

Post-2015 Development Agenda

South Africa Perspectives



Population

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Population and Demography

In the wealthy countries of Europe, Asia and the Americas populations are aging rapidly, while birth rates in some Asian countries and much of sub-Saharan Africa remain high and they have large and growing numbers of young people. Against this background, the Copenhagen Consensus has highlighted two key priority areas for the post-2015 development agenda: making family planning available to everyone and reducing barriers to migration.

39 of Africa's 55 countries are classified as high fertility, with population growth at 1.4% or higher a year. There are 58 high fertility countries around the world, with about 18% of current global population, but they account for around 38% of global population growth.

Sub-Saharan Africa continues to be a problem: the slower than expected decline in fertility rates in the region has led the UN to increase its projection for global population in 2100 from 9 billion to 10.8 billion. However, there are large differences between countries in the region, and South Africa is one country that has seen big falls in the birth rate. Its growth rate is now just 0.65% a year, down from 2.52% in 1980. In contrast, the average growth rate in sub-Saharan Africa up to 2060 is expected to be nearly 2%.

South Africa is experiencing the same demographic transition as many other countries, which will have important implications for human and economic development. The HIV/AIDS epidemic (South Africa has more people living with HIV than any other country) has reduced life expectancy, but this has now recovered to 57.6 years (it was 56.9 in 1980). It is predicted to reach 68.8 in 2050.

The proportion of people over 65 will increase to 10.5% from 5.7%, while the proportion of under-15s will fall from 29% to less than 21%. The rate of population growth is expected to fall by more than half, to 0.3%, and the population is projected to be 63 million in 2050. This is slightly less than the global rate of growth and significantly less than growth in the region overall.

South Africa stands out from many neighbouring countries, but still has some way to go to improve human capital, raising standards of, for example, education and healthcare to reduce inequality and use demographic changes to drive social, economic and environmental progress. Some countries in Latin America and South-East Asia have made more progress both in this and reducing fertility.

A key target which would help reduce population growth, particularly in high fertility countries, is making modern contraception available to everyone. In addition to reducing the birth rate and infant and maternal deaths, this can deliver a range of other benefits including more education for girls, better mother and child health and more female participation in the labour force. In South Africa, where fertility rates have already fallen substantially, increased children's and women's wellbeing is likely to be the major benefit.

In high-fertility countries, including many African ones, spending a dollar on family planning should produce benefits worth over \$90, one third of which would be down to reduced infant and maternal mortality and two thirds to increased income growth. South Africa, with its lower fertility rate, has less progress to make, but reaping the benefits of the demographic dividend relies on reducing the current birth rate further. Spending a Rand on family planning is still likely to produce benefits worth 30 Rand or more.

Another big issue on the population front is continued urbanisation. Nearly two thirds of South Africa's population is urban (compared to 38% in the region as a whole), and this proportion is expected to increase to 77% by 2050. One of the drivers of city growth will be migration pressure from poorer countries in the region.

Urbanisation has potentially important positive implications for development, including higher wages, better schooling and better healthcare, but it is important that the downsides such as overcrowding and pollution are minimised. It is likely that investing in successful urbanisation would be very cost effective.

Population aging in South Africa will require policies which will provide economic security to older people while sustaining strong economic growth, two potentially conflicting goals. However, in the South African context, it is important, for example, to untie social safety nets and health and pension systems from formal labour markets, to improve lifelong learning opportunities and promote 'healthy aging' to avoid the danger of the country getting old before it gets rich.



POPULATION IN THE POST-2015 DEVELOPMENT AGENDA

WHY IS IT IMPORTANT FOR SOUTH AFRICA?

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Population and Demography

Prioritizing the Post-2015 UN Development Agenda: The Example of South Africa and Sub-Saharan Africa

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1 Background

Prioritizing the Post-2015 UN Development Agenda on Population and Demography requires a recognition that national demographic trajectories are currently more diverse than in the middle and late 20th century. Wealthy countries of Europe, Asia and the Americas face rapid population aging, while Africa and some countries in Asia prepare for the largest cohort of young people the world has ever seen. And many of the world's poorest countries, particularly in sub-Saharan Africa, continue to face premature mortality, high fertility and often unmet need for contraception. In light of these demographic transformations, the United Nations' *Report of the Global Thematic Consultation on Population Dynamics*¹ highlights three central aspects of how population dynamics affect the Post-2015 Development Agenda:

1. *Population dynamics are at the centre of the main development challenges of the 21st century, and must therefore be addressed in the post-2015 development agenda.*
2. *Mega population trends—population growth, population aging, migration and urbanization—present both important developmental challenges and opportunities that have direct and indirect implications for social, economic and environmental development.*
3. *Demography is not destiny. Rights-based and gender-responsive policies can address and harness population dynamics.*

Agreeing with these broad implications of population change for human and economic development, our Copenhagen Consensus analyses for *Population and Demography*² highlight the following high-priority policy areas for the Post-2015 Development Agenda:

- *Make family planning available to everyone*, including achieving universal access to sexual and reproductive health (SRH) services by 2030, and eliminating unmet need for modern contraception by 2040.
- *Reducing of barriers to migration*, within low- and middle-income countries,

as well as between low- and middle-income countries and high-income countries.

Benefit-cost ratios for expanding family planning are likely to very high, possibly larger than 90 in high-fertility countries, and the benefit-cost ratios for reducing barriers to migration are around 45. Both of these policy priorities and their relevance for South Africa and Sub-Saharan Africa are discussed below. In addition, our analyses for the Copenhagen Consensus project indicate several priorities with *probably high*, but difficult to quantify, benefit-cost ratios. These include the *elimination of age-based eligibility criteria for retirement*, and interventions facilitating *more efficient and more equitable inevitable urbanization*.

Our analyses of *Population and Demography* also emphasize that “population quality” (or human capital), including aspects such as health and education, is an important further aspect of population dynamics that is essential for addressing the challenges of future population changes, for promoting gender equality and human rights, and for realizing the benefits of population dynamics for social, economic and environmental development. Population quality therefore needs to be seen as an inherent component of population dynamics, and in some areas—for instance policies addressing population aging—population quality-related policies to increase life-long learning and adaptability and to mitigate impacts of chronic diseases are primary policies. Because aspects of population quality are discussed in other Copenhagen Consensus papers, the discussion here focuses primarily on population quantity, including aspects such as population growth, population age structure, migration and urbanization.

2 Population trends in sub-Saharan Africa

2.1 Overview

Despite the undoubted successes of global mortality and fertility declines, and the resulting recent declines in the rate of global population growth, the demographic transition remains an *unfinished success story*. High fertility and rapid population growth remain important concerns in many least developed countries that may be most vulnerable to the consequences of population growth (Figure 1). For example, because fertility declines in SSA during recent years were less rapid than previously expected earlier, the UN unexpectedly revised its 2010 forecast for the world population upward to 10.1 billions, as compared to earlier forecasts predicting a leveling off at 9 billions, and in 2012, the 2100 forecast was revised further upward to 10.8 billions.

