An Overview of Reasons for Public-Private Partnerships to Fund Healthcare Systems

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Reasons for Public-Private Partnerships

- Goals, Objectives, and Perpetual Stresses
- The Environment
  - Economic Insights
  - Structural Constraints
  - Political Implications
- Plausible Alternative Futures
- Resolving the Dilemma: Is There a Preferred System?
Healthcare Systems
Goals and Objectives

**Goal #1: COST**
- **Equitable** - Fair financing of healthcare
- **Affordable** – Cost no barrier to access (society, individual)
- **Sufficient** – Adequate funding for healthcare resources

**Goal #2: QUALITY**
- **Effective** – Achieve attainable population health outcomes
- **Efficient** – Maximize use of scarce resources
- **Uniform** – No relatively disadvantaged groups
- **Autonomy** - Medical decisions made by patient & physician

**Goal #3: ACCESS**
- **Socially Acceptable** – Responsive to citizens “wants” and/or “needs”
- **Universal** - Healthcare for all citizens
Healthcare Systems
Goals and Objectives

Inherent Conflict Among Goals

1. Universal Access
2. High Quality
3. Cost Effective

...choose any two out of three
Healthcare Systems Perpetual Stresses

Stewardship

Create and manage a balanced healthcare system that addresses different needs, wants, interests, and perceptions of various stakeholders

- **Feasibility:** Achieve simultaneous balance among Cost-Quality-Access goals and objectives

- **Sustainability:** Provide financial and healthcare resources needed to maintain balance among Cost-Quality-Access goals and objectives over time

- **Satisfaction:** Fulfill stakeholders’ expectations as healthcare and healthcare system evolves
Healthcare Systems Structural Options

Is There a Structure That is Best Able to Manage Perpetual Stresses and Minimize Dilemmas?

Public Systems
Universal health insurance program funded by payroll taxes and/or general government revenues

Private Systems
Health insurance products voluntarily purchased by businesses and individuals through health insurance sold by private insurers

Mixed Public – Private Systems
Public health insurance program covering healthcare needs of some/most/all citizens with uncovered citizens and/or uncovered healthcare expenses/services covered by private health insurance
  - Public health insurance at base of system
  - Private health insurance at base of system
Financing Health Risks in the 21st Century

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Quality Health Outcomes Are Costly

- Population health (HALE) improves significantly with spending until reaching about $US 1,500 (PPP)
- Population health does not appear to improve with greater spending. Additional spending satisfies healthcare “wants”
  - All medical care for everyone
  - Widespread access to newest technology
  - No waiting lists
  - Strong physician – patient relationship
  - “Comfort” care
  - Additional provider income

Source: World Health Reports (WHO) 2004 and 2005
Spending Outstrips Economic Growth

Developed Countries Experience Long-Term Increases in Healthcare Costs
Healthcare Spending Increases Faster Than Wealth

Developing Countries Face Extra Cost Pressures As Their Citizens Become Wealthier
Healthcare Cost Drivers
Causes of Excess Growth

Growth in healthcare costs exceed growth in GDP due to:

**Demographic Changes**
- Aging populations (7.2%)*

**Demand for Healthcare**
- Growing Wealth (17.6%)
- Expanding Insurance (5.3%)
  (Note: Measurable Effects Only)

**Supply of Healthcare**
- New Technologies and Greater Resources (69.6%)

* % of U.S. medical care growth in real spending attributable to each factor: 1960 - 1993

OECD Health Data, and, Peden and Freeland, Health Affairs, Summer 1995
Healthcare Cost Drivers - Demand

**Personal and Family Ethic**

- Healthy Lifestyle
- End of Life Care
- Urgency – Aggressiveness
- Timeliness
- Preventive Care
- Heroic Medicine
- Lifestyle Medicine
- Non-Traditional Medicine
- Institutional and Frailty Care

**Social Ethic**

**Medical Ethic**

**Political Process**

**Access**

**Cost**

**Quality**
Healthcare Cost Drivers - Technology

Healthcare “Quadrillema”

New Health Care Technology
→
Broader Medical Care and Higher Prices
→
Increased Scope and Demand for Health Insurance
→
Financial Incentive for New Technology

Cost Saving Medical Technology?

