ABSTRACT

Objective: to evaluate the access to the regional health system from the actions of attention to cardiovascular diseases. Method: this is a mixed, descriptive study. Data were collected from ESI and Hospital Information Systems, stored in Microsoft Excel spreadsheets and analyzed using descriptive statistics. Subsequently, 41 participants (managers and regulators) were selected to answer a semi-structured questionnaire about access in cardiology in the regional network. The Thematic Content Analysis was used to analyze the qualitative data. Results: there was an increase in the production of consultations and examinations, indicating the expansion of the service offer, the reduction of clinical hospitalizations and the increase of surgical hospitalizations in Cardiology. In interviews, aspects of the organization of care in the regional system that favor access to comprehensive care in Cardiology were revealed. Conclusion: that it was concluded that there was an improvement in access to cardiovascular care. It is pointed out that the coordination of care and the improvement of the resolubility of Primary Care favor access to health, which also requires the implementation of solid management structures, involving planning, control, regulation and evaluation. Descriptors: Access to Health Services; Health Evaluation; Cardiovascular diseases; Health Management; Health Planning; Regionalization.

RESUMO

Objetivo: avaliar o acesso ao sistema regional de saúde a partir das ações de atenção aos agravos cardiovasculares. Método: trata-se de um estudo misto, descritivo. Coletaram-se dados a partir dos Sistemas de Informação Ambulatorial e Hospitalar do SUS, armazenados em planilhas Microsoft Excel e analisados utilizando-se estatística descritiva. Posteriormente, selecionaram-se 41 participantes (gestores e reguladores) para responderem um questionário semiestruturado sobre acesso em cardiology na rede regional. Optou-se pela Análise Temática de Conteúdo para análise dos dados qualitativos. Resultados: registrou-se o incremento da produção de consultas e exames, indicando a ampliação da oferta de serviços, a redução das internações clínicas e o crescimento das internações cirúrgicas em Cardiologia. Revelaram-se, em entrevistas, aspectos da organização da atenção no sistema regional que favorecem o acesso à atenção integral em Cardiologia. Conclusão: se conclui que houve a melhoria do acesso à atenção cardiovascular. Aponta-se que a coordenação do cuidado e a melhoria da resolubilidade da Atenção Básica favorecem o acesso à saúde, que também requer a implantação de estruturas sólidas de gestão, envolvendo planejamento, controle, regulação e avaliação. Descriptores: Acesso aos Serviços de Saúde; Avaliação em Saúde; Doenças Cardiovasculares; Gestão em Saúde; Planejamento em Saúde; Regionalização.

ORIGINAL ARTICLE

HEALTH MANAGEMENT: ASSESSMENT OF ACCESS TO THE REGIONAL SYSTEM

GESTÃO EM SAÚDE: AVALIAÇÃO DO ACESSO AO SISTEMA REGIONAL

Priscila Balderrama1,Josué Souza Gleriano2, Silvia Helena Henriques3, Janise Braga Barros Ferreira4, Larissa Roberto Alves5, Lucieli Dias Pedreschi Chaves6

RESUMEN

Objetivo: evaluar el acceso al sistema regional de salud a partir de las acciones de atención a los agravios cardiovasculares. Método: se trata de un estudio mixto, descriptivo. Se recogieron datos a partir de los Sistemas de Información Ambulatorial y Hospitalaria del SUS, almacenados en hojas de cálculo de Microsoft Excel y analizados utilizando estadística descriptiva. Posteriormente, se seleccionaron 41 participantes (gestores y reguladores) para responder un cuestionario semiestructurado sobre el acceso en cardiology en la red regional. Se optó por el Análisis Temático de Contenido para el análisis de los datos cualitativos. Resultados: se registró un incremento en la producción de consultas y exámenes, indicando la ampliación de la oferta de servicios, la reducción de las internaciones clínicas y el crecimiento de las internaciones quirúrgicas en Cardiología. Se revelaron, en entrevistas, aspectos de la organización de la atención en el sistema regional que favorecen el acceso integral en Cardiología. Conclusion: se concluye que hubo una mejora del acceso a la atención cardiovascular. Se señala que la coordinación del cuidado y la mejora de la resolución de la Atención Básica favorecen el acceso a la salud, que también requiere la implantación de estructuras sólidas de gestión, involucrando planificación, control, regulación y evaluación.