A recent report prepared for the 2012 World Economic Forum,³ for example, identifies 58 high fertility countries, defined as countries with net reproduction rates (NRR) of more than 1.5 (Figure 1) that have intrinsic population growth rates of 1.4% or higher.⁴ The high fertility countries are concentrated in Africa, where 39

out of the 55 countries on the continent have high fertility, but also exist in Asia (9 countries), Oceania (6 countries) and Latin America (4 countries). Almost two third of these high fertility countries are classified by the United Nations as least developed, and 38 out of the total of 48 countries that are classified as least developed have high fertility. Most high fertility countries have current population growth rates of 2.5 percent or higher, which, if maintained, would imply a doubling of the population every 35 years. Despite having currently only about 18% of the world population, high fertility countries account today for about 38% of the 78 million persons that are added annually to the world population. Based on UN median population projections, the TFR in high fertility countries is projected to decline to 2.8 by 2050, and 2.1 by 2100. Despite these projected TFR declines, the current high fertility countries will make the largest contribution to the annual increment of the world population after 2018, and after 2060, world population is projected to grow exclusively as a result of population growth in the current high fertility countries. During the 21st century, therefore, the current high fertility countries will be the major contributors to continued world population growth. Past and continued progress in reducing mortality, combined with sustained above-replacement fertility levels that does not drop to a TFR of 2.1 until 2100 in the UN median projection, will be a primary cause of this rapid population growth, *in addition to* a population momentum that results from the very young age structures in these countries.

Sub-Saharan Africa (SSA) has the highest concentration of high fertility countries and the region makes the dominant contribution to the world population growth resulting from high fertility countries (Figure 1). SSA high fertility countries also belong to the poorest and most vulnerable countries in the world with often weak institutions and capacities to manage population growth. Figure 2 shows the observed and projected (based on UN scenarios) population size, population growth rate, life expectancy at birth and total fertility rate for the period 1950–2060. The overall SSA population growth rate has peaked in the early 1980s and has been declining from its peak of 2.8% in 1980–85 to 2.6% in 2010–15. It is 130% higher than the global population growth rate, resulting in both a projected rapid growth of the population as well as an increasing share of the global population that is in SSA. While mortality has declined, and life expectancy has increased significantly in SSA, the progress has lagged behind other developing countries, in part but not only, due to the HIV/AIDS epidemic. For example, the 2010–15 life expectancy of 56 years is 18% below the average life expectancy in less developed countries; infant mortality in SSA is 69 per 1,000, 71% higher than the infant mortality rate in all less developed countries. And while fertility has declined from its peak of 6.77 in 1970–75, the 2010–15 TFR levels for SSA of 5.1 exceed that of all less developed countries by 94%. And because more than 43% of the SSA population is below age 15 in 2015, there is considerable population momentum even if fertility were to decline relatively rapidly.

2.2 South Africa and Sub-Saharan Africa compared

It is also important to emphasize that the average population trends for sub-Saharan Africa mask considerable heterogeneity in both fertility and mortality (Table 1): for example, current TFR among the 10 most populous SSA countries ranges from 2.3 to 5.9, and life expectancy ranges from 50.6 to 65.6. South Africa is among the large SSA countries that have experienced substantial declines in fertility, and South Africa's population trend in the next decade are in sharp contrast to that of SSA. For example, to illustrate the striking divergences in demographic trends within Sub-Saharan Africa, Figure 3 shows the total population growth in South Africa and Sub-Saharan Africa, and the corresponding trends in the total fertility rate (TFR, a measure of the total number of children born to a woman during her life-time). The top panel of Figure 4 shows South Africa's current and projected 2050 population pyramids that results from these trend in mortality and fertility, and for comparison, the bottom panel shows the population pyramids for Sub-Saharan Africa combined. South Africa's and Sub-Saharan Africa's total, young and old-age dependency ratios are plotted in Figure 5.

As many other countries experiencing the Demographic Transition, the next decades will bring about a transformation of South Africa's population with important implications for human and economic development. Life expectancy is likely to continue to recover from the declines resulting from the HIV/AIDS epidemic, and is expected to increase further in coming decades. Life expectancy was 56.9 years in South Africa in 1980, is currently around 57.6, and is predicted to reach 68.8 by 2050. The population age structure will shift from a still relatively young population pyramid to one that is characterized by significant population aging, with the share of the population above age 65 increasing from currently 5.7% to 10.5%, while the share of the population below age 15 will decrease from 29% to below 21%. But clearly, even by 2050, South Africa will not yet have an "old" population age structure such as those that are expected by 2050 for many developed countries. Population growth in South Africa will also slow; having peaked near 2.7% per year when South Africa's population was around 23 million in the early 1970s, it is currently estimated to be around .65% and it is projected to decline to 0.3% by 2050 when the population is expected to reach 63 million. By then, it will have added an extra 18% to its current population, which, in relative terms, is slightly less than the world population growth between now and 2050 but significantly less than the population growth in Sub-Saharan Africa combined in the same time period.

An important factor contributing to the slowing of population growth in South Africa is the decline in the TFR, which dropped from more than 6 in 1950s to about 2.3 in 2015, a drop of about 3.7 children per woman. The current and future challenge for South Africa is to reap the benefits of the *demographic dividend*,⁵ that is, the process by which a favorable age structure with a large fraction of the popu-

lation in working ages can facilitate rapid economic development. Whether South Africa can do so effectively will depend on both population dynamics and changes in population quality during the next decades.

These broad trends in population dynamics place South Africa in the center cell of the taxonomy of population quantity and quality in Figure 6: while South Africa has almost completed the fertility transition, and rapid population growth has thus disappeared, it still has only moderately-high levels of human capital and lacks behind some other countries in Latin America and some South-East Asian countries with regard to both fertility declines and human capital increases. But the demographic trends in South Africa are also clearly distinct from those in Sub-Saharan Africa overall. Specifically, Sub-Saharan Africa on average continues to be a region that is characterized by relatively rapid population growth caused by comparatively high levels of fertility.

