Yes				Yes	Yes
Lao People's Democratic Republic	7169	2.7	65.4	No policy	Yes		Yes	Yes	Yes	Yes
Malaysia	31950	2.0	13.4	No policy	Yes		Yes	No	Yes	Yes
Myanmar	54045	2.2	28.5	No policy	Yes	Yes	Yes	No	Yes	Yes
Philippines	108117	2.6	54.2	Lower	Yes	Yes	Yes	Yes	Yes	Yes

Region, country or area	Population (thousand)	Total fertility rate (live births per woman)	Adolescent fertility rate (live births per 1,000 girls aged 15-19 years)	Policy concerning current fertility level	Whether providing maternity leave	Whether providing public subsidized childcare	Whether providing direct support for family planning	Whether providing indirect support for family planning	Whether expanding girls' secondary school enrolment/ retention	Whether providing school-based sexuality education
Reference period	2019	2015-20	2015-20	2015-19	2015-19	2015-19	2019	2019	2015-19	2015-19
Singapore	5804	1.2	3.5	Raise	Yes	Yes				Yes
Thailand	69626	1.5	44.9	Raise	Yes	Yes				Yes
Timor-Leste	1293	4.1	33.8	Lower	Yes	Yes			Yes	Yes
Viet Nam	96462	2.1	30.9	Maintain	Yes		Yes	Yes	Yes	Yes
LATIN AMERICA AND THE CARIBBEAN										
Caribbean										
Antigua and Barbuda	97	2.0	42.8	No policy	Yes	Yes	Yes	Yes		Yes
Bahamas	389	1.8	30.0	No policy	Yes	Yes				Yes
Barbados	287	1.6	33.6	No policy	Yes	Yes	Yes	Yes		
Cuba	11333	1.6	51.6	Raise	Yes	Yes			Yes	
Dominica	72			No policy	Yes	Yes				Yes
Dominican Republic	10739	2.4	94.3	Lower	Yes	Yes				Yes
Grenada	112	2.1	29.2	Maintain	Yes	Yes			Yes	Yes
Haiti	11263	3.0	51.7	Lower	Yes		Yes	Yes	Yes	Yes
Jamaica	2948	2.0	52.8	Lower	Yes	Yes				
Saint Kitts and Nevis	53			No policy	Yes	Yes				Yes
Saint Lucia	183	1.4	40.5	No policy	Yes	Yes	Yes	Yes	Yes	Yes
Saint Vincent and the Grenadines	111	1.9	49.0	No policy	Yes	Yes	Yes	Yes		Yes
Trinidad and Tobago	1395	1.7	30.1	Maintain	Yes		Yes	Yes	Yes	Yes
Central America										
Belize	390	2.3	68.5	No policy	Yes		Yes	Yes	Yes	Yes
Costa Rica	5048	1.8	53.5	No policy	Yes	Yes	..	..	Yes	Yes
El Salvador	6454	2.1	69.5	Lower	Yes	Yes	Yes	No	Yes	Yes
Guatemala	17581	2.9	70.9	No policy	Yes	Yes	Yes	No	Yes	Yes
Honduras	9746	2.5	72.9	No policy	Yes	Yes	No	Yes	Yes	Yes
Mexico	127576	2.1	60.4	Lower	Yes	Yes	Yes	No	Yes	Yes
Nicaragua	6546	2.4	85.0	Lower	Yes	Yes				Yes
Panama	4246	2.5	81.8	No policy	Yes				Yes	
South America										
Argentina	44781	2.3	62.8	Maintain	Yes	Yes			Yes	Yes
Bolivia (Plurinational State of)	11513	2.8	64.9	Maintain	Yes				Yes	Yes
Brazil	211050	1.7	59.1	No policy	Yes	Yes			Yes	Yes
Chile	18952	1.7	41.1	Raise	Yes	Yes			Yes	Yes
Colombia	50339	1.8	66.7	Maintain	Yes	Yes	Yes	Yes	Yes	Yes
Ecuador	17374	2.4	79.3	Lower	Yes	Yes			Yes	Yes
Guyana	783	2.5	74.4	Raise	Yes		Yes	Yes		Yes
Paraguay	7045	2.4	70.5	Maintain	Yes	Yes				Yes
Peru	32510	2.3	56.9	Lower	Yes		Yes	No	Yes	Yes
Suriname	581	2.4	61.7	No policy	Yes	Yes	Yes	No		Yes

