



# Global Aging and the Future Environment for Health and Health Care in Mexico

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AMIS**

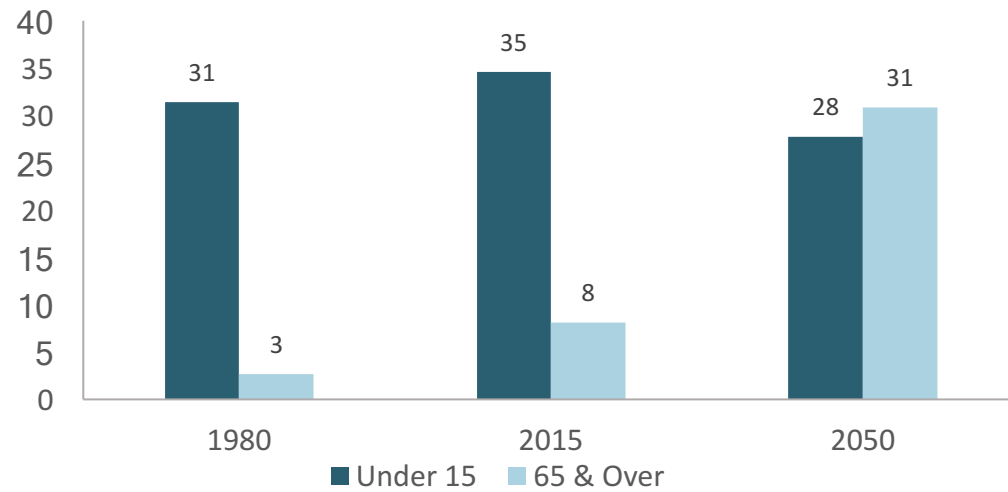
**9 de mayo de 2018  
Ciudad de México**

# The Broader Economy

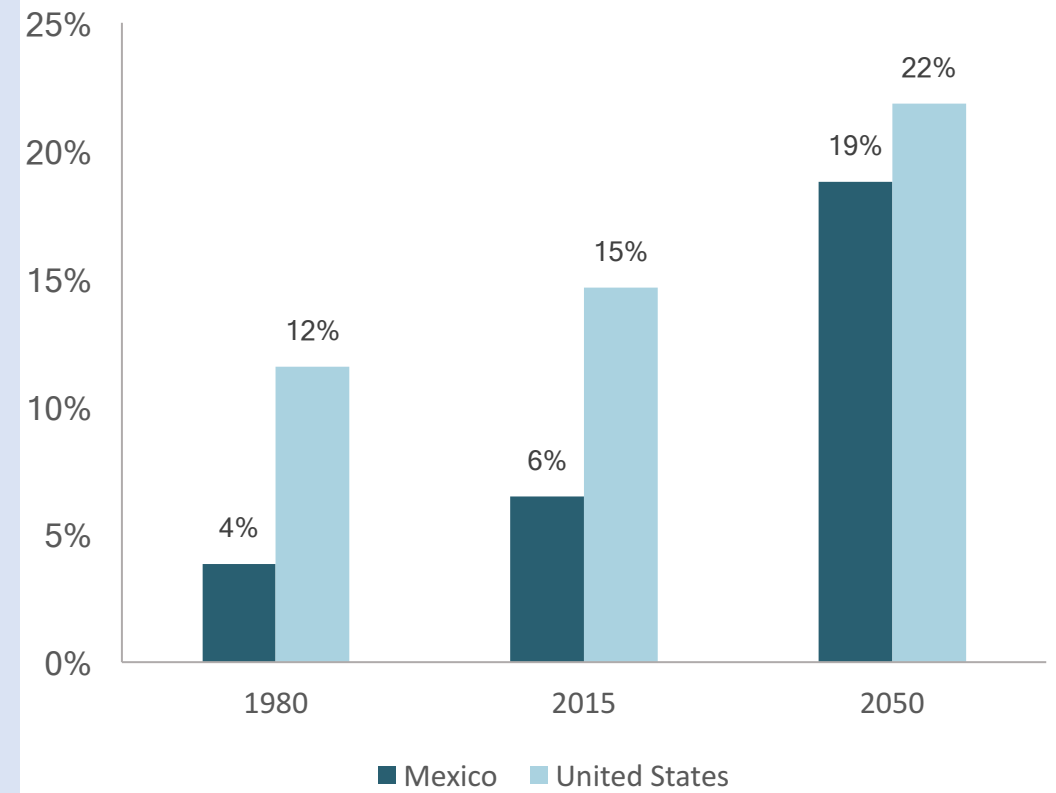
# Although Mexico still has a relatively youthful population, it is on track to age dramatically over the next few decades.

- ❑ As recently as 1980, children under age 15 outnumbered the elderly ten to one. By 2050, there will be more elderly than children.
- ❑ By 2050, Mexico's population will be nearly as old as that of the United States.

**Mexican Population by Age Group, in Millions, 1980-2050**



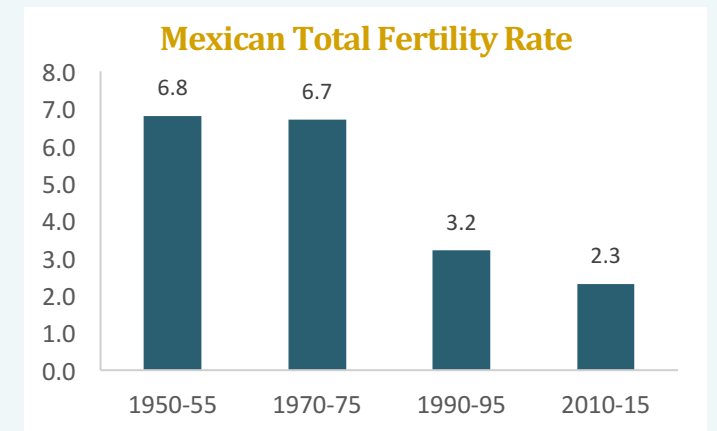
**Elderly (Aged 65 & Over), as a Percent of the Population in Mexico and the United States, 1980-2050**



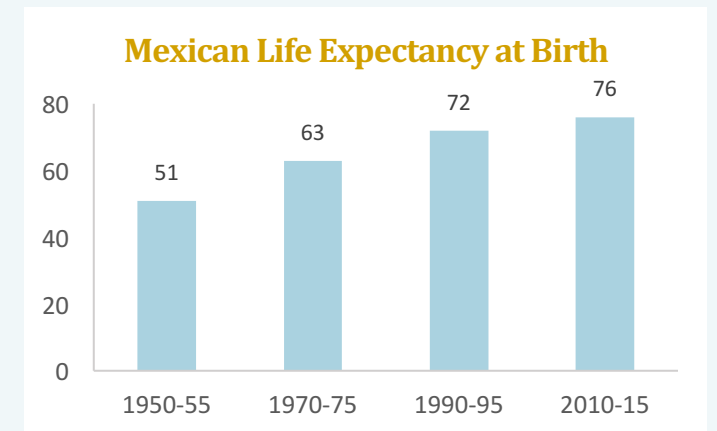
# Two Forces behind the Aging of the Population: Falling Fertility and Rising Life Expectancy

	Total Fertility Rate				Life Expectancy at Birth			
	1950-55	1970-75	1990-95	2010-15	1950-55	1970-75	1990-95	2010-15
<b>Developed World</b>	2.8	2.1	1.7	1.7	67	72	76	81
<b>Japan</b>	3.0	2.1	1.5	1.4	62	73	79	83
<b>Western Europe</b>	2.5	2.2	1.6	1.6	67	72	76	81
<b>United States</b>	3.3	2.0	2.0	1.9	69	71	76	79
<b>Emerging East Asia</b>	6.0	4.8	2.0	1.5	44	62	70	76
<b>Eastern Europe</b>	2.9	2.2	1.6	1.6	60	69	68	72
<b>Greater Middle East</b>	6.6	6.2	4.6	3.2	42	55	64	70
<b>Latin America</b>	5.9	5.0	3.0	2.2	52	62	69	75
<b>South Asia</b>	5.9	5.5	3.6	2.4	40	52	61	69
<b>Sub-Saharan Africa</b>	6.6	6.8	6.2	5.1	37	45	50	58

