



# Population Bulletin

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BY **JASON BREMNER, ASHLEY FROST, CARL HAUB,  
MARK MATHER, KARIN RINGHEIM, AND ERIC ZUEHLKE**

## **WORLD POPULATION HIGHLIGHTS: KEY FINDINGS FROM PRB'S 2010 WORLD POPULATION DATA SHEET**

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## POPULATION REFERENCE BUREAU

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POPULATION REFERENCE BUREAU

VOL. 65, NO. 2

JULY 2010

# WORLD POPULATION

BY CARL HAUB

A number of developed countries are likely to decline in size and see the proportion of their elderly populations rise to unprecedented levels.

**2.1  
BILLION**

The largest percentage increase in population by 2050 will be in Africa, whose population is expected at least double.

**2.5**

The TFR in developing countries declined from about 6.0 in the early 1950s to about 2.5 today, much more rapidly than Europe and North America.

Much of Asia's future population growth will be determined by what happens in China and India—two countries that account for about 60 percent of the region's population.

**World population has reached a transition point: The rapid growth of the second half of the 20th century has slowed.** But factors such as continuously improving mortality and slower-than-expected declines in birth rates guarantee continued growth for decades. The questions remain: how fast, how much, and where?

The declines in birth rates and increased longevity have led to a concern in more developed countries and one that will soon spread to less developed countries: The proportion of the elderly population has been rising and will continue. The pressure on national pension plans and long-term health care has increased as the support ratio, the number of those ages 15 to 64 compared with those ages 65 and over, decreases.

The population size of the world's more developed countries has essentially peaked. What little growth remains will mostly come from immigration from less developed countries. A number of more developed countries are likely to decline in size and see the proportion of their elderly populations rise to unprecedented levels.

The outlook for less developed countries is quite different. The increase in world population from 1.6 billion in 1900 to 6.1 billion in 2000 was almost entirely due to population growth in those countries. The 20th-century population "explosion" was a direct result of the rapid decline in mortality rates in less developed countries. Achievements in rising life expectancy that had taken centuries in Europe took mere decades in many less developed countries. As less developed countries' growth rates rose to levels never experienced in the more developed countries, many adopted policies to lower the birth rate

to keep pace with rapidly declining death rates. In the decades that followed, there were dramatic declines in birth rates in some less developed countries, somewhat more gradual declines in others, and almost no decline in still others (see Figure 1, page 3). Nonetheless, the total fertility rate (TFR) in less developed countries declined from about 6.0 in the early 1950s to about 2.5 today, a much more rapid decrease than that of Europe and North America. As impressive as that decline may be, there is still a long way to go. Global population is at an important crossroad. Will the world continue on to "zero population growth" or not?

## Population Projections

Projections of world population in 2050 currently range from 9.15 billion to 9.51 billion. Considering the 40-year timespan and the uncertainty of demographic trends, those projections are all actually quite close, and for a reason: World population projections have long made the assumption that the TFR will decline to two children or less in developing countries much as it did in the developed countries and that the decline will be continuous and uninterrupted. It is recognized, however, that such a tidy pattern of TFR decline will not take place everywhere and that projections will have to be adjusted. TFR declines have stalled in some countries and have barely begun in others.

The assumption of continuous TFR decline is largely dependent on the spread of women's desire to use family planning to space their births or limit childbearing altogether. The ability to do so, in turn, is dependent upon government policies to provide family planning services where they are needed and upon sufficient funds and infrastructure to do so.

The TFR has in fact declined to two children or less in developing countries such as Brazil, Chile, Cuba, Iran, Thailand, Tunisia, Turkey, and Uruguay. China and Vietnam have also seen sharp declines due to strict government policies. For many other countries, however, TFR decline has been elusive. And within countries, regional variations can be obscured by national averages.

## Regional Population Trends

The largest percentage increase by 2050 will be in Africa, whose population is expected to at least double to 2.1 billion. That projection depends on the assumption that sub-Saharan Africa's TFR will decline from 5.2 to approximately 2.5 by 2050. This implies that the use of family planning will rise significantly. Presently, 17 percent of married women in sub-Saharan Africa use a modern form of family planning, by far the lowest rate in the world.