Descriptors: Accesibilidad a los Servicios de Salud; Evaluación en Salud; Enfermedades Cardiovasculares; Gestión en Salud; Planejamiento; Regionalización.
INTRODUCTION

It is pointed out, according to scientific evidence, health care networks (HCNs) improve health outcomes in chronic conditions, reduce referrals to specialists and hospitals, increase the efficiency of health care systems, produce services more efficiently and increase user satisfaction.1

It is known that health assessment can enhance and qualify the regional organization, as it assists the most assertive decision making, enabling propositions that contribute to the improvement of care, which becomes especially important in economic austerity scenarios. It is possible, through the critical look of the evaluation, to produce important information to those interested and to compare what is being done to what should be happening, to favor the search for desirable results, besides helping to identify weaknesses.2

In assessing the quality and access to a health care service or network, traitors are a recommended benchmark, based on the idea that, based on the evaluation of the care provided to a set of certain can infer the quality of health care in general, 3 enabling the evaluation of health services in an integral way.4

It is verified that the incidence of cardiovascular diseases in the Brazilian population and the contribution of care resources to this specific group of diseases represent a significant portion of health care in the Unified Health System (UHS), which makes relevant the study of the issue, especially in universal health systems such as Brazil. It is observed that, in addition, these diseases meet defined criteria5 for the selection of a tracer for health evaluation.

In view of the above, it is questioned, considering the relevance of these diseases, as well as the need to articulate the services to the user: "The actions of attention to cardiovascular diseases in different services of the regional health system are articulated to favor access?".

It is verified that this study brings, as a contribution, the evaluation of the access from the point of view of integrality, in the scenario of the regionalized attention network, considering the relevance of the evaluation for the sustainability of the health systems in the current panorama.

OBJECTIVE

• To assess the access to the regional health system from the actions of attention to cardiovascular diseases.

METHOD

It is a mixed, descriptive study, using quantitative data and, later, qualitative data. Note that in this combination the quantitative approach findings can be expanded with the use of the qualitative approach, which allows a better understanding of the problem, 6 being the cardiovascular diseases selected as a tracor condition.

The studied scenario comprises the area covered by the Regional Health Department (RHD) XV of São José do Rio Preto, located in the northwest region of the State of São Paulo, comprising 102 municipalities whose populations total approximately 1,591,414 inhabitants.6 It is pointed out that the option to analyze a region with high economic development and high services offer guaranteed the exclusion of regions with structures so deficient that, by themselves, they would not allow a priori access to levels of high technological density.

The quantitative stage of the investigation was carried out based on the analysis of all the procedures related to the attention to cardiovascular diseases recorded in the Outpatient Information System (SIA-SUS) and in the Hospital Information System (SIH-SUS) (DATASUS) of the Ministry of Health, from 2000 to 2013. The data of interest were stored in spreadsheets of the form Microsoft Excel.

In the data analysis, the descriptive statistics of the studied variables were used and frequencies and percentages were adopted for the construction of time series that indicated the trends.

In order to deepen and understand the quantitative findings, the qualitative step was developed, based on the perception of managers and those in charge of the regulation service, broadening the understanding about the research object.

In this context, it was decided to elect the Regional Interagency Commission (RIC) of São José do Rio Preto, a micro-region with the greatest population contribution, a greater concentration of services, consultations, examinations and hospitalizations and, consequently, a high coverage of actions for plotter. It should be emphasized that a relevant characteristic of this RIC is to be composed, mainly, of small municipalities,
with populations less than ten thousand inhabitants.⁶

As participants of the study, in the qualitative approach, managers (regional and municipal) and responsible for the regulation services (regional and municipal) were selected, totaling 41 participants from different professional categories and academic backgrounds. As an inclusion criterion, we only interviewed professionals who had been in management or regulation for at least one year.

