International Research on Financing Quality in Healthcare

'spend not more, but smarter'

Contents

International Research Project on Financing Quality in Healthcare

The objective of InterQuality was to investigate the effects of financing systems on the quality of healthcare. The study, based on administrative and survey data, lasted 41 months, from December 2010 till April 2014. It was funded by the European Commission within the Seventh Framework Programme for Research and Technological Development. Four different areas of healthcare services — hospital, outpatient, pharmaceutical and integrated care — were taken into account.

The scope of research covered: utilisation of resources and efficiency, equity of access, quality of care, including: outcomes, safety of treatment and patient satisfaction. Resources allocated in each sector were analysed in relation to the risk of their overuse, underuse or misuse. The critical appraisal of individual contracts was based on the New Institutional Economics Theory. The Principal – Agent theoretical framework, the new standard approach to modelling relationships between payers and providers in healthcare, was applied to the analysis of reimbursement schemes.

The first two Work Packages prepared the theoretical background and collected statistical data in the required format. A Dedicated Data Warehouse was launched and exploited by project participants. Work Packages 3 — 6 performed core analytical work by the identification of country–specific institutional settings, the development of sector–specific financing models and organisational solutions and delivering expected project results.

InterQuality sought answers to how the healthcare systems in Europe are financed, what their shortcomings and strengths are, and how healthcare financing reforms are implemented and communicated to the public by the main actors, namely the governments.

Consortium partners:
Medical University of Warsaw, Poland — *coordinator*
Hannover Medical School, Germany
University of Southern Denmark, Denmark
University of Catania, Italy
Urban Institute Washington, USA
University of York, UK
Sopharm, Poland
Standing Committee of European Doctors
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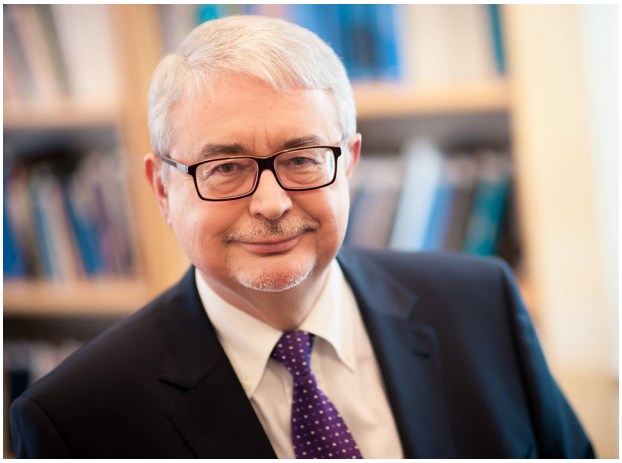


The most important question facing all EU Member States nowadays is how to meet public expectations and needs in terms of healthcare while coping with economic and financial pressure.

Unfortunately, most contemporary healthcare financing systems make quality, cost and coverage problems worse by rewarding volume, regardless of quality or patient outcomes, and paying for procedures and services, regardless of whether they are appropriate or needed. Usually, these systems value expensive technology over patient–centred care and pay richly for acute care but not for the primary and preventive care which could keep people healthier. Increasing healthcare spending often does not improve quality, efficiency or availability of healthcare services.

Therefore, there is an urgent need for innovative models of payment and care delivery, anchored in primary care and focused on ensuring that every patient gets the right care, at the right time, for the right reason.

Almost all EU Member States are in favour of supporting innovation but there is little understanding for innovations in healthcare organisation and management, and even less in healthcare financing.

Nevertheless, more and more people recognize that 21st century medical technology may not be delivered efficiently by 19th century institutions and financing models. Innovations in healthcare organisation and management are not protected by patents, but contrary to new medicines their development does not cost billions of dollars spent on clinical trials and yet they may reduce costs and improve quality all the same. The hybrid US healthcare system facilitates implementation of innovative institutions and financing models. The InterQuality mandate included an investigation of the feasibility of implementing new financing models and institutional innovations proven to be effective in the US, in EU Member States.