3 Making family planning available to everyone

In light of the continued rapid population growth in much of Sub-Saharan Africa, a new literature is emerging that emphasizes the “*return of population growth factor*”, the “*unfinished agenda*” of family planning programs or the “*stalls in fertility declines*” in SSA.⁶ The HIV/AIDS epidemic is not central to the renewed concerns about population growth in SSA since its effect—especially given also the recent expansion of antiretroviral treatment (ART)—on overall population growth trends is relatively modest. Focusing on fertility, therefore, a recent *Lancet* article⁷ asked “*Can disaster be prevented in Niger?*,” given Niger’s unchanged TFR levels that are among the highest in the world, and “[*Is the*] *Kenyan success in jeopardy*,” given a stalling of the fertility decline in the last decade that has caused the UN to revise its median 2050 population projection for Kenya from 44 millions (2002 World Population Prospects) to 97 millions (2012 World Population Prospects). An article entitled “*Niger: Too little, too late*” states that “*the failure to emphasize family planning since 1994 has transformed a serious demographic scenario into a potentially catastrophic one.*”⁸ Just before the Copenhagen Consensus 2012 conference, a theme on population growth in sub-Saharan Africa in the New York Times included a slide show entitled “*In Nigeria, a Preview of an Overcrowded Planet*” and raised concerns about whether patterns of fertility decline, which have occurred elsewhere in the world and curtailed population growth, will similarly “*defuse the population bomb in sub-Saharan Africa [...] where the population rise far outstrips economic expansion.*”⁹

Continued high fertility, such as in Niger or Nigeria, or stalls in fertility declines during the last decade, such as in Kenya, are often attributed to a reduced pace (or lack of) economic development, continued high levels of desired fertility, relatively low levels of contraceptive use (possibly as a result of reduced and/or inadequate resources devoted to family planning programs), and relatively high levels of mortality (in part, but not only, as a result of the HIV/AIDS epidemic).

Many of these analyses call for a renewed emphasis on family planning programs. However, to highlight the potentially broad benefits of reduced fertility and population growth, the contemporary literature arguing for a renewed interest in family planning programs does not view population growth a “*problem*” in itself, but portrays it as a major threat towards attaining social and economic development, such as for instance reflected in the Millennium Development Goals.¹⁰ Specifically, potential adverse effects that are often attributed to rapid population growth include poor health among women and children, slow economic growth and poverty, overcrowded schools and clinics and an overburdened infrastructure, as well as the depletion of environmental resources. There are also arguments that rapid population growth contributes to high unemployment and inequality among rapidly growing young populations may contribute to the spread of political violence and civil strife. A recent UK parliamentary report for example cites the United Nations Office of the High Representative for the Least Developed Countries as “*The battle against endemic poverty and chronic hunger, particularly in the world’s 50 Least Developed Countries, is made all the more difficult due to their current high rates of population growth*” and concludes that “*the [Millennium Development Goals (MDGs)] are difficult or impossible to achieve with current levels of population growth in the least developed countries.*”¹¹ Melinda Gates argued at the 2012 TED Summit “*Let’s put birth control back on the agenda,*” based on the premise that many of the world’s pressing social change issues depend on ensuring that women are able to control their rate of having kids.

It would be wrong to evaluate family planning programs primarily with respect to population growth. Broader human-rights-based and gender-responsive perspectives are required. The UN Secretary General, for example, highlighted that “*protecting and fulfilling the human rights of young people and investing in their quality education, effective livelihood skills, access to sexual and reproductive health services and information, including comprehensive sexuality education, as well as employment opportunities, are necessary for the development of their resilience and create the conditions under which they can achieve their full potential.*”¹² Expanding access to family planning is an important component of such a broad human-rights-based and gender-responsive policy agenda. Specifically, a recent literature emphasized that family planning programs—besides reducing fertility and, related, maternal and child mortality—are likely to result in higher levels of female education, improvements in women’s general health, increases in female labor force participation and earnings, increased child health (up and beyond the effect on reducing child mortality) and increased child human capital.¹³ And in context like South Africa, where fertility has already declined substantially from its peak, these benefits in terms of children’s and women’s well-being are likely to be the dominant ones.

Our analyses for the Copenhagen Consensus project suggest benefit-cost ratios (BCRs) in excess of 90 for family planning programs in high fertility countries, about one third of which can be attributed to reduced infant and maternal mor-

tality and two thirds to increased income growth resulting from the demographic dividend. Specifically, the sizable benefit-cost ratios essentially result from the fact that reductions in fertility and population growth rates will result in sustained increases in GDP per capita over several decades in these calculations, and the costs of achieving these reductions in fertility and population growth are relatively modest when compared to current GDP levels in SSA and other least developed countries. However, one should not be mistaken about the magnitude of these aggregate economic effects in terms of closing substantial the income gap between the least developed countries and other developing or even developed countries. While these aggregate effects of family planning programs are likely to contribute substantially and favorably to the benefit-cost ratio of family planning programs, the aggregate effects are too small for these programs to significantly reduce global income inequalities or to provide a substitute for other development policies. More likely, a convincing case can be made for integrating family planning programs with other development policies, including those that target reproductive-health concerns such as HIV / AIDS or other infectious diseases (including specifically also those reducing infant/child mortality) and/or development policies that would help create the institutional environment to capture the demographic dividend from reduced population growth and changes in the population age structure that are likely to occur in the next decades.

Table 2 summarizes how these benefit-cost ratios arise from benefits in terms of reduced infant and maternal mortality and income growth. High and low estimates for the former are due to different evaluations of life, and in the latter, due to different costs of achieving a specific reduction in fertility and population growth rates. The table also reports the estimated costs of satisfying the total current unmet need for family planning in developing countries, as well as the total benefits resulting from this investment in family planning based on the benefit-cost ratios obtained reported in this table.

The BCRs for the expansion of family planning in *South Africa* are likely to be smaller than those indicated in Table 2. Specifically, the SSA high-fertility countries to which the estimates in Table 2 apply have higher levels of unmet need for family planning, have higher levels of maternal and infant mortality, and experience much more rapid population growth than South Africa. A recent UNFPA report showed that that 60% of South African women aged between 15 and 49 make use of modern contraception, compared to averages of 20% for sub-Saharan Africa, 57% for the world, and 60% for the world's more developed regions.¹⁴ Moreover, South Africa's "*unmet need for family planning*", according to the report, stands at 14%, compared to averages of 25% for sub-Saharan Africa and 12% for the world.

