

Analysis of the performance of contractualization primary health care indicators in the period 2009-2015 in Lisbon and Tagus Valley

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Abstract Reforms started in 1996 intended that Regional Health Administrations (ARS) should play a relevant role in the process of transforming an integrated model towards a contractual health care model. The essential tool of this transformation would be the Contractualization Agency, established in each ARS. Its role in the new contractualization culture was to negotiate prospective budgets with health care institutions, which included Primary Health Care (PHC). This paper is a longitudinal analysis of the development of a set of nine PHC contractualization indicators in three Health Center Clusters (ACeS) of the Regional Health Administration of Lisbon and Tagus Valley (ARSLVT). We have noticed that the setting of goals, in terms of external contractualization and its monitoring and follow-up are decisive and help health professionals to define trajectories and performance goals. We also recognize the need to revise baseline indicators by developing them into outcome indicators.

Key words Primary Health Care, Contracting, Indicators

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Introduction

In 2005, the Primary Health Care Reform (RCSP) began in Portugal. It was to be based on a new structure to respond to people's health problems at local, regional and national levels. This was one of the most successful public service reforms of the last decades in Portugal, implemented by the Mission for Primary Health Care (MCSP), with the responsibility of conducting the global project of launching, coordinating and monitoring the reconfiguration strategy of health centers and implementation of the family health facilities (USF).

RCSP has evolved broadly to integrate a number of innovative, largely consensual aspects, such as the organizational model applied to healthcare providing facilities and management units, linked to a remuneration scheme associated with the performance of professionals. It is interesting to analyze the experience of using contractualization, since the process of contractualization, as an important instrument to support financing in a perspective of greater equity and ensured access to health by citizens, started in the Regional Health Administration of Lisbon and Tagus Valley in 1996.

In this context, it was incumbent upon the Health Service Monitoring Agencies (AASS)¹, founded in 1997 (later renamed Health Service Contractualization Agencies², one for each health region), to be the intervening entities in the system, with representation of citizens and administration and with the mission of spreading health needs and advocating the interests of society in general. Therefore, equity and technical rationality should guide the distribution of financial resources by health institutions in each region.

The program-agreements that were necessary to refer the envisaged activity to the volume of financial resources delivered to the institution played a key role, rather than linking those financial transfers to the internal structure. If, as a first step, the program-budgets model was partially implemented and only involved part of the Portuguese public health institutions, according to Escoval³, a second stage would see it extended to all services and the development of new financing models would take place in a third stage.

The adopted contractualization methodology provided financial incentives to professionals of the Family Health Units (USF), with incentives to physicians due as compensation for the specific activities developed and those of the other professionals – nurses and administrative staff –

integrated in the pay-for-performance. This process has changed over time, but has maintained the original orientation of differentiating institutional incentives and medical performance-associated incentives.

The application of incentives implies the elaboration and approval of a Plan for the Application of Institutional Incentives, which can be used in training, documentation, equipment and rehabilitation of infrastructures. This institutional incentive represents a qualification of the investment, that is, it assumes as a priority the investment in facilities that achieve the contractualized objectives.

Methodology

This is a longitudinal analysis of three Health Center Clusters (ACeS) of the Regional Administration of Lisbon and Tagus Valley (AR-SLVT), conducted from 2009 to 2015, regarding the process of contractualizing PHC. The selection of ACeS followed criteria of maturity of the contractualization process over the selected time period.

Regarding performance indicators (Chart 1), the information consistency of the ARS Information System (SIARS), an information system that supports contractualization, monitoring and follow-up of PHC in Regional Health Administrations, has become critical. SIARS data derive from various basic software of the PHC and determines the follow-up, monitoring and evaluation of the performance of the functional health facilities and ACeS. It was also intended that indicators reflect the various realms of contractualization, namely, access, care performance, primary prevention and efficiency, as well as the PHC basic services portfolio. Regarding the realm of satisfaction, while this is assessed individually by the USF, it will be evaluated, at the level of ACeS, in a supra-regional scope by the Central Administration of the Health System (ACSS), ensuring uniformity of methodology in the evaluation of this realm.

