Health financing in high income countries: lessons for countries in transition

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Third-party Payer

Population

Providers
Collector of resources

Third-party payer

Steward/regulator

Population

Providers

Resource pooling & allocation

Collector of resources → Third-party payer

Mobilizing resources/funding

Purchasing/contracting/financing providers

Steward/regulator

Regulation

Population


Functions

Access to and provision of services

Providers
Resource pooling & allocation

Collector of resources

Third-party payer

Mobilizing resources/funding

Financing providers: reimbursement/purchasing/contracting

Steward/regulator

Regulation

Population Coverage Who? For what?

Access to Providers and provision of services

System typology

Revenues derived from taxes vs. revenues derived from social security contributions as % of total health expenditure (2002)
Third-party Payer

Population → Providers

Out-of-pocket

Taxes
Social Health Insurance contributions
Voluntary insurance

Developing world (e.g. India)

20% public
20%
1%
<1%

Population Providers

Prepaid

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European Observatory on Health Systems and Policies
Correlation between private expenditure (as % of total health care expenditure) and the percentage of households with catastrophic health expenditure.

Western Europe

Third-party Payer

- Taxes
- Social Health Insurance contributions
- Voluntary insurance

Population

Out-of-pocket 10-20%

65-85% public
Conceptual Framework for analysing health financing systems

Decisions on depth, breadth and height of coverage

Collecting organizations
Pooling organizations
Purchasing organizations

Entitlement

Taxes, contributions and premia (prepaid resources)

Resource allocation (1)
Resource allocation (2)

Direct payments (out-of-pocket)

Health care

Individuals + employers
Providers

Funding flows
Benefit flows

The three dimensions of coverage decisions

1. WHO? Population Coverage („Breadth“)
2. WHAT? Service Coverage (benefit package; „Depth“)
3. HOW MUCH? Cost coverage („Height“)
NHS-principles:
„Universal, comprehensive, free at the point of service“

Coverage of population in countries without universal coverage in 1975
Covered benefits (benefit package)

- implicit expansion (new technologies)
- explicit expansion (long-term care in Austria, Germany, Japan …; dental care in Spanish regions …; ambulatory services in Singapore)
- (attempts to) limitations due to exclusion of service categories (dental care, cosmetic surgery …) and, more importantly, introduction of Health Technology Assessment

Out-of-pocket: a mixed picture
Reduced rates or exemptions commonly relate to one or more of the following:

- **clinical condition** – diabetics in Sweden, pregnant women in the United Kingdom and people with specified chronic illnesses in Ireland, Finland, Spain and the United Kingdom (Thomson et al. 2003).
- **level of income** – all those with low incomes in Austria, Belgium, Germany, Ireland and the United Kingdom and older people with low income in Greece.
- **age** – older people in Belgium, Ireland, Korea, Japan, Spain and the United Kingdom and children and adolescents in many countries, e.g. in Germany, Japan and the United Kingdom.
- **type of drug** – drugs for chronic illnesses in Portugal, drugs for life-threatening illnesses in Belgium, both types of drug in Greece and effective drugs in France.

**Reform trends**

- Increasing co-payments (but effects on total OOP often compensated)
- More new benefits than exclusions

Universal coverage
With respect to “the extent” benefits are covered (benefit coverage)

- Not all benefits are covered at 100% by public schemes
- Three different forms of cost-sharing are most commonly used

<table>
<thead>
<tr>
<th>Form</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Co-payment</td>
<td>User pays a fixed fee (flat rate) per item or service</td>
</tr>
<tr>
<td>Co-insurance</td>
<td>User pays a fixed proportion of the total cost, with the insurer paying the remaining proportion</td>
</tr>
<tr>
<td>Deductible</td>
<td>User bears a fixed quantity of the costs, with any excess borne by the insurer; deductibles can apply to specific cases or a period of time</td>
</tr>
</tbody>
</table>

Collection of resources

Decisions on depth, breadth and height of coverage

Collecting organizations
- Taxes, contributions and premia (prepaid resources)
- Entitlement
- Individuals + employers
- Funding flows

Pooling organizations
- Resource allocation (1)
- Benefit flows

Resource allocation (2)

Purchasing organizations
- Resource allocation (3) (remuneration of providers)

Direct payments (out-of-pocket)

Providers
- Health care
- Benefit flows
Revenues derived from taxes vs. revenues derived from social security contributions as % of total health expenditure (2002)

Countries with changes of more than 5%-points for revenue from tax payments vs. from social security contributions as % of total health expenditure (1975, 1992 and 2002 or nearest)

Few countries with major change in financing mix!
The case of Spain: shift from SHI- to tax-financed system

- Spain also mainly relied on social health insurance contributions
- In the mid-1970s, 2/3 SHI contributions and 1/3 taxes of total health care expenditure
- In 1986 with the introduction of a National Health Service a major shift towards tax funding was initiated
- By 1989, the previous pattern was reversed for the first time, 70% taxes and 30% SHI contributions

