

# Medical Doctors' Attitudes towards Pay-For-Reporting in Macedonia: A Web-Based Cross-Sectional Survey

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## Abstract

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**Key words:** Pay for reporting (P4P); job satisfaction; doctors strike; health reform; Macedonia.

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**Competing Interests:** The author have declared that no competing interests exist.

**Objective:** To determine medical doctors' attitudes towards the implementation of the new pay-for-reporting system in the public hospital sector.

**Data Source:** An electronic survey was conducted among 303 medical doctors in the Republic of Macedonia using the database of Healthgrouper.com, an online provider of information for healthcare providers.

**Principal Findings:** Majority (61.9%) of all surveyed doctors are against the proposed pay-for-reporting (P4R) reform. Disapproval is much higher among the doctors employed at the public hospitals where 79% consider that pay-for-reporting project has to be abandoned. Doctors are against the proposed P4R system that only measures quantity of the work. According to majority of the doctors current model is subjective; it opens possibilities for bias and misconduct, and puts the clinical teamwork at jeopardy.

**Conclusions:** Massive support against the implemented P4R reform was expressed by the Macedonian doctors employed in the public sector. The model should integrate parameters such as quality and complexity of delivered services to patients. Better integration and engagement of doctors is essential to assure support and smooth implementation of P4R reform as sound policy in practice. The Ministry of Health should set key parameters to be monitored by hospitals to evaluate the success of the P4R system.

## Introduction

The Ministry of Health (MoH) of the Republic of Macedonia embarked to develop and implement new financial incentives for doctors employed in public hospitals to improve the quality and efficiency of the delivered health care services. The idea behind this new reform follows the enthusiasm, present in more developed countries, to use financial incentives as a tool to steer

doctors towards better performances and quality improvements in the delivery of health care services [1-3]. Pay-for-performance (P4P) is one of these models that gained momentum over the past ten years. This policy approach is used to provide incentives to doctors and providers aimed to achieve better performances, to improve efficiency, and to increase the quality of care. The foundations of the P4P model can be traced back in the economic theory that linked financial incentives to

behavior change. While this is rather true for individual providers, the main challenge is how the financial shift would reflect in complex organizations such as hospitals [4]. There are numerous models in the design of P4P schemes. Diverse models and combinations can be found at various private or public health providers. The main differences are definitions used of what in fact constitutes "performance" and how it is measured. Trisolini differentiates four main definitions in P4P schemes: *pay for quality, pay for reporting (P4R), pay for efficiency, and pay for value*. Each of these models has its specificities in the way how its success is evaluated. Current experience suggests that P4P incentives may be targeted at various levels such as individual providers, organizations or departments, or at institutions such as hospitals [4]. There are ongoing policy debates whether financial incentives would yield better results: if targeted at individual (doctors') or at institutional level [1]. Moreover, what type of quality measures should be used in order to assess program effectiveness and impact? Recent P4P programs in the USA implemented over Medicare has included a set of quality components, gradually to be implemented in the next five years (2012-2017) to assess institutional performance of the providers. The quality measures cover the clinical processes, patient experiences, patient mortality, hospital-acquired conditions and patient safety [3]. Medicare's support towards these programs is expected to grow in the following years as the Affordable Care Act is implemented in practice [5].

The initial enthusiasm and success in the implementation of variations of P4P projects [6] is constantly being challenged since there is no clear and replicated evidence in the success of these policies [7-12]. Current evidence suggests that there is no clear successful P4P model. Namely, there are growing concerns among policy makers whether this approach will improve value for health and isn't it premature to foster it further without clear evidence base [9]. Recent study conducted in the USA compared clinical outcomes between 252 hospitals that had participated in Medicare program, and found no evidence that the program led to lower mortality rates [10]. The new evidence on P4P is emerging [13] but the key policy dilemma remains: will P4P improve the quality of care? [14].