Source: UN Population Division (2015)



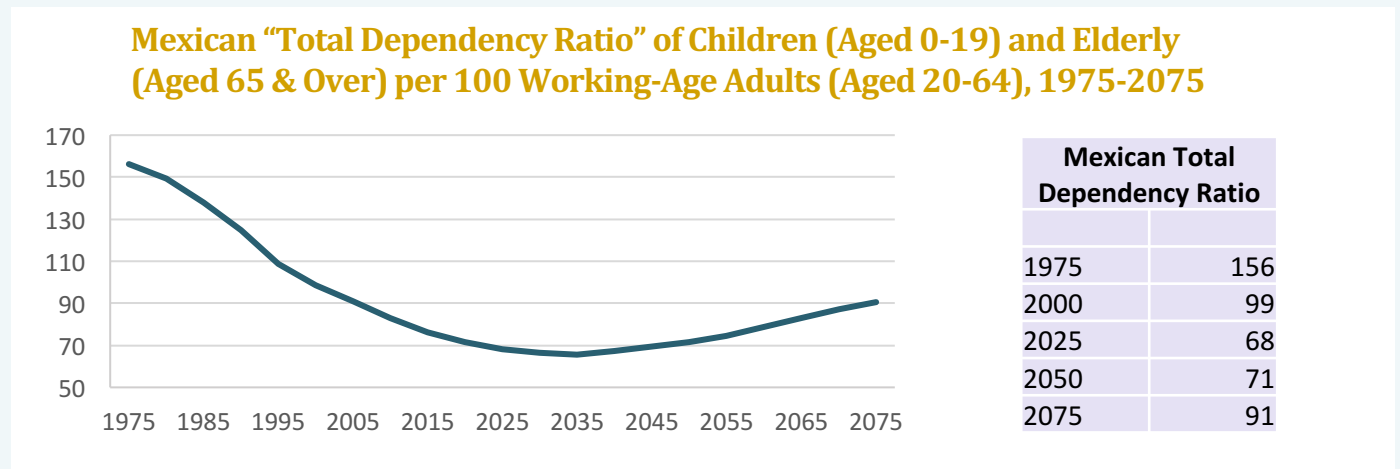
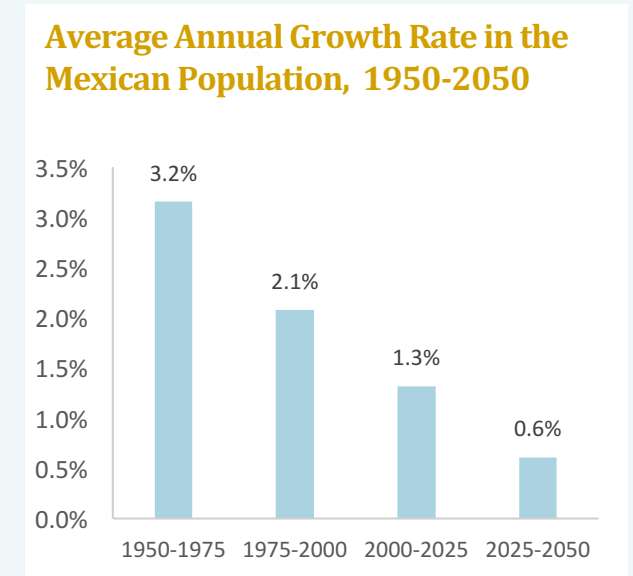
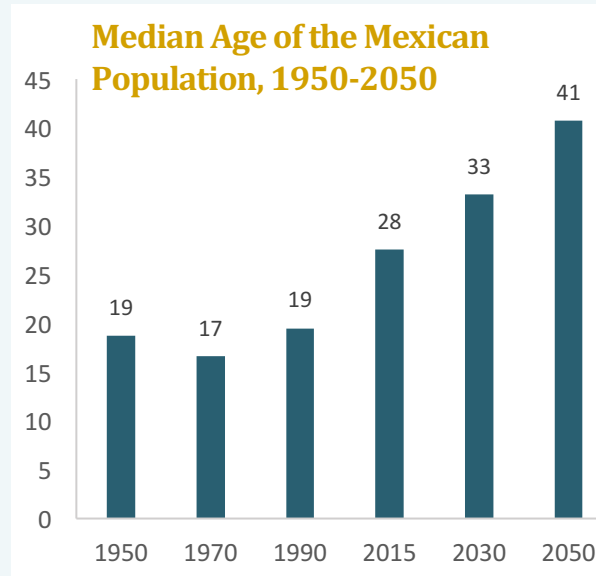
**Mexican Life Expectancy at Birth**



Source: UN Population Division (2017)

# The Promise of the Demographic Dividend

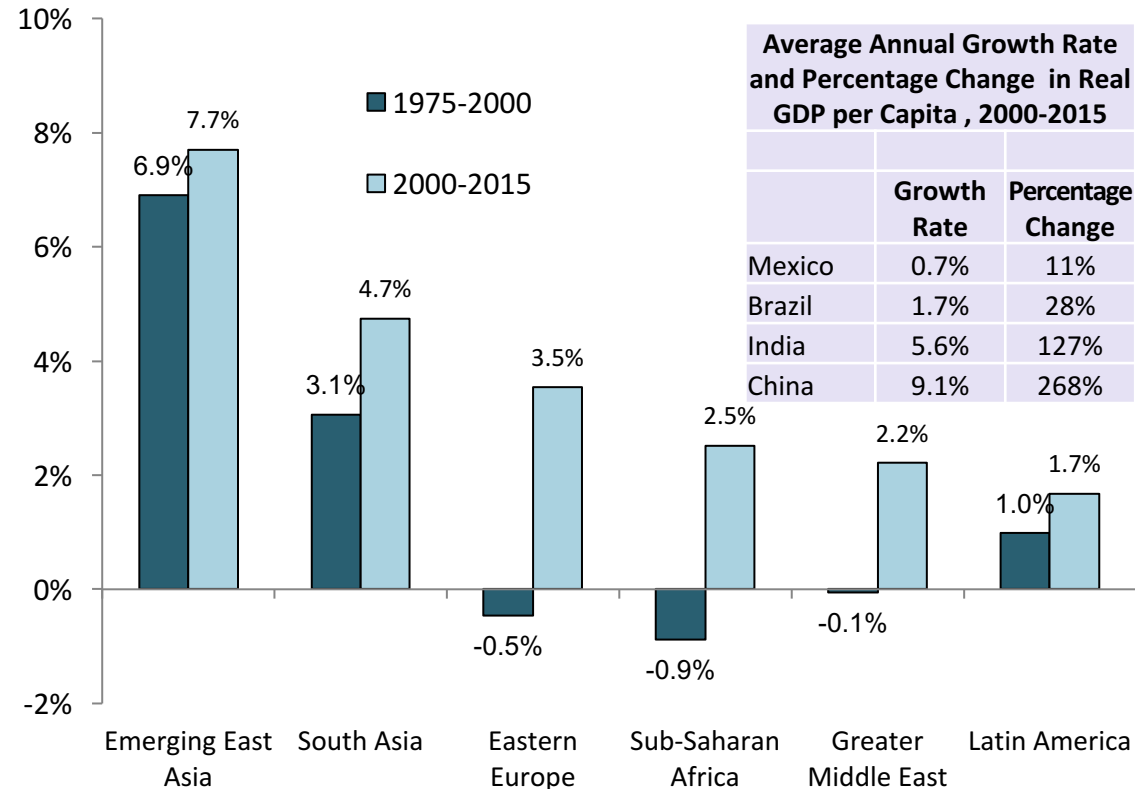
- ❑ When the demographic transition first gets underway, large youth bulges and rapid population growth lean against economic growth and social and political stability.
- ❑ As the demographic transition progresses, rising median ages, slowing population growth, and declining dependency burdens open up a window of opportunity for economic and social development known as the “demographic dividend.”
- ❑ Mexico, along with most of Latin America, is now traversing this demographic “sweet spot” and will continue to do so for roughly another two decades.



