The impact of payment for healthcare in countries with developing healthcare systems

A discussion paper by

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Executive Summary

Concepts of rewarding healthcare have more results for some than reimbursing providers' costs only.

The specific concept of rewarding healthcare constitutes the very nature of a healthcare's system. It dismantles the goals of the involved parties, such as the patients, the citizens, the paying parties or the providers. But different parties may have and do indeed different goals. The consequence is simple: Payment for healthcare is a matter of permanent conflicts, and may make losers and winners.

Countries still dismantling their healthcare systems are challenged to care for the "best results" under given but regularly scarce resources. But what the "best results" are depends on goals. Results need to become related to priorities regarding the population's patterns of occurring diseases and disability. Others may see it a best result if the healthcare system's working ensures financial gains and profit making. The one road wants to meet public's interests; the other sets the investors profitability on top of concerns.

The one way tries to guarantee access to healthcare independent from individual resources but depending on necessity and appropriateness of care only. That way underlies the concept that access to healthcare is a universal human right that must be independent from the individuals' resources.

The other way gives the strategic decision-making on how to develop healthcare's infrastructures into the investor's interests and economic risks. This will usually need an assessment of the financial resources of customers to pay for needed or advertised offers of healthcare.

The first trunk makes healthcare a public affair with priority setting, budgeting, regulations, norm-setting for the benefit list, with accreditation policies for the providers and public transparency for the Public Health effects of the public spending for healthcare.

The second trunk makes healthcare a private deal between individual customers and providers only. The social ineffectiveness of this road has made the more developed countries to implement systems to overcome the dependency of the individuals in getting access to health and medical care from individual financial resources. But the battle between both ways is still running,

This discussion paper comes to the final assessment that the same payment methods differently interact with customer versus provider driven healthcare systems and private versus social coverage. That is why it is primarily important to identify the customers' and the providers' interests respectively to clarify the true nature both of customers and providers in the particular field of healthcare.

Many countries, such as in the European Union try to master the consequences of decreasing average income of large proportions of people for their national healthcare systems these years. But they can finally not. Cost-containment, cutting healthcare benefit lists and preparing the systems for an increasing number of elder people with sharply decreasing financial resources in future are on top of concerns. The decrease of average living standards might be a long running process in a number of countries even in those still trying hard to further develop their infrastructural basis for healthcare.

Payment reforms have different functions in countries with different framing conditions. Reforms of healthcare are to attune the healthcare system towards decreasing financial resources and are focusing on cost-containment policies in some countries. But they are in other countries to help developing healthcare as a source or social and economic success. Both these different goals do not allow simply transferring concepts without considering the variety of wanted or unwanted effects.

This discussion paper concludes public budgeting or bundling the best way for still emerging systems, and it suggests case-classifying or episode-classifying approaches the appropriate ways to build up intelligent and flexible methods to handle budgeting in practice.

This view contradicts concepts to foster any single per-case-payments, which might be based on one of the variety of case- or product-classification-schemes, such as DRGs.

Our discussion comes to the ultimate result that the kind and the mechanism of target-setting for healthcare and its social conceptions are the key for finding the appropriate way how to pay for healthcare. That makes decision-making not easier but gives it a social goal.

At this time worldwide we have various health care systems at the crossroad of public financing and deeply driving privatization schemes. Our discussion seeks to bring to light how financing choices influence healthcare. This demands scrutiny and study the methods of payment before being embedded into care systems.

Content

I. Target of discussion

There is no other impact on healthcare systems' reform and transformation that strong as the change of payment is. And any of the different concepts on how to reward healthcare will have wanted and unwanted outcomes. But what a "wanted" and an "unwanted" outcome is depends on the expectations of the assessing party only. Consequently, payment for healthcare is a matter of conflicts between the variety of stakeholders.

This paper discusses particularly the effects of the methods to pay for medical care. In contrast to similar discussions issuing the EU countries[1], this discussion paper is to discuss the impacts under the typical framing conditions in emerging healthcare systems. These conditions are among many others

- scarce or restricted resources
- lacking professional manpower/women power
- weak infrastructures
- instable alliances of stakeholders and even
- less developed legal regulations or
- problems with public supervision, governance, administration, management and accountability

Decision making on methods of payments strikes indispensably interests. It is the authors' basic assumption that any kind of payment mechanism shows a variety of results, some being intended others not or not foreseen when implementing it. Those results being wanted by some might be against the intentions of others and reverse. The only chance to tackle that matter is to disclose impacts as clear as possible and to fix the ultimate targets of the players. Disclosing impacts on healthcare is a duty of health systems research, but fixing targets has to be in-line with the needs of covered citizens by setting priorities and is a matter of policy making that should become transparent.

This discussion paper does not deal with the diversity of the different groups' intentions. It simply tries to gather today's different kinds of payment mechanism and to discuss likely outcomes. The authors' problem is not that there are only small numbers of similar trials. The problem is that all of them have the same problem: That is the weak empirical basis. The few studies being available are related to frame-conditions, which have to be accounted if assessing the results. But many of them are only case studies or observational studies and biased in many ways often reflecting the individual preferences and views of the discussants. The authors have the same problem and decided only to submit an offer for discussions and maybe for profiling questions for further research.

II. Some Public Health considerations

Healthcare has also always been part of a social group's interaction and coherence and is also to help with the groups' survival and integration. We assume that the wish to help each other with matters of health was socially more important than the individual health outcome was. It was part of a group's social solidary and integration, but always depending on knowledge, skills and resources.

The development of institutionalized access to healthcare had resulted primarily from other major concerns. These were political considerations on how to prevent from epidemics and how to help with social peace keeping or to care for the countries' soldiers. This was particularly the case during and after the turn from feudalism to capitalism in Europe between the 17th and the 20th century. Indeed, services to working class elements crudely ends in increasing labor productivity.

Already far back in history, the exposures to health risks became tremendously unequally distributed beyond the genetically caused variance among people. This (socially caused) inequity roots basically in developing labor-division and specializing professional skills, but also in establishing a tremendous inequity regarding the distribution of the results of humans' productivity. The heterogeneity of health

[1] See as an example: Charlesworth, A., Davis, A., Dixon, J. (2012): Reforming payment for health care in Europe to achieve better value. Research Report. Published by Nuffield Trust; www.nuffieldtrust.org.uk/euro-summit/2012

problems between people is the more depending on social development the less a country is socially developed[2].

The access to basic requirements for living and survival became the most important determinant for health together with the inequity in individual resources to master daily life's needs. That inequity was and is also affecting the development and growth of children, the dynamics of aging or influencing the social, physical and psychic abilities to cope with health risks. This also was causing tremendous disparities in getting access to care. And it was also making unequal chances to cope with the social consequences of bad health and disability.

In result, the improvement of health was and still is primarily depending on changing social structures and living conditions rather than on the impact of medicine[3]. Medicine ideologically gained importance for improving the people's health late in history[4]. Some few but important "killers" became eradicated or at least controlled. Medicine found effective "healers" for larger parts of occurring diseases and the insight into etiology and pathogenesis is still growing. Step by step, we understand better why people fall ill. We also understand better the enormous heterogeneity of humans and their health conditions beyond the strong influence of social conditions.

We cannot avoid death. But we know that the increasing average length of life is associated with a slowdown in the average pace of biological aging for most of the people belonging to middle and upper classes. The social conditions are obviously most relevant modifiers of the genetically determined biological variance. All that makes the heterogeneity of health within populations strongly associated with social class.

But the asymmetry of needed healthcare within the population increases with increasing life expectancy. A small fraction of people needs the largest part of resources for healthcare. And this part is regularly the poorer and the elder part of population while the richer part is consuming most of the available resources for healthcare in most the countries[5]. That fact is true for age and gender disparities but also for social class affiliation. This indeed is the key issue for healthcare: Those groups being severely burdened by bad health more than the average are very often those not able to pay for it. That makes access to healthcare an ethical matter and a public affair, and a source of conflicts.

Nowadays medicine can do a lot. But a growing proportion of its activity is not primarily applied for healing diseases. Medicine is growingly effective regarding the ability

(1) to diagnose and to differentiate the variety of occurring diseases better, but with declining consequences for treatments
(2) to determine prospectively likelihoods for disease occurrence
(3) to prolong life of chronically ill people
(4) to improve the quality of life also in case of chronic diseases and disability

If, as it nowadays is in populations with high life expectancy, not the risk of occurrence but the duration of living with a disease is determining the conditions for practicing medicine then that must have some tremendous consequences for healthcare and needed resources, such as

- growing numbers of people being in need of permanent support
- raising demands due to growing prevalent cases and growing intensity of medical activities
- disappointing outcomes regarding expectations of healing

That is embedded into another obvious development: The provision of healthcare, but particularly of medical care is no longer and primarily a humanitarian or a solidary action alone. It is addressing the interests of the largest industry in many countries, which is the healthcare industry. Any change in healthcare regarding research, education, infrastructure, accessible benefits, stakeholders' interests, share of GDP or legal regulation has impact on more aspects than people's health only. It has impact on a nation's entire economy and overall infrastructure or social concept of living together. That

[2] But also in countries with high life expectancy it is estimated that about 70% of avoidable risks for health are caused by factors due to bad working-conditions and depravation.
[3] McKeown, Th. (1976): The role of medicine: Dream, Mirage, or Nemesis? London, England: Nuffield Provincial Hospitals Trust
[4] Till now, also so-called developed countries experience social disparities in life expectancy from 8 to 13 years and even more.
[5] This seems to be true specifically for those countries, which are lacking recourses for sufficient healthcare for all.

changes a lot and makes that concepts and intentions issues of “change” policies. But reforming or transforming historically grown healthcare policies will be likely caused by intentions and considerations, which have nothing to do with the health concerns of the public or the further development of the care ensuring and providing system.

There seems to be a fundamental alteration of many traditionally grown healthcare assurance’ systems such as tax-paid systems and Social Health Insurance in Europe. This alteration goes along with a comprehensive change of the provider systems. The key for understanding that transformation needs realizing the function of money and investments into healthcare activities and related financial interests that have come to dominant the medical industrial complex.

Nowadays healthcare’s providing systems are growingly controlled by economic expectations and even short-running speculations rather than by growing social or scientific concerns. This causes conflicts with the public, but also within the professional caregivers and the new up-coming management rules of the providing systems. The point is not that we assume this a willingly undergone behavior. We simply assume this the consequence that money rules political intentions. And it should be clear: If healthcare becomes an investment it will be ruled like any other investment and there is no way out if healthcare will be handled like any other business or service.[6]

It is necessary to understand the mechanisms of these rules, respectively of the true ruler, which is money[7]. If healthcare is to make profits, than healthcare depends on the same conditions as any other business, like car or shoe production and sales. Who does not want not to accept that, maybe for ethical reasons, demands rewarding healthcare as a not-for-profit mechanism. The authors of this discussion paper additionally assume that this frame’s impact on healthcare systems will be different under frames where the healthcare market is already nearly saturated[8] or where it is still developing.

Consequently, the thesis should be acceptable that payment may have different functions depending on the level of development and its economic mechanisms in developed and still emerging countries.

[6] This is currently matter of conflicting discussions around the so-called Basel III agreements for the European Union.

[7] Only to give an example for the growing European perspective: A former top manager of the Charité Hospital, Berlin, Germany has made the point, when giving consultancy to Germany’s political parties: *Large hospitals are now defining themselves as value creating business companies, which are placed on international markets. Those hospitals want to participate in all business fields, which are promising profits.* See http://archiv.spd,berlin.de/archiv/landesparteitage/parteitag-vom-26-november-2005/rede-von-prof-dr-detlev-ganten/ last checked 14.10.2014

[8] The question, if for example, the healthcare market is saturated or not finds controversial answers even in countries with dismantled healthcare systems like in Germany. A German journal for medical doctors has discussed the following theses already in 1985: The intention of cost containment politics is not to slow down costs for healthcare, but to deregulate social health insurance in order to help with developing market driven growth. *Ärzteblatt. Issue 50, December 1985 (15) 374*. Others stress the point that the growth of the healthcare market has enormous potentials duo to the “diagnostic testing industry” and due to predictive medicine and the growing people’s interests in wellness and body styling. That is making medicine independent from norm-setting for necessary and appropriate measures to help with medicine based on evidence based medicine.

III. Some economic considerations on dismantling healthcare

There is no alternative: Costs for healthcare have to be covered. And no paying party can pay more than the budget allows. But if payment is only to cover costs it cannot be a source for further development of the healthcare system and its infrastructures. Development would only depend on increasing third parties budgets, which are either depending on increasing tax spending or on premiums for insurances or increasing out-of-pocket payments. The alternatives are to cover these investments by public spending or by taking credits. Public spending would mostly come from tax without any need to repay it by calculating investments as part of healthcare costs. The one way sets the public in power on the healthcare system, the other way the financial interests.

Credits based investments have different results. First of all, it has to be considered that credits can only become paid back if healthcare makes profits. This way healthcare becomes predominantly driven by profit making as in other sectors of economy and it competes for private investments. .

The logic of paying for medical care is either depending on spending tax for healthcare or on spending credits. The difference is fundamental. Tax spending will depend on the legislative authority representing the vision of further developing a society. Debt based healthcare will depend on bankers considerations and concerns, respectively global financial markets. The one way needs to consider Public Health concerns; the other way needs to consider the concerns of the financing industry like volumes and market growth. These industries never will spend money for health problems not ensuring repayment. In other words: care for the poor, the disadvantaged, the disabled or those suffering seldom diseases are out of interest. These interests need growth and gains. In result: market driven healthcare systems cannot cover the needs of those not being able to cover costs for healthcare. It is the only way to compensate that market failure by tax. Consequently, also market driven systems need growing proportions of tax spending if wanting to cover all of the population.

On a direct or an indirect way, everything depends on growing income of the directly or indirectly paying party, which is the tax-payer in the end. One could also say that dismantling healthcare depends on distribution policies of a country and its priority-setting. The less money is available for public interests, the more are people's chances to get healthcare depending on individual resources. The only two basic questions to be answered are therefore: Are all people to get equal and universal access to healthcare, or only those being able to pay?

There is no positive proof that markets can get along with public health problems, but particularly with the basic problems of social-epidemiology, till now. Even most market adapted healthcare systems, like for example the one of the United States of America, can only go that way by developing a huge backstage of regulation policies and by compensating market failures by tax paid healthcare for remarkable parts of the population. The point is that deciding on payment concepts will become deciding on the very nature of healthcare systems.[9]

In any case, providing healthcare is driven by changing healthcare both quantitatively and qualitatively. That is regularly discussed as innovation but without clarifying what that word means. This paper determines innovations anything that improves the access to and the application of prevention, diagnostics and treatments if based on proven evidence for further improvement of established practices. This indeed is an important issue[10]. Innovations have to be framed by particular procedures, which must be scientifically, legally and ethically normed. Consequently, there is no

[9] From the European perspective, we experience that those wanting to transform current healthcare systems do not debate visions and targets or pros and cons. They simply change payment concepts knowing that these changes will make the transformation "automatically".

[10] The introduction of innovations is a comprehensiveness process and includes more than only introducing new pharmaceuticals and medical devices. It must include public health and economic calculations beyond the particular measures in question. It makes only sense to speak of an innovation if it is definitely replacing already introduced offers because of being better. Innovations require further qualification and changing organizational infrastructures. We would only speak of innovations if these requirements are successfully met. From the paying parties perspective make innovations only sense if they are providing an extra benefit or help to avoid overutilization, underutilization or mistreatments. In this view are innovations always depending on particular assessment procedures, which have to be independent from interest groups. Management might have a different view,

innovation if going beyond of what is medically necessary and appropriate[11].That makes innovations policy and its economics a central aspect of payment concepts.

Reflecting Schumpeter's (1883-1950) work[12] we consider his positon worth noting. That is his concept that the entrepreneurs' wishes to gain profits always need the "creative destruction" of the existing infrastructure of production by permanently implementing innovations.

This is also worthwhile for healthcare but needs comment: Pushing innovations is basically an approach for competitive markets. The belief is that better products would compete against the worse products and cheaper products would compete against the more costly ones. That makes the assumption that competition would always make products better and cheaper. But reality tells another story regarding the relation between quality and costs but particularly between production and social responsibilities.

In case of industrial products things are easy to oversee: The producer bringing a new product to the markets hopes for competitive advantages by changing technology or design. Competitors are all driving the same road and in consequence the markets offers will change within a certain time cycle. It is absolutely necessary for the producer not only to bring new products to the markets but also to replace the old ones and to advertise the new ones. The product and its market success can be different from rationales such as necessities, effectiveness or efficiency. It has also nothing to do with needs and demands. And it is part of the game always to do anything possible to induce the payers' demands by advertisements. The replacement of the "old" product by a new one is what Schumpeter names the "creative destruction".