Region, country or area	Population (thousand)	Total fertility rate (live births per woman)	Adolescent fertility rate (live births per 1,000 girls aged 15-19 years)	Policy concerning current fertility level	Whether providing maternity leave	Whether providing public subsidized childcare	Whether providing direct support for family planning	Whether providing indirect support for family planning	Whether expanding girls' secondary school enrolment/ retention	Whether providing school-based sexuality education
Reference period	2019	2015-20	2015-20	2015-19	2015-19	2015-19	2019	2019	2015-19	2015-19
Uruguay	3462	2.0	58.7	No policy	Yes	Yes	Yes	Yes	Yes	Yes
Venezuela (Bolivarian Republic of)	28516	2.3	85.3	No policy	Yes	Yes				Yes
AUSTRALIA/NEW ZEALAND										
Australia	25203	1.8	11.7	No policy	Yes	Yes	No	Yes		Yes
New Zealand	4783	1.9	19.3	No policy	Yes	Yes	No	Yes	Yes	Yes
OCEANIA (EXCLUDING AUSTRALIA AND NEW ZEALAND)										
Melanesia										
Fiji	890	2.8	49.4	Lower	Yes					Yes
Papua New Guinea	8776	3.6	52.7	Lower	Yes				Yes	Yes
Solomon Islands	670	4.4	78.0	Lower	Yes				Yes	Yes
Vanuatu	300	3.8	49.4	Lower	Yes				Yes	Yes
Micronesia										
Kiribati	118	3.6	16.2	Lower	Yes					Yes
Marshall Islands	59			Lower						
Micronesia (Fed. States of)	114	3.1	13.9	Lower	Yes					Yes
Nauru	11			Maintain	Yes					Yes
Palau	18			No policy	Yes	Yes				Yes
Polynesia										
Cook Islands	18			Raise	Yes					Yes
Niue	2			Raise	Yes	Yes				Yes
Samoa	197	3.9	23.9	Lower	Yes					Yes
Tonga	104	3.6	14.7	Maintain	Yes	Yes				
Tuvalu	12			Lower	Yes	Yes				Yes
EUROPE AND NORTHERN AMERICA										
EUROPE										
Eastern Europe										
Belarus	9452	1.7	14.5	Raise	Yes	Yes	Yes	No		Yes
Bulgaria	7000	1.6	39.9	Raise	Yes	Yes			Yes	Yes
Czechia	10689	1.6	12.0	No policy	Yes	Yes	No	No		Yes
Hungary	9685	1.5	24.0	Raise	Yes	Yes				Yes
Poland	37888	1.4	10.5	Raise	Yes	Yes				Yes
Republic of Moldova	4043	1.3	22.4	Raise	Yes	Yes	Yes	No		Yes
Romania	19365	1.6	36.2	Raise	Yes	Yes	..	..	Yes	Yes
Russian Federation	145872	1.8	20.7	Raise	Yes	Yes	No	No		
Slovakia	5457	1.5	25.7	Raise	Yes	Yes			Yes	
Ukraine	43994	1.4	23.7	Raise	Yes	Yes	Yes	No		Yes
Northern Europe										
Denmark	5772	1.8	4.1	No policy	Yes	Yes	Yes	No		