# Missed Economic Opportunities

- ❑ The demographic dividend presents a window of opportunity for development, but it does not guarantee economic success.
- ❑ Leveraging the dividend requires sound macro policies, good governance, flexible labor markets, well-functioning capital markets, and massive investments in infrastructure and human capital.
- ❑ Although Mexico has made enormous economic progress since the lost decade of the 1980s, it is still far from on track to replicating Asia's stunning economic rise.

**Average Annual Growth Rate in Real GDP Per Capita (in 2011 PPP Dollars), by Period, 1975-2015**



Source: World Development Indicators Database (2016); Maddison Project Database (2016); and UN Population Division (2015)

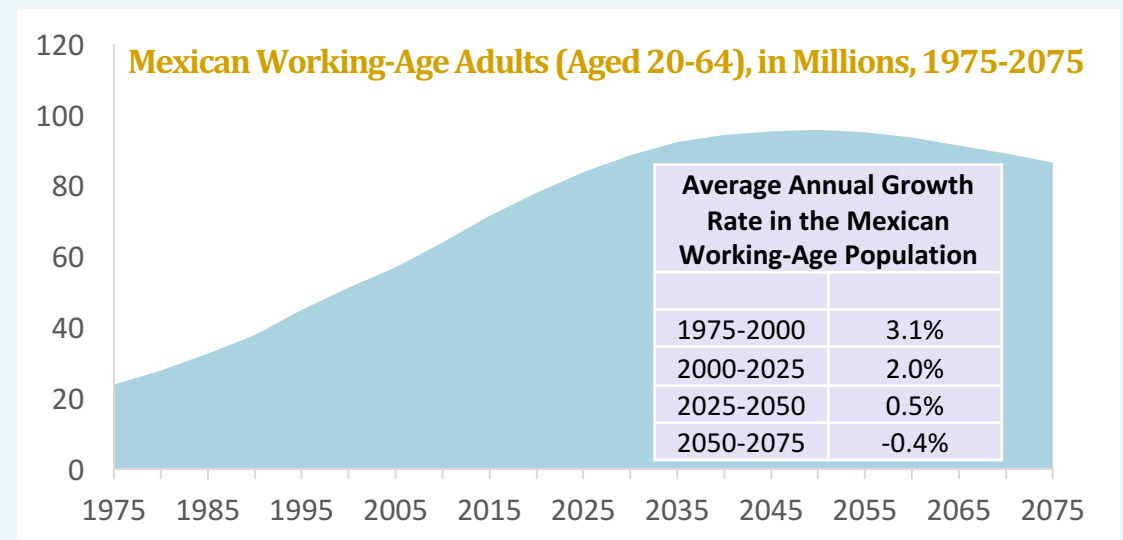
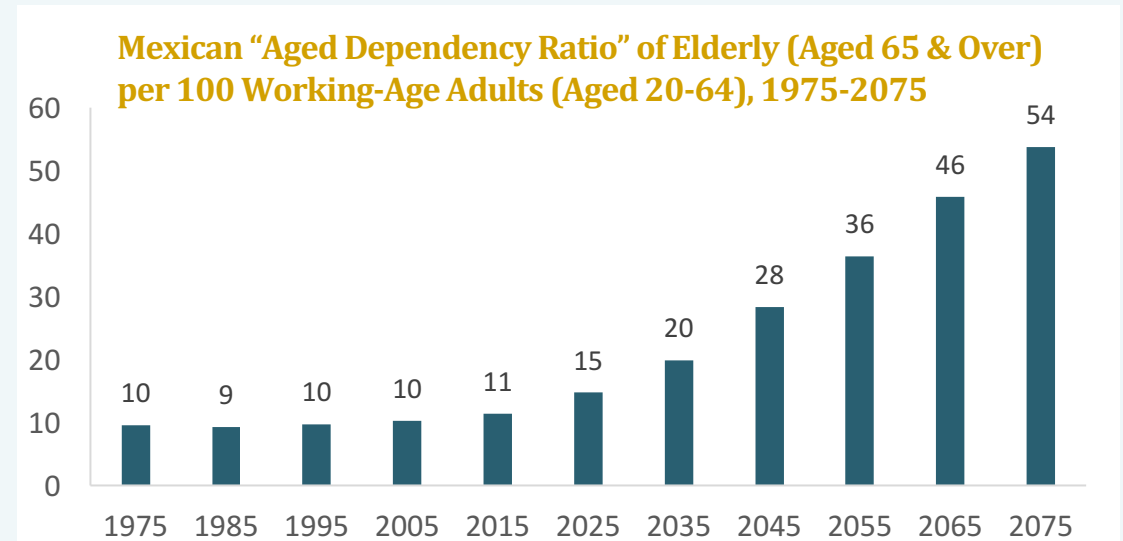
# Like most Latin American countries, Mexico is failing to close the income gap with the developed world.

**GDP Per Capita (in 2011 PPP Dollars), as a Percent of the Developed World Average, 1975-2015**

	1975	1990	1995	2000	2005	2010	2015
<b>Argentina</b>	66%	36%	43%	40%	39%	47%	45%
<b>Brazil</b>	42%	34%	34%	31%	31%	36%	34%
<b>Chile</b>	27%	30%	40%	40%	43%	48%	52%
<b>Colombia</b>	27%	25%	26%	23%	23%	27%	30%
<b>Mexico</b>	50%	41%	39%	40%	38%	38%	39%
<b>Peru</b>	37%	18%	19%	18%	19%	25%	28%
<b>Uruguay</b>	41%	32%	36%	35%	33%	42%	47%
<b>Venezuela</b>	84%	48%	47%	39%	38%	41%	37%
<b>China</b>	3%	5%	8%	10%	14%	24%	32%
<b>South Korea</b>	19%	40%	52%	57%	65%	76%	81%
<b>Taiwan</b>	26%	51%	65%	73%	75%	88%	93%

# The Age Wave Looming Over the Horizon

- Although falling fertility and rising life expectancy initially create a window of opportunity for economic and social development, they ultimately lead to a dramatic aging of the population.
- As Mexico's age wave begins to roll in the 2020s and 2030s, government budgets will come under intense pressure from rising expenditures for pensions and health care.
- At the same time, economic growth will slow as the population in the traditional working years stagnates and contracts and rates of savings and investment decline.
- The social mood may also be characterized by growing risk aversion and shorter time horizons as a much larger share of the population enters its "harvest years."



