GLOBAL AGING
Understanding its challenges

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Introduction
Population aging refers to an increase in the relative portion of older people as a share of the total population in a given region. The world population is aging and will continue growing older, even at an accelerated pace, over the coming decades. As “clearly one of the most significant demographic trends of the twenty-first century” (United Nations 2012a, p. 3), global aging – population aging worldwide – stands out as a key demographic environmental factor affecting the lives of citizens around the world, those in later life in particular, throughout the twenty-first century (Uhlenberg 2009).

The trend of population aging is in part the outcome of positive human achievements. It has resulted partly from the advancement of medical knowledge, the development of welfare programs for the aged, and the wide availability of those societal efforts around the world (World Health Organization [WHO] 2012). Population aging is, therefore, an achievement of modern society’s commitment and ability to help its citizens to live longer and more healthily than have previous generations. However, this demographic shift has also posed unprecedented challenges for most countries around the world. Contributing to increasing the economic and social burdens of intergenerational dependency, this demographic shift has already strained, and will continue to undercut, existing economic resources, social institutions, and cultural legacies that have long supported older people (Higo and Williamson 2011). The trend of global aging thus suggests growing risks in later life in countries around the world, particularly in securing socio-economic resources necessary for the wellbeing of older people in coming decades.

Population aging has reshaped existing age-related public policies and governance across countries (Chen and Liu 2009). As a worldwide demographic shift, furthermore, global aging has significant implications for future policymaking not only at the national level but also on a global scale. Most countries face the common burden of adequately providing for their older populations. However, the impact of this global demographic shift is not uniform; it unevenly distributes risks in later life between economically developed and developing countries. While most of today’s developed countries have already experienced some level of population aging, the majority of today’s developing countries are either currently aging or will begin aging in the decade ahead at a much faster speed than what the developed countries experienced (Higo and
Khan 2014). This chapter suggests that global aging will distribute greater risks in later life for those living in today’s developing countries of the world, particularly for vulnerable populations such as destitute elderly, unmarried older women and widows, and those who lack minimum financial or social support.

This chapter highlights three areas of uneven distribution of risks in later life between today’s developed and developing countries. In coming decades many of today’s developing countries will likely contend with greater risks in later life in (1) mitigating the burden of disease in epidemiological transition; (2) protecting financial security in retirement; and (3) securing a long-term care workforce. The overarching goal of this chapter is to call for a formulation of effective global-scale policies in order to help protect the wellbeing and survival of citizens in later life, particularly for those in today’s developing countries. The remainder of this chapter is structured as follows. First, it provides an overview of the trends of global aging. Next, it introduces the different processes of population aging between today’s developed and developing countries. Then the chapter discusses in detail the three areas in which today’s developing countries will likely face greater risks in later life. Finally, the chapter concludes by summarizing the main discussions.

**Global aging: an overview of the demographic trend**

On a global scale, the rate of population aging in the twenty-first century will be without historic parallel. Throughout recorded history, young children (below the age of five) have always outnumbered older people (aged 65 or older). Between the years of 2015 and 2020, however, older people are projected to outnumber young children for the first time. In 2015, the number of young children and that of older people are projected to be about 666 million and 604 million, respectively. By 2020, however, the corresponding numbers will be about 668 million and 716 million, respectively. By 2050, the gap is projected to further increase to about 684 million and 1.49 billion, respectively.

The trend of global aging is also measured by the share of those aged 65 or older as a percentage of the world total population. Worldwide, in 2000 this age group accounted for 6.9 percent of the total population, and this figure is projected to increase to 10.3 percent by 2025 and to 15.6 percent by 2050 (United Nations 2015).

