The Shape of Things to Come:
Why Age Structure Matters to a Safer, More Equitable World

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+ Much of the material in this paper is drawn from the 2007 PAI publication by the same name. The contributions of the secondary authors, Bob Engelman, Sarah Haddock, Tod Preston and Carolyn Vogel, as well as other PAI colleagues, were invaluable. In addition, Richard Cincotta provided important conceptualization and direction.

Abstract

Population age structures yield insights into current and future challenges to political stability and human security, and to opportunities that demographic change promotes. This study classifies all national populations into one of four major age structure types, based on the proportional size of three age cohorts. A quantitative analysis shows that each structure has distinct traits in vulnerability to civil conflict, governance, and economic growth. The study finds that countries with very young and youthful age structures have historically been most likely to face challenges to their development and security, but are afforded opportunities through the demographic transition process. Specific emphasis is placed on Africa. Although most national populations in sub-Saharan Africa have a very young age structure, regional disparities are likely to increase in the near future. The diverse issues currently affecting age structures in Africa are discussed, including government policies and funding, health infrastructure, disease and equitable access.

Introduction

Population age structure—the comparative sizes of specific age groups relative to others or to the population as a whole—is increasingly recognized as having an important role in the development process. During the annual session of the United Nations Commission on Population and Development earlier this year, which focused on changing age structures, many governments and institutions issued statements reinforcing the importance of demography for development. With the world currently home to the largest generations ever recorded of people at both ends of the life cycle, the United Nations Population Fund noted the existence of a "demographic divide" between developed countries, where populations are aging, and many developing countries, where population growth continues at rapid rates and young people comprise the greatest share of the population.[1]

This study builds on that theme by further detailing some of the specific impacts of population age structure on development and individual well-being. Research by Population Action International (PAI) and others has shown that age structure can have a significant impact on countries' stability, governance, economic development and individual well-being. Age structures carry particular importance when a large proportion of a country's population is passing through one of life's dependent stages, such as childhood or old age, or when a small proportion is passing through an age of productivity. In such cases, increasing needs for education, income and healthcare are likely to test societies' resources.

Just as an age structure concentrated among people in a dependent phase of the life cycle may test a government's capacity, a population in the midst of the demographic

transition presents opportunities for economic growth and higher levels of development, provided supportive policies have been implemented. The demographic transition—the shift from high mortality and fertility rates to smaller families and longer lives—is in fact the key determinant of the format and future direction of a population's age structure. As countries progress through the demographic transition's middle phases, when mortality rates have already dropped and fertility rates have begun to sustain their own decline, age structure changes to reflect a higher share of working-age adults in the population. Given a skilled and educated workforce, this changing age structure can allow for higher productivity and rising income together with increased workforce participation, savings and investments at the individual level.

A historical quantitative analysis shows that age structure has been clearly linked to various aspects of countries' development. Throughout the latter part of the twentieth century, countries with younger population age structures were more vulnerable to outbreaks of civil conflict and to undemocratic governance. Meanwhile, countries that were in the midst of or had completed the demographic transition have also been the most stable, democratic and wealthy.

There are many factors at play in the relationship between age structure and development, and this paper does *not* claim a direct causal relationship between youthful age structures and instability, poverty or bad governance. However, outbreaks of conflict and undemocratic rule are most likely to occur in countries with younger age structures. Although not the determinant factor, an age structure affected by high population growth can increase the vulnerability of a country already challenged by resource constraints, insufficient employment opportunities, weak or autocratic governance, or high levels of

inequality. Among countries experiencing demographic change, a more balanced age structure can encourage higher rates of social and economic growth. Regardless of causality, progress along the demographic transition and higher levels of development overall are entirely compatible objectives.

Fortunately, age structures are extremely dynamic and can be influenced through policies that affect their underlying demographic conditions. In particular, the demographic transition can be promoted by implementing programs offering comprehensive family planning and reproductive health information and services grounded in individual rights, and also by improvements in the status of women, such as increases in the rates of girls' education. Governments in these countries must pay particular attention to the needs of youth, and ensure that the resources needed to fulfill their potential are available through access to education, health care and employment. These modest investments can pay enormous dividends, as has been shown in the development of the Asian Tiger nations in East Asia.

The Demographic Divide

Current world population trends are uniquely varied, with a vast disparity between the generalized experiences of the industrialized and developing countries. Although the global population growth rate is slowing, the world still experiences a net gain of 78 million people per year. While some analysts and policy-makers in developed countries sound the alarm about falling birthrates, increased proportions of the elderly and future population decline, global population continues to climb with a projected increase of nearly three billion people—more than 40 percent of the 2005 total—by 2050.

