Risk equalisation in voluntary health insurance markets: a three country comparison

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Special Issue in ‘Health Policy’

Outline:

1. Editorial: ‘Risk equalisation in voluntary health insurance markets’ (Armstrong, Paolucci, van de Ven);
2. ‘Risk equalisation and voluntary health insurance markets: The case of Australia’ (Connelly, Paolucci, Butler, Collins);
3. ‘Risk equalisation and voluntary health insurance in Ireland’ (Armstrong);
4. ‘Risk equalisation in the South African voluntary health insurance market’ (McLeod, Grobler);
5. Risk equalisation in voluntary health insurance markets: a three country comparison.
1. Overview of *health financing* in the 3-countries;

2. Voluntary private health insurance (*VPHI*) and risk-equalisation (*RE*) in the 3-countries;

3. Conclusions and discussion.
Part 1.

Overview of health financing in the 3-countries
Australia (1)

- **Mix of public-private financing & delivery** of health services:
  
  
  - Out-of-pocket payments. (24% of THE).
  
  - Competitive **VPHI**. (8% of THE).
Australia (2)

- **Medicare** (1984):
  - Tax funded universal mandatory coverage;
  - ‘Free’ treatment as a public patient in a public hospital;
  - Subsidies for private medical services (Medicare Benefits Schedule) and pharmaceuticals (Pharmaceutical Benefits Scheme).
Australia (3)

- Competitive **VPHI**:
  - *Supplementary* coverage for (parts of) the costs of services not covered by Medicare (e.g. hospital charges levied by private hospitals);
  - *Duplicate* coverage for the costs of services (partly) covered by Medicare;
  - *Non*-substitutive;
  - Individual-based insurance;

- Out-of-pocket payments:
  - VPHI-Deductibles, POS-copayments.
Public/private mix of funding & delivery of healthcare (almost identical to Australia):

- Tax-funded public health insurance scheme;

- VPHI market;

- Out of pocket expenditures.
Ireland (2)

- **VPHI market** commenced in 1957 with establishment of *Vhi Healthcare* & provides:
  
  • *Duplicative* coverage to universal entitlement of public hospitals*;
  
  • *Substitutive* GP-care coverage for non- Medical Card holders;
  
  • *Supplementary* coverage.
  
  • Employer based schemes (60%) or directly by individuals.
### South Africa (1)

**Public/private financing & delivery of healthcare:**

<table>
<thead>
<tr>
<th><strong>Public sector (40% of THE)</strong></th>
<th><strong>Private sector (60% of THE)</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Universal tax-funded with allocated budgets for public healthcare facilities.</td>
<td>VPHI market (1889) known as ‘medical schemes’ since 1967 covering on a voluntary basis 15% of the population (i.e. high-income groups)</td>
</tr>
<tr>
<td>64% of the population depends on it for all conventional healthcare services</td>
<td>A further 21% of the population use private GP and pharmacies on OOP-basis and for the rest relies on the public scheme</td>
</tr>
<tr>
<td>Salaried staff</td>
<td>FFS</td>
</tr>
<tr>
<td>Care is virtually ‘free’ at the point of service for unemployed and low-income people (e.g. user charges with exemption policies)</td>
<td>Deductibles and copayments</td>
</tr>
</tbody>
</table>
VPHI features:

- *Substitutive* coverage & delivery via private healthcare providers, predominantly fee-for-service.

- Not for-profit MS, owned by their members.

- *Brokers* are paid commissions for taking members to open schemes – **9,742** individual health brokers while there are only **7,000** GPs.

- Fiercely competitive market (i.e. high switching rates).
Part 2.

VPHI & RE in the 3-countries
# Outline of VPHI markets

<table>
<thead>
<tr>
<th></th>
<th>Australia</th>
<th>Ireland</th>
<th>South Africa</th>
</tr>
</thead>
<tbody>
<tr>
<td>% population covered by VPHI</td>
<td>47%</td>
<td>52%</td>
<td><strong>15%</strong></td>
</tr>
<tr>
<td>People covered by VPHI</td>
<td>10.9 million</td>
<td>2.2 million</td>
<td>7.8 million</td>
</tr>
<tr>
<td>VPHI expenses as % of total national hc expenses</td>
<td>8%</td>
<td>12%</td>
<td><strong>55%</strong></td>
</tr>
<tr>
<td>Do consumers have free choice of insurer to enroll within?</td>
<td>Yes, 93% are in open schemes</td>
<td>Yes, 95% are in open schemes</td>
<td>Yes, 67% enrollees in open schemes</td>
</tr>
<tr>
<td>Financial responsibility of individual insurance entities</td>
<td><strong>Very low.</strong> Costs &gt;AU$50,000 are shared.</td>
<td>100%</td>
<td>100%</td>
</tr>
</tbody>
</table>
# Market structure for VPHI