Source: UN Population Division (2017)

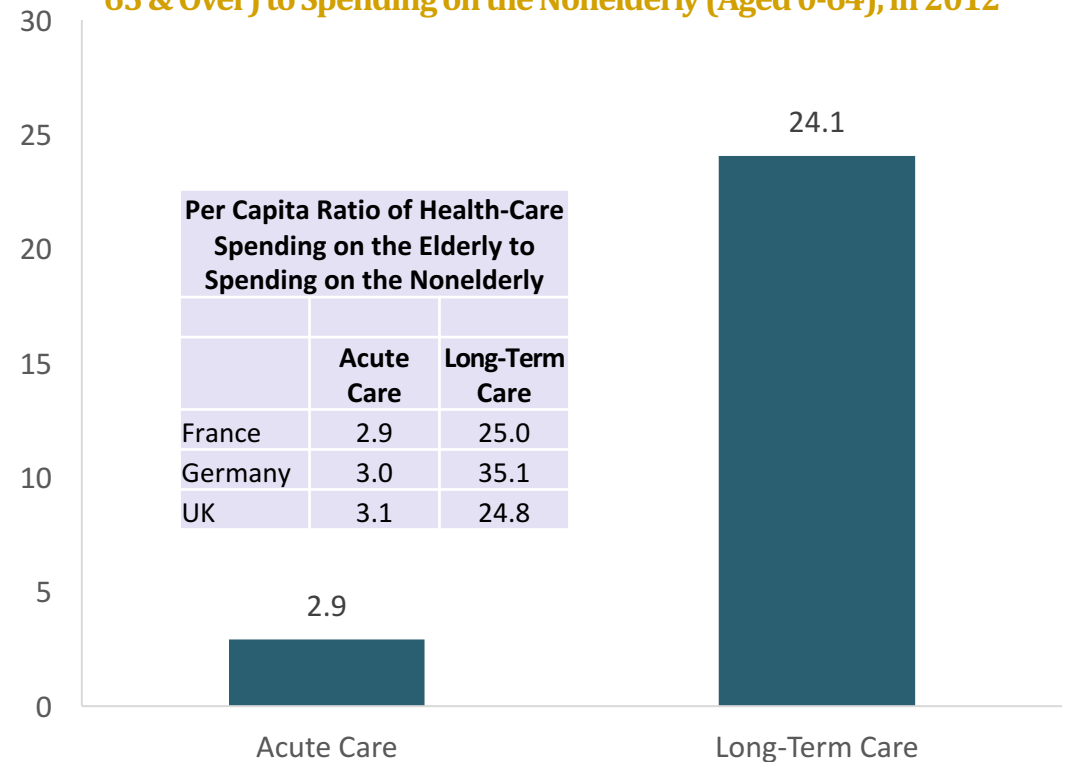


# The Environment for Health and Health Care

## The elderly consume more in health-care services than the nonelderly.

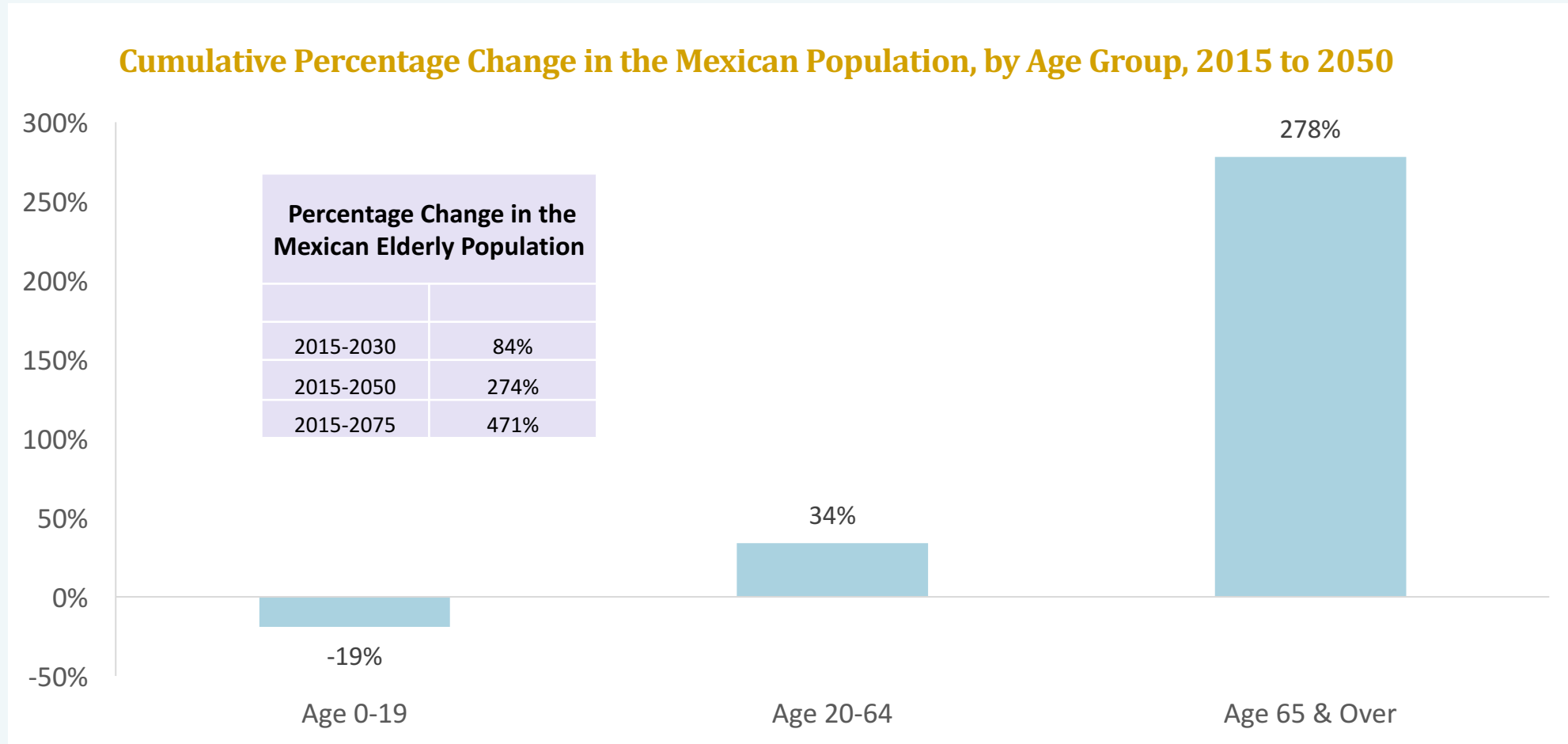
- ❑ As countries move through the “epidemiological transition,” chronic diseases replace infectious diseases as the primary cause of morbidity and mortality.
- ❑ Since the elderly are much more likely to suffer from chronic diseases than the nonelderly are, health-care consumption rises steeply along with age.
- ❑ In the developed world, the elderly consume roughly three times as much per capita in acute-care services as the nonelderly and roughly twenty-five times as much in long-term care services.

Per Capita Ratio of U.S. Health-Care Spending on the Elderly (Aged 65 & Over) to Spending on the Nonelderly (Aged 0-64), in 2012



Source: Centers for Medicare and Medicare Services (2018);

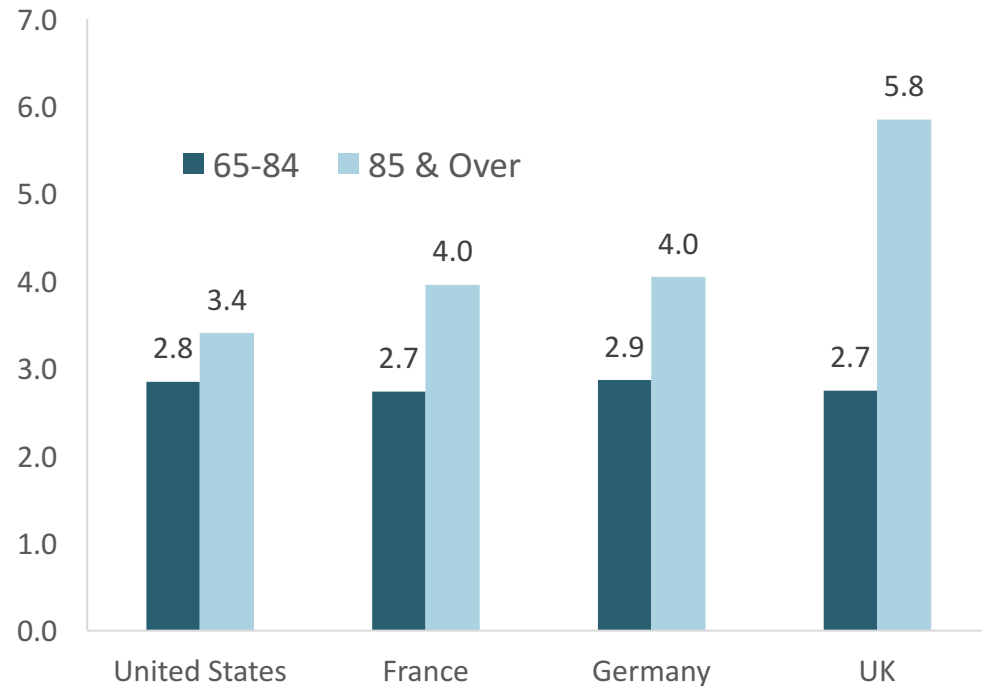
# The elderly are the fastest growing segment of Mexico's population.