Region, country or area	Population (thousand)	Total fertility rate (live births per woman)	Adolescent fertility rate (live births per 1,000 girls aged 15-19 years)	Policy concerning current fertility level	Whether providing maternity leave	Whether providing public subsidized childcare	Whether providing direct support for family planning	Whether providing indirect support for family planning	Whether expanding girls' secondary school enrolment/ retention	Whether providing school-based sexuality education
Reference period	2019	2015-20	2015-20	2015-19	2015-19	2015-19	2019	2019	2015-19	2015-19
Estonia	1326	1.6	7.7	Raise	Yes	Yes				Yes
Finland	5532	1.5	5.8	Raise	Yes	Yes	No	No		
Iceland	339	1.8	6.3	Maintain	Yes	Yes				
Ireland	4882	1.8	7.5	No policy	Yes	Yes				Yes
Latvia	1907	1.7	16.2	Raise	Yes	Yes	No	No		Yes
Lithuania	2760	1.7	10.9	Raise	Yes	Yes	Yes	No		Yes
Norway	5379	1.7	5.1	No policy	Yes	Yes				Yes
Sweden	10036	1.9	5.1	No policy	Yes	Yes	Yes	Yes		Yes
United Kingdom	67530	1.8	13.4	No policy	Yes	Yes	Yes	Yes		
Southern Europe										
Albania	2881	1.6	19.6	Raise	Yes	Yes	Yes	Yes	Yes	Yes
Andorra	77			Maintain	Yes					
Bosnia and Herzegovina	3301	1.3	9.6	No policy	Yes	Yes			Yes	Yes
Croatia	4130	1.4	8.7	Raise	Yes	Yes				
Greece	10473	1.3	7.2	Raise	Yes	Yes	..	..		
Holy See	1			Raise	Yes					
Italy	60550	1.3	5.2	Raise	Yes	Yes				
Malta	440	1.5	12.9	Raise	Yes	Yes	No	No		Yes
Montenegro	628	1.8	9.3	Lower	Yes	Yes	No	Yes	Yes	Yes
North Macedonia	2083	1.5	15.7	Raise	Yes	Yes				
Portugal	10226	1.3	8.4	Raise	Yes	Yes			Yes	Yes
San Marino	34			No policy	Yes	Yes				
Serbia	8772	1.5	14.7	Raise	Yes	Yes	No	Yes	Yes	Yes
Slovenia	2079	1.6	3.8	No policy	Yes	Yes	Yes	No		Yes
Spain	46737	1.3	7.7	Raise	Yes	Yes				Yes
Western Europe										
Austria	8955	1.5	7.3	Raise	Yes	Yes				Yes
Belgium	11539	1.7	4.7	Maintain	Yes	Yes	No	Yes	Yes	Yes
France	65130	1.9	4.7	Raise	Yes	Yes				Yes
Germany	83517	1.6	8.1	No policy	Yes	Yes	No	Yes		Yes
Liechtenstein	38			Raise	Yes	Yes				Yes
Luxembourg	616	1.5	4.7	Raise	Yes	Yes				Yes
Monaco	39			Maintain	Yes	Yes				
Netherlands	17097	1.7	3.8	No policy	Yes	Yes	No	No		Yes
Switzerland	8591	1.5	2.8	No policy	Yes	Yes	No	Yes		
NORTHERN AMERICA										
Canada	37411	1.5	8.4	No policy	Yes	Yes				Yes
United States of America	329065	1.8	19.9	No policy		Yes				Yes

The *World Population Policies 2021: Policies related to fertility,* provides a brief overview of global fertility levels and trends since the early 1960s and explores government's views and policies related to fertility. The analysis of views and policies draws on data gathered through 2019 and available in the *World Population Policies Database*, reflecting the situation before the outbreak of the coronavirus disease 2019 (COVID-19) pandemic. The report then presents five case studies of countries from different regions and with a range of fertility levels, exploring in more detail the origin and evolution of national fertility policies. The case studies are followed by an assessment of known or potential direct and indirect impacts of the COVID-19 pandemic on fertility patterns and trends. The report concludes with an exploration of policy options that governments may wish to consider in the current context.

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