It should also be mentioned that results achieved in 2009 are included in the analysis, where 2009 is the base year and preceded the contractualization process and the signing of program-agreements with the ACeS, which begins in 2010. It should be remembered that the ACeS were established in February 2008 following the extinction of the health sub-regions, and after undergoing a process of installation of the

Chart 1. Indicators studied and changes to which they were subjected in the time interval studied – Regional Health Administration of Lisbon and Tagus Valley (ARSLVT), Portugal – 2009-2013.

Area	From 2009 to 2012		From 2013		Remarks
	Indicator	Indicator designation	Indicator	Indicator designation	
Access	3.15	Overall usage rate for medical consultations	2013.006.V1	Usage rate for medical consultations – 3 years	From 2013 onwards the indicator will consider whether the user has used CSPs over the past 3 years
Care Performance	3.22 d1	Usage rate for family planning medical consultations	2013.052.V1	Proportion of Women of childbearing Age (WCA), with adequate monitoring in Family Planning (FP)	From 2013 the indicator will verify whether the family planning consultations comply with the Family Planning Guidelines
	6.12	Proportion of first consultations in life made up to 28 days	2013.014.V1	Proportion of newborns with medical consultation and surveillance up to 28 days of life	The indicator is no longer contractualized (external contractualization), but remains in the base of CSP basic services portfolio
Screening	5.3d1	Proportion of enrolled patients aged 50-74 years with colorectal cancer screening performed	2013.046.V1	Proportion of users [50; 75 [A, with cancer screening CR	
	5.2	Proportion of women aged 25-64 years with updated colpocytology (one in 3 years)	2013.045.V1	Proportion of women [25; 60 [A, with colpocytology (3 years)	
	5.1M	Proportion of women aged 50-69 with a mammography in the last 2 years	2013.044.V1	Proportion of women [50; 70 [A, with mammography (2 years)	
Efficiency	7.6d3	Proportion of consumption of generic drugs in packaging, total packaging of medicines	2013.066.V1	Proportion of drugs billed, which are generic	
	7.6d4	Average cost of billed drugs per user	2013.068.V1	Expenditure billed drugs per user (PVP)	
	7.7d1	Average cost ofCDTM billed per user	2013.069.V1	Expenditure Complementary Means Diagnostics and Therapeutics billed per user SNS	

Source: ACSS, Contract-Agreement Methodology. Codes correspond to the identification of indicators in that document.

Executive Directorates, and base year 2009 is the first full year of information records in the SIARS.

The three ACeS selected for the study have diverse locations, one outside the Metropolitan Area of Lisbon, with population densities and issues of their own, namely: ACeS Almada Seixal, consisting of two municipalities, located on the south bank of the Tagus River, about 24 km or 32 minutes from Lisbon; ACeS Northern West, consisting of six municipalities, located north of the RSLVT on the coast, about 123 km or 88 min from Lisbon; and the ACeS Amadora, which corresponds entirely to the municipality of Amadora, adjacent to the municipality of Lisbon, 13.5 Km or 21 minutes from the city center of Lisbon.

Results

In order to analyze the results of the ACeS, it is important to remember that contractualization is carried out with the Executive Directorates for all the users enrolled in their Functional Units, who in turn contractualize with the USFs and UCSPs, the latter accommodate users without an assigned family doctor. Therefore, the results achieved by the Region (aggregate of the 15 ACeS) and the results of the three ACeS analyzed here cover all the users enrolled in the CSP, regardless of the attribution of family doctor.

Thus, results of the indicators achieved in the RSLVT from 2010 to 2015, deriving from the process of external contractualization with the ACeS, show a positive development as can be seen in Table 1.

Analyzing indicators for each area, we can observe that, in terms of access, the overall usage rate of medical consultations remained constant during the period from 2010 to 2012, with a substantial increase in the last three years, from 2013 to 2015, due in part to the reformulation of calculation of the indicator in this period. By 2012, the indicator will average the annual usage rate of consultations (users with at least one face-to-face medical consultation in the year), and, starting in 2013, will average the usage rate of consultations in the last 3 years (users with at least one consultation in the last 3 years).