In high fertility countries, high BCRs as in Table 2 occur in part because reduced population growth as a result of expanded family planning programs can help countries to benefit from the demographic dividend. But in terms of age structure, South Africa is already relatively well-positioned (Figure 5), and is poised to

benefit further from a declining total dependency ratio (and thus increasing the share of the population in working ages) if its fertility trends follow the trajectory assumed under the UN median forecast (Figure 3). If fertility levels were to remain constant at around 2.5 children per women, these potential benefits from a demographic dividend would be substantially reduced (dotted lines in Figure 5). Moreover, there is considerable scope for improvement in other dimensions of reproductive health, including reductions in infant and maternal mortality, even if South Africa fares better in these measures as many other countries in SSA. Specifically, the fact that about 1/3rd of young South Africa women are HIV-positive makes contraceptive provision and fertility advice particularly urgent, and contraception is one of the WHO's four main strategies for the prevention of mother-to-child transmission of HIV. In light of these substantial benefits, the South African Department of Health issued in 2012 a revision of its contraceptive policy.¹⁵ This revision was launched in combination with a re-engineering of South Africa's primary health care, including an emphasis on health systems strengthening and the introduction of the National Health Insurance. The revision was also reflects the changes over the last decade in the fields of HIV, contraceptive technology and related research, and the revised policy embraces both the prevention of pregnancy (contraception) and the planning for a healthy pregnancy (conception), as well as an integration of family planning services with HIV prevention and related sexual and reproductive health services. At a recent launch of an improved contraceptive methods, the UNFPA Regional Director for East and Southern Africa for instance stated: "*Family Planning is the most important, life-saving intervention you can provide to a girl or a woman.*"¹⁶

Is this effort likely to be effective, and what are the likely benefit-cost ratios one could possibly hope to attain with such investments in family planning programs in South Africa, especially given the differences in fertility and health patterns between South Africa and other countries in SSA? The answer to this questions seems to be clearly *yes*. Even if one eliminated the benefits of reduced population growth from the BCR calculations, the earlier analyses conducted for the *Copenhagen Consensus Project* suggest benefits-cost ratios of 30 or higher resulting from reduced maternal and infant mortality alone. This does not yet account for potential additional benefits resulting from the demographic dividend, which would be reinforced by declining fertility.

In summary, the Copenhagen Consensus analyses related to Population and Demography suggest that the BCRs associated with the expansion of family planning programs can be substantial and far above the "break-even point" of one. This is clearly the case in high-fertility countries in SSA, but is also the case in countries such as South Africa that have experienced large fertility declines and are in the center of the population quality-quantity taxonomy in Figure 6.

4 Urbanization

The global population will continue to rapidly urbanize during the next decades, with most rapid urbanization occurring in low- and middle-income countries.¹⁷ South Africa and Sub-Saharan Africa will be no exceptions to this trend. The proportion of South African's population that is urban is currently around 65%, and is expected to increase further to 77% by 2050. 38% of Sub-Saharan Africa's population is currently urbanized, a proportion that is expected to increase to 55% by 2050. Existing and possibly new megacities—that is, with more than 10 million people—will absorb a substantial fraction of this urban population growth. In South Africa, and other relatively-high income countries in SSA, urbanization will also be driven from ongoing migration pressure resulting from the diverging trends in income and population growth within SSA.

While clearly associated with many problems—for instance overcrowding, local pollution, concentrated poverty—urbanization has potentially important positive implications for development, including through higher wages due to higher productivity in urban industries/services, better schooling and health services, greater opportunities for political participation, reduced environmental impact of population, and freedom from traditional norms, all of which are “pull” factors for urbanization.

The challenge for the Post-2015 Development Agenda will be to implement policies that mitigate the downsides of urbanization while enhancing its benefits for individuals and the society. The Copenhagen Consensus Center paper on *Population and Demography* did not succeed in estimating global benefit-cost ratios for changes to promote better urbanization, as conditions among countries for what are basically national and subnational policies and regulations vary enormously. But even for a specific context such as South Africa, such calculations are not easily possible. Nevertheless, even in the absence of such detailed benefit-cost calculations, it is likely that interventions to facilitate “*successful urbanization*” have high benefit-cost ratios.

5 Population Aging

Aging in sub-Saharan Africa is important because the average annual growth rates of populations age 60+ in SSA currently exceed 2%, higher than for the 60+ population in developed countries, and is projected to increase to over 4% by 2060 – four times growth rates expected in developed countries, despite—increasingly less marked—excess mortality attributable to HIV/AIDS. The environment in which this growing aging SSA population lives is often characterized by high poverty levels and high morbidity and mortality, including the world's highest HIV/AIDS prevalence. The relevance of these conditions for aging is heightened by absences of institutionalized protection systems to buffer social, economic, health, and psy-

chological consequences of aging that occurs in settings with frequent and life-long exposure to shocks such as food shortages, morbidity and mortality of close family members, and income and asset losses. Thus, aging individuals in SSA constitute a very vulnerable population group, and the HIV/AIDS epidemic has significantly worsened their situation. In addition, antiretroviral treatment (ART) and related HIV/AIDS interventions have direct impacts on individual-level and population-level aging processes in SSA, and HIV interventions will partially shape future SSA age structures. For instance, the issues facing mature adults and the elderly were summarized at the inauguration of the Malawi Ministry of Persons with Disabilities and The Elderly with: “[M]any older people are able to make significant contributions as income-earners, providers of care, sources of knowledge and experience, and guardians of traditions. Since the effects of the ageing process are certain to continue for many years to come, agriculture and rural development will be increasingly dependent on older persons. Therefore, policy makers must find better ways to ensure that older people are able to ‘age successfully’: have good health, be physically and mentally active, and remain actively involved in community life.”

The transformation of the population age structure that have been associated with population aging in high-income countries are not yet a major concern for Sub-Saharan African countries in general, but they start being a focus of policies in selected countries that had experienced marked fertility declines. South Africa is the largest SSA country in which the consequences of an aging population age-structure will increasingly become a policy (Figures 4 and 5). By 2050, the proportion of the population aged 65 and over in South Africa will have increased from currently 5.7% to 10.5%, and the median age will rise from 26.5 to 37 years (Figure 4). There are no viable policy options that can change the basic tendency of countries, including South Africa, to grow considerably older during the next decades. In light of rapid growth of elderly populations, the Copenhagen Consensus Center paper on *Population and Demography* therefore emphasized the need to *accommodate* populations aging in social, economic and environmental development, and creating institutional environments where possible negative consequences of population aging are lessened. This, however, poses challenges as some countries “*may get old before they get rich.*” Population aging in middle-income countries such as South Africa potentially brings two important national goals into conflict: (1) developing economic systems that will provide economic security to the growing number of old people, and (2) sustaining strong economic growth.¹⁸ Achieving these two goals will require new policies, most importantly policies that encourage saving, and investment in health and education to improve productivity. The specific high-priority policy emphasized in our analyses for the Copenhagen Consensus, namely eliminating age-based eligibility criteria for retirements in public pension systems, is less important in South Africa as compared to European or Latin American countries. Instead, other policies are likely to be more promising. For example: (1) un-

tying social safety nets and health and pension systems from formal labor market participation, to reduce distortions and benefit the poorer members of society, who tend to work in informal employment or home production that is not covered by formal sector benefits; (2) renewing efforts to assess formal and informal means of making education over the life cycle more effective as social returns to more general education (learning how to learn) and to education over the life cycle are likely to increase in an aging world; and (3) promoting investments in adult health and human capital, especially in contexts where “healthy aging” can facilitate higher labor force participation and productivity at older ages. In high HIV-prevalence contexts such as South Africa, continued investments in antiretroviral treatments will be an important component of these investments in healthy aging.