The Macedonian model of pay-for-performance has officially been started since July 1<sup>st</sup> 2012. The implementation of this project triggered a general strike of doctors in the country. The doctors' strike was called with three main requests to the Ministry of Health: to

increase the salaries, to abandon the P4P model, and health authorities to show more respect towards the doctors. Our study has analyzed the doctors' attitudes towards the proposed model.

## **Pay-for-performance (reporting) model in Macedonia**

The policy initiative to introduce P4R in the public hospital sector in Macedonia came up over the manifesto phase of the health system reforms in 2008 when the government strictly followed its pre-election promises and commitments [15]. A working group was established to explore international experience in P4P schemes and to propose and develop initial model. The Turkish Performance Based Supplementary System implemented in the public hospitals was found as most suitable, despite no evidence of its effectiveness in practice [16,17]. This system measures institutional and individual performances of doctors. It provides balance between interest of individual physicians to perform higher volume, and group interest of the institution to achieve overall institutional quality [18]. The Turkish model provides possibility to hospital management to multiple doctors' salaries several times above the basic salary.

In Macedonia P4P was developed into unique form. It is very difficult to find any written documents that explain the Macedonian P4P model. The only available documents are by-laws adopted by the managing boards, and a written manual that explains how the doctors should enter individual cases into web-based application [19]. What in fact constitutes Macedonian P4P model? The P4P is based on mandatory reporting of each intervention/procedure individual physicians' performances. The model measures individual physicians' workload, and not the performances of a clinical team or hospital. Special web-based application was developed and each doctor has its online login information to register interventions he/she performs. The system (application) generates monthly reports and gives a review of all services provided by doctors at specific providers. Data are analyzed at the level of providers, and are also available for control at the Ministry of Health. The model does not contain any evaluation system, nor does it include quality measures at the present stage of development. In financial terms it considers 100% salary of individual physician as a starting point. Monthly variations in the salary of +/-20% per physician are allowed. The doctors' performances

are compared within their own departments, and not against the other doctors working at similar public providers. Thus, if one hospital/department has on average of 50 interventions/procedures per month, while other has on average of 10 interventions/procedures per month, in the end the model may generate lower salaries to the doctors who work at institutions that perform more interventions. In fact, the model measures individual doctor's workload as quantity of interventions delivered over one month. It does not integrate other performance measures such as quality, teamwork, complexity of the interventions, nor does it include any hospital outcome measures. Thus, the Macedonian model of pay-for-performance is a simple form of pay-for-reporting (P4R). The implementation of the P4R project showed as tip of an iceberg in the overall low job satisfaction among the doctors in Macedonia [20]. In April 2012, a new Health Care Law was adopted by the Parliament of the Republic of Macedonia and one article refers to the part of the salary based on performance of doctors [21]. Due to the highly centralized nature of the Macedonian health care system, where all decisions are coming from the top, the final model without any additional explanations and written policy material was put forward for adoption. The managing boards of all public hospitals (hospitals, clinical hospitals and university clinics) were requested to adopt the proposed bylaw. Only few hospital boards refused (University Clinic for Maxillofacial Surgery, University Clinic of Abdominal Surgery) to adopt the model as suggested by the Ministry of Health. Despite the objections, the pay-for-reporting system was implemented.

## Materials and Methods

We conducted an email survey among doctors employed in the private and public sector in the Republic of Macedonia. The main objective of the survey was to assess the doctors' attitudes over the implementation of various aspects of health care reforms. Special set of questions addressed doctors' attitudes over the P4P project, influence of politics in the health care sector and their support of the principles for the scheduled strike. The questionnaire was prepared and distributed via email to a randomly selected group of doctors from the database of *Healthgrouper.com*, an online provider of comprehensive information for doctors and health providers. *Healthgrouper.com* possesses a database of information, including emails, about doctors who voluntary register on the web site. We also used other sources to obtain valid email addresses of medical

doctors. Final database consisted of over 2000 validated email addresses of medical doctors from Macedonia. We sent out email invitation and an explanatory note for the purpose of the survey to randomly selected sample of 500 doctors working in public and private providers.