But can we transfer this model easily to healthcare? One of many difficulties is defining what the "product" in healthcare is and who the "producers" are. A product needs a "producer" and a process of production. A product is anything that results from a process, which is creating something new but not existing before. It also needs a measurable contribution of activities of the producers to the final product or outcome. In prevention, treatment and rehabilitation we know a lot of outcomes depending on the patients' contribution and we also know that outcomes may not meet intentions even if not being results from malpractice. This concept should be transferable to healthcare services but with a more comprehensive sample of outcome indicators. This point is remarkable because it raises the question, which party in power is for assessing the outcomes. It may make a difference if the patient or the paying party (customer) will assess outcomes. But even if the patients are the assessing "authority", the same "cases" of services might be assessed controversially by a variety of patients (see table 1).

Table 1: The relation between producers and products

	Wanted outcomes	Not wanted outcomes	
Doctors' and nurses' activities	a	b	a+b
Patients' activities and natural processes	c	d	c+d
	a+c	b+d	a+b+c+d

What table 1 is to systematize is that the proportion

a / a+c describes how many patients become cured by healthcare procedures
c / a+c describes how many patients become cures by the patients activities

[11] This is a crucial point regarding theories on preferences for consumer markets to seller markets. In the light of Roemer's Law we see the problem with supplier induced demands but we have no clue to solve that problem by implementing consumer markets. Healthcare always must be an offer of particularly qualified personal and – if possible – needs shared decision making with patients. Setting indications only by following advertised market offers would separate medical or particular licensed qualifications from consumer wishes and would be the end of licensed and professionalized medicine and healthcare.

[12] Schumpeter, J.A. (1939): *Business Cycles. A Theoretical, Historical, and Statistical Analysis of the Capitalist Process.* New York 1939

b / b+d describes the not wonted outcomes due to healthcare activities
d / b+d describes the not wanted outcomes due to patients' related reasons
a / a+b might be taken as a predictive measure for positive healthcare procedures
b / a+b might be taken as a predictive measure for negative healthcare procedures
c / c+d might be taken as a predictive measure for positive outcomes due to patients activities
d / c+d might be taken as a predictive measure for negative outcomes due to patients activities

We do not know a single study conducted to measure wanted and unwanted outcomes of treatment or other healthcare in relation to professional and "non-professional" activities. We simply cannot measure precisely what is professionals' result, what is luck or destiny in many cases. We also have difficulties to measure the particular effects of specific parts of activities or conditions. We consequently cannot precisely measure how payment relates to outcomes[13].

We have no measure for each of the proportions of a, b, c and d for all the medical activities in prevention, diagnostics, treatment, rehabilitation and nursing for all the medical conditions. We even have no record for outcomes, and if we have data, we have them only for selected cases with no comparison to cases not being seen by professionals. That makes it mostly impossible to decide what is due to a "medical production process", but with some exceptions of a number of cases particularly related to surgery. This weak relationship between many medical activities and outcomes is certainly also an economic problem. But we cannot solve it as other economic issues. And what is more: If a certain proportion of activities with wanted outcomes are not due to medical activities how can we find a "fair" price?

In many procedures of prevention, diagnostics, treatment or rehabilitation, the relationship between activity, respectively services and result is rather weak. This is the true dilemma of "product medicine" and its particular classification schemes. Payment in medicine is mostly paying for activities but not for results. This is also a particular problem when payments for results are demanded. This makes the application of market concepts and customer – provider relationships to medical outcomes difficult. It also is to consider that the providers can only offer "products" to the "customers" if being accepted by the insurance benefit and if the applied diagnostics and treatment are accepted by the "co-producing" patient as well.

Innovations in healthcare are "creative" distracting established and accepted methods of treatment, which are tied to indications. Most of innovations will have consequences for medical indications, what needs particular considerations regarding norm-setting for indications. For that reason, most the developed healthcare systems have established particular mechanisms for proving innovations[14]. Most important are two of these mechanisms. The one is proving if the new method is allowed to become practiced for some precisely determined indications. The other is assessing if the new method is adding some more wanted results than the already existing methods already provides.

That is a problem because outcomes do not only vary because of method, but also due to a more or less broad variation of patients' characteristics. That, for example, widely excludes new designs of a treatment from the understanding of innovation. It needs at least following the standards of evidence based medicine and health technology assessment. It also does not leave the decision about accepted innovations to the markets, but to regulation policies and their legal guidance. It also is a regular phenomenon that in medicine new treatments, such as pharmaceuticals are regularly not replacing existing methods but only adding some new but leaving it to the doctors to apply them. Consequently, not the customer or the patient is the target of advertisement, but the provider.

Indeed, it is unclear or at least not compromised what innovations in healthcare are. There is a wide range of opportunities to understand innovations but with very different consequences for the costs. Only for that discussion we will outline that point under three different perspectives:

1. We can accept an innovation if it helps to overcome deficits in wanted results.
2. We can accept an innovation if it helps to overcome overutilization of diagnostic tests and treatments or of its underutilization or even of misuse.

[13] This is the dilemma with any outcome-oriented payments: Patients want to have medical care anyway even if there is only little evidence for a positive outcome. What to do? Simply rejecting the patients' hopes and doing nothing or sharing their hope for a positive outcome also when likelihood of success is below a certain margin?
[14] Most of "innovations" are not really Innovations regarding treatment and diagnostics, but have improved designs for application and its use.

3. We can accept an innovation if it helps to make decisions independent from economic incentives but dependent from best medical practice only.

Insofar the "creative destruction" of the overuse of pharmaceuticals for unnecessary "preventive" treatments or the destruction of the misuse of prescribing steroids and antibiotics or the avoidance of the very large proportion of unnecessary caesarian sections or of not truly indicated or overused cardiac stents and hip and knee replacements would certainly be an innovative destruction of frequently reported practices in many countries.

But payment mechanisms are very often working against the "creative destruction" of bad practices instead of driving medicine to better practices. They are rewarding the rise of quantities and procedures rather than indicated procedures and defensive medical decision making. Improvements in medical or other healthcare practices are usually not coming from competition and market rules but from external regulations. In healthcare we do not have evidence that market competition is driving forward to better practices but regulation, standardization and evaluation certainly does better even if not solving all the problems.

The development of production and services never does move towards markets balancing demands and bids. The market always and constantly tries to seek for the imbalance by offering more than necessary and appropriate or efficient. That might be a minor problem for shoe productions because the producer but not the customer is carrying the consequences. But it is of tremendous concern in case of healthcare because unnecessary offers and practices are potentially harming the patients' health and are being payed anyway. The dynamics of real healthcare markets are permanently forcing growth independent from needs.

In that context, payment is either helping to balance healthcare offers with public health demands or it is seeking imbalanced markets with the help of widely unregulated payment rules. The problem always is to meet the public health necessities. This has given some awareness to the implementation regulation also among those being in favor of real markets for healthcare as outlined by Alain Enthoven in 1978[15,16]. His analytics and writings give an interesting example for the unsolvable conflicts between market ideology and the intension of giving access to healthcare for all the citizens.

Considering Schumpeter, we would speak of innovations in the following cases:

- The development of a new procedure of medical care with proven better outcomes than the already practiced ones.
- The implementation of new infrastructures and processing of healthcare, which provide better access to medically necessary and appropriate procedures.
- The opening of ways to a better access to medical care.
- The better integration of medical and social care in case of care for chronically ill people and the disabled.
- The responsible use of the right qualification for the right targets.

Schumpeter distinguished precisely between the function of capital and the function of an entrepreneur. The capital is to make money only by initiating the process of production with help of growth and interest rates. The entrepreneur is implementing innovations regarding the structures for production, the processing for production and the product or outcome itself. In theory, we can certainly distinguish the function of capital and entrepreneurship this way. But in reality the entrepreneur will typically not use its own capital for innovations but credits or investment funds. He will always depend on the decision-making of the capital side. Therefore the entrepreneur needs profits in order to pay for the money, which comes from sources, which have nothing to do with the process of production. This can be transformed to medical care issues easily.

[15] See also Enthoven, A. (1978): Consumer-Choice-Health-Plans: A national health-insurance proposal on regulated competition in the private sector. New England Journal of Medicine 298: 709-720; Enthoven, A. (1994): On the ideal market-structure for third-party purchasing of health care. Social Science and Medicine 39:1413-1424; Evans, R. (1997): Going for Gold: The redistributive agenda behind market-based Health care reform. Journal of Health Politics an Law, 22:427-465

[16] This paper is not intending to discuss Enthoven's proposals and the severe critiques on his managed competition. Readers being interested in that discussion will easily find a tremendous amount of regarding literature and comments by internet sources..

In regard to healthcare this is fundamental, because it makes asking the question if the dismantling of the healthcare system should be paid by profit seeking investors like banks or investments funds or if it should be paid by non-for-profit sources or by tax. The first concepts needs profits the second one will be destroyed by profit-making incentives. What concept ever will be given the preference: In emerging healthcare systems the systems' development will be much faster under profit-making. The second concept will help with stability and the avoidance of over-utilization[17] and supplier induced demands in saturated healthcare system.

Even we would give preference to "for profit healthcare systems" in order to help with faster development one would have an unsolvable problem. The problem is that finally any reward for healthcare has to be paid by a percentage from income. That is true for any system, out of pocket, private health insurance, social health insurance, or tax-paid healthcare. The difference is only that the one system's development is necessarily accompanied with focusing the single individual's ability to pay, while the other is making healthcare independent from individual resources but dependent from solidarity. That is the reason why it is so important always to clarify the final aim of providing healthcare: It is to lower social tensions, to care for social coherence and to improve the use of labor forces in the process of production or is it for the providers' earnings. The goal to make money, respectively profits with healthcare is a historically late business idea and closely connected with the differentiation of the investing party and the real medical providers' working.

There are only three ways out of the dilemma. That is (1) politically accepting the existence and the growth of tremendous social differences in getting access to healthcare, or (2) always balancing the benefit list and the budget as a kind of rationing and (3) priority setting for the use of money according to fundamental but socially shared consideration, which may include the development of best practice infrastructures, processing of care and outcomes in relation to available resources.

That is even true in case of charity because also charity costs. If the resources are scarce or the abilities to pay for healthcare are socially unequal, then there are only a few but important ways to go:

1. setting strict priorities and rationing for healthcare
2. ranking of prevention, medical care or social care according to needs
3. discriminating Primary Health Care from second or third levels of healthcare
4. regulating access by implementing multi-steer healthcare systems with strongly regulated pathways for patients on how to get access to more specialized providers
5. implementing professionalized personal between patients and medical doctors by using triage systems and integrated care concepts
6. prioritizing access by defining norms of necessity, appropriateness and efficiency
7. in- and excluding diseases or medical procedures or levels of severity from access etc.

Another set of tools meets

- investments' priorities
- the non-market regulation of prices for health and medical care
- cost-containment policies and procedures for assessing the additional benefit of new pharmaceuticals and medical procedures for diagnostics, treatment, rehabilitation and nursing before accepting it for the paying parties' benefit lists
- supervising, even limiting profits or
- implementing regulars, which are to strengthen the rights and the power of the particular customers against providers' trials to offer procedures beyond given norms of necessity

The payment for healthcare is to cover the costs a provider has. Under for-profit-frames it additionally is to ensure the expected profits. If investments are being paid by social funds or tax-payers they are free of interest rates. If not, investors and banks are becoming an extra aspect in finding appropriate prices for healthcare.

[17] This is one of many aspects making healthcare fundamentally different to other "production" processes. Any healthcare is a kind of intervention into another human being. These interventions need particular legal regulations because of being risky. Doing more than necessary and as being appropriate is adding risks to health, which are not justified by a medical indication. This is a bodily injury, at least in countries with dismantled legal healthcare rules.

Costs are different to prices, of course. But both costs and prices might be subject of regulation policies in healthcare systems where prices have to be paid by the public, such as in National Health Services or Social Health Insurance or other non-for-profit paying concepts. If government or legislation regulates pricing for healthcare by allowing only the same prices for the same services or treatments, than for-profit healthcare necessarily needs to reduce internal costs as the only source of gains.

That simple statement leads into some comparably simple consequences.

1. Politics mostly try to avoid or to limit competition by pricing mechanisms for healthcare.
2. The regulation of costs mostly intervenes into the pricing for supply, devices and pharmaceuticals or into salary (if the systems' professionals are being paid by government).
3. If prices are fixed, there cannot be any competition by pricing. Competition will use other methods, like marketing, risk selection, profiling portfolios, extending volumes selectively and minimizing others, up-grading cases, or trying to sell unnecessary and inappropriate "extras".
4. Free market behaviors induce incentives selectively to exclude some of the benefits from the health plans' lists.
5. The fine balance of over- and/or under-utilizing services becomes a regular management strategy and may result in permanently developing new kinds of regulation.
6. Charging for healthcare other than by budgeting does private providers' mechanisms of internal cost-shifting not allow and makes preferences for certain activities or the rejection of others the resulting consequence.
7. If budgets stay below of what is accepted as being necessary, appropriate and efficient in healthcare, then decisions on rationing of benefits or on excluding people being in need of care are likely to be made.

The capability to pay for healthcare is the true and ultimate regulator for access to healthcare. On that background, the reimbursement concepts of healthcare are giving evidence for any of the national healthcare systems fundamentally.

There are only two principal lines for regulation. This is either norm-setting under the roof of equal access (the social approach), or marketing offers according to individuals' bargaining power (the "wallet biopsy" approach). Each of the ways need reimbursing mechanisms by making prices and by transferring the money to be paid. These mechanisms are subject of regulation policy and are of interest of the paying party if this party is separated in its interests from the provider (the principle of the purchaser-provider split).

On that background a number of mechanisms to reimburse healthcare have been developed. But the outcomes do not simply depend on the methods themselves. They also depend on the particular legal frame-conditions as implemented within the system. The same reimbursement mechanisms will potentially develop different effects if used under different frames. The consequence is striking: What within nations is often called a "healthcare reform" is focused on changes in reimbursement policies rather than in changing missions. But the change of missions may accidentally be followed by changing reimbursements.

Healthcare will always work under a budgets policy or under fee for service regulars, respectively under charging per case or procedure. The first way will need budgeting methodologies; the other one needs the making of a "price". This very simple regular includes some sophisticated details and provokes controversies regarding the following questions:

1. Who is in power to decide on what is necessary, appropriate and efficient in healthcare?
2. What healthcare products are in- and excluded by contract or other rationing policies?
3. Who makes, regulates and contracts the prices?
4. What is the payment process?
5. Who carries the financial risks if needs of healthcare exceed the budgets or contracts?
6. What are the particular regulars for approving services, billing and payments?

The range of possible answers makes the methods of reimbursing healthcare a complex matter. The costs of treatments and care will differ between the patients served, between the diseases treated, between the resources consumed. They also differ depending on the frequencies of utilization per specified case, the qualifications contracted, the devices necessarily to be installed, the region

covered, etc. What is more, any of the constructed reimbursement methods will potentially affect the behavior of any of the stakeholders differently.

It is part of the basics to understand that the objective needs and subjective demands for healthcare are unequally distributed within any population. That induces a sharp interest in marketing concepts for recruiting patients selectively. The asymmetry of patients' needs reflects the degree of a populations' social-demographic inhomogeneity. But the need for healthcare is typically reciprocally associated with the individuals' financial resources to pay for necessary and appropriate healthcare. If it is a nation's accepted value to guarantee access to healthcare, there is no alternative to establish reimbursement methods and rules against the typical market mechanisms, which are excluding poor patients and costly treatments for them. That is why the concepts to pay for healthcare precisely mirrors health politics.

The methods to pay for healthcare can set incentives both for over- and for under-utilization and other problematic behaviors such as risk selection, "defensive" medicine or "simple" medicine also in case of high utilization demanding severe illnesses. These behaviors are mostly unintended, violating ethical rules and can be dangerous for patients. But payment schemes can also provoke mechanisms to prefer or to neglect groups of patients, appropriate diagnostics, necessary treatments and individual services and play a role as profilers in the selection of the provider's preferred or offered portfolios. Therefore, the interaction of reimbursement policies and interests in risk selection is always a major issue of rewarding healthcare.

Selection policy guided by payment schemes influences globally the systems of healthcare and the entire stakeholder's behavior. While there may occur interests to compete for the same portfolios there can be interests to neglect other necessities because of not being cost-covering or for not being profitable. For-profit-providers may induce "cherry-picking-strategies" while non-for-profit-organizations is left the responsibly for the "remaining" but inefficient needs. That makes it the public's interest to closely supervise, to regulate and to intervene into reimbursement policies. Any pro-active decision to prioritize a target against another will promote the one provider and set aside another. Consequently, methods of payments are the very fundamental regulators of a system and most controversial in healthcare management for very practical reasons.