For the semi-structured interview, a script composed of open questions about access to cardiovascular care was used. Individual interviews were recorded and subsequently transcribed in the year 2016. The Thematic Content Analysis was chosen based on the regularity of the statements, thus denoting the structures of relevance in the speeches.⁷

Based on the analysis of interview material, we identified factors that favor access to comprehensive care in Cardiology, understood as possibilities to expand the focus of successful experiences, since the difficulties and limitations of access to services of the system widely disseminated.

In order to guarantee the confidentiality of the participants, fictitious identifications were created, with the managers identified with the letter G and the regulators, with the letter R. It is recorded that, in total, 20 municipalities participated in the study and each received a random numerical identification, ranging from one to 20; in relation to the number of the interview in the municipality, it was numerically identified from one to five, considering that there was more than one participant and a maximum of five participants per municipality.

They met the ethical recommendations, being the research approved by the Ethics and Research Committee of the School of Nursing of Ribeirão Preto, University of São Paulo, CAEE 26811614.1.0000.5393.

### RESULTS

The procedures for dealing with cardiovascular diseases, including consultations, diagnostic exams and hospitalizations, are presented quantitatively in tables 1, 2 and 3, privileging the procedure and the time series in the context of the regional health system. The data of the participants that allow us to qualify the numerical data is articulated, thus broadening the understanding about the object of study.

<table>
<thead>
<tr>
<th>Year</th>
<th>Primary Care N.</th>
<th>Primary Care %</th>
<th>Urgency N.</th>
<th>Urgency %</th>
<th>Cardiology N.</th>
<th>Cardiology %</th>
<th>Total N.</th>
<th>Total %</th>
</tr>
</thead>
<tbody>
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<td>5.56</td>
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<td>141,477</td>
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<td>131,384</td>
<td>6.62</td>
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<tr>
<td>2002</td>
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<td>132,467</td>
<td>6.68</td>
<td>4,848,672</td>
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</tr>
<tr>
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<td>1,234.986</td>
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<td>114,002</td>
<td>5.75</td>
<td>4,764,350</td>
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<td>5,225,897</td>
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</tr>
<tr>
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<td>1,420.080</td>
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<td>127,187</td>
<td>6.41</td>
<td>5,412,501</td>
<td>7.02</td>
</tr>
<tr>
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<td>7.22</td>
<td>1,505.588</td>
<td>6.28</td>
<td>152,497</td>
<td>7.69</td>
<td>5,350,885</td>
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<tr>
<td>2008</td>
<td>4,252.945</td>
<td>8.31</td>
<td>2,000.294</td>
<td>8.35</td>
<td>143,099</td>
<td>7.21</td>
<td>6,396,338</td>
<td>8.29</td>
</tr>
<tr>
<td>2009</td>
<td>4,048.307</td>
<td>7.91</td>
<td>2,025.795</td>
<td>8.45</td>
<td>211,567</td>
<td>10.67</td>
<td>6,285,669</td>
<td>8.15</td>
</tr>
<tr>
<td>2011</td>
<td>3,935.762</td>
<td>7.69</td>
<td>2,257.162</td>
<td>9.42</td>
<td>144,234</td>
<td>7.27</td>
<td>6,337,158</td>
<td>8.22</td>
</tr>
<tr>
<td>2012</td>
<td>3,625.271</td>
<td>7.08</td>
<td>2,193.510</td>
<td>9.15</td>
<td>142,273</td>
<td>7.17</td>
<td>5,961,054</td>
<td>7.73</td>
</tr>
<tr>
<td>2013</td>
<td>4,230.200</td>
<td>8.27</td>
<td>2,845.877</td>
<td>11.87</td>
<td>140,117</td>
<td>7.06</td>
<td>7,216,194</td>
<td>9.36</td>
</tr>
</tbody>
</table>

Total 51,169.458 100 23,968.839 100 1,983,589 100 77,121,886 100

Source: Department of Informatics of the Unified Health System (DATASUS)

It was recorded that, in relation to the type, the Primary Care (PC) and urgency consultations presented a significant absolute increase and the Cardiology consultations, after periods of oscillation, remained stable.

