Health Reform Monitor

Policy trends and reforms in the German DRG-based hospital payment system*

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ABSTRACT

A central structural point in all DRG-based hospital payment systems is the conversion of relative weights into actual payments. In this context policy makers need to address (amongst other things) (a) how the price level of DRG-payments from one period to the following period is changed and (b) whether and how hospital payments based on DRGs are to be differentiated beyond patient characteristics, e.g. by organizational, regional or state-level factors. Both policy problems can be and in international comparison often are empirically addressed. In Germany relative weights are derived from a highly sophisticated empirical cost calculation, whereas the annual changes of DRG-based payments (base rates) as well as the differentiation of DRG-based hospital payments beyond patient characteristics are not empirically addressed. Rather a complex set of regulations and quasi-market negotiations are applied. There were over the last decade also timid attempts to foster the use of empirical data to address these points. However, these reforms failed to increase the fairness, transparency and rationality of the mechanism to convert relative weights into actual DRG-based hospital payments.

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1. Introduction and motivation

DRG-systems have become the most common basis for hospital payment in European countries [1,2]. All these countries (a) use a patient classification system (PCS) to group patients with similar characteristics into homogenous groups with similar resource intensity [3], (b) collect cost information to determine relative weights [4] and (c) apply conversion mechanisms to transform relative weights of DRGs into monetary values that are used for payment [5]. In the context of converting relative weights into prices, two fundamental points need to be addressed in the context of all DRG-based hospital payment systems. Firstly: how has the price level of DRG-payments from one period to the following period changed? Secondly: whether and how hospital payments based on DRGs are to be differentiated beyond the patient characteristics, e.g. by organizational, regional or state factors. With regard to these two dimensions, the development and reforms set Germany apart from most other European and international DRG-based systems. This article focuses on the German policy developments with regard to these two hospital financing questions in the context of DRG-systems, outlines implications and provides an outlook.

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2. Context

In Germany the G-DRG system is the principal mechanism to allocate financial resources to hospitals. It allocates about 85% of financial resources (65 billion Euros in 2013 from the SHI-Funds) to hospitals [6], which is internationally one of the highest share of DRG-based hospital payment [5]. Principally, the G-DRG system applies to all hospitals, irrespective of ownership status, and all patients (except rehabilitation and psychiatric, psychosomatic or psychotherapeutic patients), regardless of whether or not they are members of the Social Health Insurance (SHI) system, have private health insurance, or are self-funding patients [7]. The DRG-based hospital payment for each case is defined as the product of the state base rate and the case corresponding relative weight.

In addition hospitals receive funds for capital investments from the Bundesländer (2.7 Billion Euros in 2013). The proportion of this source of hospital income has been declining sharply [8] over time. It is likely that investments are financed via DRGs [9], but this aspect is hard to validate or quantify. Institutionally Germany follows the principles of a decentralized corporatist health system. This implies that self-governing bodies – namely, provider associations and sickness funds – are responsible for providing substantive detail to the provisions of the laws defining the framework of hospital financing.

3. Health policy trends

With regard to DRG-based hospital payment mechanisms, three levels of policy-making are relevant in the German context: the federal-, the state- and on the local-level (i.e. individual hospital-level). The federal level is most relevant for the question how base rates are to be changed from one period to the next. The state- and the local-level are relevant for the differentiation of base rates by factors beyond patient characteristics.

3.1. Annual change of DRG-based payments

Historically, the basis for hospital payment in Germany followed a simple principle. The price had to be set so that the contribution rate – i.e. a percentage of the income each insuree has to pay to finance the SHI expenditures – remains stable (all else equal) [10]. This principle was translated directly into a mechanism to set a ceiling for annual price changes of hospitals, i.e. the overall relative change of contributions to SHI funds from one year to another defined the ceiling for price-change in the inpatient sector. This “price-change ceiling” was specified uniformly on the federal level and was binding for all price-negotiations. This approach was heavily criticized by hospital associations in the aftermath of the introduction of the G-DRG system, as in the new system defined relative weights based on detailed cost calculations, while the price ceiling of the annual change of DRG-based payments was affected solely by the change in average income of social insurance funds [11].