One of the main demographic factors that directly contributes to population aging is a decline in mortality rates at all age levels, a demographic shift which translates into an increase in life expectancy at birth: the number of years a newborn infant is expected to live after birth (WHO 2012). Globally, the average life expectancy, including both men and women, increased from 46.9 years for the 1950–1955 birth cohort to 67.1 for the 2000–2005 birth cohort. The figure is projected to further increase to 72.8 years for the 2025–2030 birth cohort and to 75.9 for the 2045–2050 birth cohort (United Nations 2012b). In combination with the decline in mortality rates, a decrease in childbirth rates is also contributing to population aging (Lloyd-Sherlock 2010). Roughly speaking, since the 1950s, the world population has experienced an overall decrease in childbirth rates. Between the years 1950 and 1955, worldwide, the total fertility rate – average number of children born to each woman over the course of her lifetime – was about 4.97. This figure decreased substantially to 2.59 by 2000 to 2005. The rate is currently projected to continue decreasing, reaching 2.37 between the years 2025 and 2030 and 2.24 between 2045 and 2050 (United Nations 2015).
Developed and developing countries: two worlds of an aging globe

While population aging is a global trend, it progresses differently by region, at least in the timing and speed of the increase in the population’s share of older people. To clarify these differences, this chapter adopts what the United Nations (2015) refers to as the more developed and less developed regions. The former consists of countries in Europe and North America, Australia, New Zealand, and Japan, and the latter includes all the rest of the world, including the so-called emerging economies: China, India, Brazil, Mexico, and those countries that are economically underdeveloped or devastated such as those in sub-Saharan Africa. The remainder of this chapter refer to these regional categories as developed and developing countries, respectively.

In many developed countries, in Europe in particular, population aging began slowly during the late nineteenth century, partly because childbirth rates entered a phase of sustained decline and life expectancies at birth began to gradually increase (Rowland 2009). According to the United Nations (2015) projection, by the end of 2015, the shares of the population aged 65 and older out of the total will be the highest for Japan (26.4 percent), followed by Italy (21.7 percent), Germany (21.4 percent), Greece (20.2 percent), and Sweden (20.0 percent). However, the number and proportion of older people have also been growing in today’s developing countries. By the end of 2015 there will be more people aged 65 and over living in China alone (132.5 million) than in all of Europe (128.8 million). As Figure 10.1 illustrates, as of 2010, some 62.4 percent of the world’s population aged 65 and over lived in the developing countries – an estimated 331.1 million people. This figure is projected to increase to 682.5 million by 2030: about a 73 percent increase. By 2050, almost 1.2 billion of the expected 1.5 billion people aged 65 or older are projected to live in today’s developing countries.

Figure 10.1 Developed vs. developing countries of the world – population aged 65 and older, 1950–2050
In many developing countries, population aging is taking place at a much faster rate than is the case for developed countries. Figure 10.2 shows when population aging occurred (or will occur) and how fast it proceeded (or will proceed) for some selected countries in developed and developing countries, respectively. For instance, it took 115 years (from 1865 to 1980) for France’s population aged 65 and over to increase from seven percent to 14 percent of the country’s total population. To make the same demographic shift took Sweden 85 years (from 1890 to 1975), Australia 73 years (from 1938 to 2011), and Canada 65 years (from 1944 to 2009). It will have taken the United States 69 years (from 1944 to 2013). In contrast, what follows illustrates how much more rapidly the population aging will proceed in developing countries: Singapore will take 19 years (2000–2009), Brazil 21 years (2011–2032), Thailand 22 years (2002–2024), Colombia 25 years (2017–2032), China 26 years (2000–2026), and Chile 37 years (1988–2025). Generally, developing countries are projected to go through similar increases in the proportion of elderly but much more rapidly. This projection suggests that, unlike in developed countries, many developing countries’ policies, economies, cultural norms, and family structures will have much less time to make necessary adjustments to such rapid growing of the population.

Figure 10.2  Developed vs. developing countries – number of years taken or expected for percent of population aged 65 years or older to increase from 7% to 14%
Global aging

Greater risks for developing countries in mitigating the burden of disease in epidemiological transition

In the coming decades, global aging will distribute greater risks in later life for many of today’s developing countries. The first unequal distribution of risk is the public burden of disease. The world is currently experiencing an epidemiological transition, which refers to changes in leading causes of death in a given population (WHO 2008). Worldwide, the leading causes of death are shifting from acute and infectious diseases, including HIV/AIDS, pneumonia, influenza, and leprosy among others, to chronic and non-communicable diseases such as cerebral-vascular disease, cancers, and ischemic heart disease, which are characteristics of old age (Agyei-Mensah and Aikins 2010). While populations have come to live longer than previous generations, the number of deaths due to chronic and non-communicable diseases has been rapidly increasing and will continue rising over the next decades (World Economic Forum 2011). In 2004, the worldwide number of deaths from cardiovascular diseases and cancers – typical non-communicable diseases – was about 19 million, and that figure is projected to jump to more than 40 million by 2030. Overall, chronic and non-communicable diseases are projected to account for about three-quarters of all deaths worldwide in 2030 (WHO 2009).

