

## Variable compensation in Primary Healthcare: a report on the experience in Curitiba, Rio de Janeiro, Brazil, and Lisbon, Portugal

Paulo Poli Neto <sup>1</sup>  
Nilza Teresinha Faoro <sup>1,2</sup>  
José Carlos do Prado Júnior <sup>3</sup>  
Luís Augusto Coelho Pisco <sup>4</sup>

**Abstract** *How professionals are compensated may affect how they perform their tasks. Fixed compensation may take the form of wages, payment for productivity or capitation. In addition to fixed compensation, there are numerous mechanisms for variable compensation. This article describes the experience of Curitiba and Rio de Janeiro in Brazil, and Lisbon in Portugal, using different models of performance-based compensation. In all three of these examples, management felt the need to offer monetary reward to achieve certain goals. The indicators analyzed the structure, processes and outcomes, and assessed professionals individual and as part of healthcare teams. In Lisbon, variable compensation can be as high as 40% of the base wage, while in Curitiba and Rio de Janeiro it is limited to 10%. Despite the growing use of this management tool in Brazil and the world, further studies are required to analyze the effectiveness of variable compensation.*

**Key words** *Primary healthcare, Efficiency, Quality of healthcare, Compensation*

---

<sup>1</sup> Secretaria Municipal de Saúde de Curitiba. R. Francisco Torres, Centro. 80060-130 Curitiba PR Brasil.

ppolineto@gmail.com

<sup>2</sup> Programa de Pós-Graduação em Tecnologia em Saúde (PPGTS), Pontifícia Universidade Católica do Paraná. Curitiba PR Brasil.

<sup>3</sup> Secretaria Municipal de Saúde, Prefeitura da Cidade do Rio de Janeiro. Rio de Janeiro RJ Brasil.

<sup>4</sup> Departamento de Medicina Geral e Familiar, Faculdade de Ciências Médicas, Universidade Nova de Lisboa. Lisboa Portugal.

## Introduction

Modern healthcare systems, which date back to the early 19<sup>th</sup> Century in Germany and the early 20<sup>th</sup> Century in the UK and other Western European countries, have become increasingly complex and now offer a wide range of services<sup>1</sup>. This period witnessed an upsurge in new diagnostic and treatment method, an increased fragmentation of healthcare work. McWhinney and Freeman defines this as the “era of specialties”<sup>2</sup>.

Numerous countries have organized their own national health systems seeking a suitable balance between the supply of generalist and focal specialists<sup>3</sup>. Independent professionals – those not connected to any private or public network –, have become increasingly rare.

The compensation mechanism for independent professionals is payment per event - office visit or procedure. Wages, or fixed compensation, is the most common form of compensation in all public and private sector health ventures, and takes the form of payment for performing a role for a specified period of time. Countries that decided to hire primary care physician who were formerly independent professionals when they created their national healthcare systems, created a third mechanism of fixed compensation - capitation, which comes from the word *capita* (head), and links compensation to the number of persons followed by a professional or team<sup>4</sup>.

Although compensation has always been important for the managers of healthcare systems, concern about the link between compensation and the content of the service offered is rather more recent. Before that, managers were responsible for offering a given service and for hiring the professionals to provide these services, than for really managing the clinic’s performance<sup>5</sup>. In the case of the UK’s National Health Service (NHS) this movement started in the nineties and became known as clinical governance. In clinical governance, management looks at the standard of care, which prior to that had been the concern only of the professionals involved or of professional corporations<sup>5</sup>.

Two factors appear to stand out in the quality of clinical care provided by healthcare professionals: the professional culture in which they were trained and in which they work, and how they are compensated. Professional culture combines a set of ethical and technical elements that provide the boundaries of what most professionals believe to be suitable behavior<sup>6</sup>.

In Brazil, the public healthcare system primarily pays its ambulatory care professionals a

wage, while the private system often pays based on output. Both have advantages and disadvantages, with greater or lesser output and greater or lesser resolution, among others. In the more socially developed nations, most healthcare professionals are paid based on capitation. In other words, an amount is set per person for visits to the family physician or primary healthcare teams. Chart 1 summarizes the different types of primary healthcare compensation, showing that they all have desirable and undesirable effects<sup>7</sup>.

Some studies have shown that the best results are achieved using a combination of different compensation mechanisms, normally with a larger fixed component (~60-70% of the total), with the remainder being variable<sup>5,7</sup>.