The government responded by introducing the so-called Krankenhausfinanzierungsreformgesetz [12] in 2009. This law mandated the German statistical office to develop a price-index based “orientation value” (Orientierungswert), which was meant to capture a hospital specific inflation rate rather than focusing on the change in the contributions of health insurance funds. The orientation-value is the product of two weighted sub-indices, which reflect the major input categories of hospitals: labor and material costs. Input price changes from the third and fourth quarter of the previous year and the first and second quarter of the current year (compared with the corresponding previous periods) are taken into account [13]. The law was meant to signal to hospitals that in the context of the G-DRG system not only relative weights of DRGs were to be defined empirically, but also the annual change of DRG-based payments was meant to be to larger extent determined empirically [12]. In the original framework the federal ministry of health was meant to define the real price-ceiling for hospitals, the so called change value (Veränderungswert), by deciding to which extent the orientation value is to be financed. This approach would have established a consistent pricing system whereby relative weights and annual price changes are determined empirically—an approach which is chosen in most DRG-based hospital payment systems [5].

However, the federal ministry of health never defined the price ceiling based on an empirically generated hospital inflation rate and introduced yet another reform to determine the price ceiling in mid-2012 [14]. The newly established framework was operationalized as follows. Corporatist bodies of self-government were mandated to negotiate to what extent the measured price change is meant to be reflected in the price ceiling. For the negotiations between self-governing partners, the law defined different frameworks. Firstly, if the hospital specific inflation rate (“orientation value”) is below the average relative change of contributions to SHI funds, the average relative change of contributions to SHI funds automatically determines the “change value”. It hence becomes directly the upper limit of hospital prices in the following period. Self-governing partners have not to do much more than signing the contracts—no real negotiations take place. Secondly, if the orientation value is above the average relative change of contributions to SHI funds, one third of the difference between the two values constitutes a corridor for negotiation between the self-governing partners (Fig. 1–first part).

In case the partners of self-government cannot reach an agreement on the price ceiling, a federal arbitration board for the hospital sector decides. In this arbitration board providers and sickness funds have equal votes, but an independent chair the board can vote with one of the sides to enforce a decision.

In September 2012 the orientation-value was published for the first time (for 2013). With 2.0% it was below the average relative change of contributions to SHI funds (2.03%). There was therefore no need to negotiate and the changevalue was automatically set at 2.0% in 2013. This was, of course, not the kind of value the hospital associations had hoped for when arguing for a hospital specific inflation rate as it was even lower than the reference value that was applied before its introduction. As a consequence hospital associations again massively lobbied for changing
the law in order to establish a more hospital-friendly price-ceiling rule.

The government responded by introducing yet another reform in mid-2013 [15]. With this reform the government departed from its original policy paths to strengthen the empirical basis of hospital financing and its consistency. Rather, it introduced an arbitrary framework that guarantees that hospitals always take advantage from the more beneficial of the two policy approaches to define the ceiling for the annual change in DRG-based hospital payments.

In the new framework, the following rules apply: if the orientation value is lower than the average relative change of contributions to SHI funds, the average relative change of contributions to SHI funds determines the price-ceiling (and not the lower orientation value as in 2013). Hence, only if the hospital inflation rate is above the average relative change of contributions to SHI funds, it becomes relevant for the definition of the price ceiling. Moreover in 2014 and 2015, if the average relative change of contributions is lower than the orientation value, the negotiation corridor for the change value was widened to the full delta between the orientation value (Fig. 1—second part) and the average relative change of contributions. In September 2013 the orientation-value was published for the second time (for 2014). With 2.02% it was again below the average relative change of contributions to SHI funds (2.81%). The change value was now, based on the new framework automatically at 2.81% in 2014. For 2015 the orientation value, with 1.44%, was again lower than the average relative change of contributions to SHI funds (2.53%). For 2015 the change value is automatically 2.53%.

Overall, the departure from the empirical policy track resulted in additional hospital expenditure and annual adjustments of DRG-based payments above the input-price change. Multiplying the delta of the two rates with the total DRG-related expenditure in 2013, which amounts to 65 billion Euros, the estimated additional expenditure amounts to 500 Mio. Euros in 2014 and 700 Mio. Euros in 2015.