Demographically, the world is more diverse than ever before. Fifty-five percent of the world's people live in countries whose populations will continue to grow indefinitely, including nearly all of Africa. Nearly one billion people live in countries in which fertility averages four or more children per woman, which at current levels will lead these populations to double in fewer than 35 years. Meanwhile, nearly 45 percent of the world's people live in countries in which the average family size is below the number needed to maintain a stable population level. Population decline has not yet begun in most of these countries and when it does, it is likely to proceed gradually, in contrast to the still-rapid rate of increase in the fastest-growing national populations.

The impact of population aging and decline is likely to be less severe than that of high population growth. Rapid population growth is correlated with a high proportion of young people given that such countries have, or have recently had, a preponderance of large families. Existing high proportions of young people build significant growth into a country's future, even if these young people have smaller families than previous generations. More seriously for the prospects of development, countries with high rates of population growth often experience increased strain on environmental and social resources. Unless the annual rate of economic growth is able to significantly surpass the net increase in population size and is equitably distributed, per capita incomes will shrink.

Although the global demographic picture is one of diversity, the situation is homogenous to a large degree within Africa, particularly in the sub-Saharan region. Only two countries on the entire continent (Mauritius and Tunisia) have crossed below the replacement level threshold of fertility, generally estimated at 2.1 children per woman.

Meanwhile, three-quarters of Africa's population lives in countries with a total fertility rate higher than four children per woman, and 72 percent lives in countries whose populations are growing at a rate greater than two percent annually.[2] These trends indicate that most of Africa remains in the early stages of the demographic transition, where governments often struggle to meet the needs of a young and growing population.

A Typology of Age Structure

Based on the relative size of three major age groups, this study identifies for the first time four main types of age structures present in current national populations: *very young, youthful, transitional* and *mature*.[3] Each of these profiles represents progressive steps along the path of the demographic transition. Because only four major categories have been devised to encompass more than 150 countries, a range of structures occurs within each type. Still, countries in each of these structures tend to experience similar challenges and successes in their economic, political and social development.

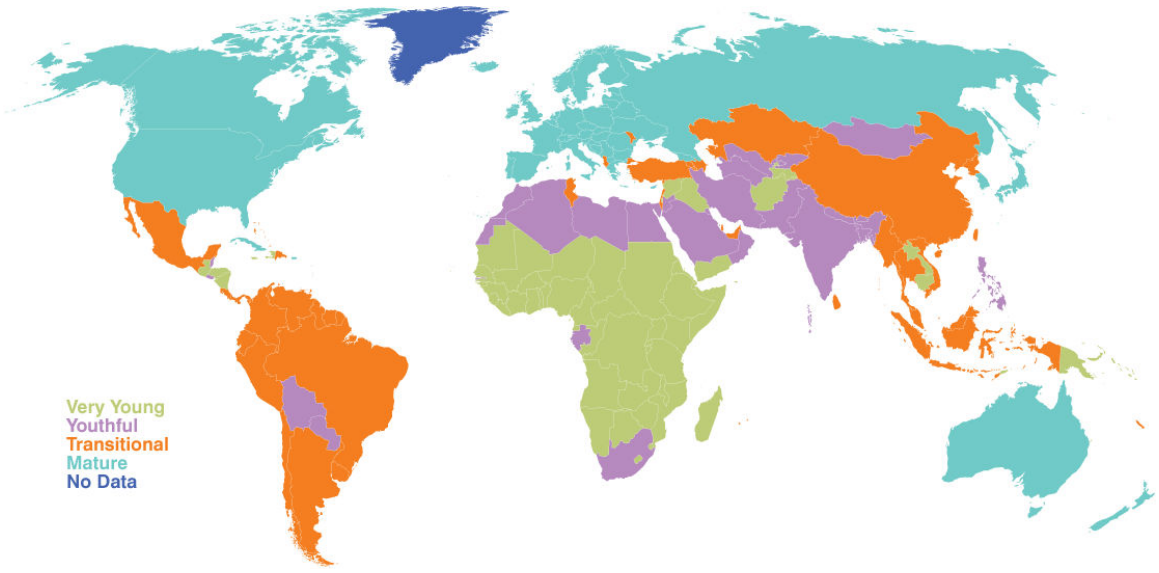

Figure 1. This map showing age structures across the world in 2005 reveals some regional similarities, but also disparities. While the industrialized countries have reached the end of the demographic transition, the developing world remains divided between

countries with a transitional age structure and those retaining a very young or youthful profile.