Regarding care performance indicators, the indicator on the usage of family planning medical consultations for women of childbearing age has been improving, with an increase of about six and five percentage points in the years 2014 and 2015, respectively. This indicator has also

been reformulated, with consultations starting to be measured as an evaluation parameter for the adequate follow-up of family planning in women of childbearing age. Concerning the indicator related to the surveillance of newborns in the first days of life (up to 28 days), despite being a non-contractualized indicator in the triennium 2013-2015, there is an improvement in the performance of this indicator, especially in the latter three-year period. At the level of the opportunistic screening activity of the most prevalent oncological diseases (breast, uterus, colon and rectum) performed in a PHC context, the results of the indicators (colorectal cancer in enrolled patients with age [50;75], updated colposcopy, one in the last 3 years in women aged [25;60], and women in the age range [50;70] with one mammography in the last 2 years) have been developing positively, with greater growth from 2013 to 2015. However, these results should be improved to cover a larger number of enrolled populations, allowing early diagnosis of potential malignancies in the population and treating patients with greater acuity, efficacy and effectiveness.

With regard to the realm of efficiency, with emphasis on the need to increase the consumption of generic drugs in the scope of PHC over non-generic ones, aiming also at introducing a greater rationality and adequacy of the prescription of medicines and complementary diagnostic and therapeutic means (CDTM), the contractualized targets have been achieved over the review period.

The work carried out over the last three years by the ARSLVT Pharmacy and Therapeutics Commission, in support of the external and internal contractualization of the ACeS, is in the analysis of prescription, medicines consumption and expenditure, publication of technical-scientific guidelines in order to understand the profile of the medical prescriber and the rationality of medical prescription in the context of PHC, taking into account the international and national guidelines, identifying areas of opportunity for improvement and adequacy of medical prescription.

The analysis of the path, behavior and results of the contractualized indicators in the selected ACeS shows an incremental improvement trajectory globally, with favorable results in all the ACeS of the Region. The 2015 results show the progression and consistency of the work carried out in PHC compared to those of 2009.

Values achieved in each of the selected ACeS are shown below. One of the ACeS established

Table 1. Results of indicators contractualized throughout RSLVT – Portugal, 2009 to 2015.

Area	Indicator designation	2009	2010	2011	2012	2013	2014	2015
Access	Overall usage rate for medical consultations	52,95%	53,08%	54,22%	53,47%	80,32%	79,90%	78,97%
Care Performance	Usage rate for family planning medical consultations	8,89%	12,99%	17,55%	20,40%	20,96%	26,80%	31,50%
	Proportion of first consultations in life made up to 28 days	45,42%	50,07%	56,78%	63,62%	68,78%	71,58%	68,75%
Screening	Proportion of enrolled patients aged 50-74 years with colorectal cancer screening performed	4,25%	6,02%	11,17%	16,18%	24,05%	31,20%	36,58%
	Proportion of women aged 25-64 years with updated colposcopy (one in 3 years)	8,27%	13,50%	19,68%	25,07%	33,93%	35,90%	37,67%
	Proportion of women aged 50-69 with a mammography in the last 2 years	14,24%	21,85%	32,10%	39,81%	47,58%	47,20%	49,28%
Efficiency	Proportion of consumption of generic drugs in packaging, total packaging of medicines	21,73%	27,94%	33,47%	38,75%	43,12%	45,90%	46,26%
	Average cost of billed drugs per user	--	197,9 €	174,4 €	154,3 €	142,1 €	149,1 €	138,8 €
	Average cost of CDTM billed per user	77,4 €	76,5 €	65,2 €	54,9 €	55,1 €	55,8 €	54,2 €

Source: SIARS, August 2016.

by Ordinance No. 394-B/2012 of November 29, which reorganized the ACeS of the ARSLVT⁴, was ACeS Almada-Seixal, which added the municipalities of Almada and Seixal of the district of Setúbal, south of the Tagus River (Table 2).

ACeS Almada-Seixal has a clearly incremental performance, and in 2015, all the indicators show results that are higher than the regional (average) values.