Not-for-profit settlements can limit the problem a lot but will definitely not diminish it. On the given background "Paying for Healthcare" is one of the most powerful mechanisms to regulate, to reform or to convert systems.

IV. Functions of payment

The functions of payment for healthcare are

- covering costs of healthcare provision
- fostering equal access to healthcare and quality
- developing sustainable infrastructures for healthcare
- human resource development
- avoiding overutilization, underutilization and malpractice

If wanting more than covering costs only, payment policies need fundamental concepts not first hand on payment methods but on visions, missions and particular goals regarding the main road of developing wanted healthcare. That makes payment part of concept on how developing all of the infrastructures and on how of the processing of healthcare.

Experiences show that combining particular intentions to develop healthcare with specific methods of payment often show disappointing or not foreseen adverse results[18,19,20,21]. It also makes clear that economic considerations or market incentives are filly insufficient when developing healthcare[22]. There is also evidence that market rules of payment do not automatically meet intentions of developing healthcare of good quality. In this light concepts of payment other than wanting to cover costs are problematic and are uncertain with outcomes. If there is now ideal concept for healthcare payment then it is necessary to discuss each of the pros and the cons and to make decisions after accepting both the pros and the cons.

One of the many difficulties is the diversity of the ways of paying for medical care. It makes obviously a difference if the flow of payment goes directly to the providing doctors and nurses (as it often is with out-patient services) or if the money flows to the owners of a provider organization such as hospitals or large outpatient units with employed doctors and nurses. In case of self-employing doctors and nurses payment may influence behavior and professional conceptions directly. But this influence might be entirely different if provider organizations' and their owners' behaviors are targeted by financial incentives or disincentives.

The responsible hospital manager keeps his eyes on his hospital, its costs and its revenues and, if so, on the owners financial expectations. He has no reason or incentive to behave as a co-developer of all a nation's healthcare system or as mentor of his staff's professional self-conception.

There are large numbers of methods how to reward care and treatment available. None of the many can become grouped as being positive or negative only. That assessment simply depends on the stakeholders' specific interests and it makes the methods of billing for healthcare a matter of never ending conflicts.

Both fraud and abuse[23] are assessed being the most important reasons for criminal activities around paying for healthcare.

Abuse and fraud are not the only problem. Waste of money is another reason for permanently developing new methods of payment. But many of the payment methods are not primarily adjusted to further develop the care system but for avoiding fraud and abuse only. Many national health services systems have settled agencies and tasked forces to discover such illegal practices.

In other words: We assume that payment methods are more often driven by intentions to avoid bad behaviors but not by encouraging better care practice. That is a kind of policy that hopes for better behavior by identifying bad behaviors but not for improving healthcare. In this light, the entire transparency on healthcare costs and their standardizing are the center of problems. The concept behind is that people would typically be driven by egoistic motives rather than by altruistic ones. The belief egoism but not cooperation would had been the main force for the evolution of mankind goes back to Hans Selye[24] who primarily developed the stress concept.

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[18] Carroll, A. E. (2014). The New health Care: the Problem with 'Pay for Performance'. New York Times. (28. July 2014)

[19] Rosenthal, M.B.; Frank, R.G.; Li, Zhonghe; Epstein, A.M. (2005).Early Experiences With Pay-for-Performance: From Concept to Practice, JAMA 294(14): 1788–1793. doi:10.1001/jama.294.14.1788. PMID 16219882. Last checked 25.11.2014

[20] Rosenthal, M .B.; Frank, R. G. (2006). What is the Empirical Basis for Paying for Quality in Health Care?. Medical Care Research and Review 63 (2): 135-157 . doi:10.1177/1077558705285291. PMID 16595409.

[21] US Congress, House Committee on Employer-Employee Relations: Pay For Performance Measures and Other Trends in Employer Sponsored Healthcare, Testimony of M.B. Rosenthal, May 17, 2005

[22] Iliffe S, Munro J. General practitioners and incentives. BMJ. 1993 Nov 6;307(6913):1156–1157.]

[23] "Fraud refers to illegal activities in which someone gets something of value without having to pay for it or earn it, such as kickbacks or billing for services that were not provided. Abuse occurs when a provider or supplier bends rules or doesn't follow good medical practices, resulting in unnecessary costs or improper payments. Examples include the over-use of services or the providing of unnecessary tests." Health Policy Briefs: Eliminating Fraud and abuse. Health Affairs, July 31, 2012, http://www.healthaffairs.org/healthpolicybriefs/brief.php?brief_id=72, last checked 25.11.2014

[24] Hans Selye (1907 – 1982) published this hypothesis first in his book The Stress of Life. New York: McGraw-Hill, 1956. Despite of not meeting today's scientific standards regarding mankind's evolution it still is very influential on a wide range of concepts in a number of sciences such as economics, sociology, psychology or medicine.

The difficulties are obvious. If payment for healthcare is also used to direct, or to fine and to correct managers' behavior one needs entire transparency about providers' costs for benchmarking "costs per product" by the customers. This opens discussions on some more aspects. (1) Can a paying party legally demand that a provider entirely opens his accounts for the purpose of price formation? (2) Is it legal to use this transparency to standardize and benchmark prices and finally providers´ behaviors? (3) Can we still speak about competitive markets in healthcare if prices are set by healthcare insurances or other legal authorities?[25]

This is possible under particular legal pre-conditions only. One of them is that the regulating authority is working independent from providers' and customers' interest and is legally allowed of getting insights into the very particular knowledge of providers about their costs for the purpose of standardized pricing for healthcare.[26] The concept is that there are services, which are necessary for the functioning of public life but will not work sufficiently if not being regulated by fixed social standards. Some countries, like Germany, are setting particular legal frames but making this authority also independent from government, what is called corporatism. But it is also possible to conclude that this regulation results from the experience that competitive markets will fundamentally fail in case of healthcare. If so, it is problematic to discuss market rules for healthcare from the very beginning.

We often find the situation that developing legal frames for public life in emerging countries cannot keep pace with developing the required organizational frames. This is obviously in case of medical services. This problem meets also this discussion paper's intentions: It makes obviously tremendous problems to take over international methods and techniques without considering the specific national legal frames and regulations. That, for example, makes it also impossible simply to transfer payment concepts but not asking for the political goals and legal frame-conditions.

Part 2

V. An approach of systematizing payment methods

We do not know trials to systematize payment methods for healthcare. We decided to group payment methods for healthcare into five main concepts for rewarding healthcare. Those are

1. Bundling and Complex Resource Allocation
2. Per-case-payment
3. Per-capita-payment
4. Service Adapted Payments
5. Target Payment

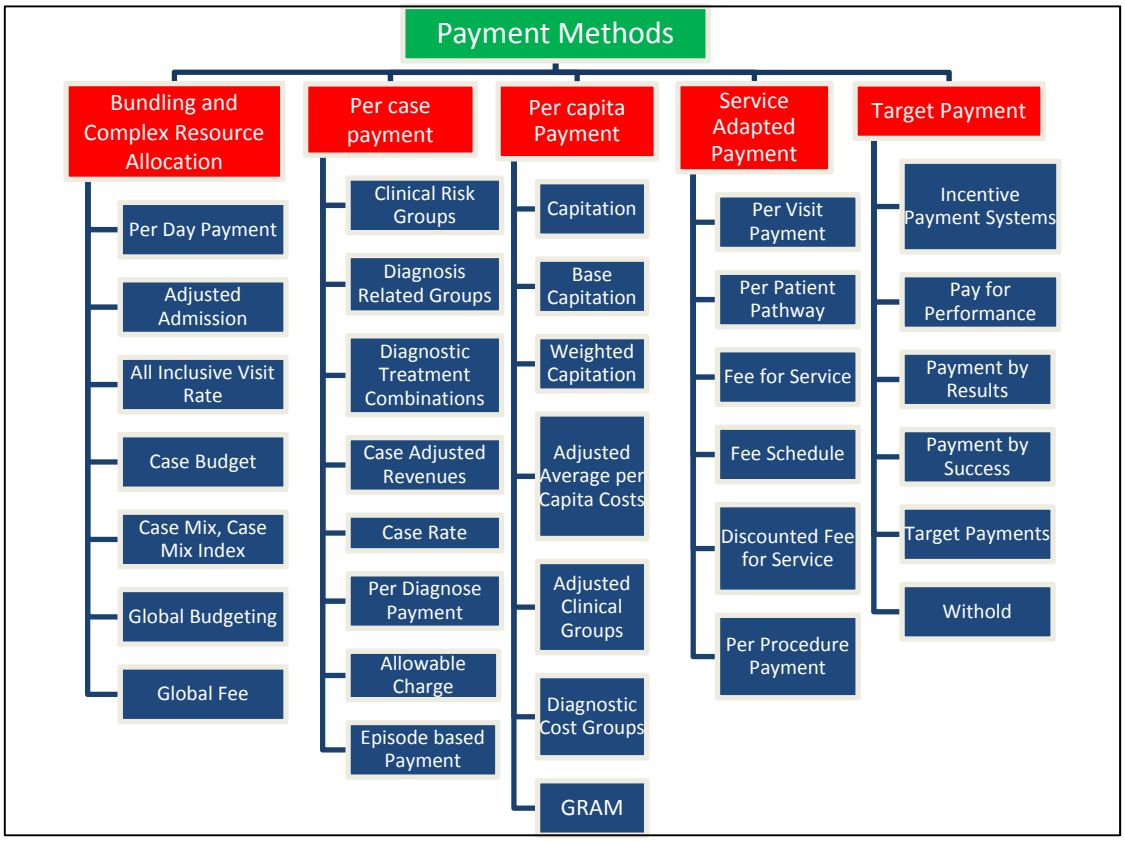
Each of the concepts can be outlined by a variety of methods and it is not always clear, which of the methods can be classified under what concept. For example: Diagnosis Related Groups are doubtlessly a method of "Per-case-payment" in some countries but for adjusting bundled payment or budgeting in others. It is also the case that some or even all of the concepts can be used as a prospective or in contrast as a retrospective payment system. That shows a dilemma with our grouping. The dilemma is that the specified methods for each of the general concepts can also be operationalized for some

[25] We find these contradicting positions under the DRG frame. Here are prices not set by markets but by the regulator. DRGs are both to foster competition and to regulate the markets in a way that that helps the stronger market players widening their market position. In other words, DRGs are to corporatize the healthcare markets by political intention.

[26] For Germany the construction is as follows: Some professions (like physicians and attorneys) have the legal status of a so called "freier Beruf" (loosely translated as independent profession). The ideal behind is that there are certain professions serving mainly for public interests rather than for making profit. In return the legislative body grants some particular rights and releases from certain taxes for these professions. But those professions also work under some particular legal restrictions. Most important in this regards is that pricing is usually highly regulated by the legislative bodies and not by market-compliant. The regulation is to secure that services of prior public interest become provided independent from economic interests of the providers. In reality, there might be a weak prove for that construction.

other concepts. In that case we would find many of the different methods more often than once or twice in that table. It is another problem that the discrimination of the methods is not that clear. Some have different names but may have the same content. Sometimes the difference is not primarily a difference in construction but a difference caused by legal or contractual frames for using. It also is the case that the same or nearly the same methods have different names. Another important point is that the same methods are to fulfill very different purposes depending on different kinds of regulation. It also is a problem that the difference between the methods for in-patient and out-patient care is not always really clear because of differences between countries' practices and conditions. We therefore accept critical discussions but see them not really an argument against our intended use of this classification.

It is simply true that this kind of clustering does not meet the entire variation of reality. But we defend our decision because we primarily want to encourage a broader discussion on the fundamental issue that any decision-making on payment concepts holds the opportunity to have substantial impacts on the healthcare system and the providers or the paying parties' behavior. We explicitly do not make our discussion a guide through decision-making on healthcare payment. What is more: the discussants share the opinion that different stages of dismantling healthcare systems may also need some particular but changing payment concepts and methods over time.



Transferring the economic risks of the paying party to the providers might be part of the concept. It might be another to let the patients pay and to reimburse them fully or partly under some particular stages of development. Reimbursement policies may also be used as mechanisms to postpone the economic risks to the patient under some particular conditions. Insofar, the impact of payment concepts on health services is much more comprehensive than considering the concepts and methods only,

Discussing payment methods also needs to look after the administrative costs. These are the costs related to administration both on the provider's and the insurer's side and are usually unknown. In other words, a huge proportion of costs have to be classified as administrative costs or as not directly

work-related costs. There are some countries, which are limiting the allowed administrative costs by law, but that is regularly not adjusted to particular administrative cost positions.[27]

We count the following as administration costs:

- costs for managing healthcare, quality assurance programs or risk management
- provider's capital costs and insurances etc.
- costs for utilization review and risk assessments
- costs for administrators' and managers' salaries
- costs for prior approval policies (if legally allowed)
- costs for care billing
- costs for negotiating and contracting
- costs for marketing and competition (if legally allowed)
- costs for medical underwriting and costs for agents' commissions (if other than Social Health Insurance or National Health Services)
- profits

The following are brief and exemplified explanations of the concepts and methods of payments.

1. Budgeting and Complex Resource Allocation (also bundled payment)

The calculation of budgets needs knowing costs per case and the mix of admissions for hospital care as experienced in the past. Assuming that admissions' case structures for hospital care are relatively stable overtime, costs per cases are used for allocating hospital resources or for a region's integrated infrastructures prospectively. These allocation procedures might by the duty of a regional healthcare authority, which is given the responsibility to further develop the region's healthcare infrastructures. Budgets ultimately need a third paying party, such as insurance or the tax-payer. It never can function if the paying party is the individual patient. But the procedure will regularly include mechanisms to cover unforeseen demands such as an epidemic or other changes in demands. The mechanisms and methods for bundling can vary widely and there is a large variety of particular methods for adjusting budgets in use.

Regarding such budgets, providers are in a mixed position. Budgets always guarantee a certain level of financial resources and of solvency on the one hand, it also allows the purchaser to control the providers' behavior on the other hand. Budgeting needs strong regulation and supervision and it also makes planning necessary. But planning demands external transparency about data. That might be against the providers' interest in managing themselves on competitive markets. Budgeting is a method for planning resources in the end. The conflict is if planning is used by external or internal expertise either for dismantling a country's healthcare system, or for internally developing the providers' business concepts. In both the cases needs and goals may differ widely.[28]

Budgeting might be used both retrospectively and prospectively, but contrasts sharply any of the fee-for-service or per-case-payments. Therefore it may conflict with the interest of providers in risk and portfolio selection. The other way round: Budgeting is the method to avoid incentives in risk and portfolio selection. The adjustment of budgets can be based on calculating volumes of pre-classified products and case-mix-measures like DRGs, or simply on experiences from the past regarding reasons for admission.

Bundling as a concept of budgeting is increasingly important under Managed Care concepts because of the prospective calculation of money for serving a defined population. This mechanism makes providers the economic risk-takers of contracted care but might set the incentive to degrade necessary and appropriate services. Budgeting by using prospective risk classification schemes is a usual way under Managed Care and is adjusting payments to average risk profiles of the enrollees by using

[27] In Germany, it is only allowed the Social Health Insurance to spend 6.4 % of total budget to administrative costs. But it is not specified for particular parts of the Insurances' benefits. And there is no regulation how much providers are allowed to spend for overhead costs.

[28] This gives Public health, epidemiology, particularly social-epidemiology and utilization research a fundamental importance for budgeting healthcare and bundling payments. By the way: This is the reason why market players are regularly not in favor of these sciences.

person-classification schemes or by using case-classification-schemes when using the reasons of utilization.

Planning the expenses as time-period-budgeting is also a usual method of internal planning especially if management decides to give the budget responsibility to the organization's departments or facilities as a method of internal self-governing or the making of profit centers.

External budgeting is mostly used to give providers flexibility to meet all a region's needs for healthcare and to enable strategic planning. It gives providers and third-party-payers the opportunity to trust in stability and flexibility for long-term decision-making. In this light may budgeting support the development of coordinated and integrated care more than other methods do.[29,30]

The access to data and the confirmation of the population and the region to be covered is the basis for budgeting. Concepts usually use epidemiological data resulting from utilization research and/or public health data.

Bundled payment is also a particular type of budgeting by paying uniform and comprehensive payments for a group of explicitly related services often for complex and coordinated services for chronic cases in order to avoid their fragmentation. In recent years, bundled payments became the norm in many internationally known health plans as a method of cost-containment. It is fundamental to realize that this kind of payment is widely incompatible with market ideologies and therefore it is mostly disliked by those wanting to implement competitive markets rather than universal access to healthcare.

