How much does patient mobility cost?

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&
European Observatory on Health Systems and Policies
Quantifying in- and exports of health goods and services in EU-member states

Goods and services (export)

Country A

Benefit Package A using Service Taxonomy A and Fee Schedule A

Country B

Benefit Package B using Service Taxonomy B and Fee Schedule B

Goods and services (import)
What do we know?

Trans-border care (here: imported goods and services in €/capita): negligible or under-counted?

<table>
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<td>1.95</td>
<td>0.26</td>
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<td>1.03</td>
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<td>1.61</td>
<td>1.92</td>
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<tr>
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<td>-</td>
<td>-</td>
<td>0.48</td>
<td>1.87</td>
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<td>Finland</td>
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<td>-</td>
<td>0.49</td>
<td>0.52</td>
</tr>
<tr>
<td>Sweden</td>
<td>-</td>
<td>-</td>
<td>0.65</td>
<td>0.96</td>
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<tr>
<td>AVERAGE</td>
<td>1.31</td>
<td>2.95</td>
<td>2.37</td>
<td>1.99</td>
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Source: Palm et al. 2000
## Foreign EU patients treated annually in 2000/01: exports

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<tr>
<th>Country</th>
<th>total invoice (€)</th>
<th>E112 persons</th>
<th>E111 persons</th>
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<tr>
<td>B</td>
<td>168 790 871</td>
<td>14 061</td>
<td></td>
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<tr>
<td>DK</td>
<td></td>
<td></td>
<td>2 401</td>
</tr>
<tr>
<td>E</td>
<td>20 559 825</td>
<td>3 156</td>
<td>133 958</td>
</tr>
<tr>
<td>F</td>
<td>297 200 000</td>
<td>435 856</td>
<td></td>
</tr>
<tr>
<td>I</td>
<td></td>
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<td>1 022</td>
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<td>L</td>
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<td>4 101</td>
<td>250</td>
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<tr>
<td>NL</td>
<td></td>
<td></td>
<td>3 316</td>
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<td>AT</td>
<td>5 160 000</td>
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<td>1 000</td>
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<tr>
<td>FIN</td>
<td>951 000</td>
<td>9</td>
<td>11 483</td>
</tr>
<tr>
<td>SW</td>
<td>9 504 411</td>
<td></td>
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</tr>
<tr>
<td>UK</td>
<td>8 720 428</td>
<td>871</td>
<td></td>
</tr>
</tbody>
</table>

No data: D, GR, P

Commission staff working paper, July 2003
Germany: Imported goods and services = best contained area of health expenditure!

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>SHI expenditure total in € bn</td>
<td>99</td>
<td>99</td>
<td>108</td>
<td>113</td>
<td>117</td>
<td>116</td>
<td>118</td>
<td>122</td>
<td>124</td>
<td>129</td>
<td>133</td>
</tr>
<tr>
<td>in % GDP</td>
<td>6.14</td>
<td>6.00</td>
<td>6.20</td>
<td>6.27</td>
<td>6.36</td>
<td>6.18</td>
<td>6.13</td>
<td>6.15</td>
<td>6.13</td>
<td>6.21</td>
<td>6.32</td>
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<tr>
<td>Outside the country in € bn</td>
<td>0.36</td>
<td>0.35</td>
<td>0.33</td>
<td>0.36</td>
<td>0.40</td>
<td>0.35</td>
<td>0.34</td>
<td>0.35</td>
<td>0.37</td>
<td>0.37</td>
<td>0.41</td>
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<tr>
<td>as % of SHI expenditure</td>
<td><strong>0.36</strong></td>
<td><strong>0.36</strong></td>
<td><strong>0.31</strong></td>
<td><strong>0.32</strong></td>
<td><strong>0.34</strong></td>
<td><strong>0.30</strong></td>
<td><strong>0.29</strong></td>
<td><strong>0.30</strong></td>
<td><strong>0.29</strong></td>
<td><strong>0.31</strong></td>
<td><strong>0.31</strong></td>
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<tr>
<td>as % of GDP</td>
<td>0.02</td>
<td>0.02</td>
<td>0.02</td>
<td>0.02</td>
<td>0.02</td>
<td>0.02</td>
<td>0.02</td>
<td>0.02</td>
<td>0.02</td>
<td>0.02</td>
<td>0.02</td>
</tr>
<tr>
<td>Total expenditure in €bn</td>
<td>163</td>
<td>168</td>
<td>180</td>
<td>194</td>
<td>203</td>
<td>204</td>
<td>208</td>
<td>214</td>
<td>219</td>
<td>227</td>
<td>234</td>
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<tr>
<td>in % GDP</td>
<td>10.1</td>
<td>10.2</td>
<td>10.4</td>
<td>10.8</td>
<td>11.1</td>
<td>10.9</td>
<td>10.8</td>
<td>10.8</td>
<td>10.8</td>
<td>11.0</td>
<td>11.1</td>
</tr>
<tr>
<td>Outside the country in € bn</td>
<td>0.38</td>
<td>0.37</td>
<td>0.35</td>
<td>0.38</td>
<td>0.42</td>
<td>0.37</td>
<td>0.37</td>
<td>0.38</td>
<td>0.40</td>
<td>0.41</td>
<td>0.44</td>
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<tr>
<td>as % of total expenditure</td>
<td><strong>0.23</strong></td>
<td><strong>0.23</strong></td>
<td><strong>0.19</strong></td>
<td><strong>0.20</strong></td>
<td><strong>0.21</strong></td>
<td><strong>0.18</strong></td>
<td><strong>0.18</strong></td>
<td><strong>0.18</strong></td>
<td><strong>0.18</strong></td>
<td><strong>0.18</strong></td>
<td><strong>0.19</strong></td>
</tr>
<tr>
<td>as % of GDP</td>
<td>0.02</td>
<td>0.02</td>
<td>0.02</td>
<td>0.02</td>
<td>0.02</td>
<td>0.02</td>
<td>0.02</td>
<td>0.02</td>
<td>0.02</td>
<td>0.02</td>
<td>0.02</td>
</tr>
</tbody>
</table>