It is understood that, in a quantitative perspective of the analysis, the increase of medical consultations is an important indicator in the improvement of access, without, however, allowing analyzes of...
questions related to the resolubility and quality of health care.

It is evident from the participants’ statements that there is an understanding of the relevance of the PC as coordinator and ordinator of the network of attention.

The gateway is the basic attention, which has to be specialized, has to be enabled. If you do not have this training, there, it buries the entire network. (RM1-2)

The Primary care tries to supply all need and to attend the patient, so that it does not get sick. Our work is constant on top of that. If you have a tool to care for the patient in primary care, he will become less ill and will be referred less. (GM18-1)

It is pointed out that, in the study region, the investment in the reorganization of the PC, through the lines of care, has caused the quality improvement and the reduction of the referrals to specialized care, as verified in the reports of the participants.

Since 2011, we have been trying to reorganize the service with the implementation of the hypertension and diabetes care line. This has guaranteed follow-up. (GM9-1)

The units that do the family health control, follow-up of the hypertensive, diabetic, only those cases more rebellious is that they refer to the cardiologist. (RM19-2)

It was concluded, on the consultations in Cardiology, that, at the beginning of the study period, there was a limitation of access due to the intense medical retirement process. It is known that these professionals made up the technical staff, of the Regional Specialist Ambulatories (RSA), who were left with their embezzled staff, thus affecting the provision of services.

You do not have that demand. In the old days, he had, but after the MSA began, he was gone […] before, we sent him to the RSA, but then the doctor, who was a state or federal, retired […]. (RM3-2)

It is noticed that this fact seems to have been reversed after the implantation of the Medical Specialist Ambulatory (MSA) in DRS XV, which led to an increase in the number of consultations in Cardiology in the last years. There is a consensus among participants about the current sufficiency of care in cardiology consultations within the health region.

Within DRS, we practically have an MSA per collegiate, have a cardiologist's offer, all our MSAs have the professional cardiologist […]. (RM1-1)

It is also worth noting the existence of the organization for care in the specialized services, which favors the operability and resolubility of the care network, in which cases of clinical cardiology are attended in the MSA and surgical cases or subspecialties are treated at the Base Hospital (BH), demonstrating the interaction and articulation between the services.

With MSA, we have no difficulty […]. It passes, in this query, in the medium complexity, it does not have any problem. If it is necessary to move to high complexity, the same MSA forwards […]. (RM2-2)

It is understood that the organization to meet the demand for consultations in Cardiology, with the structuring of the regulation system implemented that directs the clinical and surgical cases to the appropriate references, seems to be a differential of the region, a factor that acts as facilitator of access.

We try to do a screening, so, and what is surgical, or more serious things, we give priority to this quota that we have in BH. (RM10-2)

A perception of the interviewees about users’ demand.

The patients who go to the emergency room are all taken care of […]. If you need to do any intervention, they do. (GM8-1)

It is worth noting that consultations may require examinations, procedures, indication of treatments, hospitalization and even evaluation and care by other health professionals. In this perspective, it should be pointed out that increasing the production of consultations can lead to the development of actions that favor full attention, especially if accompanied by activities that ensure qualified care and the resolubility of care.
Table 2. Diagnostic exams in Cardiology, performed at the outpatient level, by UHS, in the municipalities of DRS XV - São José do Preto, with percentage distribution, according to the type of examination. São José do Preto, SP, Brazil, 2000-2013.