- Today’s technological advances generally increase costs
- Medical research holds out long term (30 – 50 years) hope for inexpensive curative medical interventions
- Health care in 2050 might be significantly different and less costly as a % of GDP than today
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Private Markets: **Choice, Competition Causes Uncertainty for Market and Insurers**

- **Severity**
- **All Insurers - Insureds**
- **Insurer A**
- **Universe**
- **Frequency**
Structural Constraints

Insurance Market Failure Problem

“Economists generally prescribe competition as a solution for markets that do not work well …. Insurance markets differ from most other markets because in insurance markets competition can destroy the market rather than make it work better.”


Feasibility Problems
- Inadequate Information
- Social (Systematic) Risks
- Risk Classification – Risk Rating
- Capital Adequacy

Behavioral Problems
- Moral Hazard
- Adverse Selection
Market Dynamics in Private Health Insurance Systems

Insurance Market Dynamics

Behavioral Problems
✓ Adverse selection and moral hazard both exist

Feasibility Problems
✓ Competition among insurers and individuals’ pursuit of their own individual equity (preferences) create feasibility problems

Insurers must develop adequate Risk Management Tools to compensate for behavioral and feasibility problems

Implications for Perpetual Stresses
✓ Risk Management Tools create access and affordability problems, particularly for vulnerable segments of the population
✓ Universal access is impossible
✓ Insurers compete to satisfy buyers’ “needs” and “wants”, provide product variety and rapid access to new technology
✓ Cost control relatively difficult in private contracts
✓ No unpopular constraints, mandates, or cross-subsidies
Public Healthcare Financing Systems

Public Insurance Markets: **No Choice, No Competition**
Eliminates Most Uncertainty

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Severity

Universe

Frequency
Market Dynamics in Public Healthcare Financing Systems

Insurance Market Dynamics

Behavioral Problems
✓ No adverse selection
✓ Moral hazard not solved

Feasibility Problems
✓ Eliminated through public guarantee of adequate funding

Public funding redistributes costs across generations, income levels and health status

Implications for Perpetual Stresses
✓ Benefits are “needs” oriented, not “wants” oriented
✓ Unpopular constraints on patient access, provider fees, technology
✓ Individuals’ pursuit of their own preferences largely eliminated
✓ Transparency in stewardship of healthcare system
✓ Protective of needs of disadvantaged citizens
✓ Relative advantage to control costs
### Fulfilling Goals & Objectives

<table>
<thead>
<tr>
<th>Social Solidarity (Public System)</th>
<th>Individual Equity (Private Systems)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cost</strong></td>
<td><strong>Actuarial Fairness</strong>: Risk-based financing, with necessary regulatory constraints</td>
</tr>
<tr>
<td><em>Risk and Income Solidarity:</em> Progressive (tax or income) financing, not related to risk</td>
<td><strong>Cost Constraints</strong>: Managed care (supply side) and cost sharing (demand side)</td>
</tr>
<tr>
<td><em>Cost Constraints</em>: Available financial and healthcare resources (supply side)</td>
<td></td>
</tr>
<tr>
<td><strong>Quality</strong></td>
<td><strong>Scope</strong>: Timely, highly responsive access to effective and autonomous care as determined by patient and physician (needs &amp; wants)</td>
</tr>
<tr>
<td><em>Scope</em>: Essential care (needs) as defined by government</td>
<td></td>
</tr>
<tr>
<td><strong>Access</strong></td>
<td><strong>Membership</strong>: Private decision to buy insurance or to pay out-of-pocket</td>
</tr>
<tr>
<td><em>Membership</em>: Universal access regardless of age, income, or health (right of citizenship)</td>
<td><strong>Entitlement</strong>: None - healthcare agreed to by private contract</td>
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<tr>
<td><em>Entitlement</em>: All available essential healthcare services</td>
<td></td>
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Political Implications