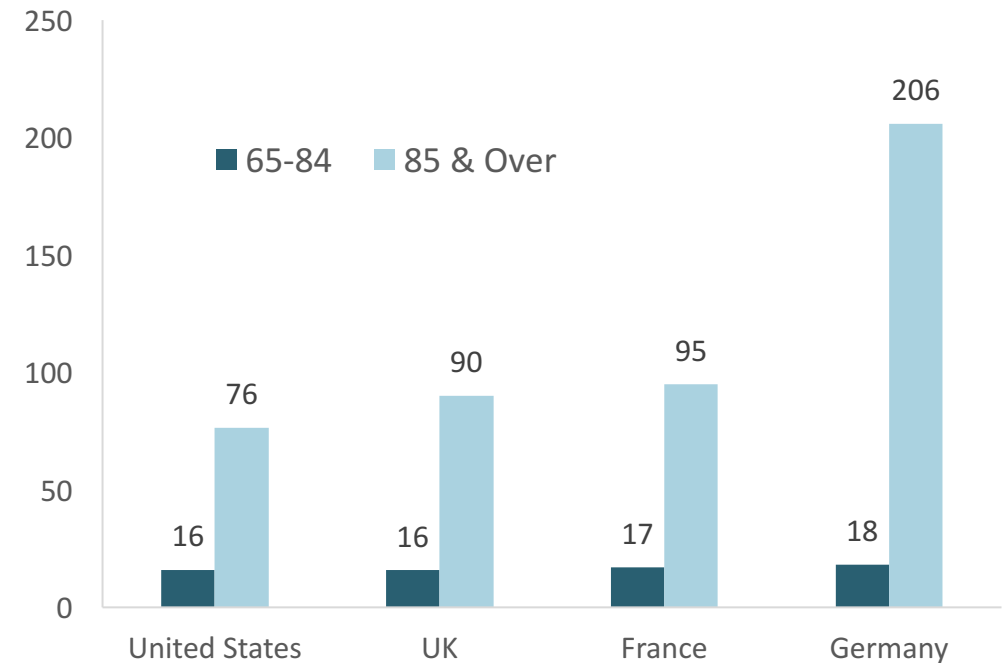
Source: UN Population Division (2017)

## The older the elderly are the more health care they consume.

Per Capita Ratio of ACUTE CARE Spending on the Elderly (Aged 65 & Over) to Spending on the Nonelderly (Aged 0-64), by Elderly Age Group, in the Most Recent Year Available

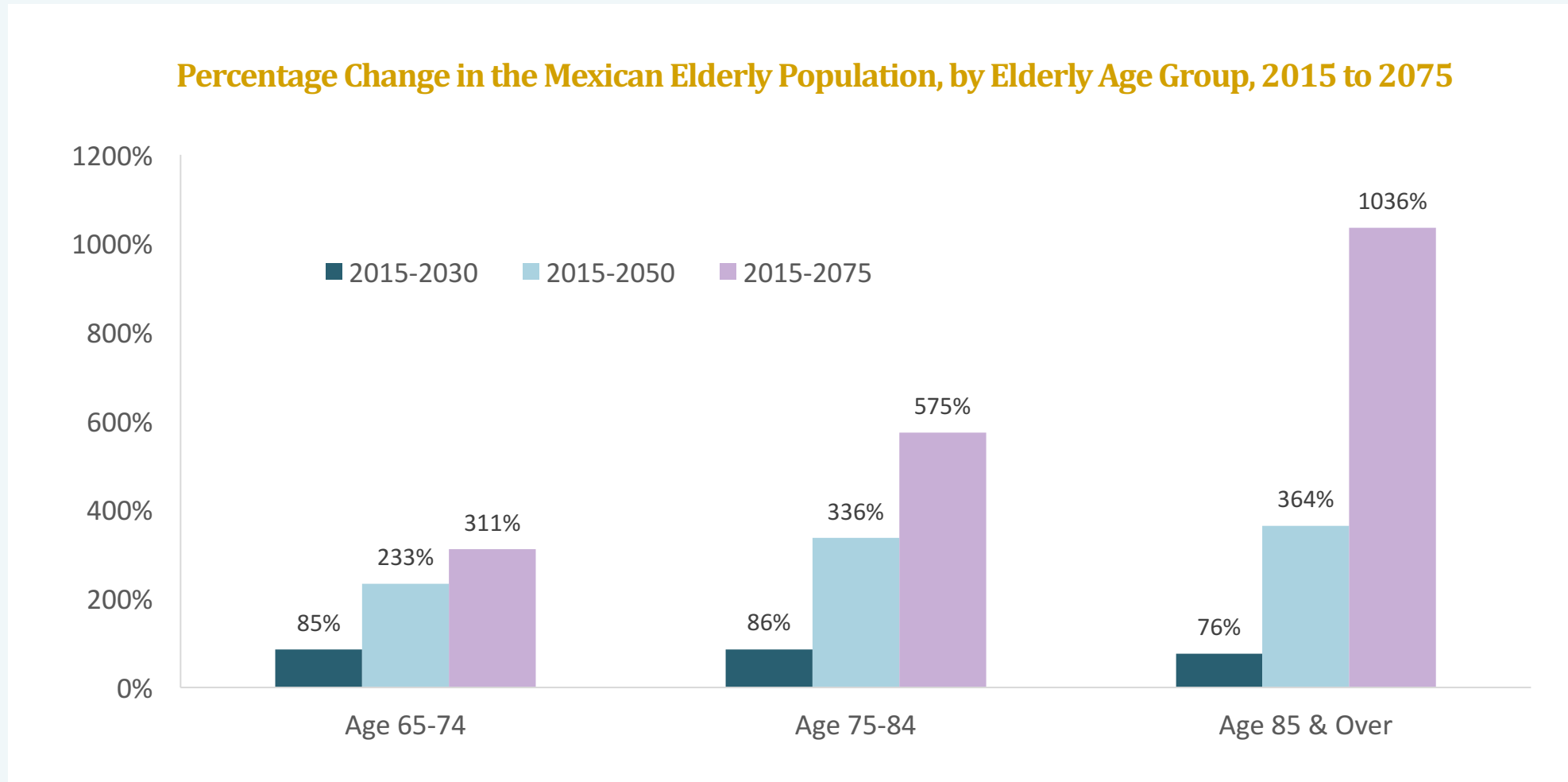


Per Capita Ratio of LONG-TERM CARE Spending on the Elderly (Aged 65 & Over) to Spending on the Nonelderly (Aged 0-64), by Elderly Age Group, in the Most Recent Year Available



**Source:** Centers for Medicare and Medicare Services (2018); Christine de la Maisonnette and Joaquim Oliveira Martins, "A Projection Method for Public Health and Long-Term Care Expenditures," OECD Economics Department Working Papers no. 1048 (OECD, 2013); and "Projecting OECD Health and Long-Term Care Expenditures: What Are the Main Drivers?" OECD Economics Department Working Papers no. 477 (OECD, 2006)

## The oldest elderly age groups are the fastest growing of all.



Source: UN Population Division (2017)