A questionnaire consisting of 20 questions was used as a study instrument. Nine questions were used to collect general information such as age, sex, type of specialization, work setting, experience and place of employment. Eleven questions addressed doctors' attitudes towards the various aspects of the health reforms. The questions consisted of positive statement on the selected aspects of health reforms. The respondents were offered possibility to agree or disagree with the statements. Distribution of possible responses was spread over five-point Likert scale from "strongly agree" to "strongly disagree". The last question was open-ended, leaving the possibility for doctors to comment on obstacles to health care reforms. The survey was kept open for ten days and only one email reminder was sent to the selected sample of doctors. Healthgrouper Research Unit has conducted other researches using the same methodology, which built the credibility and confidence among doctors community in the region to participate [22,23]. To prevent duplication in the responses the survey was designed to enable only one answer per respondent. After closure of the online survey, all responses were checked and any inaccuracies or duplication eliminated. In total, 346 participants responded to the survey. Of these, 18 responses were eliminated since the respondents were qualified as non-medical doctors. Out of the remained 328 doctors, 25 were dental doctors who were excluded from the further analysis due to their small number. Out of the remaining 303 medical doctors, 295 responded to all questions in the survey, while 8 cases were reported as missing. The results were analyzed over simple frequency distribution of responses. In addition, data stratification was performed according to the place of work of doctors and their position at various levels across the health care system. Finally, text content analysis was performed to open-ended questions. Similar answers were grouped into three meaningful categories.

## Results

Mean age of the doctors was 45.5 years, and 48.8% of the doctors declared working experience of over twenty years. According to sex distribution 161 or 54.6% of the respondents were females, while 134 or

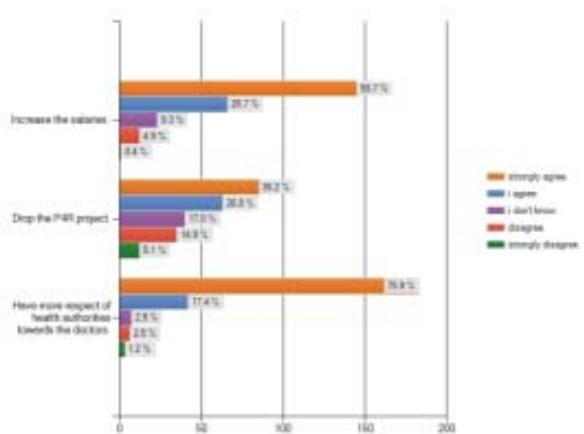
45.4% were males. Most of the doctors, 123 or 40.6% were employed at the primary health care sector, 48 or 15.8% in the specialized clinics, 71 or 23.4% in the general hospitals, while 61 or 20.1% of all surveyed doctors were working at the university clinics (Table 1).

**Table 1: Socio-demographic characteristics of the study population.**

<b>Numerical Variables</b>		<b>Age</b>
Mean		45.5
Mode		50.0
SD		9.65
Range		25-65
<b>Categorical variables</b>		
Sex	N	%
Female	161	54.6
Male	134	45.4
<b>Total</b>	<b>295*</b>	100%
<b>Place of employment</b>		
Public providers	N	%
Private with HIF	118	40.00%
Private only	137	46.44%
Unemployed	34	11.53%
<b>Total</b>	<b>295</b>	100%
<b>Working experience</b>		
1 to 9	N	%
10 to 19	86	29.15%
>20	148	50.17%
<b>Total</b>	<b>295</b>	100%
<b>Type of provider</b>		
Primary health care	N	%
Specialized clinics	123	40.59%
Hospitals	48	15.84%
University Clinics	71	23.43%
<b>Total</b>	<b>303</b>	100%
*Mising cases	8	