Notes

¹UNFPA, UNDESA, UN-HABITAT, IOM (2013). *Population Dynamics in the Post-2015 Development Agenda: Report of the Global Thematic Consultation on Population Dynamics*. United Nations. URL <http://www.worldwewant2015.org/file/313464/download/340868>.

²Kohler, H. P. and Behrman, J. R. (2014). Population and demography: Benefits and costs of the population and demography targets for the post-2015 development agenda. Copenhagen Consensus Project: Post-2015 Consensus, URL <http://www.copenhagenconsensus.com/post-2015-consensus/populationanddemography>.

³Global Agenda Council on Population Growth (2012). Seven billion and growing: A 21st century perspective on population. World Economic Forum

⁴A net reproduction rates (NRR) of more than 1.5 means that more than 1.5 daughters are born to women given 2010 fertility and mortality levels. This implies that the next generation is 50% larger than the current generation, and at constant fertility and mortality levels, a NRR of 1.5 implies a long-term annual population growth rate of about 1.4%. Intrinsic growth rate is the population growth rate that would prevail in the long term if current patterns of fertility and mortality were to prevail in a population and the population is closed to migration.

⁵Bloom, D. E., Canning, D. and Sevilla, J. (2002). *The Demographic Dividend: A New Perspective on the Economic Consequences of Population Change*. Santa Monica, CA: RAND Corporation.

⁶For a detailed discussion, see Kohler, H.-P. (2013). Population growth. In: Lomborg, B. (ed.), *Global Problems, Smart Solutions: Costs and Benefits*, Cambridge, MA: Cambridge University Press, 510–580. Working paper version available at http://repository.upenn.edu/psc_working_papers/34

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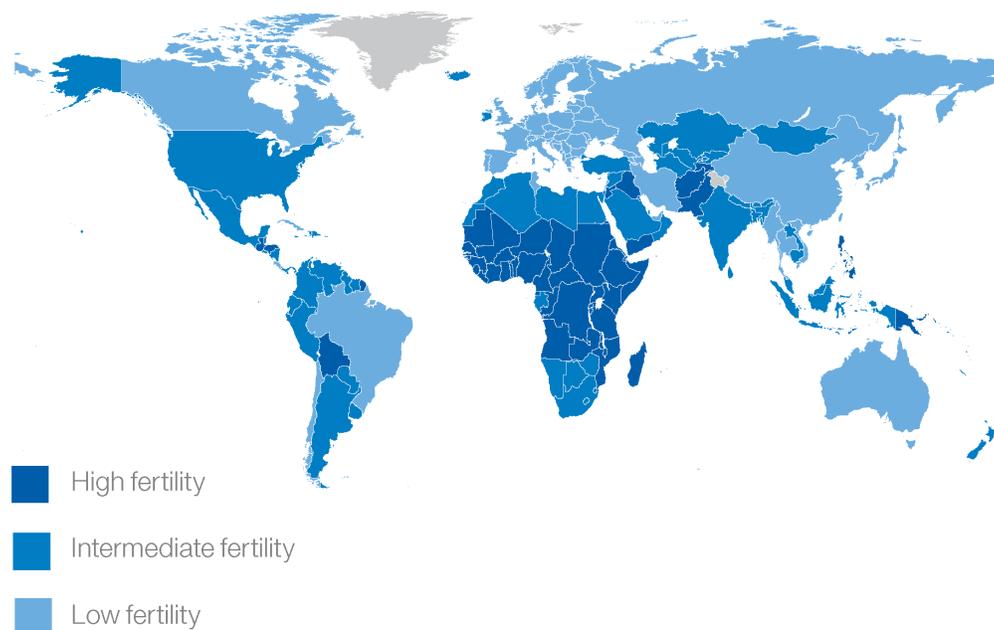


Figure 1: Countries according to fertility level 2005–10

Note: Low fertility countries: net reproduction rate (NRR measured in daughters born per woman) less than 1; intermediate fertility countries: NRR between 1 and 1.5; high fertility countries: NRR above 1.5.

Source: Global Agenda Council on Population Growth (2012). *Seven Billion and Growing: A 21st Century Perspective on Population*. World Economic Forum. Based on United Nations World Population Prospects 2010 (Medium Variant)