3.2. Differentiation of DRG-based hospital payments

Historically, hospital budgets and the prices for hospital services were negotiated locally between social health insurance funds and providers. As a consequence the price variation across hospitals was substantial. In the context of the G-DRG introduction in 2004/5 hospital services became transparent and comparable via uniform patient classification and product definition. As a consequence the price differences across hospitals for similar services were perceived increasingly "unfair" and arbitrary. The government therefore introduced a series of reforms that were meant to establish the principle that "the same prince is to be paid for the same service". Central point of the hospital financing laws that accompanied the G-DRG system introduction was that path-dependent hospital specific prices converged towards a state wide base rate (i.e. the “Landesbasisfallwert”). Following the federal structure of Germany, this approach implied that local hospital prices were meant to converge towards state-wide base rates to be applied to the hospitals in the respective state. In contrast to other countries of comparable size, which differentiated base rates on empirically observed cost differences [5], the German framework did foresee a quasi-market solution: i.e. state base rates were negotiated between state-level associations of providers and public health insurance funds. The factors for these prospective negotiations are specified by law in § 10 Abs. 3 Krankenhausentgeltgesetz: the anticipated cost development of hospitals, structural
inefficiencies, the anticipated productivity development, additional volumes (to reflect economies of scale) or anticipated changes in the casemix to be provided. In this framework providers argued for a higher base rate given increasing prices for inputs and the related cost increases. Health insurance funds on the other side concentrated on productivity gains and additional volumes as these reduced the price across the board for all hospital services.

In 2009, when local hospital prices were fully converged towards state specific base rates, these ranged from 2777 € to 3073 € across the German Bundesländer. Problematic was that these remaining large price differences across states were still not informed by input price or cost differences, but the product of historical pricing patterns. This perception was confirmed by a large scale study commissioned by the German Ministry of Health [9]. Arbitrary price variation based on geographical location led again to a mounting pressure to reform the system. The government reacted and initiated a second “convergence-phase” for the years 2010–2014, which was meant to converge state-level prices into a narrow federal corridor [12]. The government once more aimed to thereby increase the homogeneity and “fairness” of price setting across German hospitals.

The effects and mechanisms of this second convergence-phase are complex and partially counterintuitive. Starting in 2010 the self-governing partners of the federal level annually had (and still have) to contract a so-called “federal-reference-price” (Bundesbasisfallwert). This reference value is generated taking the casemix weighted average of all prices negotiated at the state-level (previous year), adding the price ceiling of the following year. Around the reference price a price corridor is defined (between 2.5 percent above and 1.5 percent below the “federal-reference-price”) which sets boundaries for state-level negotiations. In 2014 average state-level prices adjusted by the “price ceiling” of 2.81 percent generate a “federal-reference-price” of 3157 Euro. Consequently, the corridor for state-level prices varies from 3236 Euro (+ 2.5%) to 3117 Euro (− 1.25%).

While the federal reference price is calculated on the weighted state-baserates of the previous year and pre-increased by the full price ceiling, the federal price corridor sets limitations to the following state price negotiations. In effect in nine of the 16 states the base rates were directly determined by the lower boundary of the price corridor in 2014 (Fig. 2). As the price was set, only virtual negotiations (so called Phantomverhandlungen) took place in these states, i.e. there was no chance to negotiate a price under the lower boundary of the corridor (which is determined by the full price ceiling). Interesting is the obvious north–south difference, which reflects historical price setting patterns.

As a result the regular mechanism to transform relative weights into actual DRG-based hospital payment, i.e. state level negotiations, are by far outweighed by the deficient rules of convergence [16]. One consequence of this pricing policy was a constantly increasing hospital expenditure [17] and a level of service provision that is at the top of table in international comparison [17,18].