Variable compensation or pay-for-performance can take many forms. Experience includes payment for specific procedures such as minor surgery, or for e-mail contact with patients, others use a range of indicators that go from following up the health of specific population groups to blood pressure or blood glucose control in diabetics, to intermediate measures such as the number of office visits or people seen.

Variable compensation in healthcare systems that employ their own physicians under direct administration normally results in a contract for services relationship between managers, professionals and users. In Brazil, primary healthcare is normally managed directly by the city health departments, state foundations or social organizations. Increasing the financial component to employee compensation is one way to stimulate the performance of tasks that the previous or original professional link was unable to.

The goal of providing a performance-based differential is to produce a new professional culture. For this reason, incentives should focus on activities that most professionals do not consider part of the normal, run-of-the mill service they provide. This set of indicators should be changed from time to time, to encourage working processes or activities that are rarely performed. Where there appears to be a consensus regarding the importance of variable compensation for healthcare professionals, the content of these assessments touches a nerve. Work at primary healthcare centers is complex and subject to a number of variables, just as the well-being of a population and its health indicators are influenced by areas of society other than health services themselves. One of the risks is that variable compensation will focus too much on one or another population group, to the detriment of the core characteristics of primary healthcare, such as ease of

**Chart 1.** Summary of the incentives associated with the different compensation systems, and how they affect family physicians.

System	Effect
<b>Capitation</b>	Induces physicians to minimize cost and effort by: retaining patients following up less frequently and as quickly as possible referring patients to specialists more often selecting low-risk patients offering preventive and long-term curative care expanding their patient list
<b>Payment per output</b>	Induces physicians to maximize output (visits, consultations, treatments) by: inducing demand attracting more patients (e.g. by improving quality of care) working long hours focusing only on variable compensation minimizing visit time being reluctant to refer patients to specialists claiming procedures that were not performed defining cost per unit efficient time management (increased productivity)
<b>Wage</b>	Does not induce: careful cost management cost containment attracting patients being sensitive to patient needs Induces physicians to minimize efforts to: select low-risk patients shorten office visits limit the number of office visits and consultations referring to specialists more often to produce a limited amount of information about the content of care reducing the pace of work working overtime if overtime pay is available
<b>Target-based compensation</b>	Induces physicians to minimize costs: only provide the anticipated care no effort to achieve targets, unlikely targets will be met
<b>Budget</b>	Induces physicians to purchase services for cost-effective care maximize medical care in the practice delay referring patients to specialists increase the attractiveness of the year of reference serving as the basis for defining the budget select low-risk patients replace services that can be funded by others that have no funding agreements with healthcare service providers subscribe to the scheme if a decline in activity is predicted reduced effectiveness when the budgeting system is abolished and accumulated surplus may be used

Source: Adapted from the Dutch Healthcare Authority<sup>7</sup>.

access, continuity of service and scope of care<sup>8</sup>. There are also ethical issues due to the possibility of shaking a patient's confidence in the physician,

thinking that he or she may be performing more on behalf of achieving an indicator than on actually addressing the patient's needs<sup>9</sup>.

Payment for performance started in Australia in 1994, and was soon adopted by Canada, the US, New Zealand and the UK<sup>9</sup>. A number of cities in Brazil, such as Curitiba, have been using this model since 2002<sup>10</sup>. Reflecting on the experience in Brazil and other countries, in 2013 the Brazilian Ministry of Health launched a Program to Improve Access and the Quality of Basic Healthcare. This program, known as PMAQ-AB, passes to the cities a financial incentive linked to the performance of its primary healthcare teams, measured against a number of indicators. This has greatly increased variable compensation in Brazil<sup>11</sup>.

The experience of Curitiba, Rio de Janeiro and greater Lisbon (Portugal) described below addresses in particular the transition from fixed wage per hours worked to variable compensation.

The goal of this article is to provide a summary of each of these experiences, how they took place, the indicators selected, and the current implementation phase.

### Variable Compensation in the Curitiba City Health Department

#### Brief background

In the Curitiba City Health Department (CHD), the variable compensation policy was defined by CHD administration. It is considered an ally in motivating healthcare professionals, innovating the working process and achieving targets agreed with management. It is also proving to be a suitable tool in the search for quality healthcare services, and valuable support for organizing the city's basic healthcare services<sup>10</sup>.