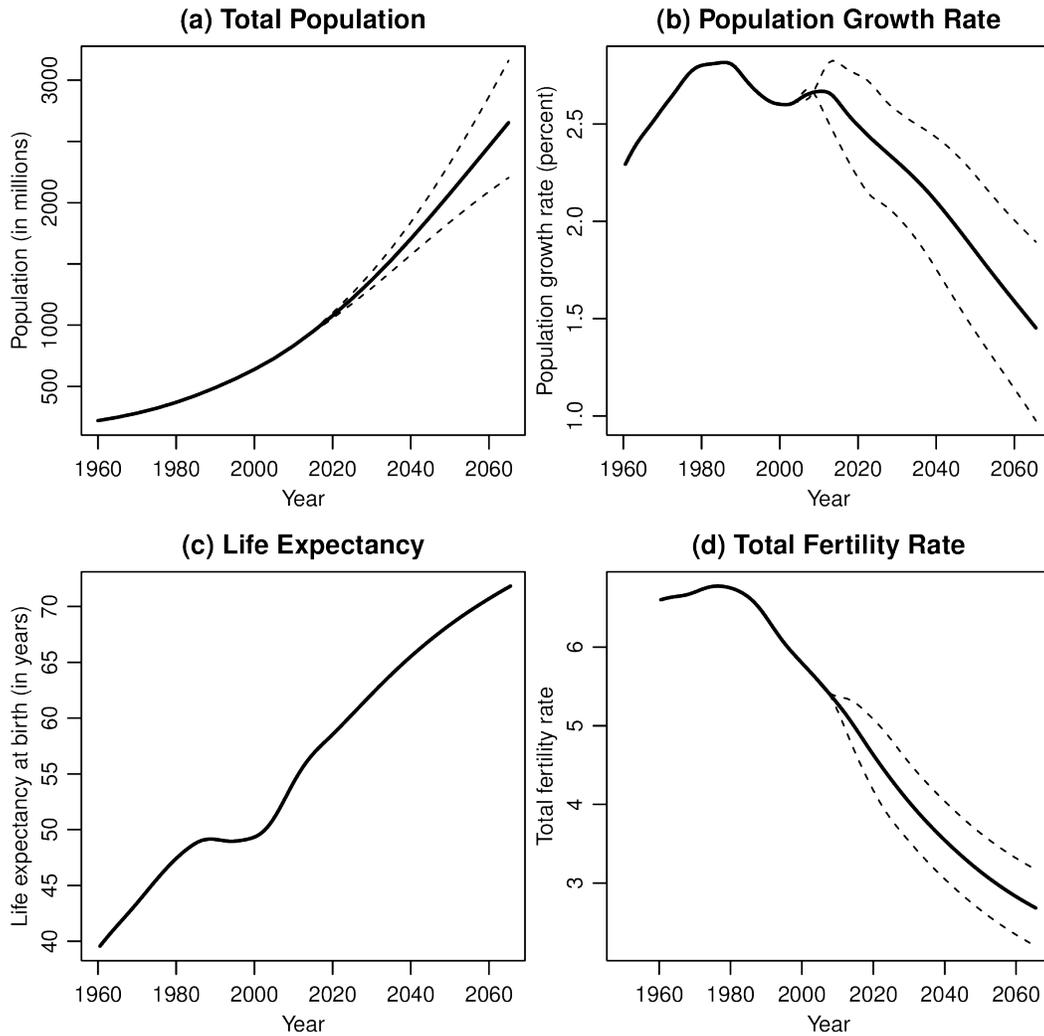


Figure 2: Population size, population growth rate, life expectancy at birth and total fertility rate for Sub-Saharan Africa, 1960–2060

Note: Based on UN World Population Prospects (2012) median, high and low projections. Bold line: median projection. Broken lines: low/high projections. Projected life expectancy is identical across the UN medium, low and high projections.

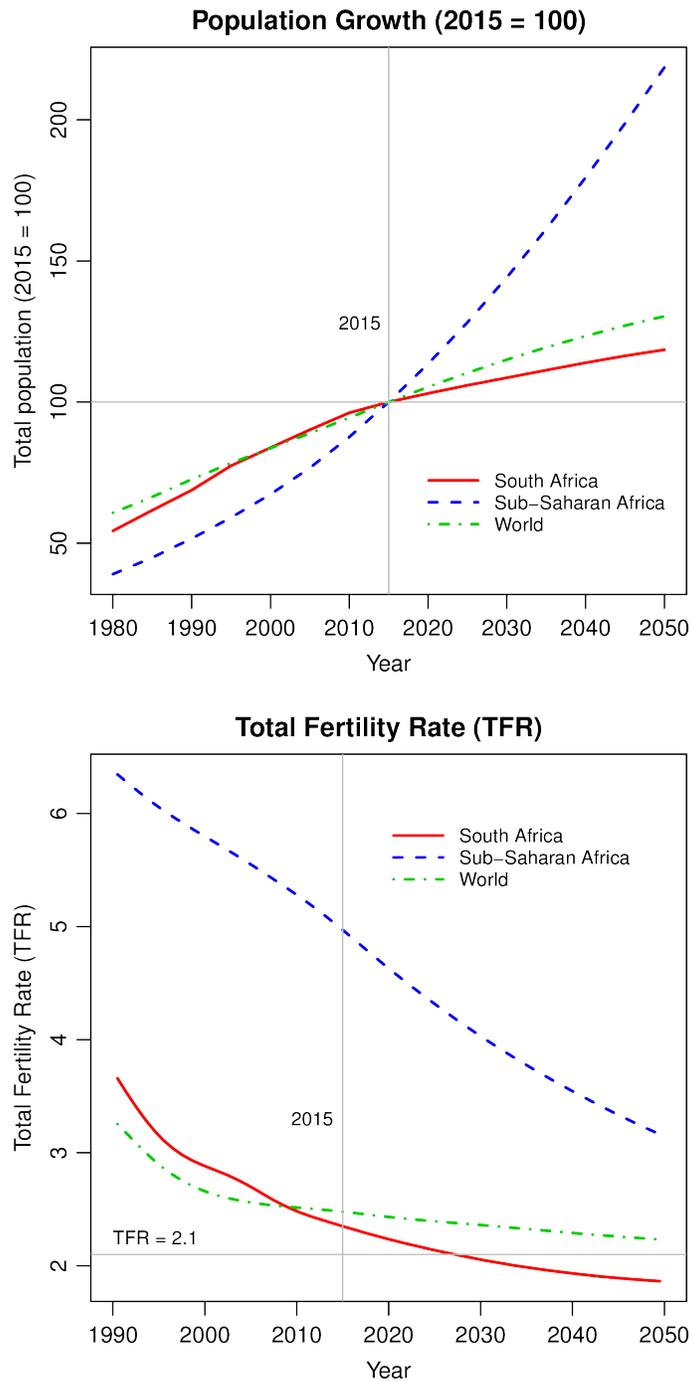


Figure 3: Population growth and total fertility rate (TFR) for South Africa and Sub-Saharan Africa 1990–2050

Source: United Nations World Population Prospects 2012 (Medium Variant)