The change in the constitution of the Cluster in 2012 did not affect the improving trend initiated in 2009. However, the most substantial variation in the indicator overall usage of medical consultations is naturally influenced by changes in the calculation of the indicator, applied from 2013.

Regarding care performance indicators, the indicator related to the usage of family planning consultations for women of childbearing age has

been improving, more than doubling the result achieved between 2009 and 2015 (41.3%).

It should be noted that, at the level of the opportunistic screening activity, despite the fact that the calculation formula of the three indicators were changed, from 2013 onwards, the ACeS maintained the increasing trend of population covered by the recommended tests, exceeding by 50% the proportion of women in the age group 50-69 years with mammography performed (this ACeS was not covered by population-based screening). The value of 48.3% in the indicator of the proportion of enrollees in the age group 50-74 years with colon and rectum screening performed is the maximum value achieved by an ACeS for 2015.

In the efficiency realm, in 2015, approximately 52% of the population of ACeS Almada-Seixal consumed generic drugs within the scope of

Table 2. Results of the indicators contractualized only in Almada and after the creation of the ACeSAlmada-Seixal – Portugal – 2009 to 2015.

Area	Indicator designation	Almada				Almada_seixal		
		2009	2010	2011	2012	2013	2014	2015
Access	Overall usage rate for medical consultations	57,36%	56,38%	57,55%	56,92%	81,88%	80,90%	81,73%
Care Performance	Usage rate for family planning medical consultations	19,52%	21,03%	25,01%	26,97%	30,47%	35,50%	41,29%
	Proportion of first consultations in life made up to 28 days	66,35%	66,04%	66,98%	71,95%	77,49%	80,43%	79,40%
Screening	Proportion of enrolled patients aged 50-74 years with colorectal cancer screening performed	8,48%	8,27%	16,15%	22,43%	32,05%	43,20%	48,31%
	Proportion of women aged 25-64 years with updated colpocytology (one in 3 years)	18,82%	22,40%	27,58%	30,96%	43,71%	45,00%	47,48%
	Proportion of women aged 50-69 with a mammography in the last 2 years	24,73%	29,21%	38,59%	42,80%	52,38%	52,90%	54,45%
Efficiency	Proportion of consumption of generic drugs in packaging, total packaging of medicines	24,87%	31,80%	37,38%	41,42%	48,02%	51,30%	52,14%
	Average cost of billed drugs per user	--	190,6 €	169,4 €	151,3 €	134,8€	146,3€	129,0 €
	Average cost of CDTM billed per user	76,9 €	75,7 €	67,2 €	56,9 €	55,5 €	55,4 €	50,9 €

Source: SIARS, August 2016.

PHC prescription, reducing the average cost per billed drugs per user from 2010 to 2015 and the average cost of CDTM billed per user by 33.8%.

Of the nine indicators analyzed in this ACeS in 2015, all achieved a better result than the regional average.

ACeS Northern West is a cluster whose mission is to ensure the provision of PHC to the population of the municipalities of Alcobaça, Bombarral, Caldas da Rainha, Nazaré, Óbidos and Peniche, with development of results shown in Table 3.

This cluster has the best result of 2015 in the Region for the indicator of the overall usage rate of medical consultations, in which almost 90% of the population is a user of CSP. It will be relevant to highlight that this ACeS is the farthest from Lisbon and has a smaller supply of health care from the private sector. It is also one of the ACeS of the Region that, at the end of 2015, had

the lowest proportion of users without a family doctor (11.8%).

The indicator of the proportion of women in the age group 50-69 years with mammography performed in the last 2 years reaches 63.1%, with a significant increase since 2012, which in this ACeS is associated with the fact that there is a population-based screening, protocolled between ARSLVT and a Social Solidarity Private Institution. The value of 51.74% in the proportion of women in the age group 25-59 years with updated colpocytology is the maximum value achieved by an ACeS for 2015, with an increase of 58.5% since 2012. It should be noted that this indicator has been reformulated, in particular by narrowing the surveillance age group, which went from 64 years to 59 years.