Main reason for change: perceived higher progressivity of tax-financing mechanism (although SHI-system could have achieved the same progressivity)

SHI countries: role of taxes increasing, but target varies

- B (>30%), L (37%), NL, CH -95
- A, D, F ("poor" funds, e.g. for farmers)
- CH 96-, NL 06-
- Public health providers, hospital services (A, 60% in CH), hospital investments (D)

Contributions collector
Pooling organization
Social health insurance system
Sickness funds (Purchasing org.)
Tax collector
S1
S2
S3

Sp1 Sp2 Sp3 Sp4

Individuals & employers
Providers
C
E1
E2
E3
T
Si

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Decentralization of responsibilities for resource collection in tax-financed systems

Examples: Spain, Italy, Sweden

Regional Health Service

Regional Budget

- National taxes
- Regional taxes

National Budget

Budget of National Health System

LAW OF NATIONAL PARLIAMENT

LAW OF REGIONAL PARLIAMENT

No clear trend for private/ voluntary health insurance:

Change of PHI as % of THE and PHE between 1990 and 2002

% change, PHI share of private expenditure on health
% change, PHI share of total expenditure on health
Pooling of resources

- Decisions on depth, breadth and height of coverage
- Direct payments
- Collecting organizations
- Pooling organizations
- Purchasing organizations
- Taxes, contributions and premia
- Entitlement
- Individuals + employers
- Funding flows
- Benefit flows
- Health care
- Providers
- Resource allocation (1)
- Resource allocation (2)
- Resource allocation (3)
- Direct payments (out-of-pocket)
- Allocation of resources from collecting to pooling organizations (tax financed systems)
  - Pooling and purchasing organizations often the same institution, but sometimes pooling organization = ministry of health e.g. in England, Ireland, Italy and New Zealand
  - Allocation between these two bodies is in most cases rather a matter of political agenda setting than of objectively defined allocation
  - But: New Zealand has implemented an allocation formula which takes into account the most important pressures on health expenditure
    - projected population changes (in size and age structure with yearly automatic adjustment)
    - predicted price increases (estimated each year)
    - the net effect of technological changes and efficiency gains (estimated each year)
  - Trend towards decentralised pooling organizations e.g. Sweden
12.09.2006

Allocation of resources from collecting to pooling organizations (SHI systems)

- Trend towards centralisation of pooling organizations (Germany, the Netherlands, Belgium and Switzerland)
- Mostly independent organizations on the federal level as the Federal Insurance Office in Germany or the Health Care Insurance Board in the Netherlands
- **Unique case:** Switzerland, pooling only on regional (Kanton) level
- In Austria, Korea, and Japan sickness funds have double-function of collecting and pooling, thus making reallocation between different organizations unnecessary
- Belgium, France and the Netherlands have two separate central bodies, one responsible for collecting and one responsible for pooling
- Luxemburg has a central pooling organization (Association of Sickness Funds) which is also acting as collecting organization
- Reallocation only necessary in Germany, the Netherlands and Switzerland (funds collect, independent association is pooling)

Incomplete pooling – the case of Switzerland: Premia in 2005 by canton (in CHF/month)

Grafik 3a: Verteilung der kantonalen monatlichen Durchschnittsprämien für Erwerbsrente (20 Jahre und mehr) in Kantonen für 2005 (mit ordentlicher Franchise und Unfallbedeckung)
Allocation of resources from pooling to purchasing organizations

Allocation mechanisms

• Retrospective allocation (e.g. in Belgium, Luxembourg and the Netherlands before reforms in 1990s)

• Prospective allocation
  – historical precedent (e.g. in Portugal 84.5% of resources allocated to Regional Health Administrations are based on historical precedent/ subsidies to in Farmers’ funds in Germany and Austria)
  – political negotiations (e.g. Greece uses a combination of historical precedent and political negotiations for the allocation to the regions)
  – independent criteria (risk adjusters) of health care needs (capitation: price paid by the pooling organizations for each individual covered by purchasing organizations with the necessary health services)

Capitation methods

• Matrix approach
  – based on individual-level data
  – E.g. individual utilization of drugs
  – enables higher predictive value for the actual health expenditure
  – Problem: data is often not available

• Index approach
  – based on aggregate data
  – E.g. urbanisation of regions
  – Most commonly used
Risk adjusters in the capitation formulas for resource allocation (social health insurance systems)

<table>
<thead>
<tr>
<th>Country</th>
<th>Year of implementation</th>
<th>Risk-adjusters</th>
</tr>
</thead>
<tbody>
<tr>
<td>Austria</td>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>
| Belgium         | 1995 2006              | - Age, sex, social insurance status, employment status, mortality, urbanization, income  

   - Age, sex, social insurance status, employment status, mortality, urbanization, income, diagnostic and pharmaceutical cost groups |
| France          | None                   | None                                                                                                                                           |
| Germany         | 1994/1995 2002         | - Age, sex, disability pension status                                                                                                          