Asia, with 4.2 billion people, will likely experience a much smaller proportional increase than Africa but still add the largest number of people by 2050—1.3 billion. Much of Asia's future population growth will be determined by what happens in China and India, two countries that account for about 60 percent of the region's population; adding the populations of Bangladesh, Indonesia, and Pakistan brings the total to 75 percent. There has been much speculation about China's possible relaxation of its stringent one-child policy as the number of women entering the childbearing ages begins to decline. Currently, the TFR stands at

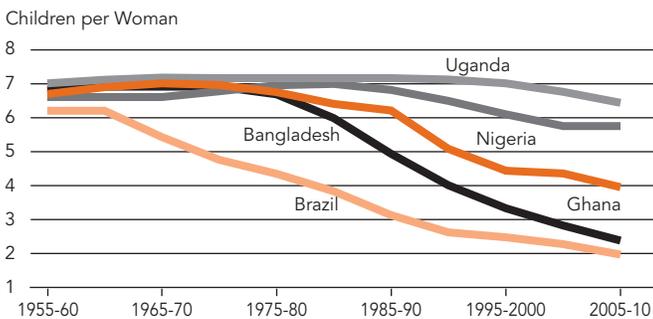
2.2 in Asia and at 2.6 when the large statistical effect of China is removed. Excluding China, 47 percent of women in Asia use a modern form of contraception.

Latin America and the Caribbean is the developing region with the smallest proportional growth expected by mid-century, largely due to fertility declines in several of its largest countries such as Brazil and Mexico. The regional TFR is currently about 2.3 and the use of modern contraception, at 67 percent, rivals that of developed countries.

Europe is likely to be the first region in history to see long-term population decline as a result of low fertility, largely due to the countries of Eastern Europe and Russia. The population of the European Union (EU), for example, should roughly maintain its current population size although experiencing large increases in its elderly populations compared with younger age groups. Currently, there are about four people of working age (ages 15 to 64) in the EU per person age 65 or older. By 2050, that ratio is likely to drop to 2-to-1. Outside Europe, other countries such as Japan and South Korea will be in the same predicament. Raising fertility has become a priority for many governments. Australia, Canada, New Zealand, and the United States will continue to grow from higher births and continuing immigration.

The eventual end of population growth in developing countries is a real prospect. But such an end requires an average of two

**FIGURE 1**  
The Fall in Total Fertility Rates Has Varied Dramatically Among Countries



Sources: United Nations Population Division, Demographic and Health Surveys, and PRB estimates.

### CASE IN POINT

## U.S. Population Growth

The U.S. population's rate of increase over the next four decades depends largely on future trends in international migration. The U.S. population is currently 310 million, but could increase to 399 million, 423 million, or 458 million by 2050 depending on immigration trends over the next 40 years. U.S. Census Bureau projections are based on three immigration scenarios, each with different implications for growth. Low immigration assumes that net international migration will range from 1.1 million to 1.8 million per year. Constant immigration assumes immigration levels will remain at current levels (just under 1 million per year). High immigration assumes immigration levels will range from 1.5 million to 2.4 million per year.

The new projections also show the effect of immigration on population aging. Under the three scenarios, older Americans are projected to make up between 20 percent and 21 percent of the U.S. population by 2050. The zero-migration model projects more rapid aging, with the elderly accounting for 24 percent of the population in 2050. Regardless of future immigration levels, baby boomers—who have started reaching retirement age—are going to contribute to rapid population aging in the coming decades.

—By Mark Mather

# YOUTH DEPENDENCY

BY **ASHLEY FROST**

High youth dependency can create new opportunities for economic growth in countries that increase contraceptive use and reduce fertility.

## 1.3

In sub-Saharan Africa, there is almost a 1-to-1 ratio between working-age adults and children under 14.

## 17%

In developed countries, children under 14 make up an increasingly smaller share of the population.

To capitalize on the demographic dividend, countries with high youth dependency must provide high-quality and accessible education, health services, and jobs for young people.

**In most of the world, falling fertility has led to changes in the age structure of the population.** There are 2.4 adults of working age (15 to 64 years) for every child under age 14. By 2050, the United Nations estimates that there will be 3.3 adults of working age for every child.

But there are large differences between the age structure of populations in more developed and less developed countries. In more developed countries, children under 14 make up only 17 percent of the total population, and there are 4.1 adults of working age for every child under 14. As a result, youth dependency—the number of children economically dependent on the working-age population—is relatively low. The cost of providing for the needs of young people, particularly education and health care, is distributed over a large number of working adults.

However, in less developed countries where child survival has improved and fertility remains high, youth dependency is significantly greater. In sub-Saharan Africa, young people make up more than 42 percent of the total population, and there are only 1.3 working-age adults for every child under 14. In countries such as Uganda, where a woman has on average more than six children, there is a 1-to-1 ratio of working-age adults and children under 14. This high youth dependency burdens governments, communities, and families as they try to meet the needs of large, young populations.

