The role of cost accounting in a DRG-based system

Country: Switzerland
Partner Institute: Università della Svizzera Italiana, Lugano
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Health Policy Issues: Role Private Sector, Funding / Pooling, Remuneration / Payment

Current Process Stages

<table>
<thead>
<tr>
<th>Idea</th>
<th>Pilot</th>
<th>Policy Paper</th>
<th>Legislation</th>
<th>Implementation</th>
<th>Evaluation</th>
<th>Change</th>
</tr>
</thead>
</table>

1. Abstract

On December 21st 2007, the Swiss Federal Parliament passed the new financing of hospital care through a DRG-based performance payment system (SwissDRG). The new financing method is due to come into force on January 1st 2012 and hospitals are now facing the challenge of adapting their cost accounting systems to support both the tariff negotiation process with health insurers and the internal strategic management process, thus providing useful and detailed information to hospital managers.

2. Recent developments

The antecedents and the implementation strategy

On December 21st 2007, the Swiss Federal Parliament passed the new financing of hospital care through a DRG-based performance payment system called SwissDRG within a partial review of the Swiss Health Insurance Act [see 1]. The date set for the generalized introduction of the new financing method is January 1st 2012.

On October 22nd 2008, the Federal Government approved some law amendments in order to implement the new system. Amongst other issues, the adaptation of data collection with respect to provided services as well as the validation procedure for unitary price structures have been defined. These amendments came into force on January 1st 2009. A key point with regard to the new financing method is the transition from a retrospective financing of hospitals (based on deficit coverage) to the reimbursement of a lump sum per patient according to the assigned DRG.

The use of DRG for the reimbursement of hospital inpatient services is not completely new in Switzerland. In the last few years, in fact, an increasing number of cantons has been adopting the AP-DRG system [see 2], stimulating a new mind set in negotiating tariffs between hospitals and health insurers. In this context, the need for high performing cost accounting models has been perceived to be more and more urgent. In fact, until the Federal Parliament's decision to adopt a widespread performance payment system based on DRGs on a national level, the landscape of hospital cost accounting in Switzerland had been evolving in a very heterogeneous way, according to the different financing rules applied in specific cantonal contexts. More precisely, the traditional per diem approach, supported by a simple cost center accounting (COCE), was integrated step by step in a cost-per-patient perspective, supported by a cost unit accounting (COUN). Due to the lack of coordination at national level, the development of such models became the task of several stakeholders like cantonal administrations, providers' associations, hospital groups and even single hospitals. This has given rise to a proliferation of models reflecting the peculiarities of the context in which they were conceived. Among others, the models developed by the Canton of Zurich (LORAS), the hospitals and clinics of Central Switzerland (ZSK) and the Swiss Hospital Association (H+ 1998) are those which have encountered the
Regardless of these innovative experiences, the introduction of a unique financing method at national level is pushing health care providers to set out their cost accounting systems on a cost-per-patient basis. In this respect, the only official wide-ranging input available to hospital providers is the Ordinance of July 3rd 2002 on costs and services delivered by hospitals, maternity hospitals and nursing homes within the scope of compulsory health insurance (VKL) [see 3]. The following criteria at least need to be observed:

- The **costs and services delivered for inpatient, outpatient and long term care** need to be delimited separately.
- The **costs and services delivered for the compulsory health insurance** need to be determined independently of those for the complementary health insurance.
- **Separate accounting for fixed assets** providing detailed information has to be kept. An asset can appear in the balance sheet at most at its purchasing value and only if the purchasing value amounts to CHF 10,000 or more. The depreciation method to be applied is a linear amortization considering the purchasing value and the expected duration. The interest rate to be considered is 3.7 percent of the asset's average value and will be periodically re-examined by the authorities.
- The **detailed definitions of teaching and research activities** should be applied in order to separate costs related to these activities from the costs of care delivered to patients, as provided by art. 49 §3 of the Health Insurance Act.

**Definition of a national reference model for cost accounting**

With the aim of making a common framework available to hospitals, the Swiss Hospital Association (H+) developed a new reference cost accounting model known by the acronym of REKOLE®, which provides hospital managers with a very detailed source of information; it therefore requires a high level of effort and commitment on the part of health care professionals [see 4]. The model results from the involvement of various experts coming from all regions of Switzerland who brought a broad range of experience as hospital CEOs or CFOs with them. The key points of the REKOLE® model can be summarized as follows:

- **The administrative case, to be understood as the hospital stay of a single patient, becomes the COUN's main dimension of analysis.** A certain number of rules are provided to exactly define the boundaries of the administrative case in situations of uncertainty (admission in emergency room, change of insurance class, internal transfer, hospital stay at the end of the year, readmission due to a transfer to another provider or to re-hospitalization, breakdown of long term care versus acute care, long term outpatient treatment etc.).
- The COCE follows a **newly defined cost center plan which distinguishes between service delivering cost centers (SDCC) and treatment delivering cost centers (TDCC)**. SDCCs are organization units not (or only indirectly) related to patients, which still provide the conditions needed for carrying out typical hospital activities, while TDCCs are organization units directly related to patients to whom they deliver clinical treatments.
- A **new reference accounting plan** has been set up, giving supreme importance to the clustering of certain accounts in order to simplify their structure and paying close attention to COUN and COCE, rather than splitting costs according to their typology.
- **Ambitious criteria of cost allocation to cost centers and cost units** have been identified, with the aim of improving the accuracy of the results. Particularly innovative, but also relatively expensive to implement (both technically and culturally), is the new minimal requirement for the allocation of nursing staff costs to patients, based on standard or real time (to be) spent with them.
- For the first time in Switzerland a **completely modular cost accounting model** is available to users. Thanks to the different consolidation levels conceived for the accounting plan, the cost center plan and the cost allocation rules, each provider can choose the desired degree of detail and the implementation path to be followed according to their own needs.
- **Examples of cost centers and administrative case sheets** are provided, in order to make the internal
controlling process easier.

- Advice is given on the manner of **booking direct costs to patients**. In particular, the application of a Pareto-inspired decision approach for drugs and health materials is strongly recommended, in order to identify and allocate only the most relevant items of cost (e.g. prosthesis) to patients. In each case, the principle of assigning direct costs as much as possible to the patient must regularly be in line with the cost of obtaining the corresponding information.

- **Pragmatic tools for the time survey of activities** carried out are placed at the users’ disposal (i.e. medical staff).

- **A reference scheme for distinguishing patient care costs from teaching and research costs** for medical staff is provided. Teaching and research costs, in fact, are directly assumed by cantons and therefore are not included in the DRG-rates negotiated with the health insurers.

- Reference depreciation rates for each category of assets (e.g. land, buildings, furniture, office equipment, motor vehicles, computers, health technologies, hardware and software) and uniform depreciation rules are given as far as the **balancing of fixed assets is concerned**.

### A new institution with the task of leading the change and managing the new system

According to art. 49 §2 of the Health Insurance Act, the stakeholders involved in the tariff process have to establish an organization whose competence it is to create, develop, adapt and maintain the tariff structure. In accordance with this legal constraint, **an organization, namely SwissDRG Ltd. was founded** on the initiative of the providers’ associations (Swiss Hospital Association, H+ and Swiss Medical Association, FMH), health insurers (santésuisse and the Medical Tariff Commission of the Injury Insurance MTK) and cantons (Conference of the Swiss Cantonal Ministers of Health, GDK). On July 2nd 2009, **the Contract on the introduction of the SwissDRG tariff structure in the context of compulsory health insurance was signed** by H+, santésuisse and GDK and on July 9th the first official application for the new SwissDRG was submitted to the Federal Government [see 5]. Besides all the details of the tariff structure, the following documents were enclosed with the application, which are of key importance to make sure that the system works correctly:

- **Rules and definitions concerning administrative cases**. The following aspects are provided for: definition of inpatient versus outpatient treatment, definition of the length of stay, behavior in special cases like early readmissions for the same Major Diagnostic Category (MDC), transfers to other providers, modification of the hospitalization cause during a hospital stay, hospital stays covering two accounting periods and the way to consider pre- and post-inpatient treatments [see 6].

- **Estimation of the impact on costs and quantity of services delivered due to the use of the new tariff system**. This task, required by art. 59d §1c of the Ordinance on Health Insurance, has not been fulfilled mainly for the following reasons: (a) through the 2007 revision of the Health Insurance Act too many elements were changed at the same time and this does not enable the impact of each of them to be identified; (b) the strongly dynamic nature of the health system makes it difficult to recognize the impact of fundamental trends like technological innovation, patient behavior and demographic development on financing mechanisms; (c) the heterogeneity of the existing financing systems at cantonal level.