<table>
<thead>
<tr>
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<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Electrocardiogram</td>
<td>n=56,089</td>
<td>n=65,941</td>
<td>n=69,482</td>
<td>n=43,672</td>
<td>n=44,490</td>
<td>n=61,805</td>
<td>n=76,881</td>
<td>n=86,436</td>
<td>n=117,918</td>
<td>n=130,737</td>
<td>n=145,596</td>
<td>n=160,611</td>
<td>n=168,502</td>
<td>n=175,378</td>
</tr>
<tr>
<td>%</td>
<td>4.00</td>
<td>4.70</td>
<td>4.95</td>
<td>3.11</td>
<td>3.17</td>
<td>4.40</td>
<td>5.48</td>
<td>6.16</td>
<td>8.40</td>
<td>9.31</td>
<td>10.37</td>
<td>11.44</td>
<td>12.01</td>
<td>12.50</td>
</tr>
<tr>
<td>Echocardiogram</td>
<td>n=13,383</td>
<td>n=13,542</td>
<td>n=12,714</td>
<td>n=11,695</td>
<td>n=12,225</td>
<td>n=12,781</td>
<td>n=10,666</td>
<td>n=14,973</td>
<td>n=16,452</td>
<td>n=28,609</td>
<td>n=31,523</td>
<td>n=34,099</td>
<td>n=34,025</td>
<td>n=36,420</td>
</tr>
<tr>
<td>%</td>
<td>4.73</td>
<td>4.78</td>
<td>4.49</td>
<td>4.13</td>
<td>4.32</td>
<td>4.51</td>
<td>3.77</td>
<td>5.29</td>
<td>5.81</td>
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<td>11.13</td>
<td>12.04</td>
<td>12.02</td>
<td>12.86</td>
</tr>
<tr>
<td>Ergometric</td>
<td>n=4,740</td>
<td>n=5,173</td>
<td>n=7,152</td>
<td>n=8,516</td>
<td>n=6,808</td>
<td>n=7,511</td>
<td>n=7,651</td>
<td>n=9,180</td>
<td>n=12,371</td>
<td>n=18,181</td>
<td>n=19,121</td>
<td>n=20,340</td>
<td>n=20,148</td>
<td>n=20,791</td>
</tr>
<tr>
<td>%</td>
<td>2.83</td>
<td>3.08</td>
<td>4.27</td>
<td>5.08</td>
<td>4.06</td>
<td>4.48</td>
<td>4.56</td>
<td>5.47</td>
<td>7.38</td>
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<td>11.40</td>
<td>12.13</td>
<td>12.02</td>
<td>12.40</td>
</tr>
<tr>
<td>Holter</td>
<td>n=1,551</td>
<td>n=1,549</td>
<td>n=1,263</td>
<td>n=2,277</td>
<td>n=1,640</td>
<td>n=1,989</td>
<td>n=1,885</td>
<td>n=2,339</td>
<td>n=3,093</td>
<td>n=5,239</td>
<td>n=6,321</td>
<td>n=7,733</td>
<td>n=8,856</td>
<td>n=9,947</td>
</tr>
<tr>
<td>%</td>
<td>2.79</td>
<td>2.78</td>
<td>2.27</td>
<td>4.09</td>
<td>2.95</td>
<td>3.57</td>
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<td>5.55</td>
<td>9.41</td>
<td>11.35</td>
<td>13.89</td>
<td>15.90</td>
<td>17.86</td>
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<tr>
<td>Map</td>
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<td>n=659</td>
<td>n=1,669</td>
<td>n=10,836</td>
<td>n=23,411</td>
<td>n=22,675</td>
<td>n=23,167</td>
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<td>n=5,239</td>
<td>n=6,321</td>
<td>n=7,733</td>
<td>n=8,856</td>
<td>n=9,947</td>
</tr>
<tr>
<td>%</td>
<td>1.03</td>
<td>0.61</td>
<td>0.57</td>
<td>1.43</td>
<td>9.31</td>
<td>20.11</td>
<td>19.47</td>
<td>19.90</td>
<td>5.55</td>
<td>9.41</td>
<td>11.35</td>
<td>13.89</td>
<td>15.90</td>
<td>17.86</td>
</tr>
<tr>
<td>Catheterization</td>
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<td>n=604</td>
<td>n=816</td>
<td>n=1,199</td>
<td>n=1,670</td>
<td>n=20,11</td>
<td>n=1,700</td>
<td>n=2,217</td>
<td>n=1,881</td>
<td>n=1,535</td>
<td>n=1,658</td>
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</tr>
<tr>
<td>%</td>
<td>0.86</td>
<td>2.90</td>
<td>3.91</td>
<td>5.75</td>
<td>8.01</td>
<td>8.74</td>
<td>8.15</td>
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<td>7.36</td>
<td>7.38</td>
<td>8.75</td>
<td>8.69</td>
<td>12.35</td>
</tr>
<tr>
<td>Total</td>
<td>n=77,147</td>
<td>n=87,521</td>
<td>n=92,086</td>
<td>n=69,028</td>
<td>n=77,669</td>
<td>n=109,319</td>
<td>n=121,458</td>
<td>n=138,312</td>
<td>n=156,960</td>
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<td>n=208,814</td>
<td>n=229,642</td>
<td>n=238,619</td>
<td>n=252,785</td>
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<tr>
<td>%</td>
<td>3.77</td>
<td>4.27</td>
<td>4.50</td>
<td>3.37</td>
<td>3.79</td>
<td>5.34</td>
<td>5.93</td>
<td>6.76</td>
<td>7.67</td>
<td>9.18</td>
<td>10.20</td>
<td>11.22</td>
<td>11.66</td>
<td>12.35</td>
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</table>