## The Demographic Dividend

High youth dependency can create opportunities for economic growth in countries that increase contraceptive use and reduce fertility. As young populations grow into adulthood and have fewer children than earlier generations, the number of working-age adults increases and youth

dependency declines. This phenomenon is known as the “demographic dividend” because countries can benefit from the large bulge of economically active adults who enter the workforce when youth dependency falls. In fact, the accelerated economic prosperity of East Asia over the past few decades is often attributed to this demographic dividend. Countries that significantly reduced fertility in recent decades may also benefit from the demographic dividend in coming years. As Figure 2 (page 5) illustrates, Bangladesh and Brazil will likely experience a large increase in the number of working-age adults for each dependent child by 2030 due to falling fertility. Between the 1970s and 1990s, fertility fell from 6.9 to 3.3 births per woman in Bangladesh and from 4.7 to 2.5 births per woman in Brazil. Conversely, in countries such as Uganda and Mali, where fertility remains persistently high—women in Mali have an average of 5.5 births each, and women in Uganda have an average of 6.4—the number of working-age adults for each child will likely increase only slightly.

Increasing contraceptive use and reducing high fertility are necessary to harness the potential of the demographic dividend. Over time, the pace of fertility decline dramatically affects the number of working-age adults per child, reducing youth dependency. Using UN projections for fertility in Ghana, the number of working-age adults for each child under 14 increases faster when fertility falls faster. The low-fertility scenario (2.0 births per woman) has a greater impact on youth dependency than the medium-fertility scenario

(2.5 births) and the high-fertility scenario (3.0 births). The constant fertility projection shows that without falling fertility, high youth dependency will likely remain relatively constant over the next two decades.

## Necessary Investments

To capitalize on the demographic dividend, countries with high youth dependency must also provide high-quality and accessible education and health services to their large numbers of young people. Without these investments, children are less likely to grow into healthy and productive adults. But the significant financial costs of meeting children's health and educational needs are prohibitive for many developing countries. In the world's poorest regions, education is often out of reach. There are 72 million children worldwide who are out of school, and poor children, girls, and children who live in rural areas are particularly disadvantaged. Even in countries that are able to improve access to education, other challenges remain daunting. In Madagascar, Mozambique, Sierra Leone, and Togo, for example, increased school enrollment and shortages of trained teachers have led to student-teacher ratios of more than 80-to-1. UNESCO estimates suggest that there is currently an annual US\$80 billion deficit in sub-Saharan Africa that prevents all children from receiving high-quality basic education.

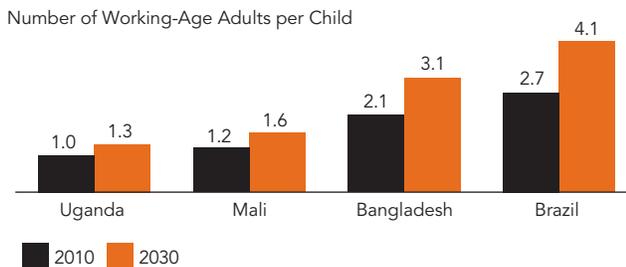
Shortfalls in child health and nutrition need to be met before countries with high youth dependency can benefit from a larger working-age population. One-quarter of children under age 5 in sub-Saharan Africa and Asia are underweight. Poor nutrition has long-term impacts for the health and productivity of countries. For example, iron deficiency is linked to impaired cognitive development, and the UN estimates that countries lose as much as 8 percent of national GDP because of lower educational attainment and reduced economic potential from iron deficiency. In addition, hundreds of millions of children suffer from poverty-related diseases that affect their health and future opportunities.

The demographic dividend can only be realized if young people have economic opportunities when they reach adulthood. While unemployment in many developing countries is difficult to measure because many people have informal jobs such as selling in local markets that are not government regulated, unemployment for both men and women in sub-Saharan Africa averages just below 10 percent, with some countries such as Burkina Faso, Zambia, and Liberia reporting 50 percent unemployment among their working-age populations. An even larger percentage of the population in the region is underemployed and not earning a liveable wage. In Nigeria, while estimates of unemployment are only 5 percent, 70 percent of the population lives below the poverty line.

For developing countries with high youth dependency to fully benefit from the demographic dividend, fertility must fall, investments in child health and education must improve, and economic opportunities for adults must expand. If countries achieve these goals, the demographic dividend will provide a strong catalyst for economic growth and development.

FIGURE 2

### The Number of Working-Age Adults per Dependent Child Will Increase at Different Rates



Source: United Nations Population Division, *World Population Prospects, The 2008 Revision*.

#### CASE IN POINT

### Free Primary Education in Kenya

During the 1990s, school enrollment declined significantly in Kenya. Mandatory school fees placed an impossible burden on many families already affected by growing poverty and the spread of HIV/AIDS. In 2002, the national government abolished primary school fees to reinvigorate national commitment to education, and the response was overwhelming. Within a few weeks, according to the World Bank, an additional 1 million children enrolled, many of whom had never before attended school. But in many areas classroom size doubled, placing stress on teachers, resources, and facilities.