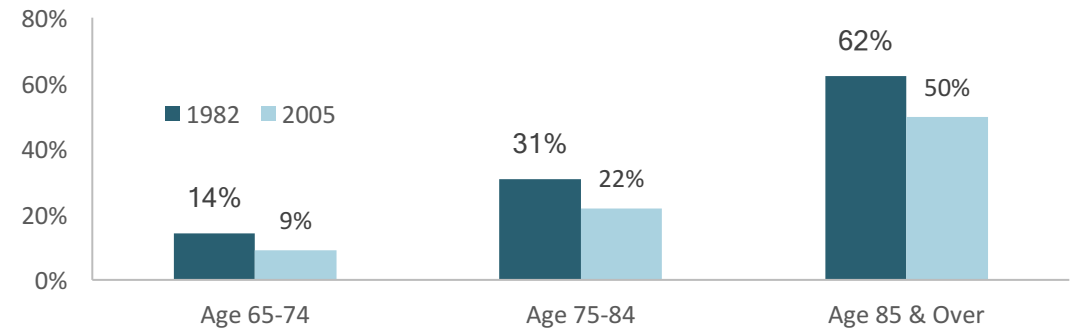
## Two Models of Aging and Health

- ❑ According to the “compression of morbidity” model, health spans will rise along with life spans—until, eventually, most of the ills of old age will be relegated to a brief period of declining vigor at the very end of life.
- ❑ According to the “failure of success” model, the principal effect of modern medicine is to extend people’s lives without restoring them to full health. As lifespans rise, so too will rates of chronic morbidity and disability.
- ❑ Although a final verdict is not yet possible, the preliminary evidence seems to suggest that both models may be at least partially right.

# The Case for Optimism

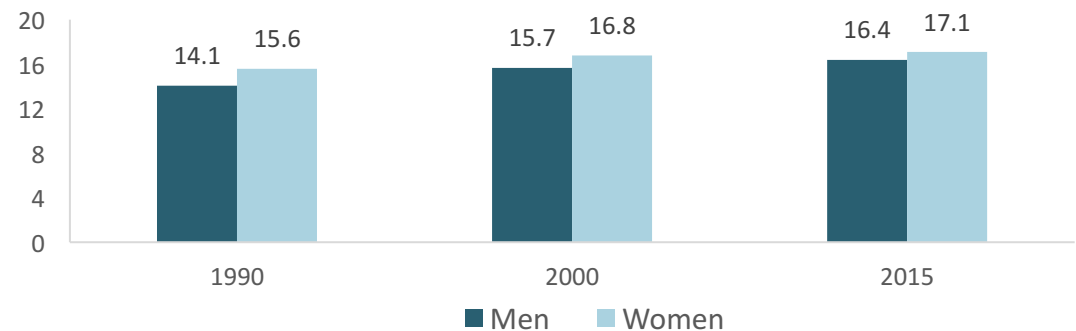
- ❑ In the United States and a number of other developed countries, the share of the elderly who are disabled has fallen sharply over the past few decades.
- ❑ According to the WHO, healthy life expectancy, as measured by years of life lived free from disability, is also rising in many emerging markets, including Mexico.
- ❑ Some optimists point to the decline in elderly disability as evidence that a compression of morbidity is underway. Based on this, they conclude that future health-care spending may be far lower than current projections suggest.

**Share of the U.S. Elderly (Aged 65 & Over) with a Disability, by Elderly Age Group, 1982 and 2005**



Source: Kenneth G. Manton, Xi-Liang Gu, and Vicki L. Lamb, "Change in Chronic Disability from 1982 to 2004-2005 as Measured by Long-Term Changes in Function and Health in the U.S. Elderly"

**Healthy Life Expectancy of Mexican Adults at Age 60, by Gender, 1990-2015**



Source: World Health Organization (2018) and Global Health Data Exchange (2010)

# CAVEAT 1

## Past trends in disability may not be a good predictor of future trends.

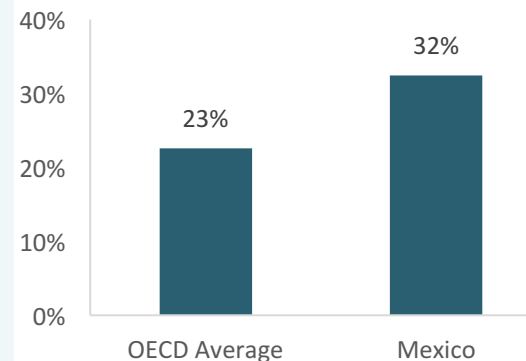
- ❑ The best indicator of the health of tomorrow's elderly may not be the health of today's elderly but the health of today's young and midlife adults.
- ❑ In recent years, the obesity epidemic has put a growing share of the population in Mexico, the United States, and many other countries at a growing risk of premature morbidity, disability, and death.
- ❑ If the health of young and midlife adults continues to deteriorate, the downward trend in elderly disability could stall or even reverse as younger cohorts begin to cross the threshold of old age.

**Obese Adults as a Share of All U.S. Adults (Aged 20 & Over), by Gender, 1988-2014**

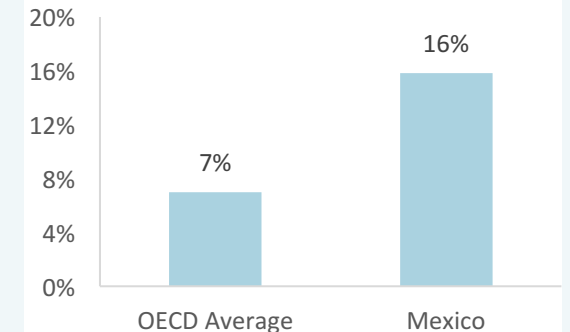


Source: Centers for Disease Control and Prevention (2018)

**Overall Obesity Rate in 2015: Mexico vs. OECD Average**



**Share of Adults (Aged 20-79) with Diabetes in 2015: Mexico vs. OECD Average**



Source: Health at a Glance: 2017 (OECD, 2018)



## CAVEAT 2

# Less disability does not necessarily mean less morbidity.

- ❑ Even as disability rates have fallen among the elderly over the past few decades, the share of the elderly with serious chronic conditions, from arthritis and diabetes to hypertension and heart disease, has been flat or rising in most developed countries.
- ❑ While the optimists assume that lower rates of elderly disability will translate into lower health-care cost growth, the relationship may be precisely the reverse. Perhaps it is the consumption of a high and rising volume of health-care services that is the very reason the elderly have become less disabled.