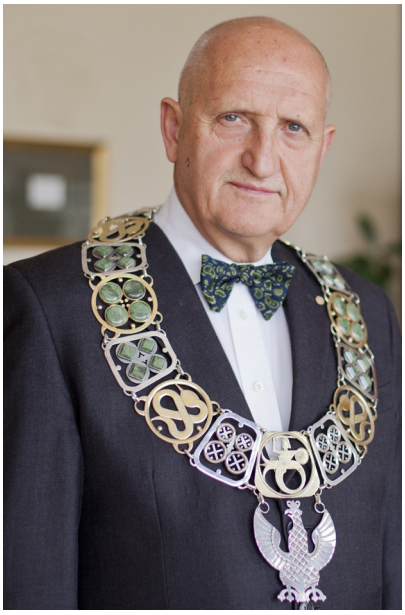
As revealed by WP1, transferring financing models and organisational solutions proven to be successful in a particular country to another cannot be done by simple duplication. The huge role of both institutional settings and subtle characteristics of payment systems appears to be undeniable. Following this observation, WP4 and WP5, using the unique evidence of the Italian natural laboratory of the regionalised healthcare system and the UK Quality and Outcomes Framework, perhaps the most ambitious Pay–for–Performance programme in the world, highlighted crucial aspects related to policy and systemic context as well as design features of payment systems in both hospital and outpatient care.

Improving the quality of health services and the efficiency of healthcare systems is particularly difficult in the context of deepening socio–economic inequities in Europe. Research conducted by WP3 shows significant differences in patients' access to medicines in EU Member States, the causes of which must be sought and dealt with by national medicines reimbursement systems. The WP3 Policy Brief presented guidelines for supporting equity of access to pharmaceutical care.

The implementation of effective integrated care arrangements is probably still the biggest challenge faced by researchers, providers and health policy makers. A proper understanding of the design of contracts between payers and providers, in a situation of asymmetry of information and a high degree of uncertainty, is the key factor which determines success in dealing with this challenge. WP6 presented a structured framework for analysis of contracts between stakeholders in different healthcare systems.

Finally, WP7 demonstrated that an effective communication strategy is the key to the successful implementation of innovative healthcare financing systems, identifying the most important success and failure factors on the basis of the InterQuality consortium countries' experiences.

The above mentioned conclusions are only a sample representing the results of research conducted in the framework of the InterQuality Project. If you are interested in getting a more comprehensive picture of our findings, please let me invite you, on behalf of InterQuality consortium partners, to read this short publication, our Policy Briefs (website address on the last page) and papers published in scientific journals. I believe that the effort of our international research team brought us closer to answering the key question, asked by all health policy decision–makers in the world — how to pay not more but smarter for health services?



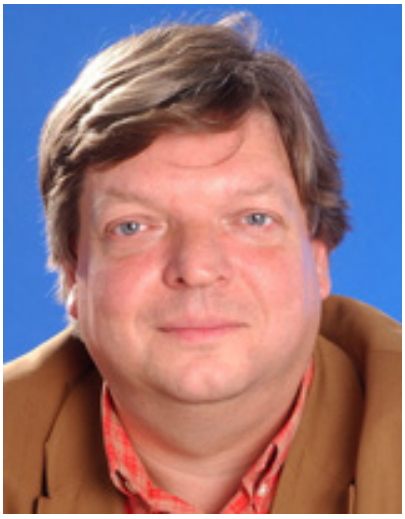
Professor Marek Krawczyk,
MD, PhD, FEBS
Rector of the Medical University
of Warsaw, Poland

The authorities of the Medical University of Warsaw understand the importance of external cooperation and European level research. We do all in our power to raise the awareness and encourage the whole academic community to take part in European funding schemes.

Thanks to that policy, the number of submitted proposals increases every year. The success rate also reaches higher levels. One of those visible successes is the InterQuality project. It was the first European project coordinated by the Medical University of Warsaw and only the third coordinated by a Polish institution in the area of health.