Taken alone, age structure provides an incomplete picture of a country's current and future risks and opportunities. Demographic projections do not account for the historic, ethnic and cultural factors that could contribute either to a country's resilience or weakness in the face of challenges, and they ignore the conditions in a country's geographic neighborhood. However, the associations found in comparing age structures strongly suggest that demographic conditions contribute to a country's level of development. Moreover, because history has shown how and under what circumstances much demographic change occurs, age structure is a particularly suitable area for sound policy interventions.

This analysis considers how countries with each type of age structure experienced three critical aspects of the development process at the end of the twentieth century. The three measures selected include outbreaks of civil conflict (internal hostilities in which at least one party is a state actor and at least 25 people are killed annually), economic growth and level of democracy. The findings show that historically, countries with very young and youthful age structures have faced the greatest challenges to their development and stability. Previous research has already linked the incidence of civil conflict to the share of young people in a population.[4] Likewise, PAI's study found that countries with the most youthful age structures are statistically much more likely to have experienced civil conflict in the 1970s, 1980s and 1990s, while countries with more mature age structures have historically been more peaceful.[5] In the 1990s alone, countries with a very young age structure were more than three times more likely to experience civil conflict than countries with a mature age structure.

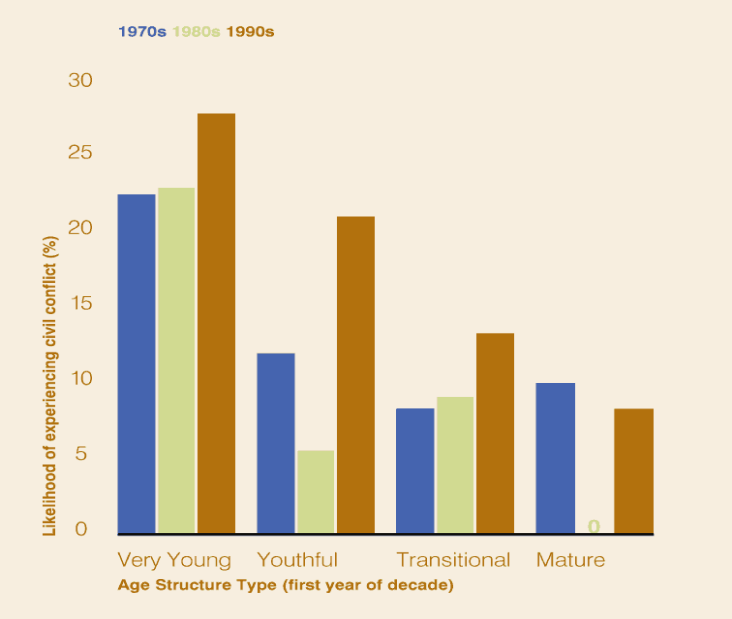

Figure 2. Countries in which more than 60 percent of the population was under age 30—those with a very young or youthful age structure—accounted for 80 percent of new outbreaks of civil conflict between 1970 and 1999.

Countries with very young age structures have had a nearly 90 percent probability of autocratic or only partially democratic governance, while the majority of countries with transitional and mature age structures are full democracies.[6] The likelihood of democratic governance increases steadily with each successive age structure type, with the most marked increase between countries with a youthful and a transitional age structure. While democracy does not equate perfectly with good governance, it is a useful measure of the degree of political freedom and empowerment of the electorate within a society.

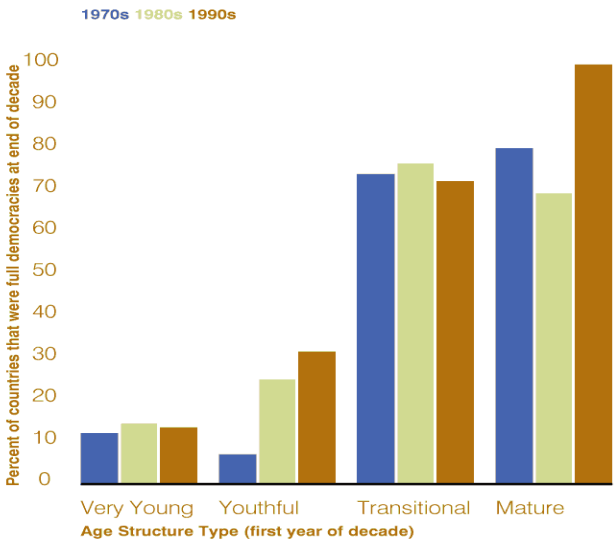

Figure 3. The likelihood of fully democratic governance also varies across age structure types. Only 13 percent of countries with a very young age structure were rated as full democracies, a level achieved by more than 80 percent of countries with a mature structure.