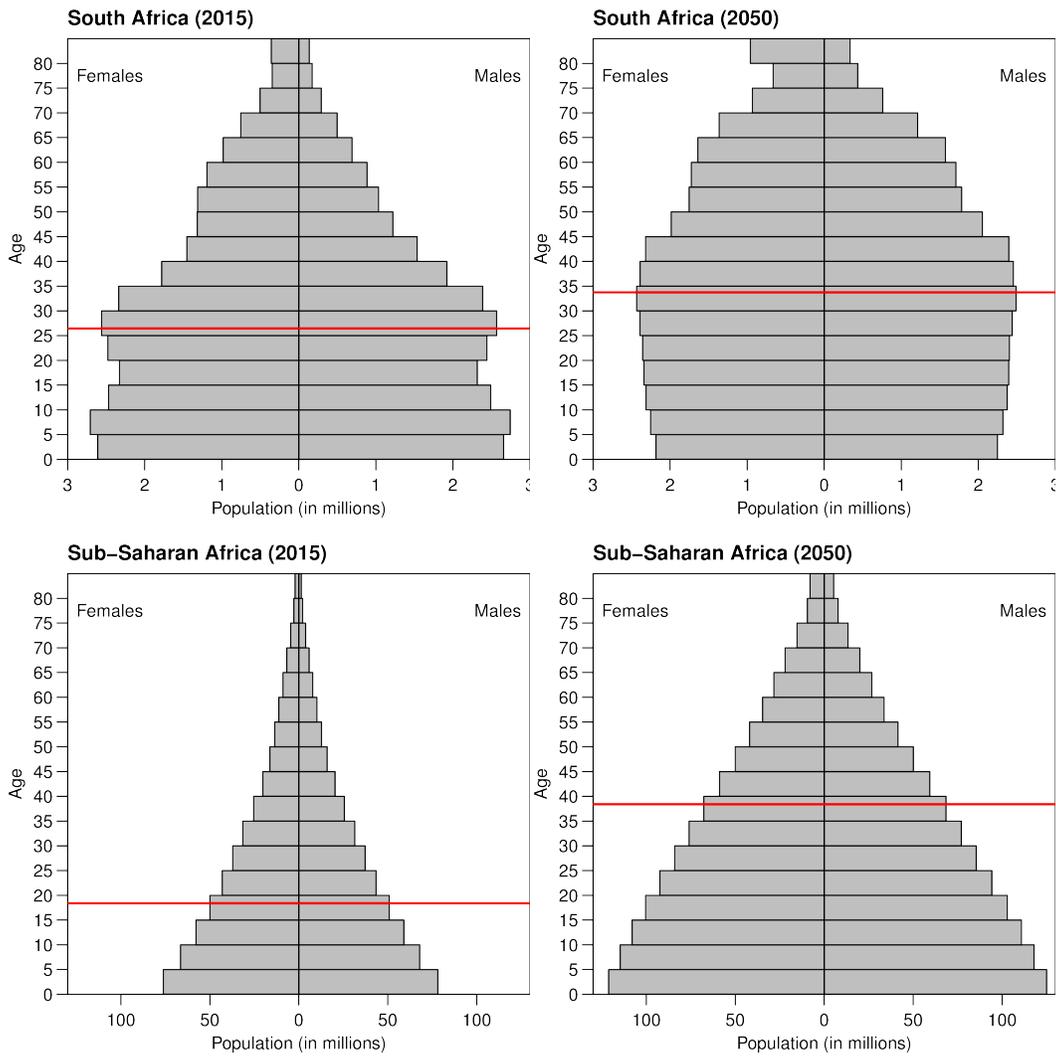


Figure 4: Population pyramid for South Africa and Sub-Saharan Africa, 2015 and 2050

Source: United Nations World Population Prospects 2012 (Medium Variant)

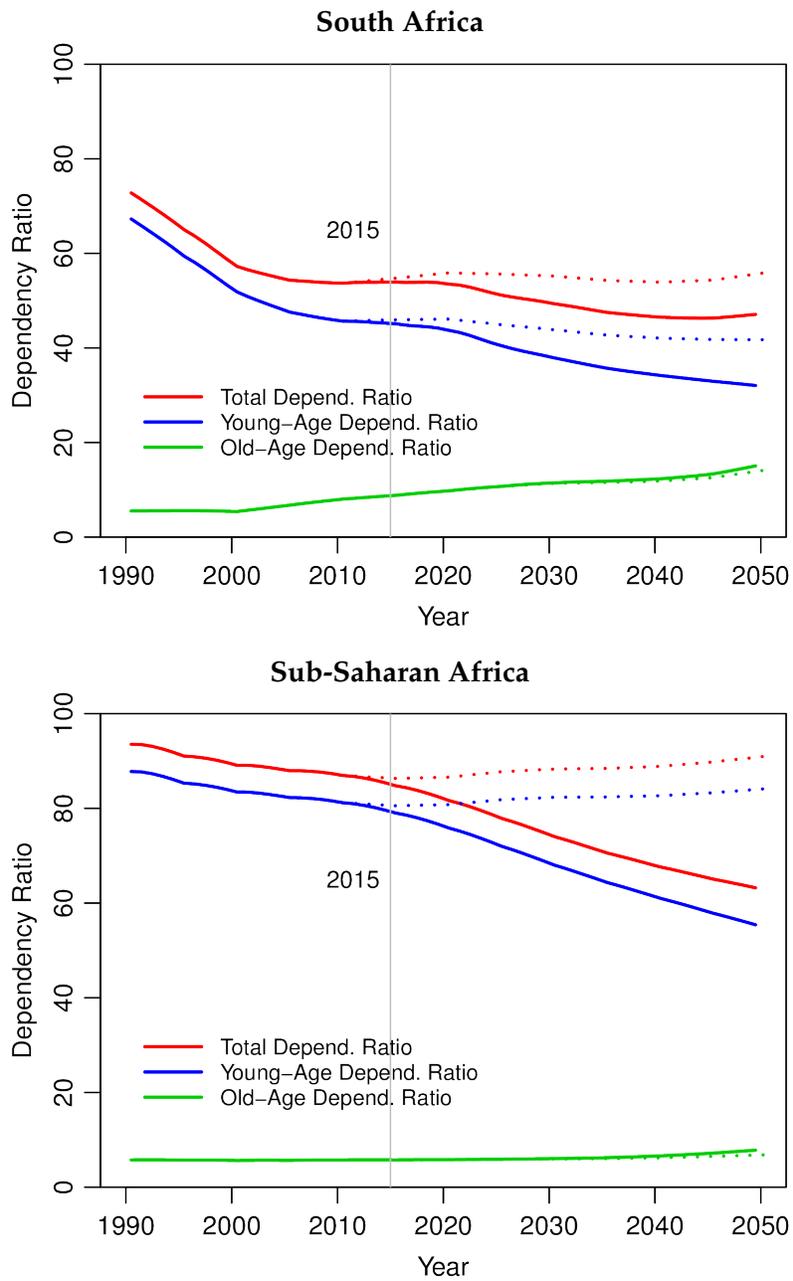


Figure 5: Total, old-age and young-age dependency ratio for South Africa (top panel) and Sub-Saharan Africa (bottom panel), 1990–2050

Source: United Nations World Population Prospects 2012

Notes: Full lines: UN medium variant; dashed lines: UN constant fertility variant with TFR remaining at its 2010 level until 2050

Population Quantity and Quality, Looking Forward from 2015

		Late Stages in Demographic Transition and Population Quantity		
		High Fertility, High Population Growth	Potential "Demographic Dividend"	Post-Transition Older Population Structure
Population Quality (Health, Nutrition, Education)	Low	Much of Sub-Saharan Africa	Much of South Asia	
	Medium		Most of Latin America, parts of South-East Asia, South Africa	Much of East Asia
	High			Most OECD countries

Figure 6: Taxonomy of population quantity and quality: looking forward from 2015

Adapted from: Behrman, J. R. and Kohler, H.-P. (2014). Population quantity, quality, and mobility. In: Allen, F., Behrman, J. R., Birdsall, N., Fardoust, S., Rodrik, D. et al. (eds.), *Towards a Better Global Economy: Policy Implications for Global Citizens in the 21st Century*, Oxford, UK: Oxford University Press, 2014.