The sheer size of Kenya's young population—children under 14 make up 43 percent of Kenya's population—has threatened the feasibility of high-quality and free education for all Kenyan children. Even with strong government commitment, financial assistance from international donors was essential to meeting minimum educational standards in the early years of the initiative. In 2006, education received 28 percent of the government budget, the largest share of any sector. However, resources are still insufficient to eliminate school fees for secondary school and, as a result, 43 percent of children do not attend the later years of school, essential for preparing youth for jobs in adulthood.

# OLD-AGE DEPENDENCY

BY ERIC ZUEHLKE

People ages 80 and older are the most rapidly growing age group worldwide.

**BY 2050,**

the number of working-age people per person 65 and older will decrease by over 50 percent worldwide.

**2.6%**

The population of older people worldwide is growing at more than double the annual rate of the population as a whole.

Older adults in developing countries increasingly must care for themselves, without the support of traditional family networks or social safety nets.

Improved health, increased access to education, and economic growth have led to lower fertility rates and longer life expectancy in every region and across socioeconomic groups. The world's population is growing older.

While this shift represents a major global success story, aging populations also present challenges to families, communities, and countries. This demographic shift is unprecedented in world history, and is most likely irreversible.

Not only is the world's population becoming older, the older are living longer. Those ages 80 and older are the most rapidly growing age group worldwide. To maintain current standards of living in more developed countries and to improve prospects for those in less developed countries, countries must include and involve older populations as productive and active contributors to society.

The populations of more developed countries have become progressively older for more than a century. Advances in public health and expanded social safety nets enabled people to live longer. But as fertility rates have fallen to below replacement level in much of the developed world, new challenges are emerging. Over the next 50 years, the number of elderly persons will continue to rise and the number of people of working age will decrease; the number of retiring workers each year will eventually exceed the number of new workers into the labor market. Those in older ages (ages 65 and older) made up 21 percent of the population in more developed countries in 2009. By 2050, that proportion is projected to increase to 33 percent. But while the populations of more developed countries have been growing older for decades, retirement

ages have gone down, at least until recently. According to the Organisation for Economic Cooperation and Development (OECD), barring any change in work and retirement patterns, the ratio of older nonworking people per worker will almost double by 2050, putting a strain on government social support and public finances.

The percentage of people ages 65 and older is increasing in less developed countries as well: 66 percent of older people in the world live in low- and middle-income countries, and the percentage will rise to 80 percent by 2050. The rate of increase will accelerate much faster than in more developed countries, which took decades to age from the industrial revolution through the medical advances in public health in the early to mid-20th century. Although fertility decline started relatively late in less developed countries, it has proceeded faster than in more developed countries.

For most older adults in less developed countries, retirement is an unaffordable luxury. Four out of five older adults worldwide have no retirement income from pensions or government programs. These adults must continue to work to support themselves and their families. Many work in the informal economy, selling goods on the street, or work on farms with no benefits or social protection. Without public support, people have traditionally relied on family support networks in their older ages. However, as more young people move to urban areas for work, as many adult children die from AIDS in hard-hit countries, and with persistent poverty, many

older people are left to fend for themselves. The responsibility of grandparents as the primary caregivers for their grandchildren compounds the challenge in less developed countries that are especially affected by the AIDS epidemic.

## Measuring the Burden

The old-age dependency ratio measures the ratio of the population age 65 or older to the population ages 15 to 64 (considered to be working age). As a larger proportion of the population enters older ages, there are fewer working-age people to support them. A higher ratio means that there are more older people vis-à-vis those in working ages. Although some older people will have retirement income or savings, the higher dependency ratio strains working-age populations—potentially requiring higher taxes and other financial costs. Lower fertility rates and increasing life expectancy will cause the world's old-age dependency ratio to more than double between 2010 and 2050, with larger increases in some regions. In Asia the ratio will almost triple, and will more than triple in Latin America and the Caribbean. In the United States, the dependency ratio is projected to rise from 22 in 2010 to 35 in 2030 as baby boomers retire and the proportion of older people rises concurrently with the decline of those in working ages.