The particular economic challenges faced by developing countries with high rates of population growth are well-documented. Population growth increases the pressures on a country's natural resources and demands for social spending, and reduces or negates the scale of improvements in national income.[7] Countries with an aging population experience their own economic challenges as fewer working-age adults must support higher numbers of the elderly, just when revenue from individual taxation may be shrinking. Economic growth rates vary among age structure categories, with the highest rates among countries with very young and transitional structures.[8] The high rate of growth experienced by countries with a transitional age structure may be due to the rapid demographic changes occurring during that period.

It is important to highlight two caveats of this research. First, while the results suggest that countries with younger age structures are more likely to experience challenges regarding their stability, development and governance, this does not mean that

age structures are direct or unique causes of these challenges. Many other political, economic, environmental and geographic factors are at play in complex relationships that cannot be easily disentangled. Also, some age structures—particularly the most aged, with very large proportions of people over age 60—have not yet materialized. So far, countries with a relatively large share of older adults remain generally peaceful, stable and high-income. The absence of current statistical evidence does not preclude future problems among age structures that have yet to develop.

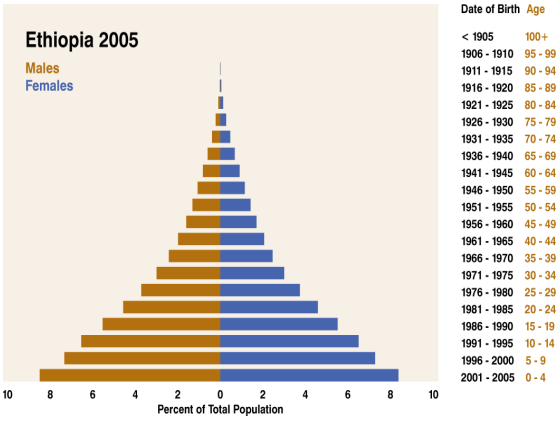

Figure 4. Population profiles such as this one demonstrate the proportional size of different five-year age groups within a population at a given point in time. Ethiopia is an example of a country with a very young age structure, a category into which nearly all sub-Saharan African countries fall.

The pyramid-shaped age profile of countries with a very young age structure is usually tied to low levels of development. In a country with this type of age structure, two-thirds or more of the total population is comprised of children and young people under the age of 30. Each successively younger age group makes up a larger share of the population than older age cohorts. With a total fertility rate of at least three children per woman, countries with a very young age structure will see their populations double in 20 to 35 years. Countries with a very young age structure tend to face many serious health challenges, including high infant and maternal mortality rates, weak health and education

infrastructures, and incomplete access to critical sexual and reproductive health services, especially among youth, the poor and those in rural areas. Such countries are also generally very poor. The median per capita GDP in countries with a very young age structure in 2005 was $1,800.

In 2005, every country in sub-Saharan Africa, with the exceptions of Gabon, Mauritius and South Africa, had a very young age structure. This means that most of the continent is in the beginning stages of the demographic transition. While mortality rates have declined, fertility rates significantly higher than replacement level guarantee continued population growth for the foreseeable future. The four youngest national age structures in the world are all in Africa (Uganda, Mali, Rwanda and Zambia), each with three-quarters of the population under the age of thirty.

Africa is also home to a number of populations that have experienced a *reversal* of progress along the demographic transition over time. Contrary to the typical historical path of demographic change, 30 African countries have actually seen their populations grow younger in the past few decades. [9] For example, 72 percent of Nigeria's population in 2005 was comprised of people under age 30, compared to 70.5 percent in 1975. This can be explained by the country's stagnant life expectancy and mortality rates and only slightly declining birth rate, from 6.3 to 5.7 children per woman over a period of two decades.[10]

Once countries are beginning to make noticeable progress along the demographic transition, they cross from a very young to a youthful age structure. Countries in the latest stages of this category have experienced significant declines in both mortality and fertility rates. The proportionally largest age groups in their populations are no longer

also the absolute youngest. Still, lower birthrates have not been sustained long enough to avoid challenges to development. Among these countries, 60 to 67 percent of the population is comprised of young people under age 30 and fertility rates are usually still above 2.5 children per woman. The further advancement of these countries along the demographic transition is not guaranteed and requires government intervention in order to be achieved.