<table>
<thead>
<tr>
<th></th>
<th>Australia</th>
<th>Ireland</th>
<th>South Africa</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Number of open undertakings</strong></td>
<td>25</td>
<td>3</td>
<td>41</td>
</tr>
<tr>
<td><strong>Market share largest insurer</strong></td>
<td>30%</td>
<td>66%</td>
<td>25%</td>
</tr>
<tr>
<td><strong>Market share largest 4 insurers</strong></td>
<td>70%</td>
<td>100%</td>
<td>44%</td>
</tr>
<tr>
<td><strong>Premium subsidies and/or tax-credits for PHI purchase?</strong></td>
<td>Yes (Rebate and Medicare Levy Surcharge)</td>
<td>Yes</td>
<td>Yes (but no subsidies for people earning below tax-threshold)</td>
</tr>
<tr>
<td><strong>Premium restrictions?</strong></td>
<td>Community-rated premiums</td>
<td>Community-rated premiums</td>
<td>Community-rated premiums</td>
</tr>
<tr>
<td><strong>Flexibility for benefit package design</strong></td>
<td>Very high</td>
<td>Very high</td>
<td>Very high</td>
</tr>
</tbody>
</table>
Flexibility for benefit package design is an effective tool for market segmentation and thereby *undermines community rating*: indirect premium differentiation via product differentiation.

Adverse and risk selection are significant problems!
## Risk selection: tools

<table>
<thead>
<tr>
<th>Preferred risk selection by insurers</th>
<th>Australia</th>
<th>Ireland</th>
<th>South Africa</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• Selective advertising;</td>
<td>• Selective marketing;</td>
<td>• Selective marketing;</td>
</tr>
<tr>
<td></td>
<td>• Premium differentiation via Product</td>
<td>• Restricted product enhancement;</td>
<td>• Benefits above the prescribed minimum benefits.</td>
</tr>
<tr>
<td></td>
<td>differentiation;</td>
<td>• Voluntary deductibles.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Voluntary deductibles.</td>
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</table>
Subsidising VPHI: HOW?

- Competitive VPHI markets require the enforcement of regulations/subsidies to achieve affordability, efficiency and prevent selection.

- The current forms of subsidies for VPHI in the 3 countries:
  
  a. Premium-adjusted subsidies;
  
  b. Community rating per insurer per product;
  
  c. Risk-adjusted subsidies (e.g. risk-equalisation)?
a. Premium-adjusted subsidies

- Effective in achieving affordability.
- But, not optimal:
  - They reduce the consumers’ and insurers’ incentives for efficiency:
    - Less effective price-competition and risk of *premium inflation*;
    - A welfare loss because of the *moral hazard* due to over-insurance.
  - They create a *misallocation* of subsidies.

- tradeoff affordability - efficiency
b. Community rating

- **Goal**: to create implicit cross-subsidies from the low-risks to the high-risks.

- **Effect**: Such pooling of people with different risks creates substantial predictable profits and losses for subgroups and thereby create incentives for risk-selection.

→ tradeoff affordability - selection
c. Risk-equalisation

- A usual definition of risk equalisation:
  ‘A mechanism to equalise the risk profiles among insurers with the objective that the \textit{ex-ante} risk profiles of each insurer become identical.’

- This is done by calculating premium \textit{subsidies} based on \textit{risk-adjusted predicted} individual health expenses. These subsidies are given to the insurer who deducts it from the premium of the relevant consumer.
Modalities of risk equalisation

Modality 1:

C
S
C
S
Consumer →REF → Insurer
P-S

C=Contribution; S=Subsidy; P=Premium.

Modality 2:

S-C
S-C
Consumer →REF → Insurer
P-S+C

C=Contribution; S=Subsidy; P=Premium.
Effects of RE

- Eliminate incentives for risk-selection;
- No distortions of premium competition (efficiency);
- Achieve affordability in competitive PHI markets.
Australia: is it RE?