The internal conditions fully encourage international cooperation of research teams from our university. We do hope that the number of EU funded projects will constantly grow, not only to the benefit of our university and country but also the whole European Union.

Creating value through linking quality and financing



Niek Klazinga, MD, PhD
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Quality Indicator program,
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Over the past decade the focus of governance of healthcare systems has shifted from mere cost control to creating a balanced view on the performance of healthcare services and systems and the way how resources are distributed. The linkage between financing and quality has become a major policy concern and the InterQuality project has been instrumental in providing evidence based information on the various strategies that can be applied.

Linking financing and quality on system and services level is also an important topic of debate at meetings of the Organization for Economic Coordination and Development (OECD). Since 2002 OECD's Health Care Quality Indicator project has been developing, testing and reporting on internationally comparable quality indicators. Since 2005 indicators are published on a bi-annual base in Health at a Glance on topics such as cancer–mortality and five–year–survival rates, case–fatality rates for patients admitted to a hospital with an acute myocardial infarction or stroke and potential avoidable hospital admission rates for patients with chronic conditions such as diabetes, chronic heart failure or asthma.

The need to provide transparency on the performance of healthcare services and systems is fuelled by broader discussions about quality and safety in health care and policies to increase consumer choice but since 2008 has also been influenced by the overall economic context in most OECD countries with a sharp decline in spending on healthcare (both public and private) and resulting pressure to increase value.

Countries have set up various strategies to assure and improve quality such as strategies to guarantee the performance of individual professionals (re–certification, continuous professional development), hospitals (licensing and accreditation) and the use of technologies (HTA and evaluation of appropriate use of drugs and devices). Likewise, most OECD countries have a legal framework and various national institutions to monitor quality of care and/or national programmes to improve specific aspects of quality (audit studies, breakthrough projects). Also, the position of the patient as the ultimate user of the healthcare services has been strengthened through legislation and mechanisms to systematically assess patient experiences and increased involvement of patients in decision–making.

All these strategies are directly linked to the potential of countries' information infrastructure to generate valid, reliable and actionable quality indicators. The capability of countries to link existing data–bases via a unique patient identifier whilst assuring privacy and data–security, and facilitating secondary data–use from electronic health records, determines whether performance management can be put in place.

One of the important ways of guiding healthcare services and health systems towards better performance is to align financial incentives with quality objectives. This is the focus of the results of the InterQuality project. As summarised in the various policy briefs, the assessment of the quality–financing link for hospitals, outpatient–care, pharmaceutical care and related policy goals such as equity, integrated care and patient education will support policy makers and healthcare managers in making informed choices and hence increase value in healthcare.

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Work Package 1

Impact of financial incentives on healthcare quality and costs

The objective of the InterQuality project, i.e. to assess healthcare system financing models' impact on quality of care, called for a review of research on healthcare financing models performed to date. Well-known payment methods such as salary, fee for service (FFS) or capitations have been in use for decades. In the meantime, attempts to improve health service quality while keeping costs under control have resulted in new concepts like pay for performance (P4P). In the framework of Work Package 1 (WP1) we performed systematic literature reviews to identify discussions on the influence of financing models on costs and quality of healthcare services.

The rigorous systematic review conceptual schema (PICOTS) was used to search PubMed and Embase covering the period from 1986. Of the 10,950 de-duplicated publications found thus, 129 were taken into consideration. On this basis a proposal for the categorization of payment methods was drafted, advantages and disadvantages of every category were discussed and recommendations on approaches to address disadvantages were developed. In addition, payment models in 23 European OECD countries were assessed against the categorization of the InterQuality project.

The literature review strongly suggests that the impact of a payment method on provider behaviour depends crucially on a number of factors independent of the payment method itself. Examples of such factors are the relative generosity of the payment level and the institutional context in which the payment model is being implemented.