Under that context a number of particular methods have been developed in order to adjust budgets. These are for example:

Episode based payment: *This is a particular method of bundled payments. It is used to overcome Fee-for-Service Payments. The crucial point is to define what an episode is. One opportunity is defining the clinical content of an episode as a disease specific clinical pathway. But it also might be fragmented into pre-hospital, hospital and post-hospital care demands. Another concept is the definition of time intervals, such as a quarter of a year in which any care demand will be covered by an average payment per capita. It might turn out to be difficult to standardize the episodes without considering varying individual features like gender, age, education or social support systems when grouping episodes. Depending on concept, episode based payment may foster or hamper the coordination of care activities.*

Per-day-payments: *This method bundles care activities and pays them in a per day unit. That makes asking the question what a day is and how costs are adjusted to a day for different kinds of reasons for admission. The simple but problematic way is defining a day as a course of 24 hours, even if there is no service at night or at other parts of the "day". Another concept is to define a "day" by activities of treatment or care by adjusting clinical activities to certain time units. In that case is the day a construct of summing up the listed and allowed time units per procedures. Consequently a day can have less than 24 hours or more depending on intensity of services.*[31]

Adjusted Admission *is used for planning any of the care activities given a patient under frames when providers are offering both inpatient and outpatient services. Depending on strategic planning, the figure may be used in planning the medically appropriate and economically most efficient proportion of out-patient and in-patient services within a provider organization or for a region either for adjusting payments to accepted services or for adjusting services to contracted payments.*

All-Inclusive-Visit-Rates *summarize all of the fixed and variable costs being accountable for any patient's visit. The rate is the annual costs the provider has divided by the number of the patients' visits*

[29] Struijes, JN, Naan. C. Integrating Care through Bundled Payments — Lessons from the Netherlands, New Engl. J. of Medicine 364;11 nejm.990 org march 17, 2011

[30] McClellan, M. et al A National Strategy To Put Accountable Care Into Practice, Health Affairs 29, NO. 5 (2010): 982–990

[31] For these purposes exists a number of commercial offers, made to improve profits by adjusting care activities to time units, which is mostly problematic for the point of a good medical practice. But those offers are mostly closely adapted to the interests of the financial management. One of the examples for those concepts is the "Milliman day". See also https://www.modahealth.com/medical/milliman.shtml; last checked 27.12.2014

per year. The rate incorporates the costs for all services at the visits. These rates, respectively the mix of rates is used for calculating budgets and bundled payments. One may also classify those rates as per-patient or per-capita adjustment of average costs.

Case Budgets *are a method to budget mixed revenues for health services either by retrospectively or by prospectively calculated budget. The particular adjustments make it necessary to gain total transparency about any dimension of costs but also explicitly to define what has to be done under the adjustments' rules, respectively under the definition of a medically classified product. Additionally to reimbursement mechanisms, such schemes also provide the opportunity to prepay services are to fix an allowed charge per case unit as it is defined. One of the methods to make case budgets is the use of DRG classification schemes. Case budgets are difficult to handle for (typically elder) people suffering from more than one disease or when medical conditions do not allow practicing medical procedures but being calculated in the cases' schemes.*

Case-Mix (CM), **Case-Mix Index (CMI)** *are the mix of all cases being treated by a single provider. CMI is the average weight for all the cases paid a provider under a case rate scheme. The CMI is a measure of the relative revenues for the cases treated in each hospital or group of hospitals. An index of 1.05 means that the facility's patients are 5 % more costly than the average is. The index is mixed by all the listed cases of the hospital and is used for the prospective and retrospective calculation and planning of resources and/or costs, but is also used for reimbursing single cases. It raises an incentive for portfolio and risk selection. The mix becomes calculated by considering any single case being treated within a particular institutional setting, such as the hospital, according to the specifically used product-classification-scheme for that purpose, like the Diagnosis Related Groups or any other type of case classification schemes. CMs can be used to measure the hospitals' case mixes for setting benchmarks, for reimbursing services or for assessing demanded hospital resources and for prospective budgeting. The case mix reflects the mix of prospectively necessary resources, the actual use of hospital resources, and the general mix of hospital admissions as contracted or for the goal of payment. The mix represents the medical case portfolio of the provider and might also be used for measuring activities, benchmarking or advertisements. The implementation of CMI as a guiding strategy makes the variance of the index an important figure for profiling a provider organization.*

Global Budgeting *is a method of healthcare cost-containment in which providers under contract have to accept a prospectively designed budget. It is also a method to sell, respectively to bargain the economic risks of healthcare provision by the providers from the paying part. The provider, which is taking a global budget, becomes responsible for performing any of the benefits contracted this way. The budget can include or exclude parts of the costs, for example the payments for doctors or pharmaceuticals and so on. Global budgeting might be particularly arranged under a universal health insurance system as the alternative for fee-for-service mechanisms. Global budgeting needs arrangements of prospective planning both of expenditures and of listed benefits. The typical procedure is*

- *fixing the norms for access, benefits and expected quality*
- *deciding on the budget for any of the benefits, of the providers or providers' subcontractors*
- *assessing the risk mix of the providers und subcontractors according to the mix of those insurant subscribing for a certain provider or provider organization*

The making of a global budget is a sophisticated procedure and adjusts the budget to the particular mix of "needs". These needs have to be regularly measured clinically and epidemiologically in the community and assessed by the Public Health Authorities in relation to the insurances' benefit lists. The adjustment typically needs to calculate the budgets by considering all the variables influencing the risk mix, such as age, gender, relevant morbidity, utilization behavior, social structure, accessible benefits and the number of persons belonging to each of the clusters considered. The measurement of the risks to be covered by the budget will use person-classification-schemes or case-classification-schemes, or alternatively a mixture of them. Also figures of resource consumption per clustered group are frequently used, such as actuarial costs of coverage. Providers must participate in the data measurement and all of the analyses.

To get along with this procedure needs implementing both a specifically designed health record, and a permanent mechanism of adapting on changing reality. The responsible authority must be independent

from stakeholders and guarantee a maximum of transparency. Such accountability will help to assure population health improvements.

The method is also used for allocating funds for a defined region but demanding from providers to compete for its part through incentive offers. Here it is used for down-grading costs for coverage.

Global Fee *coins the total charge for a specifically negotiated set of services, such as obstetrical services that encompass prenatal, delivery and post-natal care. Global fees are of growing importance also for out-patient services or day-clinics or "day"-treatments at hospitals such as cancer treatments. It also seems to become a mechanism in target-adjusted-payments.*

2. Per-Case-Payment

Any per-case-payment needs clearly defining what a "case" is, being more public health-minded than the current practices. That usually will be developing specific case-classification-schemes adapted to particular uses. These schemes are mostly developed with help of the same procedures as performed for budgeting. The difference is exclusively the use for rewarding single cases. There are numbers of case-classification-schemes known for out-patient care, in-patient care and even for rehabilitation and permanent care for disabled people. Their functioning is difficult to assess because depending on frames like contract and national legislation. One may call them also Medical Product Classification Schemes. And that is the true clue for understanding their impacts on medical care.

Such schemes can be divided into three major types:

1. a classification of cases according to the resources retrospectively consumed per "product"
2. a classification of persons according to the prospective likelihood to consume resources and to cause losses for the insurance
3. a classification of products according to the allowed consumption of resources according to contracted coverage

The type of *Case-Classification-Schemes* refers to a family of product classifications focusing on "cases", which are classified by diseases and medical procedures but also taking heed of the severity of a disease. This is a true challenge given the complexity of clinical and social needs in a defined population.

The methodology of the used schemes for classifying "cases" varies widely. But the key is always the same. It is defining cases in order to pre-determine what can be called a "product" independently from a patient's individual features. That is it what "product medicine" is for but contrasting traditional individual medicine sharply. This is a challenge given the complexity of clinical and social needs in a given population.

The principle is that cases are not persons or individuals. A case is eliminating any of the individuals' characteristics, which do not allow reducing the "variance" of a product or service unit against zero. Case classifications are intentionally made to depersonalize offers of healthcare or more specifically medical care. The variation of medical care needs' by individual features of person are the fundamental reasons why doctors and nurses have the power to decide on patients' needs by themselves. Consequently, if third paying parties want to standardize professionals' decision-making, they have to eliminate the opportunity to vary services individually. That is it what case-classification-schemes or product-classification-schemes are made for. Driving medical care towards a construction of buyer-markets fundamentally needs "products" being sold and bought. It is the ultimate trial to overcome "supplier induced demands "by limiting" indication-decisions by the care providing part and by artificially constructing the figure of a customer or consumer in case of medical care.

Such schemes are used to pre-define products of treatment and care for purposes of resource allocation or reimbursement or for budgeting expenses. They can also become used to define insurance "benefits" selectively for numbers of contracted purposes or to calculate a mix of different cases, their average "production costs" and the charged revenues per product unit.

The regular critique focuses on the exclusion of the patients' individuality and their bio-social-psychological conditions. There is a discussion these schemes could easily not consider the patients as "co-producers" of the wanted outcomes. Another critique is that these classifications are able to

support strategies of risk selection according to each of the underlying dimensions of the particular classification, such as diagnosis, procedure or severity, price or volume.

Nevertheless, the current main-stream of industrializing medical care and setting it under the stress of economic competition unavoidably demands the definition of products and this is it what such schemes are made for, namely trying to overcome the so-called "Failures of Competition".

These schemes are most powerful tools for transforming a nation's traditional healthcare system to customer markets and are effectively used for that purpose. In this they are more effective than any other political program.

Clinical Risk Groups (CRG)[32] *is a concept for the management of prospective risk assessment and risk selection by defining "cases". CRGs became developed by the 3M trust. It calculates*

- *the diagnosis*
- *the severity*
- *the necessities for particular case management*
- *the regarding cost profile per case*

The model follows a multifunctional concept for treatment, management and reimbursements but is advertised particularly to prevent from adverse selection's incentives, clinical efficiency, benchmarking, and risk and utilization profiling.

Diagnosis Related Groups (DRG) *are another case classification system used to reward or benchmark, or alternatively, prospectively to allocate budgets for hospital treatments. The scheme classifies an in-patient health treatment according to diagnosis, the severity of disease and the medical procedure being utilized. The concept signals the trend towards shifting the utilization of medical care into a system of pre-classified medical products, respectively into an industry-like production of medical services. The key-goal is to limit the variance of treatments through excluding the patients' individual characteristics, except diagnosis, medical procedure and severity. Procedures are classified according to the International Classification of Health Interventions (ICHI), which tends to reflect insurance industry influence.*

DRGs are also widely expected to help in professionalizing hospital management, making the doctors' decision making for the hospitals' management more transparent, sharpening the hospital's profile for the paying party and the patients by tying doctors' decision-making on evidence based medicine and health technology assessment, improving risk and failure management and setting sharp incentives for applying coordinated, cooperative and integrated care both insight the hospitals and with outpatient facilities. This hypothesis across various national healthcare systems may differ in real practice.

Thus there are fears, such as DRGs weakens the doctors' position, sets incentives against smaller hospitals and Primary Health Care, fosters privatization of public hospitals and deregulation, erodes decline quality by depersonalizing care and reducing qualified personnel, sets incentives for case and risk selection, and has lee to growing instability of staff and staffs' dissatisfaction with increasing intensity of work in many settings all over when DRGs implemented

According to the system, any class of the DRG-scheme is associated with a relative price that is above or below a standard DRG with a price that is set to 1. Additionally the contracting partners (typically the third party payer and the regional provider organization or single hospitals) negotiate a base rate, which is all the same for any of the cases. The base rate is to cover any of the providers' fixed costs, which are independent from the particular case. The price of the single case's treatment is the product of the cost weight and the base rate. It can also become used to make a budget by multiplying the base

[32] *http://solutions.3m.com/wps/portal/3M/en_US/3M_Health_Information_Systems/HIS/Products/CRG/; 08.01.2012*

rate and the arithmetic average of all the different cost weights of any of the cases treated, which mirrors the case mix of a hospital. With DRG implementation, hospital case mixes have been reported to change or maximize reimbursements.

The concept is used under prospective payment systems for reimbursing hospitals, regardless of the providers' costs for providing hospital services. Using this rule, the DRGs give a definite incentive for risk selection through pre-determining the costs a case is likely to cause. To avoid the consequences of the given incentives by this fee-for-service mechanism, third-party-payers develop lots of regulations and systems of coding approval, meaning a hospital's administrative costs then climb

Using DRGs for making budgets aims to avoid or to lower incentives for risk selection and intends to leave the responsibility for care for all the regional population to the hospitals.

The different DRG classifications, also called the "DRG family", are used worldwide. But they are adapted to national conditions and vary widely globally. The use is manifold, such as

- *identifying the needs among the covered population*
- *the regulation of capacities offered, and resources allocated*
- *profiling the portfolios of hospitals selectively*
- *contracting volumes and prices prospectively*
- *prospectively adjusting budgets*
- *planning of facilities and devices*
- *benchmarking medical activities*
- *rewarding medical services per case or through case-mixed budgeting*

Diagnosis and Treatment Combinations (DTC) *is a Dutch classification used as an instrument of the regulated (managed) competition policy in the Netherlands. It is the philosophy that transparent product-information and classification would be preconditioning if policy wants to implement (regulated) market rules around the offer and the use of products in healthcare. It is the concept that without (pre-) defined products, both competition and transparency would be impossible. These DTCs are intended to establish negotiations between the paying party and the provider about price, volumes and the wanted features (quality) of the products (cases) as contracted.*

The mechanism of that particular case-classification scheme is comparable to the Diagnosis Related Groups. The difference is the inclusion of clinical aspects and some conditions of day-care for a patient. The authors of this scheme see it very innovative, having a fundamental impact on the entire Dutch health services systems but closely depending on the frame-setting by legislation.

But they also confirm the implementation as a matter of high controversy. Providers stay in conflict to the classification. It is the providers' fear that more competition would decrease quality and increase costs dramatically, what obviously and reportedly is evident.

On the contrary, paying parties are in favor of that model because of giving them the instruments to buy healthcare actively, selectively and prospectively by holding full transparency for the account of costs. But the insurers also discuss disadvantages such as growing competition among insurers. Thus, this remains an example of how market forces impact desired policy goals for "rational" reimbursement.

Case Adjusted Revenues *are a payment concept for a predefined case-per-time-unit, if related to chronic conditions. This type of revenues is made in order to*

- *optimize case management*
- *support case related risk selection and profiling the providers' portfolios*

- *foster interest in some less prevalent cases*
- *reduce services beyond what is defined being appropriate*
- *increase documentation quality*

For instant, under these regulars a provider might be paid a firmed sum for any case of diabetes regardless the individual characteristics of the person suffering from diabetes; the payment is just case but not patient adjusted.

Case Budgeting *is a method to budget revenues for health services either by retrospective case budgets or by prospective case budgets.*

The particular adjustments make it necessary to gain total transparency about any dimension of costs but also explicitly to define what has to be done under the adjustments' rules, respectively under the definition of a medically classified product. Additionally to reimbursement mechanisms, such schemes also provide the opportunity

- *to compare utilization*
- *to assess utilizations for benchmarking*
- *to standardize pathways*
- *to plan and allocate resources*

Case budgets are difficult to handle for (typically elder) people suffering from more than one disease. The adding of all the budgets per case might be profitable for providers but might increase costs for the paying party beyond appropriateness.

But case budgets can drive patients and the utilization management accordingly into severe problems if real costs exceed case budget, or if the management has not developed procedures of approving charges.

Case Rates *need to adjust the definition of what a case is. For this adjusted fee the provider covers all of the services the client requires for a specific period of time or a healthcare product or for any services under contract. The case rate is also called bundled rate, or flat fee-per-case or flat fee-per-product.*

The case rate fee is often used as an intervening step prior to case budgeting or to capitation. Here, the provider accepts some significant risks, but does have flexibility in how to meet the patient's needs. The less the system of coverage is regulated, the more seem providers willing to accept case rates.

Per diagnose *payments are paying revenues for treated diseases independent from other characteristics like age or severity.*

3. Per-Capita-Payment

This type of payment is based on Person-Classification-Schemes, which comprise a group of classifications used for the prospective calculation of risks of a group of individuals sharing similar characteristics. It is the overall goal to discriminate subgroups of a population in order to calculate a group's specific risks with a minimum of variance, prospectively. Insofar these schemes are the ultimate counter-concepts to public and solidary payment systems with its final aim to increase the variance of health risks of people in order to cover large parts of population or even all of the population by insurance. Person-classification-schemes are traditionally used for adjusting insurance premiums selectively to the particular insurance products. These schemes have had no direct importance for healthcare providers' rewards in the past.