Its first experience with variable compensation dates back to the 1990s, when it instituted a Quality Incentive Program. The mechanism created an assessment system for employees of the basic healthcare units (BHU), where teams selected a number of indicators from a pre-established list, and the better performing employees received additional financial compensation.

A new variable compensation model was created in 2014, known as the Quality Development Incentive (QDI). It is supported on quarterly assessments comprised of four processes, with the final score being the sum of Individual Assessments, Self-Assessments, Community Assessments and Assessment of the BHU to which the professional is assigned<sup>10</sup>.

To be eligible for a financial incentive scores must be 80% or more in the individual assessment and the sum of the other assessments. The

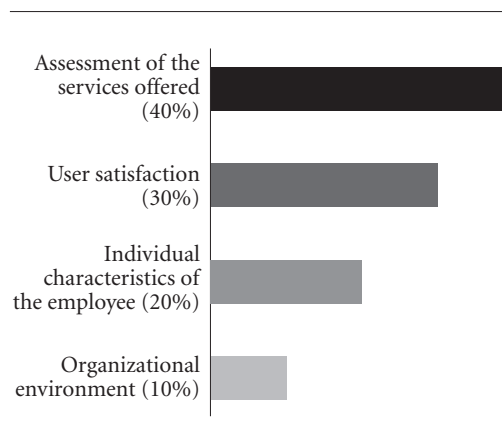
bonus is 20 to 50% of the base wage, depending on the unit, as performance is also linked to the number of people using the unit. In the past two years, the city health department has started to review its variable compensation system, based on primary healthcare attributes and values<sup>8</sup>.

#### Indicators

Each indicator has four dimensions (Figure 1): User satisfaction, a telephone interview every four months using an internationally validated questionnaire (*Primary Care Assessment Tool, PCA-Tool*); assessment of the services offered by retaining teams and auditors, ranking teams based on how access is offered and the services provided, individual characteristics of the employee, assessment of output, continuity in same team and professional qualifications. Organizational environment, another indicator, involves care of the equipment, work environment and relationships with other professionals.

These criteria refer to primary healthcare attributes and are made up of indicators that categorize teams into three levels - A, B and C -, based on the results achieved (Table 1). This assessment is conducted every four months, and the score obtained is the basis for calculating variable compensation as a function of the base wage.

The aim of this process is to improve access and the connection between healthcare teams and the population, expand the portfolio of services available and population satisfaction with these services, increase the commitment of the



**Figure 1.** The four dimensions of the variable remuneration proposals for Primary Health Care in Curitiba, PR.

Source: Curitiba City Health Department, new variable compensation project. Internal document.

professionals and the work they perform, and also provide training that focuses on what the service needs.

Another major change compared to the previous system is that the outcome of the assessments will not be the same for all professionals. In this new model, individual, family health team and PHU assessments are used to calculate a mean that may be different for each individual professional.

The new system of variable compensation is in the process of being implemented in Curitiba. Although the design is well developed, it still needs to be combined with other recent changes in the city's compensation policy.

### Variable Compensation in the Rio de Janeiro City Health Department [

#### Brief background

The city of Rio de Janeiro started to revamp its primary healthcare system in 2009, and by late 2012, just over 3 years later, coverage had gone from 3.5% to 42.2%. The model used to expand the family health strategy was to partner with Social Health Organizations (SHOs). In the service agreements signed with the Rio de Janeiro City Health Department, both the SHOs and the healthcare professionals are assessed using process and results indicators.

Payment for performance started in 2011, when the primary healthcare units started using electronic medical files. The indicator grid is largely adapted from the one used in Portugal. Results are analyzed each quarter by a Technical Review Committee, created by the Rio CHD to track each management agreement. Indicators are reviewed annually and are subject to minor adjustments. The term of SHO management agreements is 2 years, however they may be extended to 5. Before agreements are renewed, the SHOs are assessed based on their past performance.

Management agreements include a variable financial pass-through based on the results achieved in three components: 1) A set of SHO process organization, care performance and efficiency indicators (incentives for SHO performance); 2) a set of indicators that assesses each healthcare unit (institutional incentive), and 3) clinical management indicators that assess the professionals in each team (financial incentive).

In this way, pay-for-performance is a form of budget decentralization, where healthcare teams decide on how to use the variable financial component (institutional incentive). It also encourages the network to improve its clinical performance along a number of priority incentives that lead to variable compensation (financial incentive).