For physicians and hospitals, the two provider categories for which large numbers of studies were identified, the findings are not conclusive. Studies on physicians' payment did not generally demonstrate FFS to be more expensive than capitation or salary, contrary to expectations. Studies on the effect of including more services within capitation did show savings, as expected. P4P programs that focused on quality improvement were generally cost-increasing. For hospital payment, no substantial effect of P4P has been found on selected measures or on patient experience. However case rate payments were shown to lead to shorter lengths of stay compared to other payment approaches.

The remaining question is whether the current body of rigorous studies combined with other studies and, more likely, practical experience provides enough information on which one can develop payment policies. A formal review of literature provides only one input to making viable decisions on implementing payment methods.

WP1 study shows that there is no 'gold standard' among healthcare financing methods in terms of reinforcing quality while not increasing costs. The importance of institutional context requires the development of a tailored payment methods

mix for each case, based on long–term evidence. Despite ambiguity of the results presented it is still possible to indicate solutions which enhance financial incentives such as transparency of the incentive system, noticeability of the incentives and peer pressure.

To promote innovations in the long-term, ratings of providers should act as a basis for financial premiums. Financial incentives should promote investment rather than current spending.

„I was surprised to learn that financial incentives have so little influence on quality. Before I thought money stirrs a lot, but reality is far more complicated than that."

Ad Schuurman
Head of Business Contactcentre and International Affairs,
Dutch Health Care Insurance Board

Work Package 2
Measuring quality in healthcare

Work Package 2 (WP2) had the task to provide the empirical work packages (WP3—WP6) with tools allowing the assessment of the impact of financial incentives on quality in different areas of healthcare. A wide literature review was performed complemented by hand searching of books, monographs and websites as well as through the bibliography of relevant publications.

Quality of health service depends on
a) structural aspects (i.e. the potential to ensure quality),
b) process (i.e. performance) and
c) outcomes.

Organisational and clinical quality assessment are two dimensions of measuring quality. The former includes accreditations, ISO, EFQM (European Foundation for Quality Management), EPA-PM (European Practice Assessment Practice Management) certificates, consumer surveys, and rankings. The latter can include peer review procedures, clinical practice guidelines, as well as the monitoring of patients' adherence to prescribed treatment.

Outcomes, due to their validity and stability, are at the centre of patients' and payers' interest. However, while being indicative of beneficial or adverse events in healthcare, they usually do not identify their cause or nature. Moreover most of the commonly used outcome indicators concern hospital care, which makes

them irrelevant in relation to outpatient care or chronic diseases which are not fatal or acute but lead to a decrease in quality of life or disability.

There are many cost taxonomies, covering both economic and social costs. Accounting costs represent an approximation of the financial value of outlays and resources that were expended in the process of providing a service. Opportunity costs describe the cost of lost opportunity of financing a procedure or provider resulting from the reimbursement of another procedure or provider. Societal costs are costs of underperformance due to illness or adverse effects of treatment, which can occur in patients' families as well as patients themselves.

Efficiency stands for the economic concept coupling effects and costs in one measure. There are certain dualities and difficulties concerning efficiency. The first and probably most puzzling is the perceived lack of interrelation between output (e.g. number of GPs visits) and outcome (e.g. improved health status, for example attributed to better glycaemia control in diabetes patients) in health production. The second difficulty is the apparent conflict between standardized, average outcome, for example described by NICE or IQWIG, and an individual patient's outcome which may or may not be optimal from the standpoint of a nationwide or regional healthcare provider.

Another quality aspect, commonly overlooked or underestimated, is equity. A horizontal inequities index is used to detect potential sources of disparities in healthcare systems and to check if they are unfair in the meaning of deepening health disparities. As healthcare spending is one of the most common causes of health inequalities, the redistributive effect of healthcare payments, e.g. its progressiveness or regressiveness, may be assessed. The index of catastrophic health spending measures the impact of direct out-of-pocket expenditures for healthcare services on households' financial stability.

„I consider it a priority to provide appropriate and consistent quality of healthcare services, measured against EU-wide healthcare quality indicators. The big picture that will emerge from the indicators analysed should set the direction of future developments in healthcare policy."