Source: Department of Informatics of the Unified Health System (DATASUS)
Balderrama P, Gleriano JS, Henriques SH et al.

It is worth noting that the significant growth of EKG examinations, in the scope of DRS XV, especially since 2005, was an examination used in specialized services in Cardiology, as well as in urgency services and, because this examination was also performed in some PC units, the regulators understood it as a care qualifier in this level of attention.

The follow-up of the family strategy is very good, it is x-ray if you need, electrocardiogram, everything is done here [...]. (RM12-2)

It is understood, although there is no specific testimony, that the increase in the number of urgent consultations may also justify the wide use of EKG, since there was no significant increase in cardiology consultations in the period. It is suggested that the availability of this examination, both in PC services and in emergency services, may signal that the user has more access to this type of technology, which, if used in a timely manner, can favorably impact the indicators of cardiovascular morbimortality.

It is also noticed the increase in the number of echocardiograms from the year 2008. It is known that this test is used to increase the diagnostic accuracy in Cardiology and, therefore, only in specialized services, a fact that can mean both a greater access to specialized exams, as well as the improvement of the reference process of PC users for specialized services in Cardiology.

It is interesting to note that, of all participating municipalities, those who do not have a cardiologist deny difficulties to perform tests that they consider to be “simpler”, such as electrocardiogram, echocardiogram, holter, and ergometric test. According to the reports of the participants, all the needs in the specialized service are met.

We have access to exams, let’s say, casual, an ergometric test, electro ... these exams we have facility to do. (RM22)

In Cardiology, we have no problem. Everything that appears appears. Take the exams all over there. (RM3-2)

It is pointed out that the opposite is mentioned by the municipalities that have cardiologists; they report difficulties to access the same examinations mentioned above, as it is possible to verify.

In the city, we have two cardiologists and do not even have the demand for it. I can easily refer patients to MSA and BH, but patients who stay in the county to the normal clinical cardiologist, I cannot perform [...]. (RM5-2)

He has the problem of the exams that, having the cardiologist here, generate many exams. Although he has tried to organize, we have seen the regional distribute quotas for exams, yet we can not attend. (GM9-1)

In the scope of cardiovascular care in DRS XV, there is a guideline for the organization of access, in the perspective of completeness, as can be evidenced.