#### Indicators

*Variable 1:* About 2% of the contractual amount goes to variable pay-for-performance of the SHO. This is not profit, but is to be invested back into the contractual object based on a plan that must be approved by the CHD. Thus, this amount reverts back to the Rio CHD.

Example: in a major management agreement, this variable component enabled all community healthcare agents to complete primary school. The course was provided at the BHU. Each Rio-CHD health district (Planning Area) decides how it will invest Variable Component 1 of its management agreement.

Variable 1 indicators are proportions or ratios that attempt to measure the efficiency of the Social Organization (CHD, 2009<sup>12</sup>). In all, 21 indicators are assessed each quarter.

*Variable 2:* indicators that assess the performance of the unit itself. All of the teams in the same BHU depend on each other to meet their targets. Each unit can receive R\$ 3.000,00 per family health team each quarter, and the professionals involved decide how to use these funds, which in any case must be used to improve the

**Table 1.** Access attribute evaluation in the variable remuneration proposal for Primary Health Care in Curitiba-PR.

Criterion/indicator	Classification	Score
Expand ways users can access the Family Health Strategy team	A. B + C + telephone instructions B. C + Possibility of scheduling visits by phone C. Scheduling physician/nurse/dentist visits is done in person	100 75 50
Maximum Score		100

Source: Curitiba City Health Department, new variable compensation project. Internal document.

unit (institutional incentive), in items such as courses, funding for events, books, etc.

This group of indicators is split into the following dimensions: “Access (A)”, “Care Performance” (P), “Patient Satisfaction” (S) and “Efficiency” (E), some of which are taken from the electronic files (CHD, 2009<sup>12</sup>):

A1. Percent patient visits to his/her own family physician

A2. Spontaneous demand as a percent of scheduled demand

A5. Number of items in the Service Portfolio completed in period

A6. Percent appointments scheduled by phone, e-mail or electronic records web platform (excludes those made face-to-face)

P1. Percent Women 25 to 64 with a record of a pap test in the past 3 years

D2. Percent diabetics with at least two office visits recorded in past 12 months

P4. Percent children with their vaccinations up to date at the age of 2

P6. Percent pre-natal visits in first trimester of pregnancy

S1. Percent users who are satisfied/very satisfied

E1. Average cost of medicines prescribed by user

E4. Patients referred as a percent total patients

*Variable 3:* indicators reflecting the clinical performance of each family health team. Each professional can receive up to 10% of his or her base monthly wage each quarter. A number of factors are important: a) each professional on the team depends on the other professionals, so all professionals receive the same percent variable compensation, b) professionals are free to select those indicators they can achieve, which are directly related to local prevalence (Chart 2).

Team are compensated based on the number of pregnant women whose pregnancy ended in the quarter of reference and were suitably followed. To define what constitutes “suitably following a pregnancy” we used metrics based on scientific evidence to induce good clinical practice (Chart 3).

The team will receive 8 Accounting Units (AUs) for every pregnant woman who meets the requirements of Table 2 and complete pre-natal care in the quarter of reference. In this way, professionals are compensated not by the total number of pregnant women seen, but by the number of complete suitable pre-natal care. For this type of care, each professional depends on activities of other team members.

Family health teams have more chance of achieving the highest scores in Copacabana, where there are chronic diseases such as diabetes mellitus and systemic high blood pressure, than in the Rocinha slum, where they may score more points in tuberculosis. As a result, teams are not concerned with focusing their care on a specific group of people or diseases.

To balance the scores and avoid focusing on the easier indicators such as family planning, the accounting units are assigned different weights. Every 100 AUs are equivalent to 10% of the professional’s base wage, thus the highest possible score is 300 AUs each quarter. As it is unusual that any team reaches the maximum score in any given quarter only by completing pre-natal care (it would take 38 pregnant women), the team will likely need to complement its scores with other Variable 3 indicators.

Clearly, we must advance by introducing other forms of variable compensation, such as capitation (user list). Since 2013, all patients are registered using their taxpayer number (CPF), and lists can be refined and duplicate entries removed. This is one of the goals of Rio-CHD for the coming years, similar to what Canada, Portugal, the UK and other countries have done.