Dr Adam Struzik
President of Mazovia region, Poland

Work Package 3

Financing Pharmaceutical Care

Pharmaceuticals are an important part of healthcare and healthcare systems. The policy approach to the pricing and reimbursement of pharmaceuticals has significant impact on the outcomes of patient care on the one hand, and research and development of pharmaceuticals on the other. To achieve the best possible clinical outcomes while ensuring the sustainability of financing pharmaceutical care requires a balanced policy approach.

Work Package 3 of the InterQuality project aimed to evaluate pharmaceutical benefit financing (pricing and reimbursement) models. Financing models' effect on the quality, cost and equity of access to medicines and investment, human resources and education issues was explored and addressed.

The research was based on a comparative analysis of pharmaceutical benefit financing models, the description and evaluation of pricing and reimbursement schemes, different aspects of financing access to medicines and their consequences, and drug distribution models. It also looked at organizational, financial and regulatory aspects of pharmaceutical care financing models in Denmark, Germany, Italy, Poland, the United Kingdom and the USA with a view to identifying system characteristics which facilitate high quality care in a responsible financial framework. To this end, theoretical and empirical studies were conducted, with the addition of appropriate standard systematic literature reviews. A first empirical study addressed horizontal equity in access to healthcare and the impact of households' healthcare-related spending, while a second research model examined the effect of expenditures on life expectancy.

The research concludes that access to healthcare combined with the highest possible level of healthcare quality is recognized as a primary goal for all aspects of healthcare. Thus, pharmaceutical care reimbursement, as with other aspects of healthcare reimbursement, should work in tandem and be well aligned with pharmaceutical care delivery systems to support satisfactory levels of patient access. Where EU Member States determine or acknowledge that equity in access to medicines is an important objective, the level of reimbursement should depend on the health and income status of the patient, in particular for highly vulnerable groups.

„It is important to share good experiences like the Danish example in order to improve pharmaceutical care financing."

Dr Chris Pashos
Vice President, Global Outcomes and Epidemiology Research,
Takeda Pharmaceuticals International, USA

Work Package 4
Financing Hospital Care

Ever since the DRG–based Prospective Payment Systems (PPS) were introduced as the main system to finance hospital care, there have been concerns that these payment methods might lead to a worsening in the overall quality of hospital care. Indeed, these concerns might seem somehow reasonable as PPS are usually associated with some negative unintended effects, especially for the quality dimension of hospital performance.

The InterQuality project aimed at studying in depth the typical incentives provided by DRG–based PPS and, in particular, the role of different design and institutional features in affecting the actual realization of the desirable and undesirable effects of PPS.

For this purpose, Work Package 4 (WP4) carried out various researches whose main objectives were:
1) to compare payment systems for hospital care in selected countries (i.e. Italy, Denmark and the UK);
2) to theoretically analyse the effects of PPS as related to important characteristics of healthcare provision;
3) to empirically analyse the effects of the use of PPS on hospital care provision in the Italian regions;
4) to replicate the empirical analyses in other countries (i.e. Denmark and the UK).

Based on our research work we provided ten concrete policy recommendations related to different dimensions of hospital performance: efficiency, quality, medical technology and inappropriateness of hospital care. These recommendations are expected to be able to support states in responding to their particular challenges and context priorities when designing and modifying PPS for enhancing quality of hospital care. The general picture emerging is that DRG–based PPS do not seem to induce a significant worsening of quality of care. Nonetheless, our results emphasize strongly that the main features of the context in which a payment system is implemented are certainly relevant in driving hospitals' behaviour and, in turn, in affecting the performance induced by that payment system.