It was directed to people who, if it is a more serious case, forward to the MSA that they take the exam. He goes straight to an MSA specialist who, inside, he can do everything, because the doctor here asks for the exams and he does not stay in our hand for a long time. (RM18-2)

It is understood that complex and dense diagnostic exams, from the technological point of view, require the adoption of clinical and regulatory protocols, and must be agreed in the locoregional system, with the perspective of ordering access and minimizing the performance of multiple diagnostic exams without an adequate clinical indication. It is perceived that centralizing these tests favors efficiency in the use of resources, but implies the need to organize reference and counter-reference streams that guarantee access to the exams and do not burden the user.

It is pointed out that exams performed in a timely manner may favor the adequate establishment of diagnoses, as well as the indication of therapy, a desirable situation that tends to reduce the risk of complications and hospitalizations.
In this context, it should be pointed out that, although the quantitative data indicate an improvement in access to surgical hospitalizations, there is a consensus about the difficulties related to elective surgical hospitalization, including follow-up visits, preoperative examinations, and the conduct of the elective procedure. The biggest problem is the preoperative, pre-surgical exams in the case of having to do a more appropriate, more advanced procedure. (RM16-2)

It is known that attention in medium and high cardiac complexity, an area that requires sophisticated and costly assistance to the health system, requires the planning, through strategies that qualify the clinical and productive capacity of the services, the management of the care of the users, from the organization of the flows and the integration of the levels of attention, to the resolutive care.

It is necessary to prioritize preventive and health promotion actions, which may be less costly for both the user and the health system, as well as planning, evaluation, control and regulation strategies, which directs the use of public resources, mainly in universal health systems, focusing on integrality and resolubility.

**DISCUSSION**

It is pointed out that, far from an ideal scenario, current austerity policies and containment of health spending can jeopardize universal access; therefore, discussing mechanisms that facilitate and enhance access to health is an urgent issue and essential. It is considered that strengthening basic health care, organizing regional systems from the point of view of health care networks and implementing sound management structures can contribute to the improvement of the health system, which can also affect access conditions.

PC is understood as the main alternative for improving the organization of health systems, since it allows better access conditions and integral care. It is pointed out that the strategies to strengthen basic health care in UHS have improved the access to comprehensive and continuous care, constituting a platform for the prevention and management of chronic diseases. It is evaluated, in relation to cardiovascular diseases, that comprehensive care performed within the scope of PC minimizes the occurrence of complications and qualitatively extends the life of the users, and may also impact on the decrease in mortality due to these diseases.

It is understood, with regard to the expansion of urgent medical appointments, among other possibilities, that the search for this type of service occurs when the user did not have access to the PC, did not make a link with the team and when the care was not integral or was not resolving. The preference of the users for the emergency services, for the immediate attention, the occurrence of complications and qualitatively extends the life of the users, and may also impact on the decrease in mortality due to these diseases.

It is evidenced, in recent studies show that PC’s capacity to resolve local health problems is closely related to the use of inpatient services as well as unnecessary hospitalizations by reducing or avoiding this type of intervention. In the literature, there is a decrease in clinical hospitalization, evidences that relate the performance of PC services to the...
reduction of this type of hospitalization, especially those considered sensitive to basic care, among which, they mention heart failure, angina, cerebrovascular diseases and hypertension, responsible for 41.5% of hospitalizations due to conditions sensitive to basic care (ICSAB) in DRS XV.

It is suggested that the observed increase in surgical hospitalizations may result from innumerable situations, namely: users with inadequate response to drug therapy or worsening of the disease and need for surgical correction and the selection of the demand for hospitalizations, since, in a way in general, surgical hospitalizations are better paid than clinical admissions. It is assessed that further studies could better investigate the situation.

Access to health is defined as a complex and multifaceted theme, framed by geographical, cultural, educational, structural and socioeconomic difficulties, among many others; however, economic difficulties and barriers related to marking specialized medical procedures appear to be a constant.