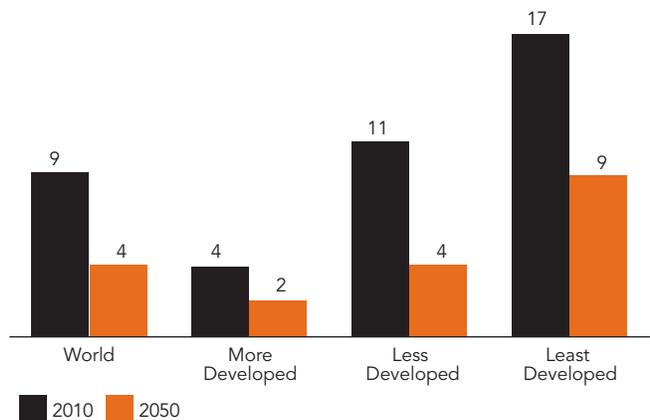
The inverse of the dependency ratio, the support ratio, examines how many working-age people there are per person 65 or older. This number is expected to drop by over half by 2050 worldwide, affecting every region of the world (see Figure 3). The ratio is projected to continue to decline to 3.9 by 2050. A smaller number of workers will have to support an increasing number of older people.

## Policy and Program Responses

The recent global economic recession has highlighted the vulnerability of older populations and their impact on public expenditures and budgets—many lost retirement savings and pensions, requiring more government support. The key to lessening this burden on society is to view older populations less as a problem and more as a resource. Alternative employment opportunities need to be expanded to older people. Less than 60 percent of 50-to-64-year-olds in OECD countries are employed, compared with 76 percent of 24-to-49-year-olds. In response, OECD countries have developed policies to address work disincentives (taxing older workers who work) and to increase flexibility in work-retirement decisions such as raising retirement ages and changing pensions systems to encourage later retirement. However, these policies alone may not be enough to keep up with the speed of demographic change. Employers have a special responsibility to ensure that older workers have the needed skills, access to employment services, and working conditions necessary to stay employed. Many low-fertility countries in Europe and East Asia have been trying to increase fertility rates by providing a more supportive environment for raising children, with mixed results.

**FIGURE 3**

**The Number of Working-Age Adults per Older Adult Will Decrease in All Regions Between 2010 and 2050**



**Note:** The support ratio measures how many working-age people there are per person 65 or older.

**Source:** Carl Haub, 2010 World Population Data Sheet.

### CASE IN POINT

## South Korea's Aging and Policy Response

In South Korea, fertility is so far below the “two-child” replacement level that severe population aging and decline in population size is a very real prospect. In 2002, the government announced that its pension fund would soon be wiped out because of a decline in the working-age population vis-à-vis the number of retirees. The government also realized that the number of women of childbearing age was declining and that the trend would only accelerate. South Korea's total fertility rate reached the historic global low of 1.08 in 2005. The South Korean government responded with a plan that included provisions for a more favorable environment for childbearing—tax incentives, priority for the purchase of a new apartment, support for child care (including a 30 percent increase in facilities), child care facilities at work, support for education, and assistance for infertile couples.

—By Carl Haub

Developing countries face other challenges from the growing population of older workers because pensions and public social protection are less common than in developed countries. Increasing access to small loans to create business opportunities through microcredit programs, implementing age discrimination policies to prevent exploitation, expanding health care, and increasing training programs can help older workers contribute to society in new ways.

# GENDER, EMPLOYMENT, AND DEPENDENCY

BY **KARIN RINGHEIM**

Women tend to work in lower-wage jobs. Despite some narrowing of the gender wage gap, differences in male and female pay remain across all occupations and skill levels.

**BY 60,**

women are less than half as likely to be employed as men of the same age.

**48%**

Nearly half of the global productive potential of women is unutilized.

In less developed countries, only 58 girls per 100 boys are enrolled in tertiary education, including colleges and postsecondary skills training.

**Women are essential to a demographic dividend—the potential of a large cohort of youth to provide a boost to economic growth.**

The advantage of a larger working-age population supporting a smaller proportion of dependent children and the elderly can only be realized if a greater supply of labor is productively employed.

Among the Asian “tigers” such as Hong Kong, South Korea, Singapore, and Taiwan, high levels of female educational attainment and rapidly increasing female labor force participation contributed to rapid economic growth. According to the International Labour Organisation (ILO), while women in these countries were subjected to poor working conditions and lower wages, the economic expansion ultimately lifted most households out of poverty.

Despite the youthful age structure of many developing countries, a demographic dividend is unlikely to occur for a variety of factors, including poor educational preparation of the workforce and a lack of decent employment options. In a majority of countries, women are more likely to be unemployed than men. In addition, the effect of an imbalanced sex ratio resulting from son preference, as seen in a number of Asian countries including China, may portend a shortage of women for jobs typically occupied by women.