In the efficiency indicators, the average cost of drugs billed per user and the cost of the billed CDTM per user have decreased since 2009 and

2010 44.3% and 50.8%, respectively, in other words, significant results have been achieved in 5-6 years. The amount of € 46.6 for 2015 regarding the average cost of CDTM per user is the lowest recorded in the 15 ACeS of the ARSLVT.

Of the nine indicators analyzed in this ACeS in 2015, eight show better results than the regional average.

Finally, the ACeS Amadora is a cluster without any geographical change in the period between 2009 and 2015, fully coinciding with the municipality of Amadora. One of the main characteristics of this cluster is its strong population density, since the number of inhabitants per km² in the whole region is approximately 300 inhabitants/km², whereas in the ACeS of Amadora this ratio hikes to 7.364,8 inhabitants/km².

Of the three ACeS highlighted, ACeS Amadora has a lower proportion of users enrolled in USF (51.4% in 2015) and the highest proportion of registered users without a family doctor (23.1% in 2015) (Table 4).

Thus, in this cluster, as in previous years, there is an increase in the results found in the contractualized indicators, but variations between 2009 and 2015 are less pronounced.

The result of the indicator of access of the overall usage rate of medical consultations in 2015 (76.8%) is lower than the regional value (78.97%), which will not be unrelated to the proportion of users without a family doctor and the proximity with the city of Lisbon with a multiple supply of health care in the private sector.

Table 3. Results of contractualized indicators – ACeS Northern West– Portugal – 2009 to 2015.

Area	Indicator designation	2009	2010	2011	2012	2013	2014	2015
Access	Overall usage rate for medical consultations	47,53%	56,10%	64,54%	65,53%	89,42%	89,00%	88,96%
Care Performance	Usage rate for family planning medical consultations	9,28%	15,53%	20,47%	26,07%	33,14%	40,70%	46,20%
	Proportion of first consultations in life made up to 28 days	47,16%	56,15%	80,06%	84,53%	84,15%	86,16%	86,70%
Screening	Proportion of enrolled patients aged 50-74 years with colorectal cancer screening performed	1,83%	3,34%	8,83%	13,06%	19,04%	28,70%	37,59%
	Proportion of women aged 25-64 years with updated colpocytology (one in 3 years)	5,53%	15,70%	23,54%	32,65%	43,80%	48,50%	51,74%
	Proportion of women aged 50-69 with a mammography in the last 2 years	11,07%	27,03%	36,09%	51,03%	60,41%	63,20%	63,06%
Efficiency	Proportion of consumption of generic drugs in packaging, total packaging of medicines	21,36%	25,91%	32,20%	41,00%	45,48%	48,30%	48,10%
	Average cost of billed drugs per user	...	254,1 €	195,2 €	156,0 €	146,8 €	141,5 €	141,5 €
	Average cost of CDTM billed per user	94,4 €	80,1 €	56,9 €	44,7 €	44,1 €	44,3 €	46,4 €

Source: SIARS, August 2016

Of the nine indicators analyzed, in 2015, this ACeS recorded six better results than the regional average.

Discussion

The contractualization agencies in each of the five health regions intended to change the way funds were being allocated within the SNS, by introducing negotiation of prospective budgets. There is, however, a clear limitation from the outset, in other words, in case of non-compliance, these agencies cannot impose consequences or force corrective measures. However, it was expected that the introduction of contractualization mechanisms would make providers and users aware of the costs associated with services and link production to incentives⁵.

In fact, we have noticed that the setting of goals in external contractualization, monitoring and follow-up are decisive for the teams to define a path to follow and objectives to achieve, exerting pressure and need to fulfill the commitments assumed. Luz⁶ stated that contractualization has been able to introduce greater transparency in the use of health resources and has created tools that allow better control of this use. The author did not ensure that the distribution of resources had been influenced, although he recognized that mechanisms for internal negotiation had been initiated among a considerable number of interlocutors who could have led to a more careful distribution of those resources.

We recognize that, in order to achieve the goals set, the payment of individual and team financial incentives will not be entirely unrelated to the performance assessment. Roland⁷, in a

Table 4. Results of contractualized indicators – ACeSAMadora – 2009 to 2015.