- Although in Australia it is called ‘risk equalisation’, it is a *claims cost equalisation (CE)*:
  
  ‘A mechanism to *equalise* the *claims-costs* among insurers with the objective that the *ex-post costs* per person of each insurer become identical.’

- This is done by enforcing *ex-post costs*-based compensations between insurers.
Benefits/Services

- Services covered under the Australian scheme (figures in parentheses are the proportion of the total benefits being equalised):
  - Hospital benefits (97.6%)
  - Hospital substitute benefits (0.05%)
  - Chronic Disease Management Program benefits (0.07%)
  - High Cost Claimant benefits (2.28%)
**Sum of payments into the RETF = Sum of payments out of the RTF (zero sum game)**

Individual insurers make or receive a net transfer, depending on claims experience

**Flows**
‘Risk’ vs. ‘Claims cost’

- **Risk equalisation:**
  A mechanism to equalise the risk profiles among insurers with the objective that the *ex-ante risk profiles* of each insurer become identical.

- **Claims cost equalisation:**
  A mechanism to equalise the claims cost among insurers with the objective that the *ex-post costs* per person of each insurer become identical.
Effects of CE

- Highly imperfect matching with the ‘true’ risk structure of insurers’ population resulting in over/under compensations (i.e. misallocation of subsidies).

- Strong incentives for selection (historically a constant threat to the stability of PHI market in Australia).

- Lack of incentives for efficiency.
The preferred strategy

- **Effects of ‘PAS’ and ‘CE’**: reduction of incentives for efficiency;
- **Effects of ‘CRP’**: risk selection; and premium differentiation via product differentiation.

Risk equalisation (RE) first-best strategy to escape from the tradeoffs between affordability, efficiency and selection (van de Ven & Schut 2008-7; Paolucci et al. 2006):

- In the case of perfect risk equalisation there is no need for any other strategy and no tradeoff exists.
- Each of the other strategies inevitably confronts policymakers with a tradeoff.
### ‘Risk Equalisation’

<table>
<thead>
<tr>
<th>Policy rationale for ‘RE’</th>
<th>Australia</th>
<th>Ireland</th>
<th>South Africa</th>
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</thead>
<tbody>
<tr>
<td>To support CRP (risk-solidarity)</td>
<td>2007</td>
<td>No transfers (most recent regulations 2003)</td>
<td>planned for 2010, but legislation still not passed</td>
</tr>
<tr>
<td>To increase industry stability i.e. prevent selection</td>
<td></td>
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<tr>
<td>To support CRP (risk-solidarity)</td>
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<td>To support CRP (risk-solidarity)</td>
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<tr>
<td>To facilitate the introduction of Social Health Insurance</td>
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### Risk factors

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<tbody>
<tr>
<td>age</td>
<td></td>
<td></td>
<td>age;</td>
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<tr>
<td>health status proxy, i.e. a cap on the maximum insurer’s costs per person over a rolling 12-month period.</td>
<td></td>
<td></td>
<td>numbers with 25 defined chronic diseases, with HIV and with multiple chronic diseases;</td>
</tr>
<tr>
<td>reserve power for health status proxy, i.e. private bed nights.</td>
<td></td>
<td></td>
<td>maternity events.</td>
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Part 3.

Conclusions and discussion
Similarities between A, I & SA

Similarities:

- Universal basic *public* system;

- Voluntary private health insurance (*VPHI*) market with consumer choice of ‘level’ of coverage and competition among ‘risk-bearing’ insurers;

- Regulation & *subsidies* in VPHI markets:
  - Restrictions on the ability of insurers to charge risk-related premiums (i.e. community rating);
  - Other incentives and subsidies in place for particular policy objectives.
  - *Risk equalisation*. 
Differences between A, I & SA

Differences:

- history;
- relative level of wealth;
- the role of VPHI in the overall health system;
- ......
- Definition of *Risk Equalisation*!
Conclusions and discussion

- **Risk selection** is a significant problem;
- In case of voluntary health insurance: *adverse selection* is an additional problem;
- Risk equalisation is very complex, both technically and politically; and also the *legal* issues;

- Community rating: goal or tool?
- Rationale for (subsidising) VPHI?
- From VPHI towards NHI?
Community rating: goal or tool?

- As a **Goal**: Each person in the community pays more or less the same premium.

- As a **Tool**: Regulation that creates predictable profits/losses, and thereby incentives for selection that undermines the goal of community rating;

- Are there more effective **tools** to achieve the goal?
Rationale for (subsidising) VPHI?