### **Family Physician compensation in the Lisbon and Tagus Valley Health Region**

#### **Brief background**

The Portuguese revolution of April 1974 initiated profound changes in the country, including in its healthcare system. Five years later, in 1979, the country created the National Health Service. Funded and ensured by the State, it was conceived as a universal, all-encompassing and free service.

The 1989 constitutional review made health an item that “tends towards free”, which opened the way to co-pays (moderating fees), and a year later the country approved its Health Bases Law. This important document states that health is not only the responsibility of the State, but of each individual, enabling the National Health System to increase the volume of services it purchases from the social and private sectors.

In 1998, the country enacted the Experimental Compensation Regime (ECR) for general practitioners. The ECR was approved by Decree-Law 117/98 of May 5, which changed how the work was organized and introduced physician compensation in a manner associated with the amount of work performed and the profes-



**Chart 2.** Distribution of indicators selected for “Variable 3” - incentive for clinical management - Rio de Janeiro – 2015.

Group of activities	Description	AU
01	Monitor the family planning of one woman of childbearing age each year	01
02	Monitor the family planning of one woman of childbearing by implanting an IUD or with pre-op for tubal ligation.	03
03	Monitor a pregnancy	08
04	Monitor one child in the first year of life, for one year	06
05	Monitor one child in the second year of life, for one year	04
06	Monitor one diabetic patient per year	06
07	Monitor one high blood pressure patient per year	02
08	Monitor one person discharged following tuberculosis cure	08
09	Monitor one person discharged following Hanseniasis cure	10
10	Monitor a patient addicted to tobacco, alcohol or other drugs	04
11	Teams with medical students (teaching health team)	30
12	Teams with residents (teaching health team)	60
13	Teams that adhered to the PMAQ (Program to Improve Access to and Quality of Basic Care)	30

Source: CHD Rio, 2015

sional quality of this work. This was a completely novel idea, marking the first time good performance was the object of positive discrimination.

The creation of Contracting Agencies<sup>13</sup> in 1997 and 1999 contributed to the segregation of healthcare services and healthcare funding. In 2005, with the start of a new political cycle, the Mission for Primary Healthcare was created, putting into practice a reform based on the National Health Plan guidelines and the recommendations of the Portuguese Association of General practitioners<sup>14</sup>.

The reform of primary healthcare<sup>15</sup> is characterized by proprietary management bodies and an in-depth reorganization of healthcare centers, in which the traditional model with a vertical hierarchy is progressively replaced by a network of independent teams contracted internally, where they are responsible for processes and results at all levels.

The initial phase, and the one that was most visible to the public, was to create Family Health Units (FHU), teams with functional and technical organizational autonomy. The compensation system was linked to performance, rewarding productivity, ease of access and, above all, quality.

Decree-Law # 298/2007 was signed on August 22 2007, creating the legal regime for the organization and operation of family health units, and the system of incentives to be allocated to all members, and the compensation to be paid to the professionals in Model B FHUs<sup>16</sup>.

Performance-linked compensation<sup>17</sup> applies not only to physicians, but also to nurses and administrative staff working in model B FHUs. Monthly compensation of FHU physicians is comprised of a base wage, supplements and performance bonuses.

**Chart 3.** Details of one of the “Variable 3” indicators - incentive for clinical management - Rio de Janeiro – 2015.

Group of activities	Description	AU
03	Monitor a pregnancy	08
<p>MATERNAL HEALTH:</p> <p>A user is any woman who fulfills the following: [A + B + C + D + E + F + G + H]:</p> <p>A. Females with pre-natal care completed in the period (must be registered in the electronic file with a SISPRENATAL number for the current pregnancy).</p> <p>B. Must have seen a nurse or doctor for puerperial review within no more than 20 days from the date of delivery, entered by any physician or nurse as “puerperium review”.</p> <p>C. Must have been to the first pregnancy consult in the first 12 weeks of gestation.</p> <p>D. Must have completed at least 6 medical and/or nursing pre-natal visits by the 38th [0, 39] week of pregnancy. These visits must be recorded in such a way that enables encoding the pregnancy (W78, W79 or W84).</p> <p>E. Enter the results of the VDRL performed by the 24th week of gestation.</p> <p>F. The user must be registered with the team.</p> <p>G. Have at least one registered ACS visit by the 38th [0, 39] week of pregnancy.</p> <p>H. Have at least one HIV test result recorded by the 24th week.</p>		

\*any pregnant woman over 40 days from the expected date of delivery must be automatically excluded from the list of active pregnant women in the file.\* for a pregnant woman to be considered “active” in the file, the healthcare professional must enter a visit with the ICD10 code for pregnancy (Z348) or the SIASUS procedure of pregnancy visit.