Area	Indicator designation	2009	2010	2011	2012	2013	2014	2015
Access	Overall usage rate for medical consultations	47,59%	45,98%	46,58%	46,28%	78,88%	76,60%	76,83%
Care Performance	Usage rate for family planning medical consultations	5,08%	8,96%	14,03%	16,57%	21,03%	28,70%	33,54%
	Proportion of first consultations in life made up to 28 days	49,35%	54,51%	61,39%	69,02%	75,94%	74,62%	72,76%
Screening	Proportion of enrolled patients aged 50-74 years with colorectal cancer screening performed	1,36%	4,02%	9,52%	16,02%	31,51%	41,50%	43,92%
	Proportion of women aged 25-64 years with updated colpocytology (one in 3 years)	3,31%	7,65%	13,84%	19,46%	33,19%	37,40%	39,73%
	Proportion of women aged 50-69 with a mammography in the last 2 years	6,99%	16,86%	28,48%	36,16%	49,63%	51,50%	49,86%
Efficiency	Proportion of consumption of generic drugs in packaging, total packaging of medicines	22,81%	29,17%	34,07%	39,49%	43,66%	47,30%	47,99%
	Average cost of billed drugs per user		196,8 €	168,3 €	148,3 €	136,9 €	142,2 €	131,6 €
	Average cost of CDTM billed per user	76,6 €	81,9 €	68,6 €	57,6 €	58,8 €	56,7 €	57,4 €

Source: SIARS, August 2016.

critical assessment he wrote under the question “Does pay-for-performance save lives?” in the British National Health Service, said that doctors’ adherence to these incentives was notable (since 2004), making most of consensus objectives to be achieved. However, has this adherence really improved the health of the British and saved lives? There, as in Portugal, studies on these subjects are restricted and the conclusions assume the same tendencies that were described for the ARSLVT. To that extent, we agree with Roland⁷ that social changes have strong impacts on health outcomes, and the consequences of secular changes related to hypertension and cholesterol-emia (for example) are more important than the medication prescribed in PHC. This conclusion combines with the results directly attributable to the performance of the health system, the social determinants of health, not devaluing in any way the organizational changes that are occurring in the CSP. For example, similar to what has been said in terms of access indicators in ARSLVT, there is a consensus that these indicators were clearly achieved by professionals. The evidence has shown that, in PHC, contractualization contributes to increase the accessibility to services, as it adds its supply, use and coverage. At the same time, literature also shows that this is a commonly used indicator to measure contractualization effects, since it incorporates measures of quantity of services made available to the population, population coverage and availability of care. Providers are more efficient and effective in contractualization than those that are maintained in schemes of fixed maturity paid by the State, and the more rigorous the studies, the greater the demonstration of the impact of this indicator.

With regard to efficiency indicators, as in the case of ARSLVT, studies suggest that contracting has the potential to reduce production costs for similar services. However, it is not clear whether this reduction is reflected in the overall costs and in the overall efficiency of the system.

In fact, as SNS in Portugal, several countries and their health systems seek to optimize the allocation of scarce resources, aiming at obtaining the best impacts at the level of users and the population in general, in a perspective of benefit to health care provided. Payment models issues and the use of contractualization models are no more than examples of this demand for added value and responsiveness to people’s needs, as stated above.

According to Heleno⁸, if pay-for-performance is a powerful mechanism in drawing doc-

tors’ attention to particular health interventions, it should be reserved for situations where benefits far outweigh harm. This is why the author advocates a qualitative adjustment of indicators used, since, for example as regards screening, their benefit in terms of mortality is modest and there is harm to some of the participants in the form of cancer overdiagnosis, and indicators associated with screening programs are not warranted. Additionally, with the current formulation (the author continues), these indicators stimulate misbehavior.