This epidemiological transition takes on major importance in connection with both global aging and any given country’s stage of economic development. Shifts in the leading diseases often posit challenges for allocating scarce economic resources for medical care and government interventions such as public expenditures on healthcare for citizens (Crystal and Siegel 2009). In many countries today, healthcare costs are rapidly rising; in some countries the growth rates of public healthcare expenditures are projected to exceed the national economic growth rates in the decade ahead (WHO 2012).

To date, developed and developing countries have encountered significantly different paths in undergoing this epidemiological transition. In many countries in Europe and North America, the epidemiological transition began approximately in the late eighteenth century, the time around which childbirth rates in this region began to slowly decline (WHO 2009). By contrast, in most of today’s developing countries the epidemiological transition did not begin until well into the twentieth century but has been taking place at a much faster pace than in most developed countries since then (Crystal and Siegel 2009).

The burden of disease is a measure of the region-specific economic burden caused by diseases in a baseline year and is calculated by combining years of life lost due to premature mortality and time lived in less than full health (WHO 2008). The burden of non-communicable diseases has already been a major problem in most developed countries. In the near coming decades, the same burden is projected to increase rapidly in many of today’s developing countries as well. In 2004, the share of the total burden of disease attributed to non-communicable diseases was about 85 percent for the developed countries and about 44 percent for the developing ones. By 2030, these figures are projected to increase to about 89 percent and 54 percent, respectively (WHO 2008).

The challenges of the burden of diseases, in the context of the epidemiological transition, will likely be much greater for developing countries. While chronic and non-communicable diseases are currently imposing a growing burden on an increasing number of developing countries, many of these countries have limited economic resources to provide their citizens with formal healthcare (Nuscheler and Roeder 2013). Simultaneously, certain infectious diseases including HIV/AIDS, tuberculosis, and malaria, to name a few, will likely remain a devastating health issue. According to the WHO’s (2008) estimate, while the burden attributed to infectious diseases in the developed countries is estimated to be only about three percent by
2030, the figure for the developing countries is projected to remain very high: around 32 percent. Therefore, many of these countries will likely contend with a double burden of disease: a condition in which high rates of infectious diseases including HIV/AIDS will persist in combination with increasing rates of non-communicable diseases associated with old age (Aboderin 2011).

**Greater risks for developing countries in protecting financial security in retirement**

The second area of greater risks in later life for developing countries is related to protecting financial security in retirement. Population aging has raised the debate over the sustainability of existing public old-age pension schemes in many countries (Klassen 2013; Organization for Economic Co-operation and Development [OECD] 2013). While global aging will likely expose many older workers to high levels of individual financial security risks in retirement, these risks will most likely be greater in developing countries.

Public old-age pension programs were developed first in developed countries and have later become common in many developing countries as well. These programs have come to play an increasingly important role in providing sources of financial security for retirees and their families in many developed countries, particularly since the mid–1950s. By 2000, public old-age pension programs covered more than 90 percent of workers in OECD-affiliated countries (OECD 2009). Most of these programs are based on the pay-as-you-go defined benefit model. This is based on an intergenerational contract by which, for the most part, pension benefits are not pre-funded, and revenues from the current working population’s payroll taxes are used to finance the benefits of current retirees. Benefits are based primarily on some measure of a worker’s average or final wage and the number of years the worker has contributed, rather than being contingent upon fluctuations in financial markets (Williamson 2011). From the early 1950s through the 1980s, retirement was gradually institutionalized in most developed countries as the availability of relatively generous pension benefits for many retirees became a foundational source for financial security in later life (Orenstein 2008).