Fig. 2. State base rates in 2014; Source: own illustration. Blue mark: Bundesländer on the lower boundary of the price corridor. Grey mark: Bundesländer inside the price corridor. Red mark: Bundesland above the price corridor. (For interpretation of the references to color in this figure legend, the reader is referred to the web version of this article.)
On the local level only mechanisms that relate to hospital volumes are applied to differentiate prices. Most important in this respect is that health insurance funds and hospitals define in local negotiations the number and the kind of services to be delivered in the upcoming period. Base rate relevant in this context is that hospitals face a price-reduction of 65 percent if they overrun the prospectively agreed activity level (“Mindererlösausgleich”). In contrast, if a hospital provides services below the prospectively agreed level, health insurance funds will still pay 20 percent of the prospectively agreed sum (“Mindererlösausgleich”). Both instruments imply that the prospectively defined activity is assessed against the in reality delivered services. Secondly, the German government responded to mounting cost containment pressure in 2009 by introducing a so-called “additional-volume-deduction” (“Mehrerleistungsabschlag”). These deductions are defined by comparing the negotiated activity level of period 0 to the negotiated activity-level of the upcoming period 1. For this prospectively agreed activity level increases prices are reduced by fixed percentage. Price deductions by the “additional-volume-deduction” between 2009 and 2014 differed: 2009 (freely negotiated on the local-level), 2011 (30%), 2012 (freely negotiated on the local level), 2013 (25%) and 2014 (25% deductions that reduce prices for 2 years). Problematic is that the additional-volume-deduction on the hospital level (and not on the state or federal level) acts to preserve existing hospital structures and thus reduces structural changes and competition between hospitals [19]. Furthermore, additional payments and deductions for structural factors or unavoidable costs are in principle foreseen by the German hospital financing law. However, the respective rules and negotiations are so vague that in practice they do not play a relevant role in hospital financing.

Fig. 3 illustrates and summarizes main levels, actors and interactions of the conversion of relative weights into actual DRG-based hospital payment. Overall, the adjustments of the rules that affect the differentiation of DRG-based hospital payment, which were originally inspired by the idea to increase the fairness of hospital payment, generated two counterbalancing tendencies:

1. Centralization: i.e. convergence from state-level prices towards a nationwide general price-level corridor.
2. Fragmentation and decentralization: i.e. price differentiation on the hospital level, but only based on additional volumes.

However, the complex and partially deficient rules of convergence towards a nationwide price corridor as well as the narrow focus of local level price differentiation on additional volumes lead to the overwhelming perception that DRG-based hospital payment has not become fairer and more rational [19]. In contrast, the technical complexity of hospital base rate definition over 10 years dramatically increased, it has become increasingly political as the high frequency of government interventions in DRG-based hospital payment illustrates and is considered to fail to address those factors, which may legitimate base rate differentiation based on organizational or regional factors [20].

4. Conclusion and outlook

The brief summary and analysis of recent reforms and developments in the German DRG-based hospital payment system illustrate that at least the German experience suggests that addressing the annual adjustment of the price ceiling in a DRG-based hospital payment algorithmically on the basis of empirical data, rather than through government planning or corporatist negotiations can narrow
the gap between cost and price development. In Germany empirical evidence is only used to determine the annual price-change ceiling, if it is favorable for hospitals. Provided that the empirically derived hospital inflation is not favorable for hospitals, a different indicator, i.e. the average annual change of social health insurance income is applied. This approach of preferential treatment maximization is highly costly.

Moreover in most DRG-based hospital payment systems an empirical approach (e.g. input price indices or similar) is used to scrutinize whether there are good reasons to differ DRG-based hospital payments or base rates between hospitals [5]. These may include: (a) to keep certain hospitals in the market (as they are considered essential for access to hospital services), (b) because certain providers face different unavoidable costs or (c) because providers deliver different kinds of services (beyond those differences captured by the DRG system) [21] or (d) to account for differences in quality in hospital payment [22]. In Germany, so far empirical evidence has not been used to motivate the differentiation of DRG-based hospital payment due to organizational, regional or state-level differences. In contrast empirical analyses suggested and motivated the convergence from state-level prices towards a worldwide general price-level corridor. Though the intention of this convergence was increasing the transparency and fairness of hospital payment, the rules and operationalization of this convergence were highly problematic and undermined negotiation mechanisms on the state level. As a result of this convergence process neither a functional quasi-market negotiation regime nor an empirically driven algorithmic solution are in place to differentiate DRG-based hospital payments.

It remains to be seen whether the German approach towards DRG-based hospital payment will revert towards a functional quasi-market negotiation regime or will shift towards a more algorithmic and empirically driven approach as practiced in England and the USA where detailed price indices are applied for price differentiation.

References

[10] § 71 SGB V (Fünftes Sozialgesetzbuch).
[18] Hamburg Center for Health Economics, Endbericht Forschungsauftrag zur Mengenentwicklung nach § 17b Abs. 9 KHG; 2014.