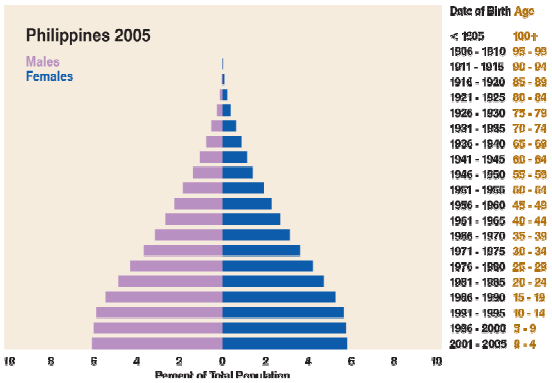

Figure 5. Countries with a youthful age structure are experiencing a smoothing of the earlier pyramid shape, as the youngest age groups begin to comprise approximately equal proportions of the population. However, fertility rates remain sufficiently high for such populations to be expected to double in 50 years or less.

Countries with youthful age structures have experienced lower incidence of civil conflict than those with very young structures, but higher incidence than countries with transitional and mature age structures. Between 1970 and 1999, countries with youthful age structures had a 13 percent probability of experiencing civil conflict, the second highest level among the four major age structure types. Although they experienced a lower frequency of new outbreaks of conflict than countries in the transitional category in the 1980s, the probability of conflict among countries with a youthful age structure increased to 21 percent during the 1990s.

Countries with a youthful age structure are more likely to have experienced democratic governance than countries with a very young age structure type, just as they have been less vulnerable to civil conflict. Countries with a youthful structure had a 21 percent likelihood of fully democratic governance between 1970 and 1999, an eight percent increase compared to countries with very young structures. However, countries with a transitional structure, the next category along the demographic transition, had a democratic governance rate more than three times greater than countries with a youthful structure.

Globally, there are relatively few countries with a youthful age structure. In this age of demographic diversity, many countries are either still in the demographic transition's earliest phases or have passed into the middle and end of the transition. However, within Africa there is a definite regional distinction. Four of the five countries in North Africa had youthful age structures in 2005, while only two sub-Saharan African countries had reached the youthful category. Tunisia has already passed into a transitional age structure, and Algeria, Libya and Morocco are projected to do so by 2010. This continental disparity is a reflection of a much more dramatic decline in birth rates in the north, where total fertility is just over three children per woman, while in sub-Saharan Africa total fertility rates stand at 5.5 children per woman.

A dramatic difference in demographic conditions and in levels of stability and democratic governance as measured by PAI's analysis occurs when countries achieve a transitional age structure. These countries are so termed because they are in the middle of the demographic transition, with mortality rates usually not much higher than those of fully industrialized countries and fertility rates sustaining a similar decline. They have

been passing through the demographic transition long enough for the proportion of children and adolescents to stabilize with that of working-age adults. Countries with a transitional age structure are presented with the opportunity to experience the greatest economic benefits of the demographic transition. To do so, however, is not guaranteed: Governments must make wise investments in health and education, and the various sectors of the economy must be able to offer a sufficient number of jobs to new entrants into the labor force.

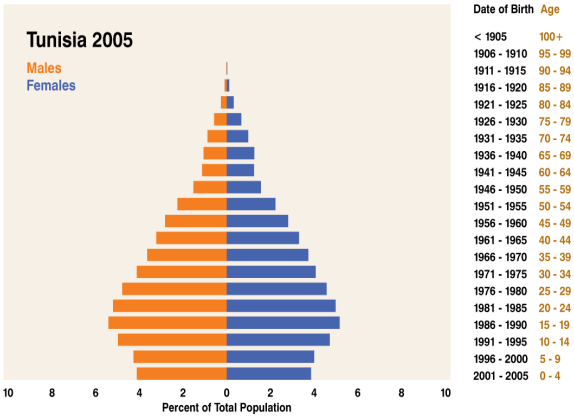

Figure 6. Tunisia is representative of the transitional age structure, with 56 percent of the population under the age of 30. This progression occurred quickly, as Tunisia had a very young age structure as recently as 1985.

Over the thirty-year period at the end of the twentieth century, the risk of civil conflict among countries with a transitional structure has held fairly steady. On average, countries in this category have been more likely to experience conflict than those in the mature category and slightly less likely than those with a youthful structure. In the 1990s, the four new outbreaks of conflict in countries with a transitional structure (Bosnia and Herzegovina, Georgia, Moldova and Serbia and Montenegro) all occurred in a region affected by the demise of the Soviet Union.