Source: CHD Rio, 2015

### Indicators

Base wage is the compensation due the category and level under a full-time regimen of thirty-five hours a week, for the healthcare they provide to the users on the list, with at least 1917 weighted units, corresponding on average to 1550 users on a standard national list. The weighted units are obtained by applying the following factors: Children from 0 to 6 years old contribute to this weighed units with a factor of 1.5, adults between 65 and 74 years old with a factor of 2 and adults older than 75 with a factor of 2.5. The weighted dimension of patients registered with the family health unit and the list of users per physician are updated annually.

Supplemental compensation considers the weights, the supplement for home care and the supplemental compensation associated with care provided in extended hours, specifically after 8:00 pm and on weekends and holidays.

Pay-for-performance is part of the specific activities developed and associated with the portfolio of additional services.

Compensation linked to specific physician activities is associated with an increase in the

weighted units in a minimum list of patients based on care for vulnerable and at-risk patients, according to the technical guidelines of the General Health Directorate. These activities include family planning, pre-natal care, infant health-care, and the care of diabetic and hypertensive patients.

These specific activities are contracted on an annual basis and stipulated in a letter of commitment. Home visits are eligible for a €30 per visit bonus, up to a monthly limit of 20.

The role of team coordinator and resident instructor are also eligible for increased compensation. Further incentives are also possible, in the form of institutional and financial prizes awarded to the multi-professional team. These aim to encourage and support collective performance, bearing in mind the increases in efficiency achieved. These incentives are shared by all of the professionals in the family health unit multi-professional team. Institutional incentives are specifically the distribution of technical information, participating in conferences, symposia, colloquia and seminars on topics related to the portfolio of services provided, support for research or bet-



**Table 2.** Main similarities and differences in the experiences of Curitiba, Rio de Janeiro and “greater Lisbon”.

Location	Benefit Recipient	Size of indicator	Number of indicators per dimension	Frequency indicators are updated by central management	Further information
Curitiba	Team	User satisfaction	01	Permanent	New assessment model in implementation
	Team	User-focused process	13	Annual	
	Professional organization	Individual Civil Servant Characteristics	04	Annual	
	Professional	Organizational environment	05	Annual	
Rio de Janeiro	Social organization	Process organization	08	Annual	<a href="http://www.rio.rj.gov.br/dlstatic/10112/176386/4127155/Edital_AP_5.3_enviadopara_publicacao_020914.pdf">http://www.rio.rj.gov.br/dlstatic/10112/176386/4127155/Edital_AP_5.3_enviadopara_publicacao_020914.pdf</a>
	Social organization	Efficiency	05	Annual	
	Social organization	Care Performance	08	Annual	
	Healthcare Unit (institutional incentive)	Access	06	Annual	
	Healthcare Unit (institutional incentive)	Care Performance	09	Annual	
	Healthcare Unit (institutional incentive)	Patient satisfaction	01	Annual	
	Healthcare Unit (institutional incentive)	Efficiency	05	Annual	
Professional (financial incentive)	Clinical Management	13	Annual		
Lisbon	Professional (financial incentive)	Care Performance (output)	17	Every three years for indicators, targets set annually	<a href="http://www.arslvt.min-saude.pt/pages/5">http://www.arslvt.min-saude.pt/pages/5</a>
	Team (institutional incentive)	Access	2	Every three years for indicators, targets set annually	
		Care Performance (output)	11	Every three years for indicators, targets set annually	
		Efficiency	2	Every three years for indicators, targets set annually	
		Satisfaction	1	Every three years for indicators, targets set annually	
	Local indicators (selected from the care performance list)	6	Every three years for indicators, targets set annually		

Source: Prepared by the authors from queries to the Rio de Janeiro and Curitiba city health departments and the Ministry of Health in Portugal.

ter facilities for performing their tasks. The value of the annual incentives ranges from €9,600 to €

20,000 depending on the size of the team and the extent to which they meet their targets.