   - Age, sex, disability pension status, participation in disease management program |
| Japan           | None                   | None                                                                                                                                           |
| Korea           | None                   | None                                                                                                                                           |
| Luxembourg      | None                   | None                                                                                                                                           |
| Netherlands     | 1993 1996 1999 2002    | - Age, sex, region, disability status                                                                                                          

   - Age, sex, social security/employment status, region of residence                  

   - Age, sex, social security/employment status, region of residence, diagnostic and pharmaceutical cost groups |
| Switzerland     | (within canton) 1994   | - Age, sex                                                                                                                                 |

Sources: adapted from Busse et al. (2004) and updated with data from Risk Adjustment Network (HAN)

Purchasing (and remuneration of providers)

Decisions on depth, breadth and height of coverage
Different market structures for purchasing organizations

<table>
<thead>
<tr>
<th>Single or multiple purchasers for main benefit package?</th>
<th>Market structure</th>
<th>Countries</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single</td>
<td>National purchaser</td>
<td>GR, (NHS), IS, ROK, SGP</td>
</tr>
<tr>
<td>Multiple</td>
<td>Regional purchaser</td>
<td>AUS, CDN, DK, E, FIN, BE, I, N, NZ, P, S, UK, USA (Medicaid)</td>
</tr>
<tr>
<td>Cover geographically distinct population?</td>
<td>Regional purchaser</td>
<td>A, F, GR (sickn. funds), L, ....</td>
</tr>
<tr>
<td>No</td>
<td>Multiple non-competing insurers</td>
<td>B, D, NL, CH, USA (Medicare)</td>
</tr>
<tr>
<td>Compete for clients?</td>
<td>Multiple competing insurers</td>
<td><a href="http://mig.tu-berlin.de">http://mig.tu-berlin.de</a></td>
</tr>
</tbody>
</table>

Source: adapted from Kutzin (2001)

Number of sickness funds from 1990-2002

<table>
<thead>
<tr>
<th></th>
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<tbody>
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<td>26</td>
<td>26</td>
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<td>26</td>
<td>26</td>
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<td>26</td>
<td>25</td>
<td>24</td>
<td></td>
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<tr>
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<td>127</td>
<td>127</td>
<td>121</td>
<td>114</td>
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<td>109</td>
<td>107</td>
<td>103</td>
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<tr>
<td>France</td>
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<td>17</td>
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<td>17</td>
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<td>17</td>
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<tr>
<td>Germany</td>
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<td>1221</td>
<td>1152</td>
<td>960</td>
<td>642</td>
<td>554</td>
<td>482</td>
<td>455</td>
<td>420</td>
<td>396</td>
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<td>355</td>
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<tr>
<td>Japan</td>
<td>5247</td>
<td>5247</td>
<td>5244</td>
<td>5243</td>
<td>5236</td>
<td>5233</td>
<td>5235</td>
<td>5230</td>
<td>5229</td>
<td>5210</td>
<td>5192</td>
<td>5159</td>
<td>5124</td>
<td>-2.3%</td>
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<tr>
<td>Korea</td>
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<td>n.a.</td>
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<td>n.a.</td>
<td>384</td>
<td>n.a.</td>
<td>373</td>
<td>143</td>
<td>141</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>-99.8%</td>
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<tr>
<td>Luxembourg</td>
<td>9</td>
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<td>9</td>
<td>9</td>
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<td>9</td>
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<td>0%</td>
</tr>
<tr>
<td>Netherlands</td>
<td>37</td>
<td>31</td>
<td>27</td>
<td>26</td>
<td>27</td>
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<td>30</td>
<td>28</td>
<td>28</td>
<td>27</td>
<td>25</td>
<td>24</td>
<td>24</td>
<td>-35.1%</td>
</tr>
<tr>
<td>Switzerland</td>
<td>220</td>
<td>203</td>
<td>191</td>
<td>207</td>
<td>178</td>
<td>166</td>
<td>145</td>
<td>129</td>
<td>118</td>
<td>109</td>
<td>101</td>
<td>99</td>
<td>93</td>
<td>-57.7%</td>
</tr>
</tbody>
</table>
The role of the purchaser

- 1970s and even the 1980s role of the purchaser was traditionally limited to a passive financial intermediary
- 1980s several countries tried to integrate market mechanisms in order to increase quality and efficiency of the provided services
- During the 1990s purchasing organizations increasingly gained more autonomy in management and planning
- Active purchasing can allow contracting as well as care management of purchasing organizations (not necessarily managed care in a narrow sense) e.g. purchasing disease management programs

Tentative lessons for low- and middle-income countries

1. Facilitate steady economic growth
2. Initiate pilots for health insurance schemes
3. Foster ability to administrate
4. Ensure political commitment to expand population coverage
5. Combine expansion of population coverage with risk-pooling
6. Ensure evaluation of covered/provided goods and services at each stage
Content based on Study commissioned by the World Bank:

Downloadable at:
http://mig.tu-berlin.de