1. **What is the rationale for buying voluntary private health insurance (VPHI), given a universal basic public system?**
   *Answer:* to pass the queue and reduce *waiting times* and to receive care with better (perceived) *quality*.

2. **What then is the rationale for subsidising (tax penalties, premium subsidies 30-40%, ‘risk equalisation’), and regulating (open enrolment, community rating) VPHI?**
   *Answer:* reduce pressure on *public system* (& finance) and increase *choice*. 
From VPHI to SHI?

All 3-countries have been considering the introduction of **Social Health Insurance (NHI)** in the sense of universal mandatory insurance with consumer choice of (competing) health funds:

- **Australia**: National Health & Hospitals Reforms Commission (NHHRC) – “**Medicare Select**”;

- **Ireland**: Fine Gael’s “**FairCare**”;

- **South Africa**:
  - ‘**Social Health Insurance**’ proposed since 1994;
  - New elected Government in 2009: “within 5 years” National Health Insurance.
From VPHI to NHI: Preconditions

- Good *risk equalisation*;
- Effective competition policy;
- Consumer information (price, quality);
- Transparency (e.g. insurance products);
- Product classification system;
- Supervision of quality of care;
- Sufficient contracting freedom (price, quality, selective contracting);
- Political support (bi-partisan) for sequential implementation;

......, ......, ......
Risk equalisation is critical

- Good risk equalisation is an essential (but not the only) precondition to efficient competitive health insurance/provision markets (with open enrollment & community rating).

- Without good risk equalisation the disadvantages of competition might outweigh advantages of a competitive market.

- Risk equalisation should not only be based on age/gender, but also on health status.
The Patient Protection and Affordable Care Act (ACA) establishes various tiers of health insurance coverage for three **primary purposes**: 

- To set the universal mandatory coverage for a minimum standardised package of services (or pay a federal tax penalty beginning in 2014).
- Premium and cost-sharing **subsidies** provided to lower and middle income people buying their own insurance in Exchanges.
Four actuarial value levels: 60% (a bronze plan), 70% (a silver plan), 80% (a gold plan), and 90% (a platinum plan).

The ACA also requires that plans cap the maximum out-of-pocket costs for enrollees, based on the out-of-pocket limits in high-deductible plans that are eligible to be paired with a Health Savings Account.

Most people will be required to have insurance that is at least at the bronze level (a 60% actuarial value) or pay a federal tax penalty.
People who buy coverage on their own through an Exchange and have family income up to four times the poverty level ($89,400 for a family of four and $43,560 for a single individual in 2011) may be eligible for premium and cost-sharing subsidies:

• The premium subsidies are based on family income and the premium (adjusted for age) of the second lowest cost silver plan (70% actuarial value) in an Exchange.

• Low and modest income people buying insurance in Exchanges may be eligible for coverage with a higher actuarial value and lower out-of-pocket maximum.
Subsidies

a. Premium-related subsidies;
b. Cost-sharing subsidies;
c. Community rating per product.

• **Effects of a and b:** reduction of incentives for efficiency (e.g. premium inflation, moral hazard...);
• **Effects of c:** risk selection; and premium differentiation via product differentiation.

Why not **risk-adjusted** subsidies?
Many OECD countries have introduced *universal* mandatory coverage for a *uniform* benefits or services package (BP).

Policy-makers see *universal/uniform mandatory coverage* as a *tool* to achieve the *goal* of affordable access to (the coverage of) health care services to vulnerable groups (e.g. low-income or high-risks individuals).
Problem

- If the financing/insurance of uniform BP is not sustainable/affordable for certain groups of individuals it does not make sense to mandate to buy it;

- If subsidies guarantee affordable access to health care services/coverage for vulnerable groups, what is the rationale for universal/uniform mandatory coverage?
Proposition: the arguments that motivate a system of mandatory cross-subsidies differ substantially from those that motivate mandatory coverage.

What are the economic rationales for governments to enforce a system of \textit{mandatory cross-subsidies} and to implement \textit{mandatory coverage} for a set of predefined services?
Promising directions to proceed

- Single-option scheme with voluntary income-related deductibles (i.e. the higher the income, the higher the deductible).
- Allow insurers to risk rate & replace community rating by a premium rate band;
- Replace the premium and cost-sharing subsidies by risk-adjusted subsidies.

Effects:
- Less selection, both by consumers and by insurers;
- Policy goal of affordability more likely to be achieved;
- Increase incentives for efficiency (consumers, insurers).