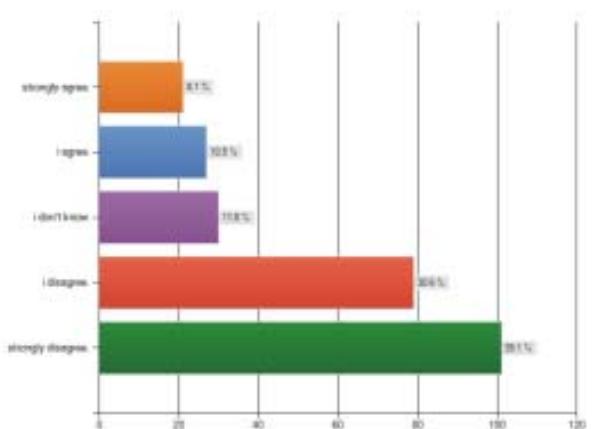
The survey results showed strong support against the P4R project among 65% of the surveyed doctors. Majority of the doctors who participated in the survey strongly supported three main reasons why the strike was called (Figure 1). The overwhelming support doctors devoted to the need for health authorities to change their behavior towards the doctors. This reason alone found support among a great majority of 93.3% of all doctors regardless of the place of employment (public or private). Even 75.9% of the doctors strongly agreed with the statement "*I support the strike organized by the Independent Union of the Clinical Center due to the need for health authorities to show higher respect for the doctors*". Additional 17.4% opt for „I agree” with the

above statement. Furthermore, majority of the doctors expressed a strong support for the strike due to the need to have higher salaries. Majority or 58.7% of all surveyed doctors agreed with the statement "*I support the strike due to the need to increase the salaries*" and were in favor of going out on strike, while additional 26.7% opt the option "I agree" thus making in total 85.4% of the surveyed doctors in favor of strike due to the need to increase the salaries.



**Figure 1: Doctors' attitudes towards the main principles of the scheduled strike.**

The survey results showed a strong support against the P4R project among 65% of the surveyed doctors. Additional 26.8% were also against, thus making a total of 65% of the surveyed doctors who were against the P4R model as proposed by the Ministry of Health. The remaining 37% were neutral or disagreed with the statement (Figure 2).



**Figure 2: Doctors' attitudes towards the proposed P4R model.**

Finally, in order to assess doctors' attitudes towards the influence of politics in the health care system doctors were asked to share their attitudes towards the following statement: "*Politics and political party interests have big influence in the health system*". Great majority of the surveyed doctors strongly agreed with this statement (54.8%), while additional 31.3% chose "agree" as option on the scale. Overwhelming majority or 85.1% of the surveyed doctors thought that politics plays major role in the health care system in the country (Figure 3).

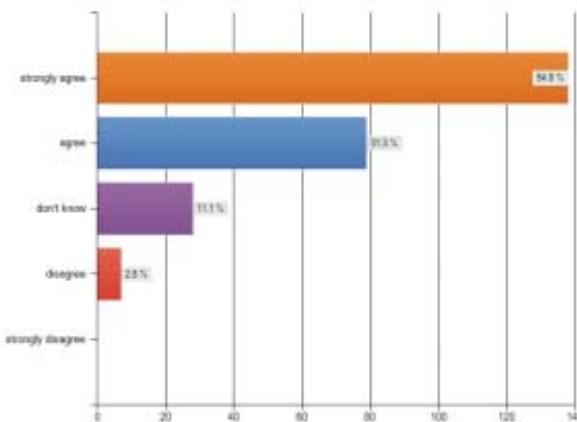


Figure 3: Influence of politics in the health sector.

In addition to the distribution of the responses along multiple options, the doctors were invited to share their opinion and to comment on questions. The statement presented in Figure 2 provoked 68 written comments of the doctors. Three major groups of problems were specified by the doctors on the proposed P4R model: the current P4R model does not measure the quality of the services provided; it lacks transparency; and it creates conflicts within clinical teams and departments.