## Higher Education for Girls

The differences in education and preparation for skilled employment between boys and girls remain substantial and have implications for their economic futures. With rising demand for skilled labor, girls are disadvantaged by their low levels of educational attainment. Despite considerable progress made in recent

years, the gender gap in education continues in many developing countries, particularly at the secondary and tertiary levels. Globally, 96 girls are enrolled for every 100 boys in primary school, but among least developed countries, there are 81 girls per 100 boys in secondary schools and only 58 girls per 100 boys in tertiary education, including colleges and postsecondary skills training. Girls from poor households are far less likely than boys to complete even primary schooling. Furthermore, girls are far more likely than boys to become parents at an early age, which not only curtails opportunities for further schooling but keeps girls out of the paid labor market.

Whether girls succeed in school and advance to higher levels of education also depends on their ability to do their homework—time that is strongly influenced by how much responsibility they have for household chores. For example, research conducted in Bangladesh shows that boys have about 30 minutes more discretionary study time per day than girls. These differences are attributed to parental decisions that girls do a greater share of household chores. Girls on average spend about an hour a day more than boys on tasks such as fetching water and firewood, cleaning, cooking, and caring for younger siblings. Girls who cannot keep up with their homework are more likely to drop out of school. Because secondary schooling has a greater impact on future income than primary schooling, girls who fail to complete secondary

schooling are less prepared for skilled employment and have lower lifetime earnings.

## Women in Global Labor Markets

The UN’s Millennium Development Goal 1 calls for “full productive employment and decent work for all, including women and youth.” While some progress has been made over the past decade in women’s labor force participation, nearly half of the global productive potential of women is still unutilized: 52 percent of women were employed in 2009, compared with nearly 78 percent of men.

Ten years ago, the majority of women worldwide worked in agriculture. Today, most women (47 percent) work in the services sector, while 37 percent work in agriculture. Women have made some progress in moving out of “vulnerable” informal work arrangements that lack benefits and social protection programs like health insurance and retirement plans, and where women face greater risk of sexual and economic exploitation. The percentage of women employed in these vulnerable occupations declined from nearly 56 percent in 1999 to 51 percent in 2009, yet nearly 25 percent of working women are classified as “contributing family workers” who receive no direct pay for their efforts. According to the ILO, while nearly half of employed women globally are now engaged in wage and salaried work, there remains a “clear segregation” of women into jobs that have low pay, long hours, and few opportunities to rise in the ranks to managerial positions.

Women tend to work in lower-wage jobs and to have less access to managerial and other top-level positions. They are also paid less than men for doing the same or equivalent work. Despite some narrowing of the gender wage gap, differences in male and female pay remain across all occupations and skill levels. The difference is lowest among occupations dominated by women,

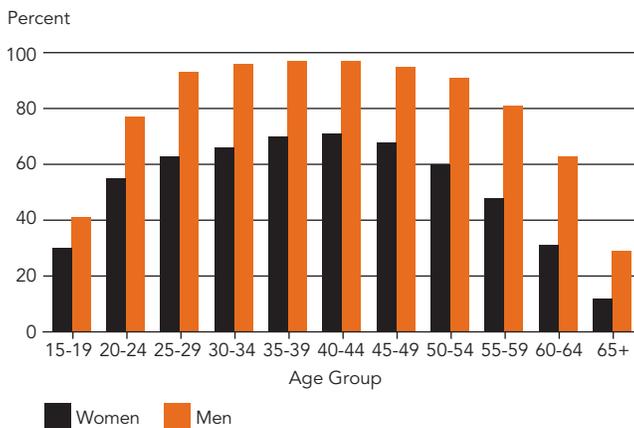
such as primary-level teaching, and highest for occupations requiring a university degree, such as computer programming and accounting. Even for mid-level sales positions, men are paid 10 percent to 30 percent more than women in most countries for equivalent work at the same number of hours. The gender gap in pay for occupations dominated by men is as great as 25 percent even in developed countries like the United Kingdom and Australia.

## Gender, Employment, and Aging

While the youthful age structures of less developed countries necessitate a focus on the employment prospects of youth, globally, the population is aging. The gender discrimination experienced by women in the workforce may be particularly detrimental to older women, who live on average four years longer than men. Retirement may not be an option for these long-lived individuals. In fact, 80 percent of the world’s population is not protected by a social security and health plan, with few options other than to rely on family support or to continue working.

Women have lower labor force participation rates than men at all ages, but the ratio of working women to working men falls off rapidly beginning at age 50 (see Figure 4). Globally, women over age 60 outnumber men by 70 million. By age 60, women are less than half as likely to be employed as men of the same age. Some countries have lower mandatory retirement ages for women than for men. Older women are also more often the victims of age discrimination in employment. Because women are disproportionately represented in unpaid, low-paying, and part-time work, even women who are covered by a social protection plan are entitled to less compensation on average than men. Furthermore, many widowed women are not protected by inheritance rights. These factors contribute to women’s higher rates of poverty in old age.