### Share of the U.S. Elderly (Aged 60 & Over) with a Specified Disease, by Elderly Age Group, 1998 and 2006

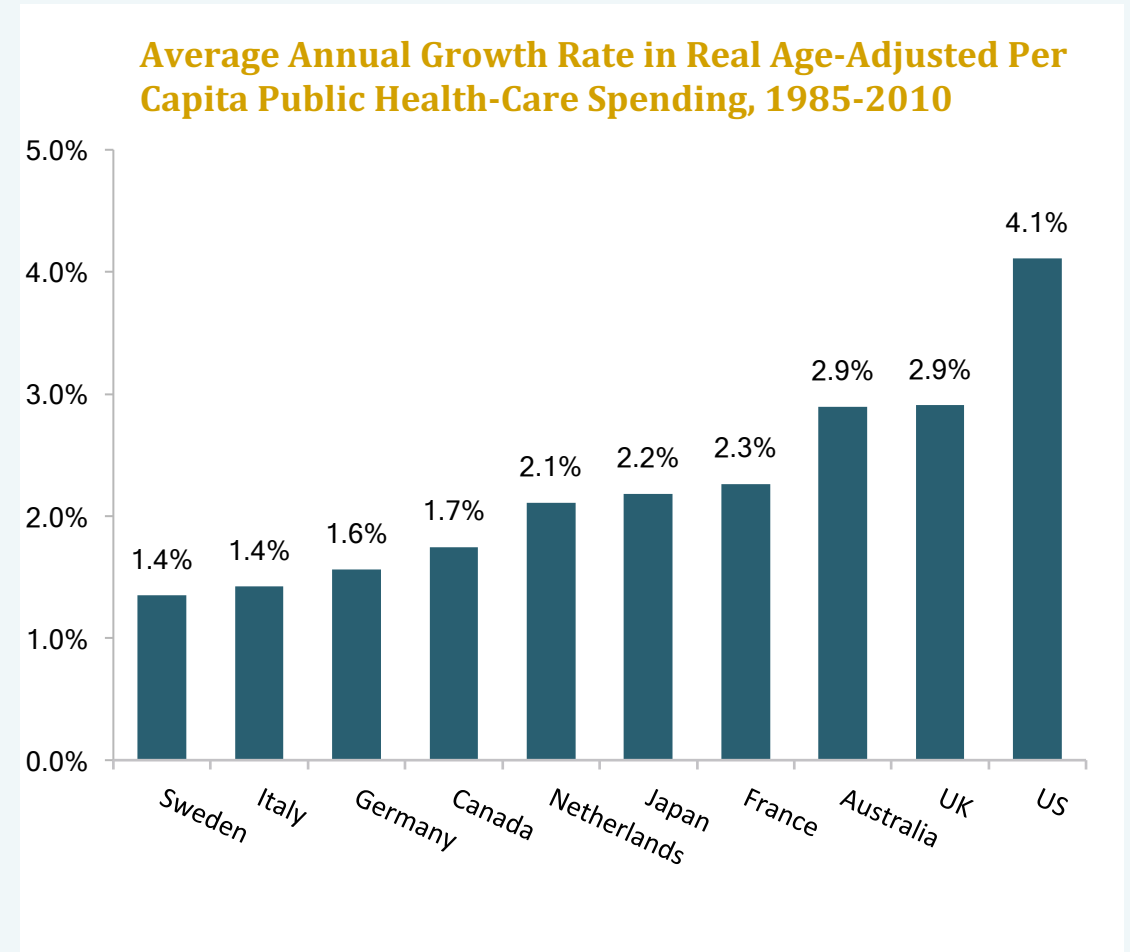
	MEN		WOMEN	
	1998	2006	1998	2006
<b>HEART DISEASE</b>				
Age 60-69	13%	15%	6%	6%
Age 70-79	17%	19%	11%	12%
Age 80 & Over	19%	26%	13%	14%
<b>CANCER</b>				
Age 60-69	11%	11%	10%	11%
Age 70-79	15%	20%	16%	16%
Age 80 & Over	16%	28%	16%	20%
<b>DIABETES</b>				
Age 60-69	13%	19%	14%	15%
Age 70-79	14%	20%	14%	20%
Age 80 & Over	10%	20%	12%	14%

Source: Eileen M. Crimmins and Hiram Beltrán-Sánchez, "Mortality and Morbidity Trends: Is There Compression of Morbidity?" *Journal of Gerontology: Social Sciences* 66B, no.1 (January 2011)

## CAVEAT 3

# Other cost drivers may be more important than the health of the elderly.

- ❑ If falling disability really did portend slower future health-care cost growth, we might expect it to have moderated past cost growth as well. Yet real per capita health-care spending has risen rapidly over the past few decades even as rates of elderly disability have declined.
- ❑ Obviously, there are other forces at work, from the continuous introduction of new medical technologies to the public's rising expectations about care and cure.
- ❑ “Good health” is not a fixed goal. It is a subjective standard that rises over time as societies become more affluent, less tolerant of bad health or risk, and more secular—that is, more apt to see happiness in the here and now as life's ultimate goal.

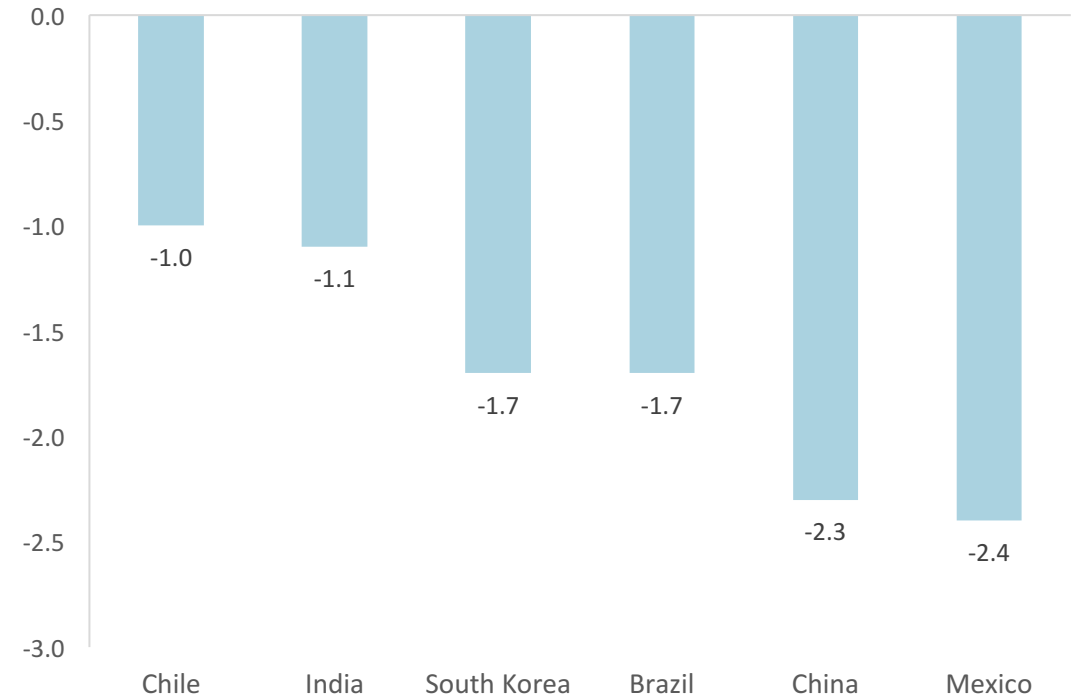


Source: Richard Jackson, *Lessons from Abroad for the U.S. Entitlement Debate* (CSIS, 2014)

# The Special Case of Long-Term Care

- ❑ Long-term care is the most explosive dimension of old-age dependency. Not only will the share of the population in need of long-term care grow rapidly as Mexico ages, but much of the care that is now provided informally is likely to be shifted to government budgets.
- ❑ Along with trends in disability rates, the demand for formal long-term care services will also be determined by a host of broader socioeconomic factors, especially the number of family caregivers available to help each dependent elder.
- ❑ Today's Mexican elders typically have several surviving children. But tomorrow's elders will be much more likely to have only one child or no child—or to be never-married, widowed, or divorced.

**Change in the Average Number of Surviving Children of the Elderly (Aged 60 & Over) from 2010 to 2040**

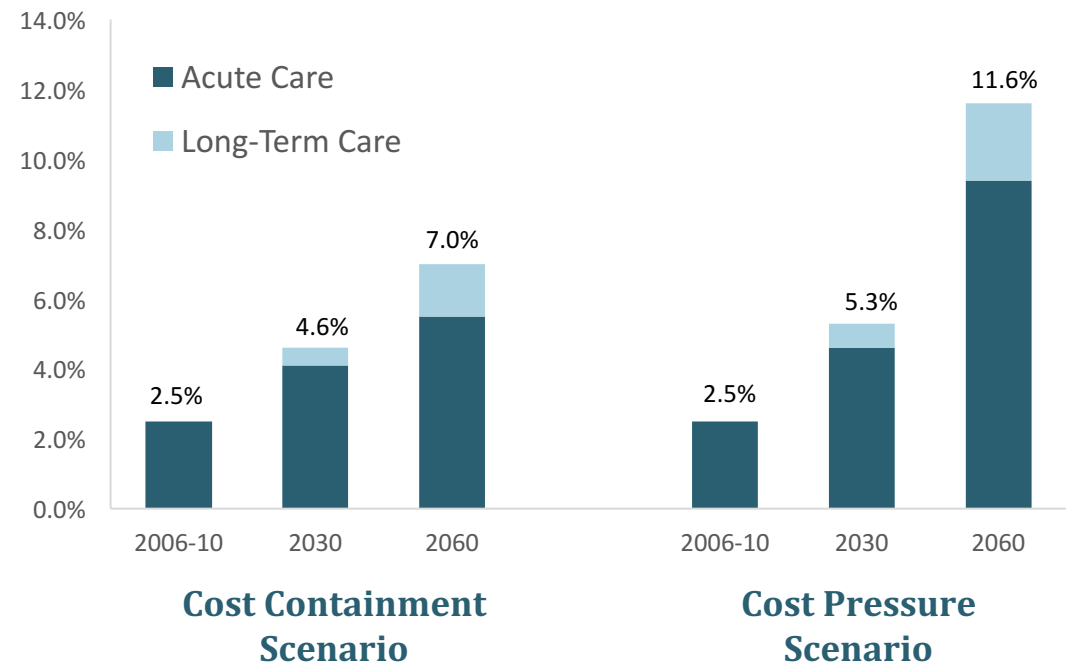


**Source:** Richard Jackson, Neil Howe, and Tobias Peter, *The Global Aging Preparedness Index: Second Edition* (CSIS, 2013)