But that has largely changed under a very particular development, which goes around the so-called Prospective Payment Systems as used for contracting Managed Care Organizations. Some of these PPS are calculating per person or Per-capita-payment s and contract providers on this basis. In that case providers will be paid with the help of Person-Classification-Schemes. This, of course, makes only sense if the contracts both with the insurant and the providers integrate the insured benefits and give it into the provider organizations' hands to guarantee both out- and in-patient care or even medical care, rehabilitation, nursing and social care. This indeed needs the calculation of the mix of financial "risks" for insurant being obliged exclusively to use contracted Managed Care Organizations and to hinder patients to behave like consumers of free markets.[33]

In a first step the method of making person-classification schemes uses data like age, gender, education, social class features, ethnic, medical risk factors, life style and more for a multidimensional grouping of people sharing the same or a certain limited variance of risks.[34] In a second step the amount of data becomes usually reduced and adopted to the general interests of the user.

This capitation (Cap, Capped, Capitated) is the (usual) kind of prospective Per-capita-payment for a pre-defined package of contracted healthcare benefits for single or for a group of covered persons. By capitation it is paid a certain money amount per member per month or any other time unit prospectively to providers or organizations of providers for which those guarantee contracted services in reverse, also assuming risk.

The quantity and intensity of healthcare, which is accepted to meet the health needs of the defined population is fully covered by the capitation fee. This method transfers the economic risks from the Managed Care Organization or an insurance company to the particular provider or the subcontractor of a provider. Therefore, capitation is a method to sell and to buy the risks of an insurance plan or of a contract regardless of quantity rendered.

The method is developed to prevent third-party-payers from unforeseeable risks and needs or loses due to so-called "high-utilizers".

The particular amounts are calculated through a payment per member. The procedure makes it essential

- pre-estimating the risks of utilization according to person-classification-schemes, respectively to the mix of the individuals covered and
- installing mechanisms to prevent from under-utilization, adverse selection etc.

Capitation, respectively selling and buying the individual's risk or the mixture of the risks of all the sold and bought contracts is the center of the managed care philosophy. Providers are not reimbursed for services, which exceed the pre-calculated amount even if necessary and demanded The rate will be the same for all members or will be specifically adjusted according to age, gender, pre-existing conditions, social characteristics of the members, based on actuarial estimations of likely medical utilization.

The difference between the amount of all the capitations for the individuals and the provider's costs is the provider's profit. The system clearly demands a binding of the patients to the Managed Care Organization by excluding or limiting the free choice of doctors or by making it an extra benefit being bought by patients.

The model can also be used if a Managed Care Organization subcontracts doctors not belonging to the organization. But it can also become necessary for the MCO to pay for services bought outside the organization for fee-for-service conditions. The consequence of capitation is a very high dynamic of the known provider organizations because capitation might turn out to be dangerous both for the provider and the patients as well.

Some examples are given in the following:

[33] This paper is not the place to discuss Managed Care. But it is important to notice that Managed Care also can be seen a concept to get along with the failures of market rules in the case of healthcare.

[34] Readers should not mix up the use of the term "risk" as used for insurance and for the wide range of medical implications. The intention is quite different despite medical "risk groups" and "risk factors" are widely used for person-classification-schemes.

Adjusted Clinical Groups (ACG), also Ambulatory Care Groups (ACG)[35] *offer a person-classification-scheme for healthcare analysis advertised as being beneficial for healthcare providers, purchasers, and third-party-payers. It is used under the managed care frame as a predictive risk adjustment method both for prospective payment calculations and for risk selection. Considering health condition, age and gender, the system is to predict the need for out-patient care for different groups of individuals.*

The system is widely used in the US both in the tax funded and in the privately charging sector. It obviously is also attractive internationally, particularly for stakeholders aiming at transforming nationally existing healthcare systems towards a selectively risk contracting market system.

ACG methodology is used

- *to predict high-risk users*
- *to predict mixed budgeted-payment for health plan providers*
- *to allocate resources within healthcare programs*
- *to calculate capitation payments for provider groups*
- *to assess the efficiency of provider practices*
- *to monitor financial outcomes*
- *to profile doctors and providers according resource consumption and prices*

This concept assumes that clusters of persons suffering from similar diseases would predict costs better than any other method.

The ACGs schemes can also be seen as a combination of a case- and a person-classification-scheme but additionally using age and gender characteristics relevant for the therapeutic episodes, the classified severity, the diagnosis, the etiology and the consumption of qualifications being necessary to treat the patient per given time unit and individual.

In this scheme any of the diagnosis treated is grouped into 32 clusters allowing a differentiation up to five levels. This way 93 risk groups become finally clustered, which are, for example, used for the purpose of capitation.

Diagnostic Cost Groups (DCG), also Hierarchical Coexisting Conditions (HCC)[36]

The Diagnostic Cost Groups are a classification scheme belonging to the family of Managed Care techniques. They define a risk score for any person that applies for a health insurance contract. They are also used to quantify the risk mix of enrollees to be covered under a group's capitation contract.

Starting in 1980 the development was originally forced to develop a score for the predictive measurement of the demands for hospital care (Principal Inpatient Diagnostic Cost Groups – PIP-DCG).

Today's version covers any utilization, risk or financial loss for a paying party independent of the type of utilization. DCGs result in a scheme exclusively depending on individuals' parameters. The independency from medical services consumed is to avoid the danger of up-coding incentives, a problem being very serious for Diagnoses Related Groups and Ambulatory Care Groups. On the other hand, this concept sets sharp incentives to implement methods being followed by under-utilization.

The developer of DCG stress five areas of classification's purposes

1. *the definition of markets through defining selected segments of the population under risk (the aim of risk selection)*

[35] *http://www.acg.jhsph.org/*
[36] *Ellis RP, Ash A: Refinements to the Diagnostic Cost Group (DCG) model. Inquiry 1995-1996; 32(4):418-29.*

2. *the prospective risk profiling for medical products and portfolios (the aim of prospective risk profiling)*
3. *the long-time control of the doctor's profile of decision-making (the aim of cost-containment)*
4. *the measurement of effectiveness and efficiency (the aim of outcome profiling)*
5. *resource allocation (the aim internal planning)*

Adjusted Diagnostic Groups (ADGs) *of a year are used to classify each of the persons considered. This scheme measures disease by grouping individuals by age and gender and any of the medical diagnoses recorded over the defined period of time for measurement. The target of the ACG classification is assigning each person a ACG value, which is a relative measure of the individual's expected and following consumption of health services. According to the grouping the costs become calculated prospectively for the next year*.

Global Risk Assessment Model (GRAM)[37] *is a model developed by Kaiser Permanente (a non-for-profit private health plan provider in the U.S.) for the purpose of predicting costs for services by using a person-classification-scheme.*

The model assesses

- *age and gender, and a few social variables*
- *pre-existing diseases and conditions*
- *pre-existing illness, health conditions and disabilities*
- *the individual's utilization behavior*
- *life style attitudes likely to cause increased utilization*

Base Capitation *is another variant of Per-capita-payment and is based on the amount of money to cover outpatient and/or inpatient healthcare costs per person and time-unit as contracted. The base capitation rate can in- or exclude prescription and administrative costs, optional coverage such as dental health or services for emergencies or care for drug addicted individuals or what reason for utilization ever.*

In state-run healthcare systems with privately working provider facilities, this base capitation can also work as a tax-paid subsidy for all the providers or selectively to help coverage for unattractive regions or disadvantaged social groups.

Base rates are also used for a prospective equal payment independently from excluded reasons of utilization for any insure but adding additional payments for particular treatments after prior approval.

Weighted Capitation *is a method of allocating and adjusting resources per region or provider organization, but is also used internally to adjust allowed capitated payments to single departments or staffs.*

The concept uses the mix of weighted per capita expenses according to the provider's portfolio. It is taken the basis for allocating resources for the average of needs either under non-for-profit or under for-profit rules but for both of them paying the same weighted capitation.

The construction sets both the types of organizations differently under pressure. They both have the same structure of costs except the profit rate. That again sets for-profit providers under pressure to reduce costs to an amount that is equivalent to the profit rate expected. The mechanism makes private companies more intensively seeking for the reduction of fixed and/or variable costs and by managing

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[37] *Meenan RT, O'Keeffe-Rosetti C et al: The sensitivity and specificity of forecasting high-cost users of medical care. Center for Health Research, Kaiser Permanente, Med Care 1999 Aug; 37(8):815-23.*

the process of healthcare pro-actively. This has a simple consequence: Private providers have to be more efficient if wanting to reach the same effectiveness compared to not-for-profit organizations.

4. Service Adjusted Payment

The fundamental idea is to pay for defined medical services or nursing separately but for different reasons. The usual concept is that patients ask for help, the doctor or nurse decides about the kind and amount of services and the patient checks the bill and might be reimbursed partly or fully by insurance. The problems are obvious: The earning party decides about his income after patient's "wallet biopsy". That is the true reason why healthcare has been developed such a large number of payment methods, which each are regulated differently but making payment for healthcare a difficult and sometimes disturbing matter. There are numbers of trials to handle that problem, but it is used for not terminating the concept of Fee-for-Service.

Fee-For-Service (FFS) *is the very traditional method of rewarding healthcare where specific payment is charged for specific services rendered.*

FFS is the usual kind of billing under indemnity insurances, respectively traditional private insurances offering particularly designed health plans for coverage and by sharply selecting the insured individuals. It refers to payments by specific amounts for any specific services rendered and is opposing any other arrangements. Under FFS, the healthcare provider takes the privilege to induce demand and volume of care performed but staying widely out of control. This may make understandable why most the providers and their lobby prefer FFS, while paying parties (and their lobby) try fighting it. This "more is better" philosophy has run its "merit" in most health systems.

In today's advanced systems with universal access and coverage by third-party-payers, FFS became and becomes more and more replaced by alternative payment methods, like prospective payment systems and different types of budgeting. The permanent search for new payment methods is forced by, even if not intended, FFS practices actually. Most FFS practice faces reduced payment amounts for cost control and other utilization management schemes that provides use.

FFS is sharply contrasting capitation, prospective payment systems, DRGs or per diem discounted rates, and all the entire other person- and case-classification-schemes.

Under a FFS payment system, expenditures increase if

- *the demanded fees increase*
- *more units of service are performed and delivered (churning)*
- *more expensive services are substituted by less expensive ones*
- *healthcare becomes unnecessarily and inappropriately offered and performed*
- *low quality makes repeating treatments and doctor's visits*

FFS payments may be preferred by an insurance company, by the patients themselves or by a government for particular reasons. It is often the payment method if highly specialized sub-contracted doctors apply healthcare for the primarily contracting provider. With respect to the payers interests any of the payers share the interest to control expenditures and to control costs. This has made to develop many policies against FFS .

Per-visit-payment *is a method of rewarding healthcare by paying a fixed sum for any patient's visit independent of reason and intensity of care. There might be a modification by paying for visits in a certain time period a fixed rate, particularly to avoid the cost and time consuming but also conflicting bureaucracy of reimbursing doctors' bills.*

Per-patient-pathway-payment *is a method similar to per-visit-payment but adjusting the rewards to particular pathways of care. This type of Fee for Service is particularly adjusted to chronic diseases, which need integration of different kinds of providers.*

Fee Schedules *are simply a price list for Fee for Service payments. The clue is the mechanism to adjust that list. This is a list of fees for specified medical procedures. If used in medical care plans, it usually represents the maximum amounts the program will pay for the specified procedures under fee for service according to the claims of insured individuals. It is also the fee determined by a managed care organization for services performed by subcontracted doctors, nurses or facilities. In countries where access to healthcare is either by constitution or by law a fundamental citizens' right and part of mandatory public services, the fee schedule will be result from a government's or other independent authority's decision in order to avoid fees resulting from "market offers and demands". Some governments are establishing an allowance procedure for fee schedules especially for private providers. The policy is made to support universal access and to fight risk selection against public funds.*

Discounted Fee-For-Service *is a payment system where a provider agrees to offer healthcare on a fee-for-service basis, but with the fees discounted by a certain percentage from the physician's usual or officially allowed charges according a given official or other contracted fee schedule. This mechanism may also work when Managed Care Organizations are contracted for comprehensive care or are subcontracting other independent providers*

Providers generally accept such contracts because they represent a mechanism to increase their volume, respectively to reduce their risks of losing volume. It is a "classical" method of competition for patients and against other providers. Providers calculate volume against price.

The mechanism will work differently depending on the particular kind of cases and of the number of competing providers within a region. Usually, the providers' position is weaker than the position of the third-party-payers. Discounts may also pro-actively be demanded by third-party payers.

Per-procedure-payment *is a fee for service concept where any procedure or increasingly in the US bundles of procedures are paid either according to the provider's demand or according to a compulsory fee schedule as set by an authority or third-party-payer. This concept needs a list of procedures and prices that often are conflicting.*

Under these methods, the key to imagine healthcare comes from solid linking of clinical and financial data. Achieving "high values results" remains the challenging set of mysteries in shifting … revenue schemes from FFS models to the others, thus the astute monitoring of quality of care must be based on clinical data, and hopefully for both providers and patients.

5. Target-oriented-payment

This discussion paper summarizes under target payments a group of mechanisms, which are to set incentives for a provider behavior that meets particular interests of the paying party. These concepts are also summarized under Incentive Payment Systems[38]. These systems pay for or reimburse healthcare by setting selected aims prior to others and by adjusting payments not primarily on costs but on goals. It is one of the many mechanisms to get along with the failing trials to adjust wanted provider behavior to market rules and competition. It is to compensate their failures by combining particular targets with specified offers of revenues. It can play a specific role if providers subcontract

[38] A very first discussion on these concepts is given by Mariott, R. (1957): Incentive payment systems: a review of research and opinion, Staples Press, University of Michigan

others or become subcontracted themselves. It might also become used in settings of some priorities for certain treatments, prevention or disadvantaged regions and social groups.

Pay for Performance (PfP) *focusses a frequently discussed concept wanting to implement a certain type of financial incentives for healthcare improvement. The idea results from the publication "To Err is Human: Building a Safer Healthcare System" by the U.S. Institute of Medicine in 1999. Similar arguments are reported by some other projects such as by the Dartmouth School and the Rand Cooperation. The studies show simultaneously and permanently that there are tremendous groups of patients, which are not only facing "errors". They also receive less care than medical evidence recognizes necessary and appropriate in the population's average. Additionally, many people face a wide variance in quality depending on region and social class, say related studies. To overcome these fundamental problems a pay-for-performance approach was supposed to be the solution and is out-lined by many different kinds of proposed payment systems. It is thought to become a method combining some clearly outlined and contracted objectives with an added extra payment.*

The fundamental belief is doctors or hospitals would only do what they are professionally obliged to do if being paid an extra reward. It is the philosophy that delivering healthcare would profit from a customer approach rather than from a patient approach, but being in need of the paying party's advocacy. The assumption is that patients would gain better care if third-party-payers take control about the providers' decisions and doings. The belief is that patients could trust in the paying parties' behavior more than the can in the providers' behavior. But there is only very weak evidence for that belief. It is expected that Payment for Performance would be the golden way on the road to competition and competition would rise up quality automatically if the paying customers would be given the opportunity of contracting providers selectively for defined customers' concepts of what is necessary and appropriate in healthcare delivery. Insofar Payment for Performance competes with any other nationally implemented mechanism of setting norms for healthcare, but particularly with implemented concepts of the providers' self-governance, such as it is implemented in some European countries.

If, for example, the paying party wants to reduce the malpractice of overprescribing antibiotics or of other pharmaceuticals or wants to improve care for predefined groups of socially disadvantaged groups or regions, or wants to improve complying with best practice approaches, or other contracted improvements, these could be rewarded for successful performance. Taking international experiences into account, a doctor or hospital could be paid an additional 3 percent above the standard fee that will be paid for the particularly contracted code for service or treatment. These practices make providers' performance a matter of scores of benchmarks that are set internally by the provider's management for medical staff or by third-party payers for contractors.

Besides of having such contracts, Payment for Performance will need precise objectives, survey and monitoring, permanent evaluation of data and performance by independent agencies and certification, first of all. Many Electronic Health Records (HER) have not reached a level of sophistication to make such schemes able to accomplish accurate measurement of outcomes.

But none of these systems was obviously able to get along with the variance of quality through buying required services under the rules of competitive markets, so far. In contrast, there is evidence competition would be its own source of the "humans' errors". Some of the evaluations give fundamental lessons about that kind of concept.