Financial incentives are distributed after the FHU has been analyzed, based on the extent to which targets were met and minimum productivity and quality parameters<sup>18</sup>. Currently this type of compensation covers 57 ARSLVT teams working under model B, serving 873,994 people or about 24% of the population (3,650,194). The aim is to reward not only the volume of work performed, but also the quality.

In 2013, a total of €1,543,450 in financial incentives were distributed in the region, of which €629,800 were institutional. Performance-linked compensation can and should be improved, and later rolled out as the preferred form of compensation for primary healthcare services in the country and region.

## Discussion

The experiences of Curitiba, Rio de Janeiro and Portugal show similarities and differences that should be pointed out. In both Brazil and Portugal, government-provided primary healthcare is funded by general taxes, with healthcare units under direct administration staffed by salaried public servants. Other countries have experiences with primary healthcare funded mostly by health insurance, with services provided via agreements with public clinics. In both models, the basis of the relationship between the State and the healthcare unit staff that will account for fixed compensation interferes in the working process and in the role and importance of the variable component of compensation.

The experiences described above, more than providing ideal recipes, show that management must seek compensation mechanisms beyond that a fixed wage agreement. At the same time, what other studies and these reports show is the challenge of defining indicators that will not compromise those attributes considered essential for primary healthcare. Both in Portugal and in Brazil, variable compensation is used to stimulate different aspects of the working process and structure. In a different primary healthcare model, these could be written in to the very contractual relationship.

A look at the results shows the challenge is huge. How to assess terminal outcomes such as mortality or hospitalization in populations that small, made up of just 2 to 4 thousand people? Perhaps for this reason we see more intermediate outcomes that assess data on following the health of specific groups (such as pregnant women and people with diabetes or high blood pressure).

Table 2 below shows that all three of the experiences reported use a combination of indicators aimed at rewarding professionals as individuals, the team the work with, and the healthcare unit as a whole, reinforcing the fact that primary healthcare is a team effort.

Other valued aspects are the main attributes of primary healthcare. In the case of Portugal, the factor weight is another variable. In other words, the number and profile of the people seen by a given team, which in and of itself increases the accountability of these professionals towards these users. In Curitiba and Rio de Janeiro, people are assigned by territory, making any assessment of access to the unit and continuity of care in a specific population harder. Nevertheless, indicators try to cover these items. Rio de Janeiro looks at spontaneous demand as a percent of scheduled demand, and professional turnover within a given team. Curitiba looks at expanded hours of care at BHUs and scheduling mechanisms (e.g. e-mail or phone), valuing the time professionals spend working in the same team.

The values used in the Brazilian experience are at most 10% of the base wage of healthcare professionals, while in Lisbon this percentage is as high as 40%. In the reform of the Netherlands healthcare system, the recommended percentage for variable compensation was 30 to 40% of the base wage, considered sufficient to mobilize healthcare professionals towards achieving their targets or changing the way they work<sup>7</sup>. Further studies are necessary to assess the effectiveness of these experiences in Brazil.

## Final Considerations

The literature brings us numerous studies questioning the advantages of pay-for-performance

and that raise relevant ethical questions<sup>19</sup>. The results of these studies are inconclusive, perhaps because it is difficult to show the effectiveness of such a system. However, in the studies we reviewed there seems to be some positive effect<sup>20</sup>.

One factor to take into consideration when comparing the experience in Brazil and that of other countries with national health systems where primary healthcare is more consolidated, is what is already part of the professional culture, such as the central role of the professionals and what one would like to induce by instituting variable compensation.

### **Collaborations**

P Poli Neto contributed with the abstract, introduction, the Curitiba experience, discussion, conclusion and final review. NT Faoro contributed with the Curitiba experience and final review. JC Prado Júnior contributed with the experience in Rio de Janeiro. LAC Pisco contributed with the experience in Lisbon.