We also recognize, also for this reason, the need to renew the set of baseline indicators to the external contractualization process of the ACeS, making them develop into outcome indicators, guided by the user / citizen satisfaction levels, and better health outcomes of the society as a whole, such as the Potentially Avoidable Hospitalizations (PAH) indicators. These indicators have been used to assess PHC’s quality and performance, not only within the same country, but also for international comparisons. Recent results of these metrics for Portugal (April 2016) from the Regional Office for Europe of the World Health Organization⁹ showed that the number of hospitalizations due to PHC-sensitive causes increased between 2002 and 2013, and also that chronic diseases have resulted in more hospitalizations than acute diseases during the last year (2013). In that same study, a comparative analysis of the results of the last decade allowed to verify that the number of hospitalizations due to hypertensive diseases and diabetes (object of contractualization in PHC) decreased.

Hence, the third conclusion of our analysis is even more relevant in four different realms: the work that has been achieved with the inclusion of performance indicators for hypertensive and diabetic patients must be replicated in other chronic situations within PHC; rescaling indicators against avoidable hospitalizations is essential as it allows identifying and addressing other system deficiencies in the management of chronic diseases; it is necessary to question the levying of moderating fees, when it is intended to solve PHC’s inability to provide universal coverage; the relative inefficiency measured by hospitalization for PHC-sensitive causes involves other determinants such as regional factors, the educational level of citizens and the ability to invest in continued care.

We recognize that the results obtained with the contractualization process will now need to boost the installed capacity and to review,

through an appropriate consultative process involving the General and Family Medicine physicians and the representatives of the hospital institutions, the performance indicators used.

Final considerations

The external contractualization process with the ACeS allowed the setting of goals and targets over the period 2010-2015, with a positive impact on the development of the results achieved. While different from each other, each ACeS shows an improvement in their performance, given their starting point.

Changes that have occurred along the way, due to legislative changes in the composition of the ACeS (2008 and 2012), the qualitative adjustment of some indicators (2013), the increased number of USFs, the increased coverage of the population with a family doctor or its involution (last three years) due to retirement of General and Family Medicine physicians and the insufficient recruitment of new professionals to replace them influence indicators' results. However, setting targets in terms of external contractualization, monitoring and follow-up define a path and objectives to be achieved, influencing and demanding fulfillment of the commitments assumed.

In this context, the internal contractualization process with the functional units, USF and UCSP, as well as with the remaining functional units of the ACeS, is relevant, although USFs have greater strength and capacity to achieve the established goals, because the attribution of financial, individual and team (institutional) incentives is associated with performance evaluation.

There is a recognized need to renew the set of indicators associated with the external contractualization process of the ACeS, making them develop toward to outcome indicators, with greater impact on the satisfaction of the user / citizen and better health outcomes of society in general.

On the other hand, the way forward emphasizes the need to increase the number and scope of external audits to the activity records, including clinical (ICPC-2) and nursing (called "SAPE") coding, along with the audits of USFs' teamwork organization, in the context of the Diagnosis of Organizational Development in the USFs (DIOR).

Monitoring, follow-up and internal auditing are also essential tools for improving the quality of the contractualization process, organizational development and work methodologies in order to achieve health and welfare outcomes and objectives.

During the year 2016, with no results finalized on the present date, the process of contractualization and following-up the Program-Agreements with the ACeS has evolved to a process less focused on the quantitative results to be achieved, focusing rather on measures to improve external contractualization indicators, promoting within negotiation, the identification of concrete actions to achieve objectives, focusing on qualitative principles to be developed in the execution of the agreements and that promote the articulation and integration of care with the hospitals in the area of direct influence. The process' innovation was the presence of the Hospitals' Boards in the ACeS contractualization meetings, and vice versa, with the definition of two indicators and goals common to Hospitals and ACeS, promoting the improvement of care performance through care coordination projects, to be performed throughout the year, directed at the two common indicators: *hospitalization rate of cerebrovascular patients among residents < 65 years and proportion of term and low birthweight newborns.*

These are outcome indicators, measured from the database of Homogeneous Diagnostic Groups (GDH) of hospitalization, which will lead to better health outcomes when resulting from a prevention and follow-up work on the part of PHC, in coordination with the Hospital of the area of residence of users.

Collaborations

BR Monteiro was responsible for data collection, writing, critical review and version to be published; F Candoso, for data analysis and paper's critical review; M Reis, for data collection and interpretation; and S Bastos, for data analysis and interpretation.

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