- **Measures of support**. A key issue related to the introduction of a DRG-based financing system is quality management. In particular, attention should be paid to the following aspects: (a) **continuous improvement of the system** through the identification of incorrect assessments and adjustment of situations of over- or under-coverage; (b) **careful codification control**, with the drawing up of a codification audit report by each hospital based on nationwide-defined rules; (c) **application of a standardized quality assurance instrument with a corresponding panel of indicators**. These should be developed by the National Association for the Development of Quality in Hospitals and Clinics (NVQ) for the domains of acute care, psychiatry and rehabilitation. This association brings cantons, H+, SantéSuisse and the federal social insurances together; (d) **monitoring and scientific follow-up**. A statistic-based evaluation of data collected by the Federal Statistical Office (FSO), health insurers and cantons should be put into place and follow-up projects promoted by academic bodies are welcome, although not explicitly foreseen; (e) **economic control**, with the aim of combining cost awareness with a high quality of services provided. This should be assured by the fact
that the definition of the key parameters of the system (cost weights, outliers and tariff structure) is dependent on data issued by hospitals delivering services in an economical manner; (f) control of invoices. An invoice control procedure has to be adopted by health insurers in order to check if services are correctly recorded and whether the economical criterion is observed or not. An agreement on electronic data exchange among the tariff partners has still to be reached [see 7].

- **Instruments and mechanisms to assure the quality of services.** The activities to be developed in the context of the NVQ are defined in a more precise yet brief way.

- **Instruments to monitor the development of costs and services delivered.** A brief reference to the necessity to achieve cost neutrality with the modification of the tariff structure, although cost shifting effects due to the new financing method have to be expected.

- **Regulation for codification audits.** This text gives detailed information on the scope, requirements and behavior code of the auditor, audit principles (e.g. content, time schedule, financing, location), execution (e.g. sample extraction, audit procedure, error typologies, content and addressees of the audit report, procedure in case of disagreement) [see 8].

- **Tariff developments in the fields of psychiatry, rehabilitation and maternity hospitals.** Despite the existing legal constraints, the system which has been formalized until now has taken mainly inpatient treatments into account. In the fields of psychiatry, rehabilitation and maternity many pilot projects have been carried out by different stakeholders in order to reach an agreement on SwissDRG-inspired performance payment systems tailored to each domain. The first calculation of tariffs according to these methods should be available in 2010 (maternity hospitals), 2014-15 (psychiatry) and 2015-16 (rehabilitation) [see 9].

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### 3. Characteristics of this policy

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<thead>
<tr>
<th>Degree of Innovation</th>
<th>traditional</th>
<th>innovative</th>
</tr>
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<tbody>
<tr>
<td>Degree of Controversy</td>
<td>consensual</td>
<td>highly controversial</td>
</tr>
<tr>
<td>Structural or Systemic Impact</td>
<td>marginal</td>
<td>fundamental</td>
</tr>
<tr>
<td>Public Visibility</td>
<td>very low</td>
<td>very high</td>
</tr>
<tr>
<td>Transferability</td>
<td>strongly system-dependent</td>
<td>system-neutral</td>
</tr>
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### 4. Purpose and process analysis

#### Initiators of idea/main actors

- Government
- Providers
Due to substantial changes connected with the systematical introduction of the new DRG-based performance payment system, a widespread debate has arisen in Switzerland, involving all the main actors of the health system, namely cantons, health insurers and service providers. The positions of these actors can be summarized as follows:

- As far as the cantons are concerned, the attitude of the Conference of the Swiss Cantonal Ministers of Health (GDK) can be defined as very critical, in particular because of the increased burden the cantons have to bear in financing hospital care (remember that cantons should now cover at least 55 percent of the DRG-based lump sums for inpatient treatments delivered in both public and private providers on the hospital list and for patients with both compulsory and complementary insurances). However, the outline of the model as a performance payment system has not been questioned [see 10].

- On the part of the health insurers, santésuisse has shown itself to be substantially supportive, particularly appreciating the potential advantages deriving from the adoption of a performance payment system, which can be identified as follows: (a) a higher degree of transparency as a condition for increasing competition among providers; (b) the definition of DRG lump sums on the basis of providers acting in a more economical way; (c) the contribution to competition arising from the equal financing method for both public and private hospitals on the cantonal lists and from the opportunity for patients to choose among accredited hospitals located in other cantons; (d) the equality of treatment between patients with compulsory and complementary insurance, resulting in the fact that complementary insurers are no longer called on to assume costs for services delivered in the domain of compulsory insurance; (e) the obligation for hospitals to provide detailed data for financial and quality control, which is an important condition for increasing transparency. However, the positive opinion is mitigated by a certain number of critical issues like (a) increased costs of about CHF 500 Mio. to be borne by the basic health insurers; these result from the new cost split between insurers and cantons (the winners are, in fact, the complementary health insurers); (b) the lack of a legal obligation for hospital providers to directly deliver data to health insurers, which prevents an efficient control of invoices; (c) inpatient and outpatient services are still financed in a different way, with the result that treatments are not always delivered by providers acting more economically; (d) competition will continue to be limited as long as cantons maintain a multiple and contradictory role (as regulators through hospital planning, counterparts of service level agreements, owners of hospitals and decision makers for tariffs in case of disagreement between hospital and health insurers) [see 11].