# In any plausible scenario, public health-care spending will rise steeply as a share of the economy as Mexico ages.

- ❑ The combination of population aging, medical advances, rising public expectations, and changes in family size and structure promises to put relentless upward pressures on both acute care and long-term care expenditures.
- ❑ Even assuming that future gains in life expectancy translate into gains in health expectancy, the OECD projects that public health-care spending will at least triple and may quintuple as a share of Mexico's economy over the next half century.

**Mexican Public Health-Care Spending as a Share of GDP, by Type, 2006-10 Average and OECD Projections for 2030 and 2060**



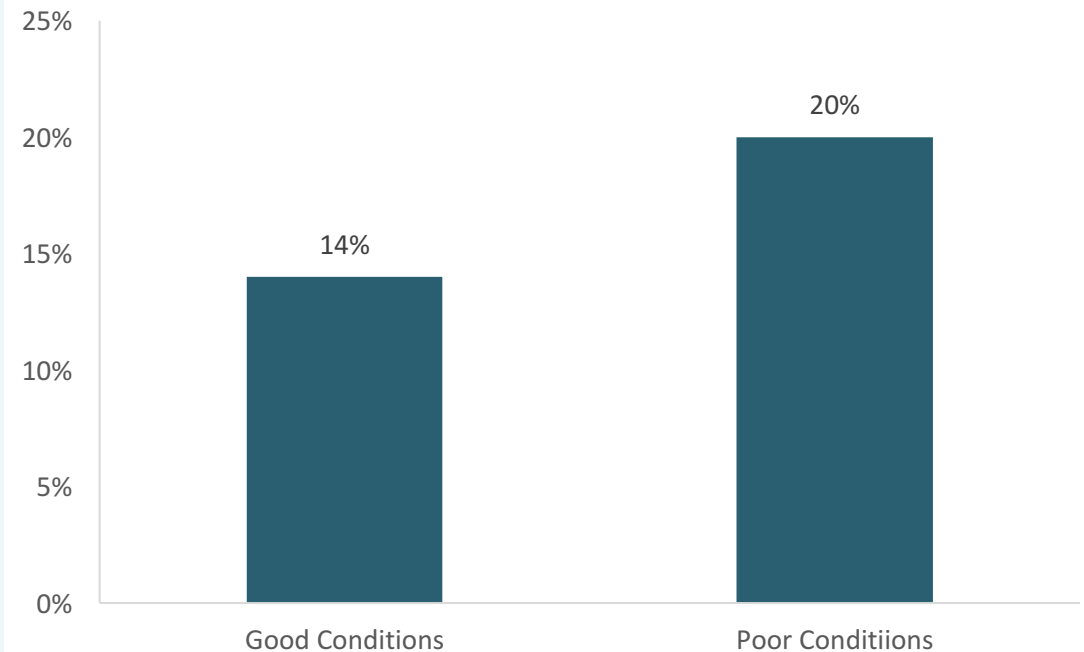
**Source:** Christine de la Maisonneuve and Joaquim Oliveira Martins, "A Projection Method for Public Health and Long-Term Care Expenditures," OECD Economics Department Working Papers no. 1048 (OECD, 2013)

# Lessons for Policymakers and Industry Leaders

# Lessons for Policymakers

- ❑ An effective strategy for preparing for the age wave must proceed on two fronts.
- ❑ First, Mexico must more effectively leverage its demographic dividend while it is still young and growing. Among other things, this will require large new investments in human capital.
- ❑ Second, Mexico must improve the adequacy of its pension system, broaden and deepen coverage under its public health insurance system, and put in place the infrastructure for a new long-term care system.
- ❑ There are important synergies between the two agendas. The eventual health of tomorrow's elderly may be largely determined by the investments made in their health and education when they were young.

**Probability of the Latin American Elderly (Aged 60 & Over) Being Disabled, by Their Socioeconomic and Health Conditions during Early Childhood**



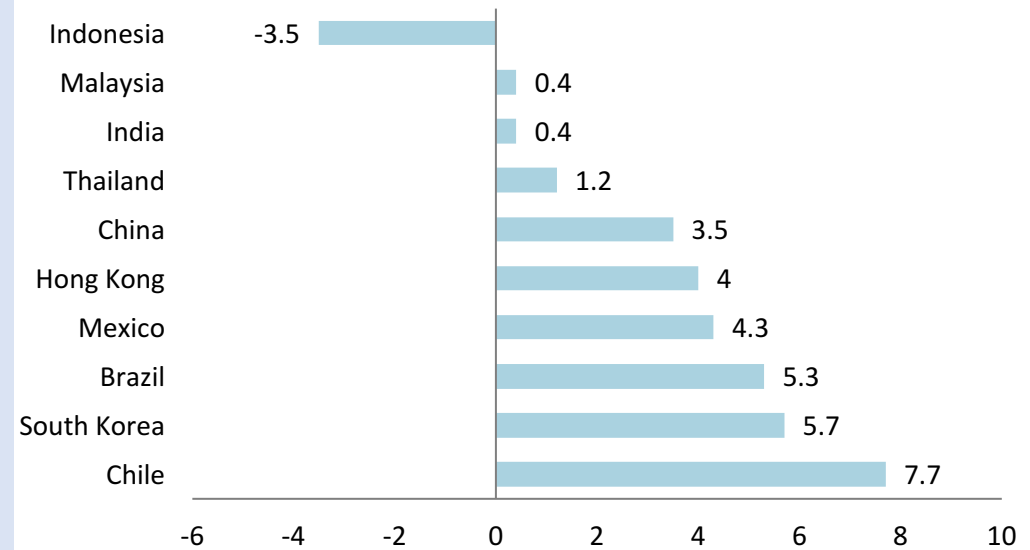
**Source:** M. Monteverde, K. Norohna, and A. Palloni, "Effect of Early Conditions on Disability among the Elderly in Latin America and the Caribbean," *Population Studies* 63:1 (2009)

# Lessons for Industry Leaders

- ❑ While the aging of Mexico poses large policy challenges, it also creates large business opportunities for the insurance industry.
- ❑ On the income side, the woeful inadequacy of the SAR system will drive a growing demand for voluntary retirement savings products.
- ❑ The considerable uncertainty surrounding future life expectancy, however, will continue to complicate retirement planning. It is worth recalling that the history of life expectancy projections has been largely a history of embarrassing underestimates.
- ❑ On the health side, both demographic and nondemographic trends will drive a growing demand for private health insurance, especially if the government fails to broaden and deepen the coverage and improve the quality of Mexico's fragmented public health-care system.

- ❑ The considerable uncertainty surrounding future elderly disability and morbidity, however, means that there is also considerable uncertainty surrounding long-term utilization and cost projections in an aging Mexico.

**Change in Projected Life Expectancy at Birth for the Year 2050: UN 2015 Revision versus UN 2000 Revision**



Source: UN Population Division (2000) and UN Population Division (2015)



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