Healthcare and Population Aging

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Healthcare and Population Aging

• The Present
  An International Comparison – Mexico’s Healthcare Attainment

• The Future
  Aging Population and Other Key Healthcare Cost Drivers

• Policy Options for Mexico
  Is a Mixed Public – Private Healthcare Financing System in Mexico’s Future?
Healthcare Spending and Wealth

- Healthcare spending increases with national wealth
- Healthcare spending increases with personal wealth
- Mexico
  - $8,944 US GDP per capita
  - Healthcare = 5.4% of GDP
- Mexico’s spending in less than 5.7% predicted by trend line
Health vs. Healthcare Spending

- Population health (HALE) improves significantly with additional spending until spending reaches about $1000 US (PPP)
- Mexico
  - $483 US healthcare spending
  - 63.8 HALE
- Mexico has better than expected HALE for its current healthcare spending
Public vs. Private Healthcare Spending

• Mexico’s public spending of 46.4% of total is very low by international standards

• Mexico’s level of private healthcare insurance is also very low

• Healthcare spending will need to more than double to reach world-class HALE of 70 years

• Will this large increase be in public or private spending?
Mexico – Intermediate Term Predictions
(Next 10 to 15 years)

• Healthcare spending will increase faster than GDP growth
• Growth in demand will come mainly from growing middle income population
• As spending approaches $1000 US per person, HALE will approach 70.0 years
• Public sector spending will be hard-pressed to keep up with demand creating opportunity for private sector health insurance
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Expanding life expectancy is a worldwide phenomenon.
Creating Larger Elderly Populations

Mexico’s 65+ is projected to explode over this period from 5.2 million in 2000 to 35.0 million in 2050
Healthcare Costs Increase with Age

Source: EU Economic Policy Committee 2001
Causing Potential For Large Increases in Projected Spending

Range: 2% - 5%, EU average = 2.2%

Projections based on demographic projections and current age-related healthcare costs

Source: OEDC 2001 (Dang, et. al.)
Is a healthcare cost crisis unavoidable?

Is demography destiny?
Many Historical 65+ Population Increases Are Quite Large

Mexico’s 65+ population grew 189% from 1960 to 2000
With No Strong Aging–Cost Relationship

Correlation $r = .251$, which is quite low
Further Historical Evidence

Cause of Growth in U.S. Medical Care Spending 1960 – 1993

<table>
<thead>
<tr>
<th>Factor</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age/sex mix</td>
<td>7.2%</td>
</tr>
<tr>
<td>Disposable income</td>
<td>17.6%</td>
</tr>
<tr>
<td>Insurance coverage</td>
<td>5.3%</td>
</tr>
<tr>
<td>Technology-inducing</td>
<td>69.9%</td>
</tr>
</tbody>
</table>

Source: Peden and Freeland, *Health Affairs*, Summer 1995
There is no evidence for aging as a significant driver of healthcare cost increases ..... 

So, what’s going on here?
Healthcare Cost Projections

Cost is an interrelated function of:

- Life Expectancy
- Biological Morbidity
- Scope, Intensity and Cost of Services (Economic Morbidity)
Life Expectancy: Alternative Futures

Natural Aging
Longer life expectancy with rectangularization of survival curves
✓ Fixed maximum life span at 115
✓ Life expectancy increasing to 85
✓ 95% of deaths between 77 and 93

Delayed Death
Longer life expectancy without limits
✓ No fixed maximum life span
✓ No limit on improvements in life expectancy

Source: Fries, Milbank Quarterly, 1983
Biological Morbidity: Alternative Futures

**Compression of morbidity**

Elderly live longer and healthier lives

- *Healthy Lifestyle* and early non-medical interventions postpone onset of clinical morbidity
- Onset of chronic conditions of aging are delayed more rapidly than life expectancy increases

**Expansion of morbidity**

Elderly live longer, but sicker lives

- Longer life expectancy and *Unchanged Lifestyle* does not postpone onset of chronic conditions

1 Fries, James F., “Aging, Natural Death, and the Compression of Morbidity”, NEJM, July 17, 1980
Economic Morbidity: Alternative Futures

Compression of Care
Less and/or lower cost medical care and frailty care

✓ Medical technology and De-institutionalized frailty care become Cost-Reducing

✓ Ethics of Social Solidarity and Death with Dignity allow healthcare systems to become Increasingly Constrained

Expansion of Care
More and/or higher cost medical care and frailty care

✓ Medical technology and Institutionalized frailty care remains Cost-Increasing

✓ Ethics of Individual Rights and Conquering Death force healthcare systems to become Increasingly Unconstrained
Changes in Life Expectancy, Biological Morbidity, and Economic Morbidity

<table>
<thead>
<tr>
<th>Life Expectancy</th>
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</thead>
<tbody>
<tr>
<td>Expanded Life Expectancy (Natural Aging or Delayed Death)</td>
</tr>
<tr>
<td>Economic Morbidity</td>
</tr>
<tr>
<td>Biological Morbidity</td>
</tr>
<tr>
<td>Expansion of Morbidity</td>
</tr>
</tbody>
</table>