Overcoming the problems mentioned can hardly be done by financial incentives without solving the true fundamental deficits of the overall systems, most of all the limits of access to healthcare for a high proportion of the population and the dependency of income from volumes. One particular problem is that a high number of patients wait with going to see the doctors up to the point when becoming classified as an emergency case. Improving healthcare is mostly a matter of access and overcoming incentives for over-utilization and financial risk selection.

Only a selected and a small number of highly prevalent cases will determine what the average of quality is if quality becomes measured by focusing on high prevalent reasons of utilization. But rewarding for quantity can easily become mixed up with quality and is likely to be followed by neglecting treatment and care not being contracted under PfP. The mechanism is pro-actively seeking for patients through pro-actively offering tests and treatment as an advertised specialty. This is

particularly a problem if hospitals and their departments are run as profit centers. This way, it is likely pushing over-utilization for highly prevalent cases but provoking under-utilization for the very large number of diseases of a minor prevalence.

PfP sets powerful incentives for risk and portfolio selection by providers and for selective contracting on the side of the third-party-payers. This strategy can easily become adverse to interests in the treatment of severe and seldom (but costly) diseases. Pay for Performance is likely to make defensive medicine and risk selection a prior strategy of the providers and is making them to compete for high prevalent reasons of utilization.

It can make sense to perform less instead of more interventions in individuals with very early stages of a disease or into those suffering from simple health conditions. Payments for Performance models are likely to ignore such constellations for healthcare improvements.

Depending on the population's size, only about 5 or 10 % of the occurring diseases will be prevalent enough for outcome comparisons. Payment for Performance will lead to pathway standardization exclusively if there is no disease-related outcome measurement possible. Pathway standardization will lead to efficiency but not automatically to quality improvement! That is why Payment for Performance will be followed by remarkable consequences for the selective allocation of investments into facilities, research and education.

Payment for Performance may tend to pay for compliance with the rules but not for improved quality. This has been resisted as "cookbook Medicine". If providers are set under compliance rules by the reimbursement system, providers tend to go further and also set patients under compliance rules to adopt them to the provider's requirements.

Payment for Performance is also a method of salary payment by the providers' management and aiming at

- *differential pays to enhance competition between doctors or medical teams*
- *incentives to follow the providers' interests in efficiency and gains*

Some analysts argue performance-related pay could violet ethical rules and the needs of cooperative and integrated care. There is also evidence given, that performance-related pay might be de-motivating and unfair but undermining the corporate identity. There is evidence such internal Payment for Performance rules are a method to extend volumes and to avoid complicated cases. Especially critically are contracts to be seen that are binding wages on the quantity performed. This is growingly reported for those doctors specialized in some very few elective procedures. Here it could become initiated a mechanism or incentive to adopt the indication's norm for necessity and appropriateness to the number of cases contracted or expected. Some countries, such as Germany, are just trying to implement rules, which are forbidding such practices, at least voluntary.

One may critically ask what the long-term consequence of a strategy is that is training doctors and provider organizations systematically only the do the right things for the right persons if given an extra bonus for professional standard and obligations. It is at least a potentially successful strategy to overcome the provider-purchaser-split if nationally being implemented.

Payment by Results (PbR)

This is the established rewarding system for hospital care in UK[39]. It is similarly constructed as the DRG system is and has been introduced since 2002.

The payment system calculates similar cases as having to be treated to the same price (by a national tariff of firmed rewards) within the country's entire hospitals. The prices are designed according to any of the clusters of diagnosis and procedures being performed in hospitals, called Healthcare Resource

[39] http://www.dh.gov.uk/en/managingyourorganisation/financeandplanning/nhsfinancialreforms/index.htm , last checked 22.12.2009

Group (HRG) which becomes regularly updated. Each case related to one of the groups is expected to consume the same level of resources. The price for a classified procedure is the national reference cost.

The payment will be unbundled if a treatment is performed by different providers. It is expected to allow competition if splitting the traditional integrated providers into competitors. Also here, competition is assumed to improve quality rather than cooperation.

Payment by Success[40] *is promoted by The Healthcare Financial Management Association in the USA and aims at the following targets when advertising for success' fixed payments. These targets are quality, alignment, fairness/sustainability, simplification, and societal benefit. For these goals they try to fix three points as success: Integration, Risk Management, and Pricing. Integration means collaboration among stakeholders across the pathways of care, but especially between physicians and hospitals. Risk Management means transferring at least portions of the financial risks of providing care to the doctors and other care providers and organizations. This is seen especially part of concept when quality is spoiled because of medical errors, poor quality of service, or unwanted outcomes. In such cases the providers will not be paid or maybe fined. This is also intended to work in case of poor efficiency related to a facility's ability to provide cost-effective care. Pricing is the third part of that concept, which is demanding that providers have to offer prices and must negotiate payments at levels that allow them to cover their true costs, and will incorporate a margin that allows the provider making necessary capital reinvestments and funding programs meeting the mission of the organization. It obviously does not allow calculating a margin of profits.*

Target Payments *are primarily a staff payment mechanism using incentives in order to reach a target set by management or the facility's owners. Additionally to an already adjusted payment a bonus will be paid but it might also be the exclusive method of rewarding healthcare, if so, than mostly for top experts, which are guaranteeing contracted numbers of patients for particular treatments and operations. Target payments are also contracted to lower costs by avoiding traditional contracts or are to initiate competition between teams or team members if management does not want targeting at cooperation and coordination because of competing interests.*

Target payments can be helpful if there is a specified goal to be reached but may also show unwanted side-effects like de-motivating or de-organizing a team. The way out of such dilemmas or to limit them is to include the staff in defining goals and in assessing the different contributions any of the team members have to give when meeting the objectives.

Pre-payment *is a method of paying for services in advance. It is nowadays a method of reimbursing for the cost of healthcare services and used to transfer the economic risks of third-party-payers to the providers or from primarily contracted sub-contractors. The method is used for mainly three reasons:*

- *ensuring permanent cash flow*
- *predetermining service products selectively according to the rules of managed care and of some third-party-payers' policy as specified*
- *strapping the providers and the insured into a strategically constructed alliance to prevent from the risks of competition by mechanisms of prospective payments*

The overall concern is always the possible incentive to reduce benefits after receiving the pre-payment. Any pre-paid money may also being lost in case of bankruptcy.

Prospective Payment System (PPS) *comprise any concept that establishes prices or budgets for specifically contracted services or groups of patients prospectively. Particularly the combination of PPS and capitation has made certification for quality and its regular approvals a top agenda of health policy and some stakeholders. It contrasts any fee-for-service.*

The calculation follows more or less sophisticated risk assessment concepts related to person-classification-schemes or referring to case-based-classification schemes like the DRGs.

[40] http://www.hfma.org/Content.aspx?id=1013, last checked 22.09.2014

The gap between the payment and the provider's cost decide on the gains and on the success in competition. For the given reason PPS unavoidably raises problems of guaranteeing quality by prospectively calculated and contracted plans.

Healthcare management might be in favor of PPS because it ensures providers' contracted reimbursements and makes expenses for insurers foreseeable. Depending on design, PPS can also be a budget.

Target payments are an issue if third-party-payers want to reach specified goals (like cost control or exclusive quality standards) together with an allied provider or provider organization.

It might play a role in concepts of favorable risk selection incentives.

***Withhold** is a concept used as an incentive to encourage providers to reduce utilization of services by including them into the share of risks. The provider's or the contracting third-party-payer's management keeps back part of payments for the provider until the surplus or another given target can be counted. For this purpose a percentage of a provider's payment will not be paid during a contracted time period.*

Withhold is a common part of capitated payments. It will be given back at the end of the period covered if targets are fulfilled.

The mechanism gives withholders some obviously incentives to use money for short-time stock speculations. Considering the enormous sums gathered within most of the system, this miss-behavior might turn out to be critical for the provider's existence.

6. Systematic of the results

It is the final aim of this paper to discuss the results of different kinds of payment in the light of still developing healthcare systems. This needs a systematic of the results, which are finally always quality criteria.

According to the authors' agreements, the ultimate criteria is if the payment concepts are supportive in pushing forward further dismantling the healthcare system or not. This indeed needs to compromise on a minimum sample of criteria to assess what a wanted development is.

Such a sample of wanted results automatically makes a sample of unwanted results. This leads into the problem to determine what "wanted" and "unwanted" results are. And there is no reason to assume that 100 % of population's interest groups would share positions on what "wanted" and "unwanted" is. This is not only true for the "population" being the potential users of healthcare but also for all the providing interest groups and professional caregivers.[41]

Thus we have to ask ourselves for the legitimation of our systematic because it is evident that a classification of effects results not primarily from scientific theories or empirical evidence about people's opinions but from the discussants individual opinions and positions. But we share this critical point with those holding opposing positions. And of course, it is finally the same problem with decision

[41] This problem is fundamental in the light of the Social Choice Theory by K. Arrow. The theory briefly says that there exists no social welfare function that fulfills five characteristics at the same time: Universality, Independence, Monotonicity, Citizen Sovereignty, Non-dictatorship. In that theorem *Universality* means that the function of welfare would have the same benefit for any order of individual preferences. *Monotonicity* means that if an individual modifies his or her preference order by promoting a certain option, then the societal preference order should respond only by promoting that same option. The societal preference cannot become changed or placed lower than before. *Citizen sovereignty* means that there are not any conditions that would hinder people to make their preferences come true on a societal level. *Non-dictatorship* means that no dictator's individual preferences will rule the societal preferences. See also *Hausman, D. M. and M. S. McPherson (2006). Economic Analysis, Moral Philosophy and Public Policy, (2nd ed.). Cambridge: Cambridge University, Press. Page 220*

making in any country.[42] Insofar the measuring criteria are the groups' shared opinions. That certainly is a weak point for defining and (later assessing) wanted and unwanted effects.

That is why we are searching for some legitimation and support by "authority" when promising a "majority" of opinions. This is linking our criteria to the WHO's opinion, such as given by "The World Health Report"[43]. But the report is neither particularly focusing on developing healthcare systems, nor is it really clear if WHO authors' have another legitimation than their individual opinion and scientific competence. Nations must find their own compromises for the ways and goals, therefore. The WHO is certainly a helper in finding approaches but can never replace the nations' responsibility in finding their ways and compromising in decision-making.

This paper faces the same dilemma. Our selection only depends on the authors' opinion and experience; but we have no legitimation to speak for any nations' public and their interests in developing the provision of healthcare.

The WHO formulates the following high-level objectives, namely

- preventing health problems
- delivering services
- responding to legitimate expectations
- containing costs

Discussing these objectives we conclude six main targets of high priority. These are:

(A) providing equal access to necessary, appropriate and efficient healthcare by integrating medical care into social care
(B) enforcing the further dismantling of the infrastructures for healthcare
(C) preventing patients from over-, underutilization and mal-practice and supplier induced demand
(D) keeping patients' rights if legally normed or accepted by international contracts
(E) developing reasonable infrastructures and patients' pathways supporting cooperation and coordination of care's objectives
(F) motivating and encouraging healthcare professionals for best practice under given frame-conditions and for permanent further improvement of skills and knowledge

The authors do not focus on prevention in this discussion paper. The reason is that the main problems for prevention are bad working-conditions, lacking individual resources and poor education. Insofar prevention is only marginal an objective of the healthcare system (except vaccinations and specifically selected and organized public screenings).

If assessing cost for healthcare, it seems to be natural that those costs are for care or more specifically for treatment. In result one might belief increasing costs would result from increasing care and treatment activities. Consequently one could assume cost-containment or saving would have impact on services like nursing or treatment. But is that rally true? Cost drivers in recent medicine are much more raising fixed costs, variable costs like salaries and of course the "explosion" of costs because of not clearly indicated diagnostics, for example for liability or preventive reasons. It is much easier to take actions regarding treatment costs than in case of diagnostics. And provider organizations' managers know about.

These factors and many more have to be considered when discussing results of payment on care incentives. And it makes again clear how different views on "wanted" and "unwanted" results can lead performance.

[42] At the time the Bismarck system became introduced in the late 19th century or when the Beverage system was implemented in the late 1940th there has never been a 100% agreement within the population about that decision-making and it definitely does not exist in recent times. Even today's analysts are split into those wanting to keep the systems alive by permanent reforms and into thus wanting to transform them into something different.
[43] WHO (2000): The World Health Report 2000: Health systems: Improving performance.

Part 3

7. Assessing impacts

We decided to use a matrix for presenting the results discussing the different kinds of impacts against assumed wanted outcomes. Table 1 provides the basic structure of that matrix with its 30 boxes. Doing so, we will go through the boxes from 1-A to 5-F. It is clear that one could extend the kinds of impacts or also to differentiate each of the impacts some more extensively. That is the same with the payment concepts, which could become much more specified as it is for the purpose of our discussion paper.

In a first part we assess results mostly for inpatient services, but under some limited purposes for out-patients in a second part.

Box 1:

1-A: Bundling and complex resource allocation **versus** providing equal access to necessary, appropriate and efficient healthcare by integrating medical care into social care

Bundling demands from the paying party precisely contracting for healthcare regarding compulsory benefits to be given under the contracts frame, standardizing the access to the providing organization and outlining what kind of care has necessarily to be delivered under the contract's frame. It necessarily needs clarifying the relationship to and the cooperation with other subcontracted providers such as out-patient providers or rehabilitation or nursing and social care. The paying party's intention may include objectives for further developing the infrastructures and needed investment. It requires permanent evaluation of structures, processing and results, including the permanent readjustment of contracts and payment in order to guarantee intended aims. Bundled payment needs clearly outlined policies on mission, on vision, and timed targets for further development or an adjustment regarding priorities.

This concept gives providers the opportunity to seek for the best organization of care under given complex payment and target-setting for what is accepted being necessary, appropriate and efficient. Bundled payment and complex resource allocation allows providers high autonomy and self-responsibility to find best organizational solutions under given objectives. Revenues are guaranteed and allow primarily co-deciding how to use payments most efficient for cares' priorities. It may limit competition in fulfilling targets and may help in saving money for advertisements or other kinds of competition related costs.

If providers are contracted for offering particular designed care (such as integrated care or specified benefit lists), the will of the finally paying parties will be the prior approving agent.

On the other hand, providers might profit from budgeting because it provides reliability for micro-planning, assuming competent administrative assistance.

There is no other concept than budgeting that contrasts fee for service and direct cash payment (even if reimbursed) that sharply.

In summary, we see bundling positively supporting equal access to necessary, appropriate and efficient healthcare and by making the paying party an agent of the insurant. But this indeed demands a high level of competencies on the payers (insurance) side, as well as necessary transparency.

Table 1 Impact of Payment on Healthcare

	A providing equal access to necessary, appropriate and efficient healthcare by integrating medical care into social care	B enforcing the further dismantling of the infrastructures for healthcare	C preventing patients from over-, underutilization and mal-practice and supplier induced demand	D keeping patients' rights as legally normed or as accepted by international conventions	E developing reasonable infrastructures supporting cooperation and coordination of care objectives	F motivating and encouraging healthcare professionals in best practice under given frame-conditions and in permanent further improvement of skills and knowledge
1 Bundling and complex resource allocation	**1-A**	**1-B**	**1-C**	**1-D**	**1-E**	**1-F**
2 Per-case-payment	**2-A**	**2-B**	**2-C**	**2-D**	**2-E**	**2-F**
3 Per-capita-payment	**3-A**	**3-B**	**3-C**	**3-D**	**3-E**	**3-F**
4 Service adapted Payments	**4-A**	**4-B**	**4-C**	**4-D**	**4-E**	**4-F**
5 Target payment	**5-A**	**5-B**	**5-C**	**5-D**	**5-E**	**5-E**

1-B: Bundling and complex resource allocation **versus** enforcing the further dismantling of the infrastructures for healthcare

Bundling or budgeting allows first of all insurance and tax-payers control and supervision over complex resource allocation and keeping a strong relationship between available resources and their use. If public planning for developing healthcare is a policy goal both setting up targets and allocating resources are key targets of decision making on priorities, further objectives or particular settings for integrated care. This involves the public into the building of the care organization and demands bundled or complex resource allocation as the public's power to decide on their compromised interests.

It lays the responsibility for providing infrastructures for healthcare and its further dismantling into the hands of the paying party, which ultimately should be the public itself even if represented by a particular organization[44]. For that reason *bundling needs concepts assessing prior public health problems*; and it needs a mechanism to compromise budgeting with the payers' will. Insofar budgeting is a public affair in itself.

This tents to guarantee not wasting money for gaining profits, competition or advertisements, but needs effective and competent administration and the clear, transparent and supervised separation of the administering and the providing party.

1-C: Bundling and complex resource allocation **versus** preventing patients from over-, underutilization and mal-practice and supplier induced demand

[44] This is, for example, in the United Kingdom the tax-payer or in Germany, the members (not the customers!) of the Social Health Insurance, respectively their elected representatives.