Ca. € 4.70/capita

Ca. € 5.40/capita
What is the money spent on?
Ratios vs. overall expenditure (2002)

- Transport 1.3
- Physician services 1.25
- Goods 1.15
- Care/accommodation 0.8
- Prevention 0.65

- Eye diseases 3.2
- Ear diseases 3.0
- Infections 2.0
- Injuries 1.3
  ...  
- Psychiatric diseases 0.4
- Pregnancy/birth 0.4
- Cancer 0.35

3x as often as within country
1/3x as often as within country
Is this the whole truth? Most likely not …

<table>
<thead>
<tr>
<th>Country</th>
<th>E111</th>
<th>self-pay</th>
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</thead>
<tbody>
<tr>
<td>France</td>
<td>11%</td>
<td>77%</td>
</tr>
<tr>
<td>Italy</td>
<td>28%</td>
<td>66%</td>
</tr>
<tr>
<td>Netherlands</td>
<td>26%</td>
<td>52%</td>
</tr>
<tr>
<td>Austria</td>
<td>30%</td>
<td>63%</td>
</tr>
<tr>
<td>Spain</td>
<td>13%</td>
<td>84%</td>
</tr>
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</table>
Reasons for not being (fully) reimbursed

- Invoice not submitted to TK sickness fund: 42%
- TK only covered part of the bill: 39%
- Usual co-payments in country of service: 16%
- TK refused to pay: 3%
• Why do patients move? More push than pull *(difference to professionals!)* … and a lot of need arising when abroad.

• Has this led to unsustainable expenditure in the past? No, but there is probably a lot of expenditure not accounted for. Might this change? Not imminently …

• *Speculation:* The major reason for low volumes is that actors, policy makers and patients lack accurate information on …
Patient mobility

Country A
- Benefit Package A using Service Taxonomy A and Fee Schedule A
- Accessibility A_x
- Quality of service A_x

Country B
- Benefit Package B using Service Taxonomy B and Fee Schedule B
- Accessibility B_x
- Quality of service B_x

HOW MANY?

WHY?

WHICH SERVICES?

WHAT COSTS?
(SERVICES x REIMBURSEMENT)
Health Benefits and Service Costs in Europe
A European Research Project
April 2004 – March 2007

Project Partners Are...