The overall conclusion resulting from our research is that, despite the effects of PPS not all being desirable, it is not time yet to abandon PPS for financing hospital care.The right direction is to rather to consider more carefully the role of the specific design features of the payment system, as well as the features of the context where the payment system is implemented. Indeed, the role of the specific design features should be viewed as a tool in the hand of the regulator and, more specifically, incentives should be designed exactly to counteract the undesirable and to reinforce the desirable effects of a typical PPS. To this extent, we believe that the results of our research and in particular the policy recommendations provided will certainly be useful for policy makers in moving a step forward toward an optimal design of DRG–based PPS.

„The InterQuality Final Conference drew my attention to the diversity and complexity of processes shaping European healthcare systems. I believe that bold efforts to adapt the best, evidence-based organizational and financial arrangements for local settings, together with on-going development, are crucial for improving quality of healthcare services at provider level."

Dr Artur Prusaczyk
Vice Chairman, Medical and Diagnostic Centre, Siedlce, Poland

Work Package 5
Financing Outpatient Care

A widely accepted definition of outpatient care includes traditional primary care provided by general practitioners (GPs) as well as community support services provided to patients before and after hospital treatment. For the purposes of the InterQuality project, also community-based specialist services and the non-hospital elements of independently run services, such as mental health care, were considered as outpatient care services.

Work Package 5 (WP5) investigated the most effective financial mechanisms in this sector of healthcare. Collaborative work was undertaken with partners in Poland, Denmark and Germany to identify case studies of incentives in different health systems, but the best documented examples were found in the UK national health service (NHS).

Applying the general findings from Work Package 1 to outpatient care confirmed the importance of the health system context — type of health service, basic remuneration method — in designing financial incentives. The general health policy context was also found to be important e.g. are budgets increasing or decreasing, are there plans to shift the location of care from hospitals to the community?

Despite the difficulties of conducting the research, important conclusions may be gathered from the UK Quality and Outcomes Framework (QOF), an ambitious scheme to link implementation of evidence- based clinical guidelines to GP reimbursement, through monitoring performance against a series of measurable performance indicators. The QOF has been running for nearly ten years and several studies have shown that performance against the indicators has improved over time. More recent studies have proved that the extra expenditure of the QOF has been cost–effective in terms of delivering better health outcomes for patients. The implementation of the QOF has also shed light on the importance of the operational feasibility of incentive

schemes, their acceptance by professionals and the generosity of incentives (relative to the difficulty of meeting the performance targets). Two other important findings are that a rigorous system of monitoring performance is needed to reduce the risk of 'gaming', and that the specificity and challenge of the targets needs to be continually increased as the evidence-base increases and achievement of quality standards becomes an accepted part of routine practice.

Finally the research conducted by WP5 produced some recommendations that will be relevant to policy makers willing to reform healthcare financial systems.

These recommendations include:
—The importance of flexibility of reimbursement mechanisms;
—These incentives will need adjustment to specific policy contexts and healthcare systems in order to be more effective;
—To achieve integrated care it is necessary to identify the appropriate location of each stage of care and to design a financing system which provides incentives for care to be delivered at those locations.

„The involvement of doctors in the policy process is necessary to secure their support for the changes. The perspective of doctors is that political and financial considerations can never be stronger than those concerning better care of those in need and higher patient safety."

Dr Konstanty Radziwill
Immediate Past President, Standing Committee of European Doctors

Work Package 6
Financing Integrated Care

The fragmentation of healthcare services is a common characteristic of healthcare systems across Europe, as different sectors of healthcare or healthcare and social care are seldom integrated. Work Package 6 (WP6) of the InterQuality project therefore studied models of integrated care to assess their impact on the cost and quality of healthcare services delivered.

The research highlights the variety of definitions of 'integrated care', including the approach proposed by the InterQuality typology which suggests to "[…] define integrated care as care that involves more than one provider and includes some attempt(s) to co–ordinate or integrate this care more effectively than has been usual, particularly if a change in payment arrangements was involved in the integration".