Today

Life Expectancy

Onset of Disease

Onset of Care
Future Healthcare Cost Scenarios

The Good …. Favorable Trends Develop

✓ Life Expectancy – *Natural Aging*
  • Compression of mortality near end of natural life

✓ Biological Morbidity – *Compression of Morbidity*
  • Elderly live additional years in good health

✓ Economic Morbidity – *Compression of Care*
  • Effective, inexpensive technology and favorable healthcare ethics

Future cost Increases: lower than historical growth
Future Healthcare Cost Scenarios

The Bad …. Continuing Today’s Trends

✓ Life Expectancy – *Natural Aging*
  • Compression of mortality near end of natural life

✓ Biological Morbidity – *Equilibrium of morbidity*
  • Elderly live additional years, years with chronic conditions increases about the same

✓ Economic Morbidity – *Equilibrium of Care*
  • Technology continues to expand scope of expensive diagnostic and palliative care.
  • End of life debility and illness often treated with aggressive medical interventions,

Future cost Increases:
continuation of historical growth
Future Healthcare Cost Scenarios

The Ugly …. Unfavorable Trends Accelerate

✓ Life Expectancy – *Delayed Death*
  • Continued mortality improvement without limit
✓ Biological Morbidity - *Expansion of morbidity*
  • Elderly live additional years often in poor health
✓ Economic Morbidity – *Expansion of Care*
  • Technology continues to rapidly expand the scope of expensive diagnostic and palliative care
  • End of life debility and illness treated with increasingly aggressive medical interventions

Future cost Increases: higher than historical growth
Future Healthcare Cost Scenarios

Healthcare Spending 2050

Key Drivers: Technology, Lifestyle, Ethics
Implications

✓ There is a healthcare cost “crisis”
✓ Demography is not destiny - aging population is a causative factor, but not the major one
✓ Life Expectancy
  • Elderly are living longer
✓ Biological Morbidity
  • Elderly may be living healthier, mainly due to healthier lifestyles
✓ Economic Morbidity:
  • Future cost increases will be determined mainly by factors that are external to healthcare systems
  • *Medical technology* will be the major causative factor in growth of healthcare spending
  • Ethics play a very important secondary role
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Mexico’s Population is Aging

Pirámides de Población de Todo el País, 2000-2050

Fuente: Proyecciones de población, CONAPO, 1996.
Mexico’s Work Force Is Growing

Graph 1.10
Tamaño de la Fuerza de Trabajo 1950-2000 y Proyecciones 2010-2025

- El crecimiento de la fuerza de trabajo se mantendrá a niveles muy elevados a largo plazo.
- Del año 2000 al 2025 entrará en el mercado laboral aproximadamente el mismo número de trabajadores que tenía todo el país en 1980.
- La gráfica supone tasas de participación constantes; el crecimiento de la fuerza de trabajo será probablemente mayor a lo indicado en la gráfica para 2010 y 2025 en caso de que aumenten las tasas de participación laboral.

Mexico’s Health Care System Does Not Provide Universal Coverage

- IMSS or ISSSTE (42.3%)
- Uninsured (54.7%)
  or
- SSA (.3%)

Income:
- Wealthy
- Moderate
- Near Poor
- Poor

Age:
- Young
- Working Ages
- Retired
Evolutionary Option #1: EU Social Insurance System

- **Income**: Poor, Near Poor, Moderate, Wealthy
- **Age**: Young, Working Ages, Retired

- **Public Health Insurance**
- **Public Health Insurance and Private Supplemental Insurance**
Evolutionary Option #2: US Health Care System

Income

- Wealthy
- Moderate
- Near Poor
- Poor

Age

- Young
- Working Ages
- Retired

Insurance

- Private Insurance
- Private Insurance or Uninsured
- Public Insurance (Medicaid) or Uninsured
- Medicare and Medicaid

Public Insurance (Medicare) and Private Supplemental Insurance
Mexico’s Challenges

• Mexico is committed to universal coverage
• Prospects are for rapidly growing health care costs
  – Increasing wealth
  – Rapidly growing formal workforce
  – Rapidly growing elderly populations
• IMSS and SSA not likely to be able to accommodate growth
• Private health insurance will NOT be able to satisfy need for the elderly and poor --- public sector is only solution for these groups
• Public sector is NOT likely to satisfy needs of the growing workforce --- private sector is likely to be only real solution for this group

How might these formidable challenges be accommodated?
## Mexico’s Options

<table>
<thead>
<tr>
<th>Structural Option</th>
<th>Health Care System Goals</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Universal Access</td>
</tr>
<tr>
<td>Private Voluntary Markets</td>
<td>Not Possible</td>
</tr>
<tr>
<td>Incomplete Mixed Public-Private System (US System)</td>
<td>Near Universal Access Possible</td>
</tr>
<tr>
<td>Complete Mixed Public-Private System (Mexico)</td>
<td>Achievable</td>
</tr>
<tr>
<td>Social Insurance System (EU Systems)</td>
<td>Achieved</td>
</tr>
</tbody>
</table>
Mexican’s Best Option for the Future?

**Income**
- Wealthy
- Moderate
- Near Poor
- Poor

**Age**
- Young
- Working Ages
- Retired

- Private Insurance and Out-of-Pocket
- IMSS, ISSSTE, SSA