## Discussion

For the first time the majority of doctors employed in the public hospital sector in Macedonia expressed/demonstrated unity against the health policy proposed by the Ministry of Health. In order to prevent the doctors' strike the minister of health filed case against the strike at the Court in Skopje. In just two days the Court decided in favor of the Ministry of Health and banned doctors' strike, due to lack of procedures on the organization of everyday work. Parallel to these processes suddenly new doctors' unions were established to support the

implementation of P4R project and were against the organized strike. The speculations in the local media were that the new doctors' unions were politically initiated. On September 24, 2012 the doctors from a number of hospitals in Macedonia went out on 30 minutes protest. On November 14<sup>th</sup> 2012, a general strike of doctors started in Macedonia.

Five key points stand out. First, majority of the doctors are not against variations in their salaries according to performances of their work. Their main objection is towards how the P4R policy is implemented in practice. Lack of transparency, no clear explanation of the methodology used, possibility for bias and subjectivity in the measurement of individual performances creates strong front among doctors against the proposed reform.

Second, majority of the doctors are convinced that the pay-for-reporting is related only to quantity or the number of performed services. International experience in implementing P4P schemes shows the importance in measuring performance over a set of individual and institutional parameters [1,3,4]. Macedonian doctors (rightly) request the need to integrate additional parameters in measuring performance such as quality and complexity of the work done. Individual doctors' skills, title, work experience, ability of clinical teamwork as well as other characteristics should be considered in order to provide more justifiable P4P model in Macedonia. Having these problems in mind the majority of the doctors consider the current P4R model as subjective (with possibilities for subjectivity and misconduct).

Third, overwhelming majority of the doctors expressed their strong dissatisfaction regarding the current government behavior and respect towards the doctors. Over the past years there have been unprecedented public attacks in the media against doctors from high officials in the government. The accumulated anger and disapproval with the government policies resulted in over 90% support for the strike among the surveyed doctors. In another survey recently conducted by *Healthgrouper.com* widely communicated in local media, a great majority of the doctors reported low job satisfaction, and willingness to change their jobs [20]. Findings of this survey have just confirmed the earlier results.

Fourth, great majority of the doctors are convinced that political parties play a major role in the health care system. This finding was clearly expressed by 85% of the surveyed doctors. The influence of politics and inability of public hospitals to take autonomous

decisions was also case where board members of one institution were replaced since they did not agree with the P4P model as presented by the MOH (University Clinic of Maxillofacial Surgery). Arising of parallel doctors' unions is also perceived among the majority of the doctors as direct influence of politics in the health care system. The influence of politics in the health care system in Macedonia was also documented elsewhere [15,24].

Finally, since it is very unlikely that the P4R would be completely abandoned in Macedonia, it will be of crucial importance to define what parameters will be used to monitor and evaluate the program? [3,4] Hospitals, doctors, policy makers and researchers must be able to learn from the practical experience in implementation of this program in practice.

Our study has some limitations. The sample size of the doctor population may not be representative of the total doctor population in the country. Moreover, we are not able to assess the differences between respondents and non-respondents in the survey. There is possibility that doctors who are against the proposed reform are more likely to participate in the survey.

**Conclusion:** Our study showed a strong disapproval among doctors for the proposed P4R model as presented by the Ministry of Health. The lack of transparency, no written policy and limited participation of doctors resulted in a huge opposition front against the proposed model. Regardless of which P4P models are used, the experience shows that crucial factor for success or failure is the level of participation of the doctors in program design and its implementation. Appropriate balance should be found to link the individual and institutional performance, followed by an evaluation framework. In order to make hospital P4P program in Macedonia to remain, there should be many changes to make present idea a sound health policy.

We have come up with four main recommendations to the policy makers in Macedonia: first, the Ministry of Health should start publishing an independent report that would summarize current evidence, analyze existing system and propose changes accordingly; second, the new process in the policy development should directly involve doctors via professional associations in all stages of design of the P4R model; third, P4R model should be tested in several pilot hospitals to enable comparison of the results across defined targets between hospitals that would implement P4R schemes against those that would not. Finally, it is

essential to define the parameters that would be used to evaluate the success of this policy into practice. Otherwise, there is a great risk that one good idea would fail before it is ever implemented in practice.

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