Models of integrated care demonstrate a variety of approaches, where scope, intensity of integration, extent of integration, and area of application may differentiate as factors according to systemic context. In order to establish the models' efficiency, the research seeked to establish their impact on improved quality of care, i.e. clinical outcomes, cost–effectiveness, and patient-related outcomes e.g. quality of life, patient satisfaction. To this end a systematic literature review was carried out, with a focus on the results of research on the effectiveness of integrated care for patients with chronic conditions in Europe. This was examined in terms of patient outcomes and healthcare costs, in particular in randomised control trials.

The research concludes that there is still a lack of evidence as to the benefits of integrated care. This may in part be attributable to the difficulty of evaluating interventions and transforming them to daily practice. So far the expectations of higher quality and cost–effectiveness of patient care through integrated care concepts are not met and empirical data is still missing. Integrated care will probably prevail only if proof of improved care compared to standard care is provided.

„The patients' perspective is crucial for finding the answers that the project has been looking for."

Dr Kim Helleberg Madsen
Head of Division, Danish Health and Medicines Authority

Work Package 7

Guidelines on Healthcare Financing Reforms Communication

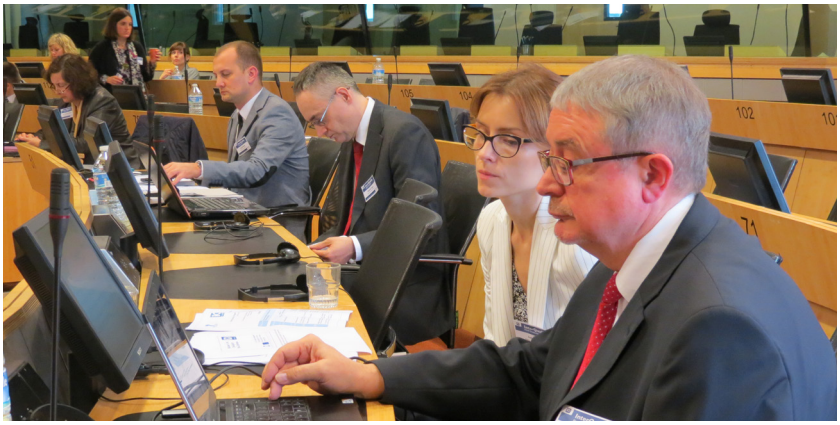
Once an appropriate model for the financing of healthcare services has been identified, policy–makers face the task of translating it to real–life practice through a healthcare reform. Given the complexity of healthcare policy and the number of stakeholders involved, the negotiation and implementation of healthcare financing reforms can be significantly affected by political opposition, public opinion, and key stakeholders' positions. If a lack of support for the reform is sustained, it endangers the effective implementation and thus the benefits expected of the financing model therein. To overcome these barriers, effective communication is crucial.

Work Package 7 therefore examined healthcare financing reforms' communication strategies. The objective was to identify good and bad practices in planning, integrating and executing communication strategies, with a view to compiling the resulting recommendations in Communication Guidelines.

The research examined existing literature on reform communication with the objective of identifying recommendations and good practices. These examples were consolidated in a matrix. In a next step, reforms in Poland (1999), Germany (2004) and the USA (2010) and their supporting communication campaigns were chosen as case studies. These case studies were analysed as to the overall reform context, the role of communication, communication tools and channels, as well as actors involved in the communication activity. In a final step the matrix with recommendations was populated and validated with the findings of the case studies. This led to a revision of the matrix to ensure the recommendations are feasible for real–life reform communication.

The research concludes that communication, or the lack of it, can indeed crucially affect the negotiation and implementation of a healthcare financing reform. Mutual communication between the government and other political actors, stakeholders (whose involvement should be ensured from the very beginning of planning the reform to its implementation) and the public should be planned in a comprehensive communication strategy and be integrated into the work of the reform from the very start. A clear identification of the target audience is necessary to ensure that messages are appropriate and understandable. The needs of target audiences should also be reflected in the choice of communication channels and tools. An evaluation of the campaign should be integrated in the communication strategy. Lastly, the national political and socio-economic context plays an important role in shaping debates, and should therefore be considered carefully.

Final conference impressions



International Research on Financing Quality in Healthcare

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