**FIGURE 4**  
Global Labor Force Participation Is Lower for Women in All Age Groups



Source: International Labour Organisation (ILO), *Economically Active Population Estimates and Projections, 1980-2020*.

### CASE IN POINT

## Female Employment in the Middle East

The Middle East has the lowest female employment rate in the world: nearly 8 out of 10 women in the region are not employed, and labor markets remain largely closed to them. The gender gap in male and female employment is highest in Jordan, Syria, and Egypt. Women with secondary and higher levels of education are more likely than men with the same level of education to be unemployed. Access to employment is an essential step to achieving gender justice and equality. If women have the chance to participate in paid labor, they can economically better themselves and their families, and bring benefits to all areas of development.

# IMPROVED SANITATION

BY JASON BREMNER

Lack of basic sanitation results in diarrhea, which is the second leading cause of death for children under 5.

**2.6**  
BILLION

people still do not use improved sanitation.

**7**  
OUT OF 10

people without improved sanitation live in rural areas.

At the current pace, the world will miss the MDG target for improved sanitation by 2015.

An estimated 1.5 million deaths are caused by diarrhea each year, largely due to a lack of clean drinking water, poor sanitation and hygiene, and poor nutrition and health. Improving sanitation is just one of a comprehensive set of solutions needed to reduce diarrhea deaths, but it is a proven method that should remain part of diarrhea-prevention strategies.

Recognizing the importance of basic sanitation, world leaders committed to the Millennium Development Goal (MDG) target of halving the percentage of the world's population without access to basic sanitation from 46 percent in 1990 to 23 percent in 2015. The most recent data from the WHO/UNICEF Joint Monitoring Programme for Supply and Sanitation (JMP) indicate that progress in meeting this goal is insufficient, and today more than 2.6 billion people, or approximately 39 percent of the world's population, still do not use improved sanitation facilities.

## Geographic Disparities

The global numbers mask vast regional differences in the use of improved sanitation (see Figure 5, page 11). In less developed countries, 48 percent of the population still does not use improved sanitation, compared with less than 1 percent in more developed countries. Nearly all of the 2.6 billion people who do not use improved sanitation facilities live in less developed countries, with 72 percent, or 1.8 billion, living in Asia (more than 1 billion of whom are in India, Pakistan, and Bangladesh); 21 percent, or 565 million, in sub-Saharan Africa; and 4 percent, or 117 million, in Latin America and the Caribbean. Sanitation is poorest in sub-Saharan Africa

where 69 percent of people do not use improved sanitation, and in South-Central Asia and East Asia where 62 percent and 41 percent, respectively, still do not use improved sanitation.

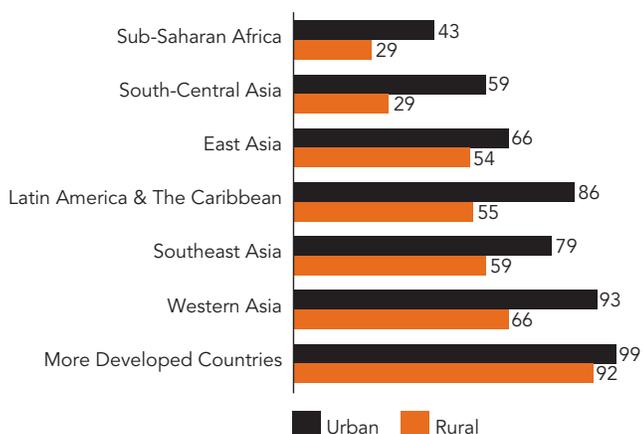
These regional comparisons, however, obscure common urban-rural differentials. In all regions, the use of improved sanitation in urban areas is higher than in rural areas. In developing countries, 68 percent of urban residents and 40 percent of rural residents use improved sanitation. Seven out of 10 people without improved sanitation live in rural areas, which explains some of the regional disparities since the bulk of the populations of South-Central Asia, sub-Saharan Africa, and East Asia are still rural. However, the use of improved sanitation is particularly low in some urban environments as well. In sub-Saharan Africa, only 44 percent of urban residents use improved sanitation; in East Asia, 61 percent of urban residents use improved sanitation.