European Health Management Association

Centre for Health Economics,
University of York, United Kingdom

Department of Health Care Management,
Berk University of Technology, Germany

Health Services Management Training Centre,
Semmelweis University, Hungary

Ecole Nationale de la Sante Publique,
France

Institute for Health Policy and Management,
Erasmus University Rotterdam, The Netherlands

Danish Institute for Health Services Research,
Denmark

Jagiellonian University Medical College,
Poland

Centre for Research on Health and Social Care Management, Bocconi University, Italy

Research Centre for Economy and Health,
Universitat Pompeu Fabra, Spain
HealthBasket Project
(funded under the 6th Framework)
Phases I, II & III

Country A
- Benefit Package A using
  Service Taxonomy A and
  Fee Schedule A
- Accessibility A
- Quality of service A

Country B
- Benefit Package B using
  Service Taxonomy B and
  Fee Schedule B
- Accessibility B
- Quality of service B

www.HealthBASKET.org
Taxonomy

theoretical study of classification, including its basic principles, procedures, and rules – “the science of classification”

Diseases: ICD;
Functional impairments: ICF;
Health care providers: System of Health Accounts;
Health services and goods: ???
Figure 1: Taxonomy of the Royal Decree. 63/1995

Royal Decree 63/1995

1. Primary health care
2. Specialised attention
3. Pharmaceutical services
4. Complementary Services

5. Health information and documentation services

6 subdivisions
24 subdivisions

4.1. Orthoprosthetic services
4.2. Ambulance services
4.3. Complex Diet Therapy
4.4. Oxygen Therapy at Home

Source: Own elaboration.

Figure 2: Taxonomy of LAW 16/2003

Law 16/2003

1. Public health care
2. Primary health care
3. Specialised health care
4. Long term care

8 subdivisions
9 subdivisions
8 subdivisions

4.1. Long term care
4.2. Convalescence
4.3. Rehabilitation in patients with recoverable functional deficit

Source: Own elaboration.
• **Taxonomy** differs largely from country to country – even if most tend to sort ambulatory care by physician specialty and inpatient care by diagnosis and procedure (DRGs/HRGs/DBCs …)

• No country has one **uniform catalogue**: it’s rather a mixture of differently defined lists (entitlements, payment, guidelines …)
**HealthBASKET Phase I – How are benefit baskets determined and which services are included?**

- Only small variation of provided benefits between countries – most countries exclude similar benefits: cosmetic surgery, vaccination for travelling purposes) and certain non-conventional treatments (e.g. acupuncture)

- Variation might be even larger within countries due to decentralisation processes e.g. in Spain and Italy
HealthBASKET Phase I –
How are benefit baskets determined and which services are included?
-> The example of inpatient care

- France and Poland have defined explicit inpatient benefit catalogues, listing detailed procedures/ in other countries DRGs- and other grouping-systems (e.g. HRGs in UK) serve as implicit tool for defining maximum resource consumption
- Regional variations of explicitness in Italy and Spain; e.g. Italian region of Lombardy added three new DRGs to its system in order to specifically consider the use of drug eluting stents (DES) and to encourage its utilisation
- decision criteria for the inclusion of benefits are in most cases officially announced, but seldom applied/ in reality inclusion decisions are rather guided by lobbyism of actors
HealthBASKET Phase I –
How are benefit baskets determined and which services are included?
-
The example of inpatient

A supplement of the European Journal of Health Economics summarising the results will be available in November.
• How do countries fix/ negotiate reimbursement?
• How much do prices/ reimbursement rates really differ?
  Or are they rather explained by systematic differences (e.g. capital costs included/ not included)?
  Or by differences in service intensity (e.g. pre-operative tests)?

Methodology: Case vignettes

www.HealthBASKET.org
HealthBASKET Phase II – How are services priced and how are prices determined?

- Most countries have already installed performance-based remuneration schemes for in- and outpatient services, while they are often lacking for long-term care, rehabilitation etc.

- There is a clear trend towards the use of micro-costing data (especially for inpatient services) to determine remuneration rates, reflecting the real costs of providers

  -> problem:
  insufficient quality of data delivered by providers

- Phases I+II = basis for phase III as the core of the project
HealthBASKET Phase III – Calculation of costs and prices for 10 case vignettes and analysis of differences

• 10 case vignettes ("service packages") are designed around episodes of care, e.g. hip replacement, cataract, coughing child

• To ensure comparability across vignettes, each is divided into detailed path components e.g. diagnostic procedures, care before operation etc.

• To ensure homogeneity within case vignettes, health status and indication of each patient is defined in detail for each vignette

• Partners in each country calculate costs and prices for case vignettes with data from at least 5 representative providers

-> Finally costs and prices are compared and differences are analysed
The HealthBASKET project is limited in scope – but important!

The first nine patients sent to France by the English NHS (not shown: the 40 journalists who accompanied them)

ARE THESE DATA REALISTIC?
ARE THEY REPRESENTATIVE?
HOW CAN THE DIFFERENCE BY EXPLAINED?
This presentation and more material can be found on the following websites:

http://mig.tu-berlin.de

www.HealthBASKET.org