All Healthcare Systems Receive Strong Criticism

Overall Views of Healthcare Systems, 2001

Source: Blendon, R.J., et. al., Health Affairs, May/June 2002
Political Implications

Path-Dependency makes it very difficult to make major changes in a nation’s healthcare system

“There is nothing more difficult to manage, more dubious to accomplish, nor more doubtful of success … than to initiate a new order of things. The reformer has enemies in all those who profit from the old order and only lukewarm defenders in all those who would profit from the new order.”

Niccolo Machiavelli, The Prince
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Future Healthcare Cost Increases

Future of health, healthcare and healthcare costs are driven by interrelated variables:

- **Life Expectancy** - Population Size, Age Distribution
  
  *Natural Aging – or – Delayed Death*

- **Biological Morbidity** - Burden of Disease
  
  *Compression or Expansion of Morbidity*

- **Economic Morbidity** - Scope, Intensity, Cost of Services
  
  *Compression or Expansion of Care*
Changes in Life Expectancy, Biological Morbidity, and Economic Morbidity

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

Today

Onset of Disease

Onset of Care
## Future Healthcare Scenarios

### Three Plausible Future Scenarios

<table>
<thead>
<tr>
<th></th>
<th>Good</th>
<th>Bad</th>
<th>Ugly</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Life Expectancy</strong></td>
<td>Natural Aging</td>
<td>Natural Aging</td>
<td>Delayed Death</td>
</tr>
<tr>
<td><strong>Biological Morbidity</strong></td>
<td>Compression of Morbidity</td>
<td>Equilibrium of Morbidity</td>
<td>Expansion of Morbidity</td>
</tr>
<tr>
<td><strong>Economic Morbidity</strong></td>
<td>Compression of Care</td>
<td>Expansion of Care</td>
<td>Expansion of Care</td>
</tr>
<tr>
<td><strong>Cost Range 2050</strong></td>
<td>.79 – 1.73</td>
<td>1.70 – 2.18</td>
<td>2.12 – 2.70</td>
</tr>
</tbody>
</table>

* Real healthcare expenditures expressed as multiples relative to $1500 minimum current spending to attain HALE = 70 years

Future Healthcare Cost Scenarios Developing Countries

Healthcare Spending 2002 - 2050

Cost Drivers: Technology, Lifestyle, Ethics, Increasing Wealth
The Future of Healthcare

An Ongoing Healthcare Cost “Crisis” … of Unknowable Size

✓ Life Expectancy - Expansion
  ➢ Elderly are living longer
  ➢ “Cure” for aging is a “wild card”

✓ Biological Morbidity – Equilibrium
  ➢ Elderly may be living longer and healthier, mainly due to healthier lifestyles

✓ Economic Morbidity - Expansion
  ➢ Future cost increases will be determined mainly by factors that are external to healthcare systems
    ➢ Medical Technology is the major factor in growth of supply of healthcare
    ➢ Lifestyle and Ethics are major factor in growth of healthcare demand
  ➢ Cost saving technology a possibility
Healthcare Systems Dilemmas

**Feasibility**
- An attainable level of health is quite costly
- Possible to satisfy only two of three goals (cost, quality, access)
- Public and private systems satisfy different goals
  - Driven by social ethic (social solidarity vs. individual equity)

**Sustainability**
- Very difficult to sustain balanced system given long term supply (technology-driven) and demand (lifestyle and ethics-driven) pressures
  - Healthcare cost increases will continue to outstrip economic growth for foreseeable future
  - Problem is exacerbated in developing countries
- Strong personal healthcare ethic makes it virtually impossible to deny new medical care technology despite its high cost
  - Government stewardship is relatively constrained

**Satisfaction**
- No “solution” - healthcare always a political issue
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Structural Option #1: Private Health Insurance System