In contrast to the risk of civil conflict, countries with a transitional age structure have seen dramatic increases in their level of democratic governance compared to countries in the earlier stages of the demographic transition. Nearly three-quarters of countries with a transitional structure were fully democratic, on average, between 1970 and 1999, a rate more than three times greater than that of countries with a youthful age structure. The link between age structure and a country's transition to democracy has recently been receiving scholarly attention.[11]

The transitional age structure offers a unique opportunity for economic growth known as the "demographic dividend." As death rates and birthrates decline, every country experiences a decades-long period when working-age adults make up the greatest share of the population, and there are relatively small groups of dependent children and older adults compared to previous generations. The lower dependency ratios during this period can lead to higher savings, greater per capita spending on health and education at both the household and government level, increased participation of women in the labor force, and increased wages. Such benefits of the demographic dividend contribute to boost national economies, as was the case of the "Asian Tigers" in the 1970s and 1980s.[12]

The timeframe for countries to take advantage of this demographic window of opportunity is relatively short, often 40 to 60 years, until the median age of the population increases and dependency ratios rise again with the higher proportion of older adults. Countries in the later stages of the transitional age structure will see their window of opportunity close by 2015. Countries in the early stages of a transitional age structure or with a youthful age structure, such as those in North Africa, are just at the beginning of the demographic dividend period, and it has yet to occur in countries with a very young

structure.[13] Unfortunately, the economic benefits of the demographic dividend do not accrue automatically. In order to take advantage of their shift towards a more balanced age structure, governments must implement policies to advance the technical skills of the workforce, including full integration of women, and to ensure that young people have access to education and meaningful employment so that the trend toward smaller families continues. Sound investments in infrastructure and human capital will help ensure that as they move toward a mature age structure and the ending of the demographic dividend, the economy will remain robust.

Progress along the demographic transition can occur very rapidly, leading to a new range of health policy concerns. While still confronting the diseases of poverty and issues of access to basic health care, countries whose populations are progressing through the demographic transition also face higher incidence of chronic illnesses, such as cardiovascular disease and obesity. Governments may also begin to implement retirement and pension systems for a growing number of elderly.

Countries that have completed the demographic transition reach the fourth and final major category, mature age structures. They have very low mortality and fertility rates, the latter below the point necessary to sustain the population at a stable level. Unlike the other age structure types, the majority of the population in countries with a mature structure is comprised of adults over the age of thirty. The mature category encompasses all of the most industrialized countries in the world. While they are stable and prosperous as a group, there is significant variation in levels of health and economic development across the structure type. Russia and some countries with a mature structure

in Eastern Europe tend to have lower health indicators than other countries in the category.

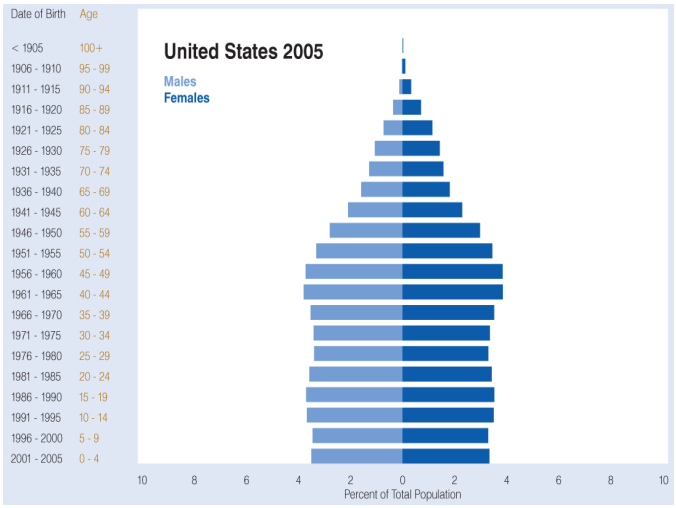

Figure 7. Countries with a mature age structure have reached the end of the demographic transition, when a majority of their population is over the age of thirty. Typically, the largest share of their population is comprised of adults in their working years.

Countries with mature age structures have experienced very low levels of civil conflict in recent decades, with only a six percent likelihood of conflict between 1970 and 1999. In the 1980s, countries with this type of age structure were entirely free from any outbreaks of civil conflict while in the 1990s, the only two conflicts to break out among this group were in Croatia and Slovenia. Many of the conflicts in countries with a mature age structure at the end of the twentieth century were tied to separatist movements, such as those in Northern Ireland and the Basque region of Spain.

From 1970 to 1999, 83 percent of countries with a mature age structure were rated as full democracies. The incidence of autocratic and partially democratic governance among countries with a mature structure has been very low. By the turn of the century, the only countries with a mature structure that were not rated as full democracies were Russia and four Eastern European states. In addition, 73 percent of countries with a

mature structure in 2005 were considered "stable" or "most stable" in the most recent iteration of the *Failed States Index.*[14]

Countries with a mature age structure are facing the concerns of population aging, which is playing a greater role on the public policy agenda. As more people live decades past retirement with fewer working-age adults to support their care, the resources of social welfare, pension and health care systems are increasingly stretched. By 2025, some of these countries with have more than one-third of their population over the age of 60, and will cross into a new, fifth category of age structures beyond the end of the demographic transition. While the future impact of aging remains unknown, it is important to remember that so far, countries with a mature age structure have also been the most stable, democratic and highly developed.