It was verified, as in other studies, a limitation of the access directed to the scheduling of elective procedures. In the literature, the difficulty of access to health services with a higher technological density, especially those of medium complexity, is identified as one of the factors that cause health care fragmentation and a major bottleneck of the UHS, but, the perspective of integrality of attention is only possible when the user has access to all the necessary services, including the most sophisticated, denoting that no health care network is built without a virtuous articulation between the three federated entities.

It is understood that the availability of specialists in small municipalities, acting in Primary Care, can have implications for access. It is considered impossible, from the point of view of efficiency, to provide specialized services or services in small municipalities, since the difficulties in keeping them functioning properly may constitute greater problems than the possible benefits generated. It is conceived, in addition, the optimization of the resources as something indispensable, in view of the financial limitation of the State, which makes unfeasible the universality of access in the perspective of integrality of attention.

It is observed, in the context of the organization of the regional health system, that the smaller municipalities are responsible for attending PC and 24 hours emergency service. It is understood that the provision of specialized services and greater technological complexity are entrusted to the larger municipalities, which have better technical, financial and operational capacity. In this context, it is collaborated, through effective regionalization, in the perspective of health care networks, to organize the system and to rationalize the use of resources necessary for health care. Regulation is defined as an important management tool, which has a close interface with planning, control, evaluation and the various points of attention, favoring integral assistance to users, understood as an important tool for the promotion of equity.

Given the recent economic crisis and the current unemployment rate, it is expected that public services will become increasingly essential, which is why health evaluation becomes an important management tool that can and should be potentialized. It is also considered necessary to strengthen the management of the UHS, so that resources, which are known to be insufficient, can be optimized through planning, control, regulation and evaluation of health services, not in response to a policy reductionist health, but not to succumb to the discourse related to the lack of efficiency of the UHS that has been propagated.

It is understood that the universality of access is a constitutional guarantee that must be preserved and discussing mechanisms of organization of the health system that can enhance it is a virtuous and necessary task.

**CONCLUSION**

The analysis of the production of consultations, diagnostic exams and hospitalizations in Cardiology allowed evaluating the actions of attention to cardiovascular diseases as tracers of results of the articulation of the different points of attention of a regional health system, from the perspective of access, being it is possible to infer that, in the scenario studied, there was an increase in the offer of services that allow the early diagnosis and the monitoring of users, evidencing the expansion of access.

It is pointed out that the expansion of access to diagnostic and follow-up services has implications for the care of the user and for the health system itself, modifying the profile of the use of health services. It can be inferred, in this context, that the reduction of clinical hospitalizations and the increase of surgical hospitalizations are related to the increase of access to outpatient and specialized care services, with the strengthening of basic care.
In the qualitative data analysis, relevant aspects of the organization of the regional system were identified, evidencing that the qualification of PC coordination actions and health regulation can be differential for the improvement of access in services of different technological densities.

It is evaluated that the resolubility of the PC with the implementation of care lines, the provision of actions and adequate health services, qualitatively and quantitatively, the implementation of the regulation for the attendance of the clinical and surgical consultations in Cardiology, the expansion of the services of urgency, the complementarity of care due to exams to qualify the care and implementation of specialized services to improve care in Cardiology have repercussions on access to health services related to attention to cardiovascular diseases.

It is also concluded that universal, equitable and orderly access requires the implementation of sound management structures, involving planning, control, regulation and evaluation of health services. They point to the use of evaluation and management strengthening as crucial to the sustainability of the health system, which has implications for access.

Finally, it should be pointed out that, although this research has as an object delimitation the evaluation of access to the regional health services system and its results can be restricted to this region, it is possible to verify potentialities by subsidizing discussions in other regional systems about the organization of the health system with a view to complete the articulation between the different points of attention, the importance of health assessment, the expressive incidence of cardiovascular problems in the population, the use of tracers for the evaluation of health services and to the representation of this group of diseases for the work of different professionals of the health system.

As a limitation of this investigation, it is indicated that users with cardiovascular diseases were not interviewed, which can be explored in a future investigation, using, for this, another evaluation approach.

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