Income
- Poor
- Near Poor
- Moderate
- Wealthy

Age
- Young
- Working Ages
- Retired

Private Health Insurance
Structural Option #2: Mixed System with Private Insurance Base

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

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

- Private Health Insurance and Out-of-Pocket Payments
- Public Health Insurance
Structural Option #3: Mixed System with Public Insurance Base

- Wealthy
- Moderate
- Near Poor
- Poor

Social Health Insurance with no Cost Sharing

Social Health Insurance with Cost Sharing and Optional Private VHI

Age
- Young
- Working Ages
- Retired
Structural Option #4:
Public Health Insurance System

Income
- Poor
- Near Poor
- Moderate
- Wealthy

Age
- Young
- Working Ages
- Retired

Public Health Insurance
# Healthcare Systems Performance

## Healthcare Systems Goals

<table>
<thead>
<tr>
<th>Structural Option</th>
<th>Access</th>
<th>Cost</th>
<th>Quality</th>
</tr>
</thead>
<tbody>
<tr>
<td>Private Health Insurance</td>
<td>Universal Access Not Possible</td>
<td>Relatively Uncontrollable • Managed care or cost barriers</td>
<td>Coverage of Healthcare “Needs” and “Wants”</td>
</tr>
<tr>
<td>Mixed System with Private Base</td>
<td>Possible with Good Stewardship</td>
<td>Limited Public Sector Program Relatively Controllable</td>
<td>Public Sector Covers “Needs” of Underserved</td>
</tr>
<tr>
<td>Mixed System with Public Base</td>
<td>Possible with Good Stewardship</td>
<td>Public Sector May “Shift” Costs to Private Sector</td>
<td>Private Sector Covers Additional “Wants” of Affluent</td>
</tr>
</tbody>
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## Healthcare Systems Perpetual Stresses

<table>
<thead>
<tr>
<th>Structural Option</th>
<th>Feasibility</th>
<th>Sustainability</th>
<th>Satisfaction</th>
</tr>
</thead>
</table>
| Private Health Insurance  | • Universal Coverage Not Possible  
                          • Unconstrained Grow and Costs | Excluded Grow as Unconstrained System Becomes Increasingly Expensive | Disadvantaged Generally Excluded            |
| Mixed System with Private Base | Balance Achievable in Carefully Designed System | Private Health Insurance May Become Too Expensive | Complicated Structure                      |
| Mixed System with Public Base | Balance Achievable in Carefully Designed System | Funding Problems Result in Public Sector Constraints | Dissatisfaction with Constraints, Waiting Lists and Out-of-Pocket Spending |
| Public Health Insurance   | Unpopular Constraints                            | Political Funding Problems/Constraints           | Dissatisfaction with Constraints            |
“Preferred” Healthcare Systems
Mixed Public - Private Systems

Developed Nations
Universal core public health insurance system covering healthcare “needs” (social solidarity) with private health insurance (VHI) providing coverage of additional healthcare “wants” and gaps in public system’ coverage of “needs”

Developing Nations
Regulated private health insurance covering both healthcare “needs” and “wants” with public subsidies or public financing of healthcare for disadvantaged groups

Either Option Requires Enlightened Government Stewardship

✓ Sufficient financial resources to provide for adequate healthcare personnel, capital and resources
✓ Adaptive system allowing for continuous improvement in effectiveness and efficiency
✓ Seamless, non-duplicative interface between public private sectors
  • Special consideration of needs of disadvantaged citizens
Why is This Important for Actuaries?

- No healthcare system is capable of “resolving” ongoing dilemmas
- Governments will be pressured to find answers to perpetual stresses requiring choices that affect how healthcare systems evolve
- Preferred solutions incorporate both public and private programs to best manage perpetual stresses
- Knowledgeable actuaries’ in-depth understanding of public and private program will be instrumental in helping government choose and manage the most appropriate future path
- Private health insurance thrives only through government indulgence