Preventing patients from over-, underutilization and mal-practice or supplier induced demand is a key target of quality management. Both over- und -underutilization are often resulting from supplier induced demands and problematic financial incentives, risk selection policies, advertised patients' demands, profit making or even fraud. They can both harm patients and are against the fundaments of medical ethics and are as problematic as malpractices are.

There is no incentive to do more than necessary and appropriate and no incentive for inducing demands by the providers under bundled payment approaches. Under some circumstances providers might have an interest to do less than necessary, to refer patients to somebody else in order to save on budgets (also called defensive and simple medicine). Also the providers' and the staffs' interests in further qualification might suffer if not challenged by mandatory demands of continuing qualification.

1-D: Bundling and complex resource allocation **versus** keeping patients' rights as legally normed or as accepted by international conventions

The comment has to respect the legal foundation and contractual frames. But it also has to consider that patients cannot all play the role of a pro-active customer. Patients need by definition advocacy by their predominant policy makers alike. They need partied that is support their interests. This indeed is a matter of broad discussions because there are a number of interest groups, such as pharmaceutical industries, wanting to take that advocacy.

Traditionally, it is accepted by patients' beliefs in their doctors' and nurses' behavior that both are taking the role of their advocates as part of the professionals' role and self-understanding. That is also part of constructing the patient-doctor-relationship as a "seller-market", which gives professionals the power of supplier induced demands. But that problematic issue is not a particular feature of healthcare professions.

The expectation is stand out that providers are taking that function when the trust bond has not eroded. But if the provider or somebody else is taking the role of patients' rights advocate, the systems' very nature between the triangle of interests of the provider, the paying party and of the public may be compromised. That is why political interests wanting to strengthen the rights of the payers or market approaches alternatively regularly try to separate advocacy from the providers and to lay that into the hands of another party, usually a nested interest for itself, but not for patients.

Under bundling or complex resource allocation doctors have no particular financial incentive to fight for their patients' interests. They only have their professional ethics as the guiding value. But also third-party-payers might want to be the patients' advocates and under terms of neo-liberal deregulation, NGOs or consumer protection agencies might want to take that role too.

Insofar traditional kinds of public spending for healthcare usually have fewer problems with keeping patients' rights than market-adapted systems.

1-E: Bundling and complex resource allocation **versus** developing reasonable infrastructures supporting cooperation and coordination of care objectives

Bundled payments are the ultimate way to foster supportive infrastructures for cooperation and coordination of care. Complex and bundled payments allow establishing coordinated care that is driven by the pro-active interaction of providers. This indeed demands adjusting budgets by scientifically guided standards of care both defining necessary diagnostics, treatments, in case of chronic diseases also secondary prevention, or rehabilitation and social support and nursing. The key problem is to assure guidelines as a medical professional activity, its compulsory norm-setting for well-defined cases, and its universal application within all of the healthcare system settings. There cannot be any competition for the concepts of treatment and care if care is guided by professional standards.

It needs to understand two major problems: the one problem is that guided care needs well adapted infrastructures, which will only vary in small segments and will need permanent adjustment and evaluation. It is a second problem that standards are difficult to readjust under a slow dynamic of change. That is why bundling should allow high flexibility of use under the contractual frame. Specifically complex resource allocation has to give freedom for seeking best practice solutions but

need transparency regarding solutions and outcomes. Data analytics must continually provide feedback for the adjustments desired.

This is particularly true for the integration of medical services and social care for the chronically ill and disabled,

but also for any other concept of integrated and coordinated care.

1-F: Bundling and complex resource allocation **versus** motivating and encouraging healthcare professionals in best practice under given frame-conditions and in permanent further improvement of skills and knowledge

This issue faces controversial debates. There are groups claiming bundling that may not set particular incentives for best practices of professionals. Others hold the opinion that the freedom from financial pressures and income motivations would help to concentrate activities on the patients' needs.

According to our opinion and supported by some empirical evidence, we always find doctors and other professionals being highly motivated for best practice, even if interpreting what is best differently. We know a huge number of professionals performing hard work and being all the day with their patients even if badly or severely underpaid maintain their doing. Given a complex payment and ensured allocation of resources those doctors and nurses are always with their patients, and we find that mirrored in many studies on patients' satisfaction.

But as always in history and around the globe, there are also healthcare professionals having an eye more on their wallets than on their patients. We do not believe that the kind of payment for healthcare is the main problem in this regard. The point is if caregivers are free of financial pressures, such as earning money for a third party or not. According to our experience and opinion most the professionals want to find frames allowing to further improving skills and competencies. That does not primarily depend on the kind of payment, but on counter-competing demands and conditions of practice.

In contrast, we are sharing the opinion that the motivation to further improve knowledge and skills is generally wide spread among all professionals. But it is a matter of concern that provider organizations may have incentives to reduce qualifications and to replace them by less educated personnel if it helps to raise profits. But staffing patterns are key then for examination in bundling practices.

Box 2:

2-A: Per-case-payment **versus** providing equal access to necessary, appropriate and efficient healthcare by integrating medical care into social care

Per-case-payment, such as using DRGs for payment, sets two major incentives:

The first incentive is the depersonalization of care by seeing individuals as cases and only accepting the ID code, the procedures and the severity code for defining a case. Any other reason for variation (such as age, gender, social strata or social support at home and in the community) is intentionally excluded from caregivers' decision-making. Per-case-payments are most consequential in standardizing care and need total transparency of fixed and variable costs for the paying party. This is indeed equalizing access to care on the level of necessity and appropriateness as defined by the classification. Case payments are ultimately making patients cases but not individuals.

The second incentive is risk selection and permanently trying to increase volumes.

But decision-making is directly linked to the monetary promise of particular cases and – as experiences show – this linking is not necessarily a medical but a management decision. Insofar, the result will depend on the particular price list and its selective use. "Cherry picking", specialization against Primary Health Care (PHC) in order to raise volumes and to avoid unwanted cases are obvious results. This includes strong incentives to grad-up medical procedures and the coding of severity. While there is an interest in establishing value chains, there is not really an interest in integration. Because patients become reduced to cases defined by the features of the product classification, the depersonalization of care is often observed. This might be particularly problematic in countries with a small and educated middle class or in countries with a traditionally close binding in families. A particular problem is the reduction of the Length of Stay if out-patient care is not well developed and coordinated.

Case payments usually Increase total costs by what some call “medical arms race” particularly if cases are defined by a major focus on procedures, but will compensate this with reducing flexible costs. Case payments also show the tendency of strong risk selection by providers’ management and by making medical decision making inferior to financial considerations.

While these kinds of payment are focusing on standardization what might be good for quality assurance, it usually makes healthcare more costly but helps with outcomes if being integrated in a chain from out-patient services to in-patient services, and reverse.

2-B: Per-case-payment **versus** enforcing the further dismantling of the infrastructures for healthcare

Case payments have impact on dismantling infrastructures for care. The question is if these impacts are wanted or not, respectively by whom. Case payments are a kind of per product payment. The impact therefore depends on the impact of “product medicine” on dismantling infrastructures. Because per-case-payments make economic success dependent from numbers or - in epidemiologic terms - from the prevalence of a disease, numbers are triggering impacts on infrastructures. These impacts are risk selection and standardizing procedures. This clearly influences provision and may raise an interest in adapting infrastructures on case classification schemes selectively. This may hamper dismantling healthcare for the huge number of seldom diseases but support the integrating of value changes for frequent diseases at the bottom.

Per-case-payment will typically help with the creation of huge and specialized healthcare service centers but endangering the existence of basic level infrastructures for healthcare. Both the destruction of basic hospitals and primary care are typical results of per-case-payment.

2-C: Per-case-payment **versus** preventing patients from over-, underutilization and mal-practice, and supplier induced demand

Per-case payment sets sharp incentives to maximize services if helping to upgrade the cases. At the same time in might cause under-utilization for financially uninteresting cases. Particularly if “extra” offers are allowed, supplier induced demand is important as it is in fee for service rules. This behavior is often risky for the patients.

But due to developing and implementing highly standardized pathways for treatment and care there is some evidence for a reduced incidence rate for malpractice.

2-D: Per-case-payment **versus** keeping patients’ rights as legally normed or as accepted by international conventions

Part of patients’ rights is shared-decision-making on planned therapies and patients’’ access to any of their individual data. Per-case payments make it indispensable to establish strict rules of information for patients and to improve precise documentation. That might help patients in litigations for liability. Per-case-payment may hinder shared-decision-making but will typically help with access to documented data, which means full data becomes available in a form that health-literate patients can understand.

2-E: Per-case-payment **versus** developing reasonable infrastructures supporting cooperation and coordination of care objectives

It is a usual experience that providers improve the organization’s micro-economics by reducing the costs per case particularly by the economics of case processing, such as using standardized pathways, by introducing concepts of education economics and be fostering the intensity of labor. That may initiate procedures of postponing risks and responsibilities to somebody else what we hardly see supporting cooperation and coordination. There is always a danger to develop vertical cooperation more than horizontal cooperation with typically bad results. Under such circumstances, managers and paying parties create justifications for their intervening.

2-F: Per-case-payment **versus** motivating and encouraging healthcare professionals in best practice under given frame-conditions and in permanent further improvement of skills and knowledge

Internationally, per-case-payments lower the staff's motivation and stability. That is particularly true if the legal frames allow top doctors paid for raising volumes. Delegation and substitution of professional competencies by less educated (and cheaper) personnel are widely reported and show many consequences for established and mandatory systems of education and further qualification.

Box 3:

3-A: Per-capita-payment **versus** providing equal access to necessary, appropriate and efficient healthcare by integrating medical care into social care

Per- capita -payment shifts the economic risks from the payer to the provider and is the key to understand the rise of Managed Care Industries. Prospective per capita contracting, economic considerations for applying diagnostics and treatment, but also risk selection strategies and inappropriate reactions to patients' problems, are very likely and often reported. Part of the concept is that doctors and nurses are losing the right to decide on patients' needs and therapy plans. And patients are not allowed to choose doctors. Second opinion and guidelines are becoming the mode of care. The payment uses the same benefit list for all insurant retrospectively or prospectively. That means any insurant has the same access to care as contracted.

But importantly, there is no particular incentive for integrating care if not specifically contracted. This payment concept only functions if patients are not allowed to choose the hospital, respectively the provider or if there is no alternative for them as it often is even if the free choice is given. The usual kinds of contract are exclusively focused on medical care as contracted by the paying party. Those contracts try to standardize what necessary and appropriate or efficient is. They also try to integrate care in the hands of the contracted provider. This is fostering huge provider value chains and makes economic management the main force of developing a new kind of medical care provider organization. Unnecessary resource consumption is against the concept, but inappropriateness of medical reaction to patients' problems is necessarily not. The interest in integration simply depends on the will of the contracting or paying party. That is particularly the case regarding the will to integrate social care as it is needed by chronically ill, elder or disabled people.

3-B: Per- capita -payment **versus** enforcing the further dismantling of the infrastructures for healthcare

Per-capita-payments have a tremendous impact on the further development of all the infrastructures for healthcare. Prospective capitation will finally development huge Integrated Delivery Systems with ruling market power, which are also integrating the system's functions regarding care provision and insurance at the same time. This corporatized huge structurers show very low levels of transparency. Moreover, critiques have pointed out the apparent deprofessionalization from such concentration of economic and political power.

Per-capita-payments hold the potential for further dismantling infrastructures for healthcare but by differentiating offers according to insurance contracts or the providers' interests. The main focus is the concept of the user. That might be different in for profit provider organizations and in community owned settings for healthcare.

Capitation strengthens the economic management of healthcare under the umbrella of given resources. That makes it central to look after the key interests in providing healthcare. But that concept may have trouble with developing infrastructures in poorer regions because of lower per capita revenues.

Capitation depends on the kind of adjusting prospective payments and the rules on how to use them. It is a question of intentions and of will, but needs supervision by public or independent stewards based on explicitly formulated legal grounds.

The impact of per-capita-payments definitely depends on the entire contract's environment, it is and is particularly problematic in for profit environments with low levels of regulation. Therefore the earning party is regularly satisfied, the working party not. But experiences from the USA show that

capitation develops some strong regulation incentives by the paying parties, which hold the potential to softly dissatisfy the expectations of the providers and the patients. The result is a growing dynamic of infrastructures with growing instability of the systems against the will of the patients and the caregivers.

As long as per-capita-payments are used for making a budget for a region or particular community setting it might help to further develop healthcare. This is specifically true if competition between providers and different health insurance is not allowed and the public becomes involved in dismantling healthcare closely adapted to the community' settings.

3-C: Per-capita-payment **versus** preventing patients from over-, underutilization and mal-practice and supplier induced demand

Prospective per-capita-payment will not set incentives for overutilization but may have impact on underutilization if there are mechanisms allowed using the prospectively paid money by the final provider directly. [45] It shifts the financial risks to the individual provider or to all the budgeted doctors. This way, prospective per-capita-payment may encourage referrals of patients to somebody else. This is also called defensive medicine or simple medicine and is to prevent the owners of capped budgets from costly procedures. Per-capita-payment needs a legal regulations regarding the obligation of treating patients and for referring them to other doctors.. Capitation needs diseases adapted pathways and benchmarks for keeping quality standards.

We do not see any particular inducement of malpractice as long as subcontracting of other doctors is not allowed. Also supplier induced demand is of no particular problem but capitation may induce large numbers of offers as "extras" beyond the insured benefit list and scientific standards. This mechanism makes some doctors demand to hold the insurances' benefit lists as short as possible only for giving chances to extend the list of "extras".

3-D: Per-capita-payment **versus** keeping patients' rights as legally normed or as accepted by international conventions

As in any other prospective payment system, patients have nearly no rights beyond what is in the contract between the providers and the paying party. Any of the patients' rights must be part of particular contract because potential costs must be included into caped prospective revenues.

This is clearly a problem because both the patients and the doctors depend on the contract but liability only refers to the doctors' obligations. In case of litigations this may lead into trouble if not clarified by contract or law.

It seems to be one of the major complains of doctors with capitation that they are prospectively contracted but need to take the risks alone. That, of course, is the idea of capitation but it becomes more difficult if the contracting partner are not the doctors themselves but the employing provider organization and its management.

3-E Per-capita-payment **versus** developing reasonable infrastructures supporting cooperation and coordination of care objectives

[45] Germany may stand for an example: The regional doctors' associations are negotiating a prospective budget for providing any of the listed benefits for out-patient medical services. This budget is administered by the doctors elected representatives. Those doctors are being paid for services using a list with relative prices being calculated in a list of scores. The value of the score depends both on the available budget, the mechanism for distributing it among the doctors, and on the amount of services. In case, doctors would increase the volumes of services for getting more money the value of the score would decrease and or lead to dramatic differences in the doctors' earnings. Because of that is mechanism doctors themselves try to intervene into the misuse of that procedure. For this will not solve all of the problems, rewarding out-patient doctors is a matter of permanent discussion and even of battle. But it limits incentives for supplier induced demands under the umbrella of Social Insurances. This is also the reason why doctors themselves are highly interested to cooperate in planning for the numbers and the infrastructures of for healthcare.

Per-capita-payment sets providers sharply under pressure for risk and portfolio selection. It also sets incentives for outsourcing particular medical services and subcontracting other professionals. But at the same time it also needs coordinated care and cooperation within the provider organization contracting for capped budgets.

The problem is that smaller provider organizations have not the potential to guarantee all of medicine a patient under contract may need help at any time and everywhere. This usually initiates a large number of subcontracted other providers, which are hard to calculate in terms of economic risks or quality. The international experience is that capitation fosters subcontracting of other providers both initiating huge bureaucracies and incalculable risks for quality, liability and economic risks.

3-F: Per-capita-payment **versus** motivating and encouraging healthcare professionals in best practice under given frame-conditions and in permanent further improvement of skills and knowledge

Under prospective capitation there is an interest to perform as demanded by contract but to lowest costs. There are reasons to assume that capitation initiates an interest both in raising salaries for one group of professionals and in reducing them for another. Some also speak of "medical arms race" in order to describe a situation where capped providers try to invest into supply (fixed costs) and to buy selected highly paid experts while underpaying the rest of staff. Also out-sourcing, reducing experienced nursing staff, and focusing on younger doctors (which are cheap and occasionally per duty contracted).

This is not an argument that makes best practice and permanent improvement of skills and knowledge an interest of the providers. But it makes best skills an interest in employment seeking doctors and nurses on their own financial risks to the benefit of management.