## Meeting the MDG Target

Since 2000 the world has made small improvements in the percentage without improved sanitation (declining from 42 percent to 39 percent). This small decrease means that 1.3 billion people have gained access to improved sanitation since 1990. However,

**FIGURE 5**

**The Percent of Population With Access to Improved Sanitation Is Higher in Urban Areas in All Regions**



**Source:** Regional estimates calculated by PRB based on the data from the WHO/UNICEF Joint Monitoring Programme for Water Supply and Sanitation, accessed at [www.wssinfo.org/datanaming/tables.html](http://www.wssinfo.org/datanaming/tables.html), on June 15, 2010.

at the current pace the world will miss the MDG target by 13 percentage points, or approximately 1 billion people who were targeted for improvement will still lack improved sanitation. Furthermore, progress has varied between rural and urban areas: 64 percent of those who have gained access since 1990 live in urban areas.

While the overall sanitation improvements are falling short of the MDG target, great progress has been made in reducing rates of open defecation, or the percentage of the population that uses no facilities. Since 1990, the use of any facility for defecation in less developed countries has decreased from 32 percent to 21 percent. Nonetheless, 1.1 billion people still do not use a sanitation facility for defecating, 640 million of whom live in India where the practice is particularly prevalent. An even larger number of people use unimproved and shared facilities.

## Population Growth and Urbanization

The progress being made in sanitation is undermined by continued population growth and urbanization. The world’s urban population has grown by approximately 1.1 billion since 1990, but urban use of improved sanitation only increased for 813 million people. The number of urban people practicing open defecation has actually increased from 188 million to 224 million since 1990, primarily because of urban growth in areas with limited sanitation facilities. In addition, sharing sanitation facilities is particularly prevalent in urban areas. In sub-Saharan Africa, use of shared sanitation in urban areas is high. In Ghana, Uganda, and Kenya, more than 50 percent of the urban population uses shared sanitation facilities.

### CASE IN POINT

## Defining Improved Sanitation

The Joint Monitoring Programme (JMP) provides the most complete global assessment of country-level access to sanitation and drinking water for urban and rural areas, but because definitions vary widely among countries and regions, JMP has had to develop sets of categories of “improved” and “unimproved” in order to compare data across countries and assess trends over time (see table). JMP defines an improved sanitation facility as one that hygienically separates sewage from human contact.

A debated aspect of the definition of unimproved facilities is the inclusion of shared facilities regardless of type. All sanitation efforts aimed at building or improving school or community latrines will not be captured by current definitions and thus require a closer examination of specific facility types.

| IMPROVED SANITATION  | UNIMPROVED SANITATION   |
|--|---|
| <ul style="list-style-type: none"> <li>• Flush or pour-flush piped to sewer system or septic tank</li> <li>• Pit latrine</li> <li>• Ventilated improved pit latrine</li> <li>• Pit latrine with slab</li> <li>• Composting toilet</li> </ul> | <ul style="list-style-type: none"> <li>• Flush or pour-flush to elsewhere</li> <li>• Pit latrine without slab/open pit</li> <li>• Bucket</li> <li>• Shared facilities of any type</li> <li>• No facilities, bush, or field</li> </ul> |

Poor sanitation in densely populated urban areas exposes many people to the pathogens that cause diarrheal disease, which remains the second leading cause of mortality among children under 5 worldwide. Furthermore, because urbanization is being driven largely by the expansion of small and medium-sized cities, the urban sanitation needs are widely dispersed among urban environments that already suffer from little planning, poor infrastructure, and underinvestment. At the same time, existing urban-rural disparities and vast rural needs mean that rural sanitation efforts need to be scaled up. The world faces two major but characteristically different challenges in meeting the needs for improved sanitation: a vastly underserved rural population, and rapidly expanding urban areas in developing countries.

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# WORLD POPULATION HIGHLIGHTS: KEY FINDINGS FROM PRB'S 2010 WORLD POPULATION DATA SHEET

## **World Population**

World population has reached a transition point: The rapid growth of the second half of the 20th century has slowed. But factors such as continuously improving mortality and slower than expected declines in birth rates guarantee continued growth.

## **Youth Dependency**

There are large differences between the age structure of populations in developed and developing countries and the demands they place on societies. Youth dependency is relatively low in developed countries and significantly greater in developing countries.

## **Old-Age Dependency**

Improved health and living standards, increased access to education, and economic growth have led to lower fertility rates and longer life expectancy in every region and across socioeconomic groups. While this shift represents a major global success story, aging populations also present challenges.

## **Gender, Employment, and Dependency**

Women are essential to the demographic dividend—the potential of a large cohort of youth to provide a boost to economic growth. But in a majority of countries, women are more likely to be unemployed than men.

## **Sanitation**

An estimated 1.5 million deaths are caused by diarrhea each year, largely due to lack of clean drinking water, poor sanitation and hygiene, and poor nutrition and health status. Improving sanitation reduces diarrhea deaths. The most recent data indicate that progress in meeting the Millennium Development Goal target on sanitation is insufficient.

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