In the midst of global aging, however, worldwide the number of pensioners relative to contributors is increasing. Many countries around the world are therefore facing insufficient government resources to provide all workers with promised amounts of pension benefits. This demographic shift has called the sustainability of the conventional, pay-as-you-go defined benefit model into serious question (Williamson 2011). Today, many developed and developing countries have begun considering and in some cases implementing market-oriented, partial-privatization schemes as a way to reform their existing public pension programs.

In recent years the introduction of a defined contribution scheme to conventional programs has received a great deal of attention (Williamson, Price, and Shen 2012). This alternative scheme is a form of partial privatization of the responsibility for individuals’ financial security in retirement; it promises that a specified amount of premiums will be contributed each month, but no promise is made with respect to the amount of the actual pension benefits that will be paid based on those contributions. Each covered worker creates an individual account with the funding based on their own contributions. Each worker’s contribution is often supplemented by contributions from his or her employer via payroll taxes and the earnings or losses on those assets over the years when they are invested by private sector money management organizations – such as banks and trust funds – in financial markets (Williamson 2011).

Promising less governmental support for securing financial security in later life, the introduction of a defined contribution scheme aims partly to shift much of the risk to individual workers (Orenstein 2008). To date, more than 20 developing countries – including Chile and
many others in Latin America and Eastern Europe – have already introduced funded individual accounts for defined contribution schemes, thereby partially privatizing their existing public pension schemes (Williamson, Price, and Shen 2012).

According to the United Nations (2012), by 2004, public old-age pension programs had been established in 167 countries. These programs, however, typically cover a much smaller fraction of workers in developing countries relative to those in developed countries. For instance, it is not uncommon for less than 10 percent of the total workforce to be covered by the pension programs in developing countries; in Thailand, the Philippines, and Malaysia, public pension coverage is restricted to certain categories of workers, such as public sector employees and military personnel. Nearly one-third of African countries that currently offer public pension benefits have a life expectancy lower than the statutory pensionable age both for men and women (Orenstein 2008).

While the projected future costs of such narrowly applied public pension programs are a major concern, many developing countries must first also contend with the pressure to seek ways to finance their strategic development plans, particularly those linked to infrastructure, security, education, and public health (United Nations 2012a). Moreover, the new defined contribution schemes make financial security in retirement depend on a number of factors that involve different forms of risk, including: what forms of financial assets a worker is able to save, how those savings are invested, fees assessed for managing these assets, and fluctuations in financial markets, to name a few (Williamson, Price, and Shen 2012). This shift toward greater pension privatization may therefore generate greater risks in protecting financial security in retirement, particularly for low-wage workers and their families and single widows in developing countries.

Greater risks for developing countries in securing a long-term care workforce

Global aging will likely generate greater risks for developing countries in securing a workforce for long-term elderly care. Over the past few decades, the demand for a long-term care workforce has been steadily increasing in many countries, and home and community based long-term care workers directly serving the frail and disabled elderly have been in particularly high demand (O’Brien and Gostin 2011).

Since the mid-1980s, an increasing number of developed countries, including Canada, the United Kingdom, and the United States, have promoted aging-in-place for elderly care. This shifts the site of long-term care services for the elderly from institutions such as hospitals, palliative care facilities, and nursing homes to the patients’ own homes and communities (Kenner 2008). The promotion of aging-in-place has raised the demand for long-term care services to service local environments. In addition, the ever-increasing financial cost of direct long-term care in institutional settings has also contributed to the increasing demand for home and community-based direct long-term care services (Black 2008).

Over the past two decades, an increasing number of both developed and developing countries have been developing a global labor market for a long-term care workforce (Browne and Braun 2008). Many developed countries are major importers and consumers of this workforce. This is due partly to declining childbirth rates, increasing divorce rates, and increasing female employment in multiple labor sectors, such that many developed countries are currently facing shortages of long-term care workers for their already increasing elderly population. A number of developing countries have gradually been integrated into the global labor market as providers of this healthcare workforce (Nuscheler and Roeder 2013).