Table 1: Population size, total fertility rate (TFR), life expectancy and population growth rate in the 10 most populous SSA countries

	Population (millions)		TFR		Life Expectancy at birth		Growth Rate (in percent)	
	1980	2010	1980	2015	1980	2015	1980	2015
Nigeria	73.7	183.5	6.8	5.9	45.6	53.3	2.79	2.76
Ethiopia	35.2	98.9	7.3	4.3	43.8	64.8	2.16	2.48
DR Congo	26.4	71.2	6.6	5.7	46.1	50.6	2.67	2.68
South Africa	29.1	53.5	4.8	2.3	56.9	57.6	2.52	0.65
Tanzania	18.7	52.3	6.7	5.1	50.5	62.5	3.13	2.96
Kenya	16.3	46.7	7.5	4.2	57.8	62.6	3.81	2.58
Uganda	12.5	40.1	7.1	5.7	49.5	60.1	3.00	3.27
Mozambique	12.1	27.1	6.5	5.0	42.9	50.9	2.47	2.41
Ghana	10.8	27.0	6.5	3.7	52.3	61.5	2.62	2.02
Madagascar	8.7	24.2	6.5	4.4	49.0	65.6	2.72	2.77

Source: United Nations World Population Prospects 2012 (Medium Variant)

Table 2: Summary of costs, benefits and benefit cost ratios for family planning programs in sub-Saharan Africa overall

Annual Net Benefits and Costs (3 per cent discount rate)		Annual benefits	Annual costs of satisfying unmet need in developing countries	BCR
Benefit Component:	Assumptions	Billion USD	Billion USD	
Reduced Infant and Maternal Mortality	Low (DALY = 1K)	110	3.6	30
	High (DALY = 5K)	180		50
Income Growth (including life cycle, distributional and intergenerational benefits)	Low	216	3.6	60
	High	360		100
Total, Family Planning programs (sum)	Low	326	3.6	90
	High	470		130

Source: Kohler, Hans-Peter (2013). Population Growth. In Lomborg, B. (ed.) Global Problems, Smart Solutions: Costs and Benefits, Cambridge, MA: Cambridge University Press, 510-580

Population and Demography

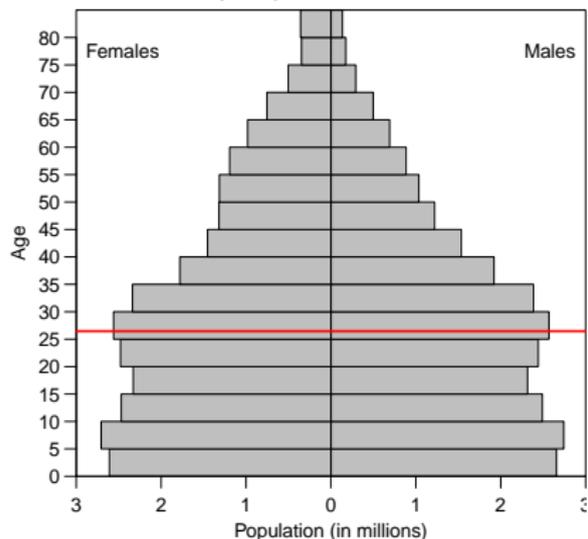
Hans-Peter Kohler Jere R. Behrman

Copenhagen Consensus Project: Post-2015 Consensus

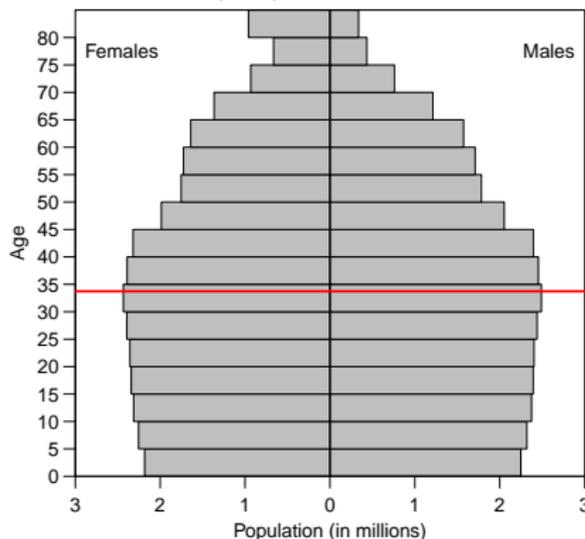


S. Africa Population Pyramids 2015 & 2050

South Africa (2015)



South Africa (2050)

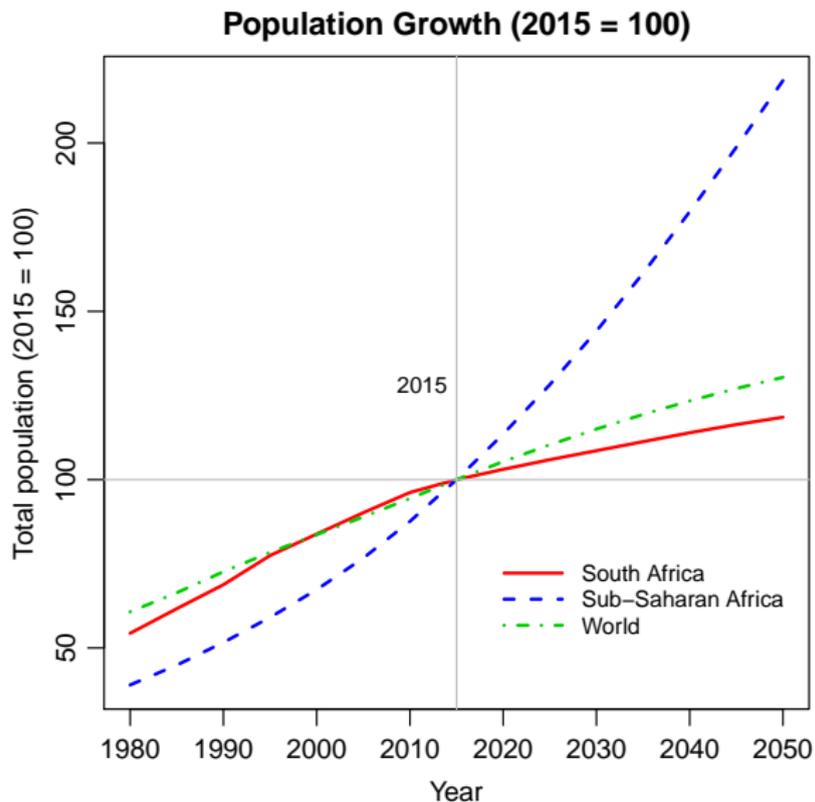


Population Quantity and Quality

Population Quantity and Quality, Looking Forward from 2015

		Late Stages in Demographic Transition and Population Quantity		
		High Fertility, High Population Growth	Potential "Demographic Dividend"	Post-Transition Older Population Structure
Population Quality (Health, Nutrition, Education)	Low	Much of Sub-Saharan Africa	Much of South Asia	
	Medium		Most of Latin America, parts of South-East Asia, South Africa	Much of East Asia
	High			Most OECD countries

Population Growth in South Africa and SSA



Copenhagen Consensus Priorities

- ▶ **CCC Policy Priority 1:**

Making family planning available to everyone

Benefit-cost ratio for South Africa: ≈ 30

Benefit-cost ratio for high-fertility SSA countries: > 90

- ▶ **CCC Policy Priority 2:**

Reduce barriers to migration

Benefit-cost ratio for South Africa: up to 45