Africa is home to a unique subtype of age structure that reflects the impact of extremely high HIV/AIDS prevalence in countries with very young and youthful populations. In Southern Africa, despite some of the lowest fertility rates on the continent, age structures have been wholly reconfigured by the impact of mortality caused by HIV/AIDS. These countries, with an HIV prevalence rate of at least 18 percent among adults, include Botswana, Lesotho, Namibia, South Africa, Swaziland and Zimbabwe.[15] Although greater availability of effective treatment options has lengthened the lifespans of many people infected with HIV, the concentration of mortality among working-age adults has created an age structure strongly weighted towards children and adolescents, with fewer adult caretakers.

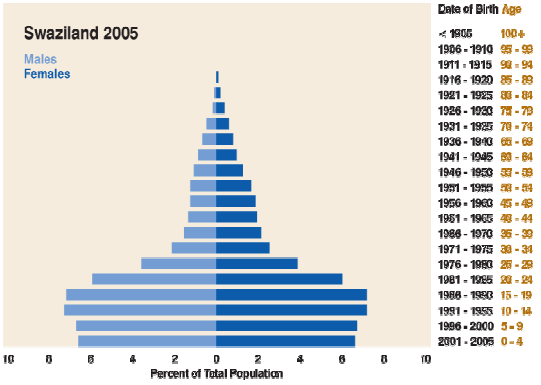

Figure 8. The capacity of the HIV/AIDS epidemic to alter countries' age structure is unprecedented, as shown here in Swaziland. With mortality rates highest among people ages 25 to 39 years, the population develops a unique type of very young age structure.

The age structure changes caused by AIDS, which has reversed the decline of death rates in more than 30 countries, were wholly unforeseen by those who first recognized the demographic transition and predicted its spread. The age structure-altering capacity of this disease is unprecedented: Some 90 percent of the fatalities associated with HIV infection occur among people of working age, with the largest concentration of deaths among those aged 25 to 39 years. The impact of AIDS mortality on countries' economies has been pervasive, as skilled workers and professionals are often the hardest hit. In the countries most affected by the disease, two to three percent of working-age adults die each year—more than 10 times the normal rate—leaving behind a large number of children and adolescents with little adult support. High fertility rates mean that AIDS mortality is not having a significant impact on population growth, while straining educational opportunities for children left behind.

Demographic Possibilities

Population projections produced by the United Nations Population Division under a range of scenarios show overall improvements in countries' progress along the demographic transition by 2025. Both the low- and high-fertility variants show an

increase in the number of countries with transitional and mature age structures. The consistent correlations between such age structures and reduced vulnerability to emerging civil conflict, as well as to higher income and democratic governance, suggest a robust linkage between more balanced age structures and development outcomes. In Africa, 21 countries are projected to develop a youthful age structure by 2025, with an additional 10 countries projected to achieve a transitional structure, assuming continued declines in fertility. The two African countries that have so far made the most significant progress along the demographic transition (Mauritius and Tunisia) are expected to have reached the mature age structure category by 2025 under this scenario.

These projections suggest both opportunities and challenges for Africa and the world. The opportunity is that more countries will move into transitional and mature age structures—assuming that fertility rates continue to decline and that neither HIV/AIDS nor any unforeseen factor sharply boosts death rates. As PAI's study has found, more balanced age structures tend to favor national stability and development. However, even as many countries make further progress along the demographic transition, approximately 20 African countries are projected to maintain a very young age structure in 2025. Countries such as these, facing an ongoing stall in the demographic transition, face challenges likely to undermine their political and economic development and cause scarcities of natural resources.

Governments should be aware that even the high-fertility scenario of future population growth assumes continued improvements in the use of contraception, provision of reproductive health care and a mitigation of the HIV/AIDS epidemic. All of the population projections, even those suggesting the most rapid growth, assume greater

future spending on contraceptive and related services than the world has ever seen. To achieve the high-fertility projection, which assumes a relatively modest decline in birthrates, 36 million additional married women of reproductive age in sub-Saharan Africa will need to be using modern methods of contraception by 2025. Meeting the low-fertility projection, a more ambitious goal, would mean that 76 million women of reproductive age would be using contraceptives, nearly five times as many as today.