- In connection with hospitals, H+ strongly supports the adoption of the new financing method by developing tools (especially related to cost accounting) to help providers to collect and process data in a suitable way in order to shape an effective management information and controlling system. Nevertheless, single providers deplore the high level of investment costs and the increasing administrative load related to the implementation of the new cost accounting system.

- Regarding the position of medical doctors, the FMH seems to be quite supportive toward the DRG-system. The main points to which attention should be paid are (a) the establishment of follow-up research to be set up before the introduction of SwissDRG; (b) the quality assurance and controlling of service delivery; (c) the safeguarding of physicians' therapeutic autonomy with respect to effectiveness, appropriateness and economic criteria; (d) the safeguarding of data protection and confidentiality, including the protection of medical secrecy; (e) the coverage of real hospital costs through the principle that the reimbursement system enables special cases, e.g. particularly expensive therapies and drugs, implants, intensive care, emergency, pediatric clinics to be dealt with, in a separate way; (f) the monitoring of innovation in order to ensure the updating of the system; (g) the respect of medical criteria, e.g. concerning the distinction between inpatient and outpatient treatment; (h) the provision of simple tools for an effective and efficient survey of the services delivered; (i) the safeguarding of medical education, providing adequate resources [see 12].
## Actors and influence

Description of actors and their influence

### Government

<table>
<thead>
<tr>
<th>Cantons (Conference of the Swiss Cantonal Ministers of Health, GDK)</th>
<th>very strong</th>
<th>none</th>
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### Providers

<table>
<thead>
<tr>
<th>Swiss Hospital Association (H+)</th>
<th>very strong</th>
<th>none</th>
</tr>
</thead>
<tbody>
<tr>
<td>Swiss Medical Association (FMH)</td>
<td>very strong</td>
<td>none</td>
</tr>
</tbody>
</table>

### Payers

| Health insurers (santésuisse) | very strong | none |

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## Positions and Influences at a glance

![Diagram showing positions and influences]

- **Swiss Hospital Association (H+)**
- **Health Insurers (Santésuisse)**
- **Cantons (Conference of the Swiss Cantonal Ministers of Health, GDK)**
- **Swiss Medical Association (FMH)**
5. Expected outcome

The transition from a per diem to a lump sum reimbursement system may require several important issues to be faced; it represents a big challenge for the Swiss health care system as a whole. If we subsume the necessary changes to the two pans of the scales consisting of management accounting and quality assurance, we notice that the former has received much more attention than the latter. In fact, although many hospitals are encountering some difficulties in applying a relatively ambitious cost accounting model like REKOLE®, quite clear reference marks exist on this subject. On the contrary, much work has still to be done concerning quality assurance. Particularly, the lack of a clearly defined follow-up research program should be made up for as soon as possible, in order to avoid the delay that occurred in Germany, which has hindered a timely comparison between the ex-ante and ex-post situations. So far Switzerland has been following the German path, which has raised substantially positive judgments from a health policy point of view. This seems to indirectly confirm the thesis expounded in a recent study on hospital financing reforms in OECD countries, which argues that policy changes (i.e. the adoption of DRGs as a financing tool) are more likely to occur if the experience of other countries suggests that the reform leads to the desired results [13]. Moreover, further research is needed to investigate the many-sided impacts of DRG performance payment systems, since the empirical evidence emerging from the literature is still ambiguous (see [14] for a substantially critical appraisal and [15] for an evaluation of the patient data of a Swiss health insurer, which comes to the conclusion that a transition to the AP-DRG system cannot be associated with a decrease in hospital length of stay). In this regard, the ethical concerns related to the adoption of DRGs should not be omitted, fostering the integration of both patients' and society's perspectives into the current medical and economic reflections (see [16], which mentions a research project led by the Institute of Biomedical Ethics of the University of Zurich).

<table>
<thead>
<tr>
<th>Quality of Health Care Services</th>
<th>marginal</th>
<th>fundamental</th>
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<tbody>
<tr>
<td>Level of Equity</td>
<td>system less equitable</td>
<td>system more equitable</td>
</tr>
<tr>
<td>Cost Efficiency</td>
<td>very low</td>
<td>very high</td>
</tr>
</tbody>
</table>

6. References

Sources of Information


5. Vertrag über die Einführung der Tarifstruktur SwissDRG im Bereich der obligatorischen Krankenpflegeversicherung OKP (www.swissdrg.org/assets/pdf/System_02/01_Tarifstrukturvertrag_unterzeichnet.pdf)

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Reform formerly reported in

| Logical epilogue of a never-ending story |
| Abolishing cantonal barriers in hospital market |
| Back to the future in Swiss hospital financing |
| Revolution of hospital financing reform plan |
| Hospital financing reform (?dual-fixed?) |

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