## References

1. Lobato LVC, Giovannella L. Sistemas de saúde: origens, componentes e dinâmica. In: Giovannella L, Escorel S, Lobato LVC, Noronha JC, Carvalho AI, organizadores. *Políticas e sistema de saúde no Brasil*. Rio de Janeiro: Fiocruz; 2008. p. 107-140.
2. Mcwhinney I, Freeman T. *Manual de Medicina de Família e Comunidade*. Porto Alegre: Artmed; 2010.
3. England. Department of Health (DH). *Consultative Council on Medical and Allied Services, Interim Report. Chairman Lord Dawson*. London: DH; 1920.
4. Gosden T, Forland F, Kristiansen I, Sutton M, Leese B, Giuffrida A, Sergison M, Pedersen L. Capitation, salary, fee-for-service and mixed systems of payment: effects on the behaviour of primary care physicians. *Cochrane Database of Systematic Reviews* 2000; 3:CD002215.
5. Scally G, Donaldson LJ. Clinical governance and the drive for quality improvement in the new NHS in England. *BMJ* 1998; 317:61.
6. Good BJ. *Medicina, Racionalidad y Experiencia. Una perspectiva antropológica*. Barcelona: Edicions Bellaterra; 2003.
7. Nederland. Dutch Healthcare Authority. An Optimal remuneration system for General Practitioners. ResearchPaper Series n° 4. [acessado 2015 set 15]. Disponível em: [http://www.nza.nl/104107/230942/Paper\\_-\\_An\\_Optimal\\_remunera1.pdf](http://www.nza.nl/104107/230942/Paper_-_An_Optimal_remunera1.pdf)
8. Starfield B. *Atenção Primária: equilíbrio entre necessidades de saúde, serviços e tecnologia*. Brasília: UNESCO, Ministério da Saúde; 2002.
9. Pisco L, Soranz D. Formas de remuneração e pagamento por desempenho. Gusso G, Lopes J, organizadores. *Tratado de Medicina de Família e Comunidade: princípios, formação e prática*. Porto Alegre: Artmed; 2012. p. 330-336.
10. Ditterich RG, Moysés ST, Moysés SJ. O uso de contratos de gestão e incentivos profissionais no setor público de saúde. *Cad Saude Publica* 2012; 28(4):615-627.
11. Brasil. Ministério da Saúde (MS). Gabinete do Ministro. Portaria n° 1.654, de 19 de julho de 2011. Institui, no âmbito do Sistema Único de Saúde, o Programa Nacional de Melhoria do Acesso e da Qualidade da Atenção Básica (PMAQ-AB) e o Incentivo Financeiro do PMAQ-AB, denominado Componente de Qualidade do Piso de Atenção Básica Variável - PAB Variável. *Diário Oficial da União* 2011; 20 jul.
12. Rio de Janeiro. Secretaria Municipal de Saúde. Área de Planejamento 5.3. Contratos de Gestão e Convênios. Convocação pública, 2009. [acessado 2015 set 29]. Disponível em: [http://www.rio.rj.gov.br/dlstatic/10112/176386/4127155/Edital\\_AP\\_5.3\\_enviadoparapublicacao020914.pdf](http://www.rio.rj.gov.br/dlstatic/10112/176386/4127155/Edital_AP_5.3_enviadoparapublicacao020914.pdf)
13. Agências de contratualização dos serviços de saúde. *Contratualização com as unidades de saúde familiar para 2007*. Lisboa: Agências de contratualização dos serviços de saúde; 2006.
14. Associação Portuguesa dos Médicos de Clínica Geral. Direcção Nacional. *Um futuro para a medicina de família em Portugal*. Lisboa: Edições Especiais APMCG; 1991.
15. Pisco L. Reforma da Atenção Primária em Portugal em duplo movimento: unidades assistenciais autónomas de saúde familiar e gestão em agrupamentos de Centros de Saúde. *Cien Saude Colet* 2011; 16(6):2415-2424.
16. Portugal. Regime Jurídico das USF. *Diário da República* 2007; 22 ago.
17. Pisco L. Remuneração dos Médicos de Família. In: Ana E, editora. *Financiamento, Inovação e Sustentabilidade*. Lisboa: Companhia de Ideias; 2008. p. 218-230.
18. Matriz de indicadores, a contratualizar com as USF para o ano de 2006 e 2007. Agências de contratualização dos serviços de saúde. Lisboa; 11 de Maio de 2006.
19. Davies C. *Links between Governance, Incentives and Outcomes: a Review of the Literature*. London: Report for the National Co-ordinating Centre for NHS Service Delivery and Organisation R&D (NCCSDO); 2005.
20. Organization for Economic Co-operation and Development (OECD), World Health Organization (WHO). *Paying for Performance in Health Care: Implications for Health System Performance and Accountability*. Buckingham: Open University Press, McGraw-Hill; 2014.

---

Article submitted 13/11/2015

Approved 28/01/2016

Final version submitted 30/01/2016