Over the past three decades, the governments of these countries have encouraged their younger workers, and women in particular, to migrate to developed countries as long-term care
workers (Browne and Braun 2008). Since the mid-1990s, for instance, the Philippine government has supported the education, training, and export of many Filipinas, mainly as long-term care workers including nurse aides (Luts and Palenga-Möllenbeck 2012). One of the main reasons behind this initiative is the financial benefits from money remitted by these workers back to their families (Ball 2008).

The rise of this global labor market for a long-term care workforce is referred to by some as “global care drain”: a global shift in which the direct long-term care workforce is drawn from developing countries to developed ones (Luts and Palenga-Möllenbeck 2012). The transnational migration of these workers has steadily increased over the past few decades; in the United States, for instance, where foreign-born workers accounted for only five percent of the total long-term care workforce in 1980, the figure had increased to about 17 percent by 2010 (Cremer and Roeder 2013).

To date, many of the exporting developing countries have economically benefited from participating in this global labor market (Luts and Palenga-Möllenbeck 2012). However, the more thoroughly these countries are integrated into the global labor market, the more likely it is that they will likely contend with shortages in the long-term care workforce in their own countries. According to a WHO (2008) projection, over the next two decades the need for healthcare for the aged in some developing countries will increase by as much as 400 percent. Even now, a significant portion of developing countries do not have enough laborers for long-term care. Also as noted by the WHO (2008), the ratio of health workers to the total population, also referred to as the health worker density, needs to be at least 2.5 workers per 1,000 people in a given population. Among 192 countries worldwide, 76 countries do not reach this minimum rate, and 45 of these are in sub-Saharan Africa. Generally, developing countries are about to experience population aging and at a more abrupt pace than did most developed countries. Worldwide, the majority of older people will soon be in today’s developing countries, where, consequently, an unprecedented level of demand for a direct long-term care workforce will emerge even as that very workforce has been drained away to developed countries.

**Conclusion**

This chapter emphasizes that a formulation of global-scale policies is needed in response to the growing risks of securing socio-economic resources for supporting older people. Global aging is a key demographic environmental factor that significantly affects the wellbeing of citizens in later life. The need for global-scale policies stems from the tendency of global aging not only to challenge most countries but also to unevenly distribute risks in later life between developed and developing countries. In coming decades, developing countries will contend with greater risks in later life relative to developed countries; many of those countries are not only newcomers to the challenges of population aging, but are also experiencing this demographic change more abruptly, while simultaneously being continually pressured to develop their economic and social infrastructures for citizens of all ages.

This chapter has focused on three specific areas in which such global inequalities will likely be most pronounced in the coming decades. First, developing countries will likely face a double burden of disease in epidemiological transition: while still combating persistent acute and infectious diseases, many of these countries will be burdened with allocating public resources to reduce increasingly prevalent diseases characteristic of old age such as chronic and non-communicable diseases. Second, many of today’s developing countries will be drawn into a global trend of pension privatization, while even now their public pension programs offer relatively limited protection for workers and their families.
Global aging

Third, but not least, many developing countries will contend with severer shortages in the long-term care workforce for their elderly populations as an increasing number of those countries become subject to the global care drain. It is worth noting that among developing countries, certain vulnerable groups would be particularly at risk, including: the disabled; those who are socially marginalized; and economically vulnerable elderly women such as widows, those never married and those without adult children. In some countries, risks in later life will be greater for those women who are responsible for the care of their grandchildren due to the death of their adult children, often linked to diseases such as HIV/AIDS.

The world population is aging in part because citizens in most countries have come to live longer and in better health than previous generations. Arguably, this positive human achievement is due partly to societal commitment and public effort – often through orchestrated endeavors beyond national borders – to provide for the elderly. By a similar token, the twenty-first century demographics call for developing collective and solidaristic efforts to pursue collective measures across the world, in order to address the growing risks in later life that citizens will face today and in the future. Over the past decades, a few international NGOs and programs – including, but not limited to, HelpAge International and United Nations Population Fund (UNFPA) – have been organized, aiming at least in part to address these issues. More efforts, nonetheless, are necessary to generate more effective and sustainable impacts. Rather than leaving each country responsible for addressing these risks for their own citizens alone, decision makers around the world may need to formulate new policies, governances, and programs that aim to protect the wellbeing and survival of older people in both developed and developing countries around the world.

References