Policy Recommendations

No matter how many challenges or opportunities it may present, a country's age structure is a snapshot in time, far from static. Population age structures can shift relatively rapidly and sometimes dramatically in response to policies and programs, to epidemic diseases and to other natural and human-induced events. Economically and socially significant shifts in age structure can be evident in under a decade, and profound reconfigurations of an age profile can occur in 25 years, as has happened to many countries in the midst of the demographic transition.

Public policies are often purposefully meant to reshape the population profile. In sub-Saharan Africa and parts of South Asia, the Middle East and Latin America, attention has been focused on rapid growth in the numbers of children and adolescents in an environment with inadequate environmental and health infrastructure, and a dearth of professionals and jobs. Although life expectancies have lengthened and fertility rates have declined across the developing world in recent decades, epidemic diseases continue to decimate the most vulnerable—particularly women and children—while hundreds of millions of couples lack access to contraceptive services.

Many countries, often with the assistance of international partners, have implemented government-supported voluntary family planning programs that provide affordable contraception, counseling and related reproductive health care. There is substantial evidence that girls' education, later marriage, and women's employment outside the home have played important roles in lowering childhood mortality and increasing the demand for contraception in adulthood.[16]

For national governments and international donors, the costs of completing the demographic transition come in the provision of supplies and the implementation of comprehensive health systems that provide counseling and treatment. Distributed across the developing world through decades of successful family planning programs run cooperatively by national governments, NGOs and international donors, contraceptives are key to preventing unintended pregnancies and thus reducing fertility rates. By 2015, the number of contraceptive users in the developing world is projected to grow by 28 percent, due to population growth and increased demand for—and, hopefully, better access to—family planning services. However, in 2005, the gap between funding for contraceptives and condoms for STI/HIV prevention from international donors and the estimated need for such supplies in the developing world was more than $1.1 billion, leaving hundreds of millions of women with an unmet need for family planning and protection from disease.[17]

The fears of runaway population growth that were widespread in the 1960s and 1970s have eased as family size has declined worldwide and population growth rates have fallen. In some regions, fear is rising that fertility decline is going too far, threatening economic security in countries with aging and declining populations. As

world population adds 78 million people per year, however, the evidence of recent demographic transition supports a different conclusion. Countries tend to be less vulnerable to civil conflict, more able to resolve their economic and political problems, and better poised to face future changes and challenges when adults 30 and older outnumber those who are younger than 30 in the population.

Research demonstrates that women who have completed most or all of secondary school have lower fertility rates, and that large family sizes that keep women out of the workforce are incompatible with sustained economic growth. However, policymakers have been slow to act on the connections between women's lives, population dynamics and broader development. This policy lapse has stunted the development of many countries and regions that remain stalled in the early stages of the demographic transition.

The education of children and employment of young adults are the foundation of a country's development, and young people its greatest asset. When they are healthy, educated and employed, young people are those who renew and revitalize a country's economy and institutions. Therefore, it is critical that the connection between very young and youthful age structures and challenges to development not be misinterpreted to demonize youth. The problem is not that there are too many young people in these countries, but that in some cases there are too few resources and opportunities available for many of them to become invested and productive in society.

Considering the linkages between age structure and development, countries with a very young and age structure—the vast majority of those in Africa—should implement programs and policies that promote progress along the demographic transition. This

requires capacity, strong institutions and commitment, both political and financial, on the part of a national government, often in partnership with other countries and organizations.

To achieve a world of more favorable and balanced age structures, a series of steps related to demographic change are needed:

Governments, local organizations and international partners should make voluntary access to modern contraception and sexual and reproductive health information as widespread as possible, for all who seek it, including youth. African health ministers recently developed a plan to "take the continent forward towards the goal of universal access to comprehensive sexual and reproductive health services in Africa by 2015" through a comprehensive and multifaceted approach.[18] Development plans such as these should be fully supported through targeted funding and effective implementation.

Policies should also work to increase girls' educational attainment and make it easier for women to enter and compete in the workforce, while strengthening education generally. Gender issues should be mainstreamed into all development and social welfare policies.

Legal regulations must also afford women equal rights to custody of their own children, to divorce, to access to reproductive health services, to inheritance and land title, to security from gender-based violence, and to protection in the schools and workplace. Such issues should be removed from the purview of religious courts or customary law.

Investments should be concentrated in the healthcare, education and employment of young people. Economic development policies should be targeted at ensuring they have adequate education and training and that industries will be able to provide a

sufficient number of jobs. The access of young people to reproductive health information and services should be a particular priority.

Endnotes

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