Box 4:

4-A: Service adapted payments **versus** providing equal access to necessary, appropriate and efficient healthcare by integrating medical care into social care

The classical concept is fee-for-service payment either by using a fee schedule or by the free trade of payment. It might use flat rates per case, per person or per activity. The key mechanism of functioning is giving providers the power to induce demands and to maximize income. The philosophy is as simple as trading shoes. There are sellers, which are offering services at (Adam Smith) markets and there are customers buying services after checking their wallets. Offer and demand are regulated by the consumer's purchasing power. Not medical indications but individual purchasing power decides about what is necessary, appropriate and efficient or what else becomes integrated into by the sellers' offered and applied packages.

This is most problematic for keeping medical norms for necessity, appropriateness and efficiency. It also sets incentives for integration but depending on the patient's spending capacity. Medical services being paid are applied as being paid. That contradicts any of the traditional very ethics of healthcare but is obviously accepted (socially and legally) in many countries on globe but regularly the more the poorer a country's population is.

This concept is simply good for one part of population, but bad for others. One of the very consequences is the development or the further existence of non-scientific traditional practices of healthcare, which might be based in some valuable healing experiences or not[46].

4-B: Service adapted Payments **versus** enforcing the further dismantling of the infrastructures for healthcare

[46] The problem is to accredit such practices and legally to regulate liability or to get along with litigations. If those practices are deeply routing in folk's medicine it very often is integrated into social communities' support systems at least for the elder and the disabled. But particularly in case of some very severe disease often facing younger people or children we do also know highly problematic behaviors.

Particularly in out-patient services this kind of services will promote a large variety of single doctors' offices being interested in reinvesting earnings into their own facilities if settled in regions with a majority of middle and upper class citizens. Insofar it may help to dismantle a widespread out patient service infrastructure if there is a potential paying party.

If, as usually necessary, contracting with insurances, this payment will foster the establishment of elected doctors' representatives, which are given the obligation to contract for all the doctors even to regulate the distribution of budgets between the doctors. In this case the doctors themselves will be responsible to dismantle the providing system by lowering the negative effects from competitive interests.

In hospital care these kinds of services will mostly have negative consequences for the paying party, the patients and the out-patient system.

4-C: Service adapted Payments **versus** preventing patients from over-, underutilization and mal-practice or supplier induced demand

Service adapted payments are working the way as the particular rules of payment are initiating. But the mechanism is always the same: Payment follows the given treatment or care according to the provider's decision and the financial risk is nearly uncontrollable on the paying parties' side. This concept holds the potential of promoting healthcare both regarding intended and unintended targets. It gives providers the opportunity to maximize their own benefits and to induce demands

The true difficulty is that these kinds of payments need regulation if the paying party wants to promote particular goals. This makes it necessary to increase rules and administration and will often initiate counter-measures if the particular method of regulation will stand against the providers' interests. This seems to be a particularly difficult problem if providers and professionals are split in interest and responsibilities, which they most always are.

There is evidence by experience that service adapted payments are likely to initiate contrary results in relation to goals and need permanent supervision, evaluation and readjustments. The ensuing conflicts have a huge social cost also.

4-D: Service adapted Payments **versus** keeping patients' rights as legally normed or as accepted by international conventions

Providers will treat patients like customers if revenues are bound on customer's decisions and intension. In that case the regular experience says they will be with their patients if paying customers are setting incentives to do so.

A problem is always the documentation and the transparent access to those files for the patients. Numbers of reports suggest that a remarkable proportion of doctors try to document and to bill for many more services and procedures than really applied. And a number of countries, respectively of paying parties, have established particular task forces investigating such fraud.

But there are also reports that doctors stay in permanent conflict between their self-understanding and the ruling power of money. Obviously is this a kind of payment that is permanently testing providers' ethics and some of them may fail and others may not.

4-E: Service adapted Payments **versus** developing reasonable infrastructures supporting cooperation and coordination of care objectives

Service adapted payments obviously have impact on cooperation and coordination and regard adjustments in infrastructures. If providers do not want to share revenues, they will behave that way by selectively offered procedures and by specializing them. This may have tremendous impact on all services because of "cherry picking" and lacking interest to refer patients to potential competitors if they are promising "customers". But there are also reports on "kick-back" payments in case of referrals, but hardly to discuss as a way of cooperation and coordination of healthcare. There are also reports on referrals due to lacking interest to care some particular patients or cases.

Out-outpatient doctors are a particular problem if treating their patients in hospitals or in their own (day-) clinics. That is a kind of providing cooperation and coordination of care that is most important for effective healthcare.

4-F: Service adapted Payments **versus** motivating and encouraging healthcare professionals in best practice under given frame-conditions and in permanent further improvement of skills and knowledge

There is evidence that providers will use these payments for improving offers and skills, but mostly selectively according to given incentives. These concepts are fostering both specialization and selective offers that may initiate to neglect others treatments and medical procedures. Particularly in countries still developing infrastructures for primary healthcare, this may conflict with priorities and best use of scarce resources but widening social gaps in access to healthcare.

The impact on care is ambivalent because progress needs specialization and that is certainly also differentiation; but developing healthcare also means improving healthcare for all. The experience says that the interdependency of service adapted payments and selective specialization needs very comprehensive considerations on how to net infrastructures and professionals but also on providing universal access for all the citizens.

Box 5:

5-A: Target payment **versus** providing equal access to necessary, appropriate and efficient healthcare by integrating medical care into social care

This concept gives some more power regarding medical decision making to the paying party. It is so far a "customer" or a buyer concept. The paying party is defining a specific "product", which is defined by the payers themselves or negotiated with the medical community or even agreed with the patients' representatives. Target payments are a mechanism of "product" medicine with preset or negotiated prices according to wanted benefits or other kinds of interests.

A paying party intending to foster some particular care activities makes a priority list and providers will have to use the list. In result, providers' might use these incentives for maximizing the top and minimizing the less favored and unattractive care activities. Therefore, the same method of payment can show very different results. Thus, the comprehensive effects of these payments on all parts of the healthcare system and its caregiving professionals are often hard to foresee other than costs. This kind of payment strongly supports dependency of service on money rather than on medical necessity and indication. It also may stand in conflict with liability.

The basic assumption is that providers (or at least remarkable parts of them) would rather follow financial incentives than medical evidence.

Service adopted payments are necessarily selective because of being focused on targets. The assessment needs therefore not primarily an evaluation of the methods but on the goals. If the goals are focused on necessity, appropriateness, efficiency or integration these methods of payment will help to fulfill the paying party's selective interests.

5-B: Target payment **versus** enforcing the further dismantling of the infrastructures for healthcare

As any target focused payment depends on goals. If used as a method to maximize competition, than not the method, but the aims of competition have to be assessed. If, in the contrary, being used for dismantling particular wanted infrastructures, the target payment may help to foster the development of wanted infrastructures. It is clear, if the preference is given to primary care and universal access for everybody, target payment will be used for settling this kind of infrastructures into reality. If the preference is given to hospitals and big centralized care provision, target payments will be used the other way around. This is particularly effective if target payments are combined with bundled payments and give some power of decision making to the interest groups behind particular parts of infrastructures.

5-C: Target payment **versus** preventing patients from over-, underutilization and mal-practice and supplier induced demand

Experiences show that service adopted payments may show a tendency toward overutilization by upgrading cases and raising volumes. But at the same time there is evidence that care procedures not targeted by payment will become reduced even if necessary. Particularly in surroundings where providers can financially profit from given medical care or nursing there is always an incentive for misusing target payments and it is recommended to use these concepts carefully und under permanent supervision and readjustment if necessary.

The concept is particularly problematic in hospitals. It may set incentives to specialize even if primary care has to be fostered and hospitals may see reasons to offer only selected diagnostics and treatments.

5-D: Target payment **versus** keeping patients' rights as legally normed or as accepted by international conventions

We do not see any specific interlinking between target payments and keeping legal norms.

But target payment needs always particular legitimation, permanent evaluation and high degrees of transparency. The danger to mix up target payments and corruption is always high.

5-E: Target payment **versus** developing reasonable infrastructures supporting cooperation and coordination of care objectives

Target payments are just an incentive policy. It is an effective way to support everything the paying party wants. The potential problem is making of targets themselves as any other making of a priority list turns out.

5-F: Target payment **versus** motivating and encouraging healthcare professionals in best practice under given frame-conditions and in permanent further improvement of skills and knowledge

Target payments hold the potential to direct professionals the way the paying party wants. Insofar the making of the targets is the potential source of problems but not the payment itself.

In case, as it usually is, financial resources are scarce indirect consequences of target payments are of some concern. This is specifically the case if not legally legitimized groups try to set targets and to pay for.

VI. Discussion

It is the ultimate lesson from that discussion that financing for healthcare has same fundamental impacts on healthcare regarding a number of wanted and unwanted effects. These effects are the source of numberless here not discussed regulations of healthcare, mostly by another variety of payment methods used either to foster wanted and to limit unwanted results. This seems to be an ongoing battle between the providing and the paying parties in healthcare. For that reason it is of importance primarily not to look after particular payment methods but on framing conditions in precise health p0licy formulation.

In that perspective, we see it most important to look after the final goal of healthcare and clearly to consider if healthcare is an issue of for-profit or of public not-for-profit offers. This makes is necessary to identify the true customer of the particular healthcare providers.

The customer is always the paying party. That includes the difficulty that the same medical or other healthcare might have that number of customers as it has paying parties. But if there are more paying

parties than one, all the parties will have a different strength to represent their interest with the patients and their families the weakest part. We see no reason to believe providers and paying parties others than patients would save the patients' rights and interests if not being supervised by the public or by a publics' advocate. This is a key difficulty as consumer out-of-pocket payments mount but power is retained by insurance entities.

Most crucial is obviously the decision-making (1) on the general list of applicable healthcare procedures (benefit list) and (2) on setting the indication for a medical intervention in the particular individual case. The potential conflicts are obvious because any of the decisions may have tremendous impact on healthcare either because of the prices for specific measurements or because of the numbers of persons or cases being treated. Consequently we find two classes of payment concepts. The one is to regulate costs per case or person; the other is to regulate numbers. It is obvious that it is easier to contain cost per case than the volume of indications.

There is a growing number of trials to tackle that problem by switching from paying per case after treatment to pre-paying services using one of the many capitation models of pre-paid services. It is most interesting to learn that pre-payment systems are used in typical market economy surroundings. That is definitely to avoid the typical market and competition failures in case of healthcare. Under that rules we only find typical market behaviors of providers and customers in those segments of care, which are not being covered by paying parties others than the patients. That initiates a development where both providers and insurances or tax-payers try to leave as many treatment procedures as possible to the "free" choice of the patients.

The key is to understand that the payment concepts are differently well adapted to non- or to for-profit incentives. Not the instrument is playing the music, but the musicians' will do using the given instrument.

Most the recent global developments in payment are focused on

- overcoming fee-for-service rules
- transferring the economic risks to the providers and/or to the patients
- adapting healthcare to a delivery system of predefined products
- setting prices by other tools than non-market mechanism
- moving healthcare systems from a seller- to a buyer-ruled system

Whatever is discussed on healthcare reforms issues globally, payment reforms are made either to control costs or to control unwanted effects of earlier made payment reforms. This fact increases regulations and bureaucracy worldwide. It is necessary to develop a Medical Agency only to supervise the providers' and the insurances' behavior. Such an agency has to be strong enough and independent to fine misbehavior.

Bundled payment combined with target payment is finding our preference, but requires careful regional and organizational flexibility. Tools like case-based-payments, such as DRGs for hospital payment may important helper to adjust budgets, to control revenues or to benchmark the use of money and its outcomes for developing the infrastructures. But used for paying per case is problematic, particularly for emerging healthcare systems that are not sufficiently funded.

In result of our discussion, we assume that the assessment of the particular payment concepts primarily depends on the motives of the stakeholders and the framing-conditions, which are given them. This will fundamentally influence the main road of development, which is either devoted to planning or to competition. While planning makes the dismantling of the healthcare system a public affair, it needs democratic rules based on legal, ethical and economic regulations. In contrast, competition needs deregulation and the splitting from macro-political concepts such as health policy and public health. That is the true conflict, which is not to solve be changing payment concepts. In contrast, payment concepts are simple weapons being used in the conflict between different conceptions of developing a society.

In that light, practiced payment concepts might be analyzed for intended health policies. The analysis will result in discovering if a nation is focusing its healthcare system on public health problems or on financial stakeholders' interests. Particularly countries still developing their healthcare systems need closely and permanently to analyze the impact of practiced payment concepts either to evaluate if payment concepts are supportive for health political goals or not.

Our observations on global developments may show some lessons for those countries still dismantling their systems. The central issues are going around two questions:

1. Why need countries developing healthcare systems and why are they doing so?
2. Who pays for the development of infrastructures for healthcare?

Depending on the answer, the consequence is simple. If tax-payers or the public is investing into healthcare systems they are not entrepreneurs, which invest for making financial gains. Consequently there are no credits, no debts, no interest rates, no visions other than providing healthcare for all the country' people. That definitely ties the development of healthcare on the average growth of a nation's economy, but particularly on people's income, respectively on the growth of tax-based budgets[47]. This indeed is different if the systems' further development depends on investor's funds and credits. Here we have to consider capital costs as part of expected revenues. This means we have two different basic mechanisms with different consequences for calculating prices for healthcare.[48]

The second question marks the goals of developing healthcare systems and raises therefore the question of culturally accepted reasons for establishing healthcare systems. These reasons go back to the experience with problems around "inequity and health" and meet three basic concerns. These are (1) the inequity of (social and biological caused) risks to fall ill, (2) the socially unequal access to adequate healthcare in case of need and (3) the social unequal strength to cope with the social consequences of chronic diseases and disability. Therefore, social peace keeping and protecting society from losses due to bad health of the public is certainly the fundamental reason for developing healthcare. But it is obvious that this issue will change if healthcare becomes a major subject of business making for more than only covering the costs for necessary healthcare.

A particular problem is the mechanism of paying for outpatient healthcare. Any direct payment by the patients, even if reimbursed, but also co-payments and deductibles are problematic as studies and experiences have shown. We see that part of payment rules more important than fixing the final rules of paying for hospital care.

The sources of money used for dismantling a healthcare system will have impact on payment concepts'. Countries still dismantling their systems have to answer the question, if healthcare is a public affair or a private consumer preference, if healthcare are opportunity costs or are spend for covering fundamental human rights.

Internationally there is some agreement that fee-for-service causes over-treatment and billing selectively, profiles the provider's portfolio by focusing on financially attractive procedures, limits interests in keeping scientifically accepted standards of necessity and appropriateness, raises interests in defensive medicine and risk selection and discriminates patients covered other than by fee-for-service.

Prospective Capitation is limiting financial risks through foreseeable and calculable budgets, forces interests in defensive medicine and risk selection, makes seeking for contracts the major concern, initiates incentives setting financial gains ahead the patients' needs, sets interest in efficiency top to effectiveness and quality, limits over-utilization but stipulates under-utilization and fosters bureaucracy.

A difficult question is meeting any Out-of-Pocket Payment, respectively any money directly to be charged by the patient. It is often discussed that out-of-pocket expenses would prevent from patients' moral hazard. But unfortunately, there is no empirical evidence for this argument. Others argue doctors would prefer out-of-pocket payments for some more and other reasons than avoiding patients' moral hazard. Insofar it is understandable that some analysts see the moral hazard discussion against patients as the front argument to mask the providers' moral hazard. Out-of-pocket expenses

[47] Two examples: The Healthcare system of the United Kingdom is mostly financed by tax-payers both regarding the fixed and the variable costs. That makes development depending of the country's economic success. In Germany the frame is somewhat different. The variable costs of healthcare are mostly (more than 90%) paid by the Social Health Insurances, respectively its members, which mandatory pay a certain proportion of income, but shared with employers, into a collective "pot". Hospital investments have to be paid by tax-payers. Out-patient facilities are investments of the owners, mostly single doctors, based on credits. Here out-patient doctors have to earn the money both for the variable and the fixed costs what includes costs for the capital services.

[48] By the way: Most of the healthcare reforms in Western Europe have the background of opening up the market of healthcare for private investments and regarding profit making only.

are also expenses not being covered by insurance or a state-run health plan mostly for dentists, optometrists, pharmaceuticals and for some kind of rehabilitation tools and auxiliary devices. In the age of managed care, out-of-pocket expenses can also refer to the payment of services not approved for reimbursement under the health plan's coverage. Internationally, these mechanisms to pay for healthcare are of minor importance in most the advanced systems and are typically policy of individual private health insurance or co-insurance or less developed healthcare systems.

We finally agree that any payment based on budgeting or bundling will be the best way for still emerging systems. This might include some specified case-classifying or episode-classifying approaches or also payment for performance. But which way if chosen ever, payment needs permanent supervision by the paying party.