







Original article

## Institutional strengths and weaknesses in the care of older adults with hypertension \*

Potencialidades e fragilidades institucionais no cuidado ao idoso com hipertensão

Fortalezas y debilidades institucionales en el cuidado del adulto mayor con hipertensión

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### Abstract

**Objective:** to evaluate the institutional capacity to care for hypertensive patients in health services for older adults, based on the perception of health teams. **Method:** a cross-sectional study with 53 health professionals from outpatient institutions specializing in the care of older adults in the city of Manaus, Amazonas, Brazil. The Institutional Capacity Assessment for Attention to Chronic Conditions (ACIC) was applied. Data are presented in mean values. **Results:** the strengths were in the dimensions: self-management support ( $6.1 \pm 2.7$ ), organization of health care ( $5.5 \pm 2.1$ ), and delivery system design ( $5.1 \pm 2.6$ ). The weaknesses were: clinical information system ( $3.9 \pm 2.7$ ), community resources ( $4.0 \pm 2.9$ ), integration of the components of the care model ( $4.1 \pm 2.7$ ), and decision support ( $4.4 \pm 2.9$ ). **Conclusion:** according to the ACIC, the institutions presented a basic capacity to provide care to hypertensive patients.

**Descriptors:** Chronic Disease; Patient Care Team; Aged; Health Evaluation; Public Health

### Resumo

**Objetivo:** avaliar a capacidade institucional de cuidado ao paciente hipertenso nos serviços de saúde destinados aos idosos, a partir da percepção das equipes de saúde. **Método:** estudo transversal, com 53 profissionais de saúde das instituições ambulatoriais especializadas no cuidado ao idoso na cidade de Manaus, Amazonas, Brasil. Aplicou-se a Avaliação da Capacidade

Institucional para Atenção às Condições Crônicas (ACIC). Os dados são apresentados em valores de média. **Resultados:** as potencialidades foram nas dimensões: autocuidado apoiado ( $6,1 \pm 2,7$ ), organização da atenção à saúde ( $5,5 \pm 2,1$ ) e desenho do sistema de prestação de serviços ( $5,1 \pm 2,6$ ). As fragilidades foram: sistema de informação clínica ( $3,9 \pm 2,7$ ), recursos da comunidade ( $4,0 \pm 2,9$ ), integração dos componentes do modelo de atenção ( $4,1 \pm 2,7$ ) e suporte às decisões ( $4,4 \pm 2,9$ ). **Conclusão:** de acordo com o ACIC, as instituições apresentaram capacidade básica na prestação de cuidado ao paciente hipertenso.

**Descritores:** Doença Crônica; Equipe de Assistência ao Paciente; Idoso; Avaliação em Saúde; Saúde Pública

## Resumen

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**Objetivo:** evaluar la capacidad institucional para la atención de hipertensos en los servicios de salud del anciano, a partir de la percepción de los equipos de salud. **Método:** estudio transversal, con 53 profesionales de la salud de instituciones ambulatorias especializadas en el cuidado de ancianos en la ciudad de Manaus, Amazonas, Brasil. Se aplicó la Evaluación de la Capacidad Institucional para la Atención de Condiciones Crónicas (ACIC). Los datos se presentan como valores medios. **Resultados:** las potencialidades estuvieron en las dimensiones: autocuidado apoyado ( $6,1 \pm 2,7$ ), organización de la atención en salud ( $5,5 \pm 2,1$ ) y diseño del sistema de prestación de servicios ( $5,1 \pm 2,6$ ). Las debilidades fueron: sistema de información clínica ( $3,9 \pm 2,7$ ), recursos comunitarios ( $4,0 \pm 2,9$ ), integración de los componentes del modelo de atención ( $4,1 \pm 2,7$ ) y apoyo a las decisiones ( $4,4 \pm 2,9$ ). **Conclusión:** según la ACIC, las instituciones tenían una capacidad básica para brindar atención a los pacientes hipertensos.

**Descriptor:** Enfermedad Crónica; Grupo de Atención al Paciente; Anciano; Evaluación en Salud; Salud Pública

## Introduction

Population aging presents itself as a worldwide phenomenon identified in several countries, including Latin America, and reflects the increase in life expectancy.<sup>1-2</sup> The increase in years lived and changing lifestyle have contributed to a change in disease patterns over time, starting from a period in which there was a predominance of diseases of infectious origin until reaching the present time, when a higher prevalence of a group of diseases called Chronic Noncommunicable Diseases (NCDs) can be observed.<sup>3-4</sup>

These NCDs are characterized by their gradual onset, multiple causes, and long and uncertain duration.<sup>5-6</sup> Systemic Arterial Hypertension (SAH) stands out within this group, with a global prevalence in adults aged 30 to 79 years in 2019 of 32.0% among women and 34.0% among men.<sup>7</sup> In Brazil, this disease affects approximately 22.8% of the population.<sup>8</sup> In those aged between 60 and 64 years, the prevalence of this disease reaches a significant 44.4%, and considering those aged between 65 and 74 years, the prevalence reaches 52.7%.<sup>9-10</sup>

These changes in health scenarios drives the search for better care capacity for patients affected by chronic conditions, especially SAH. For this to be possible, it is necessary to transform a system which is currently characterized as reactive, fragmented, and episodic, and which responds to the demands of acute conditions and events, into another system, which is proactive, integrated, continuous, and focused on health promotion and maintenance.<sup>11</sup> The Chronic Conditions Model of Care (CCMC) can be used as a strategy to achieve this transformation of care, as it covers the specificities arising from chronicity and from the life conditions acquired as a result of diseases, enhanced by the observation of the individual context, Networks of Care, health professionals and services, management, and public policies.<sup>5,12-13</sup>

For this transformation in the care offered to reach the objective of providing adequate care, it is essential to carry out continuous evaluations in order to know the strengths and areas that need to be improved within the health services.<sup>13-15</sup> Some instruments can be used for this purpose, as they provide important information and parameters to guide the quality of the service provided and the planning of actions, as in the case of the instrument for assessing institutional capacity for attention to chronic conditions (ACIC).<sup>13,15-16</sup>

Studies on this theme have grown in the national scenario, and can contribute to the improvement in care for these diseases throughout the Brazilian territory.<sup>13,15</sup> In the state of Amazonas (AM), scientific production in this regard is still scarce and needs to be intensified. Thus, the current study is justified by the need to identify the weaknesses and strengths presented in the care offered to older patients with SAH in outpatient services specialized in the care of this public in a city in AM, allowing, from the diagnosis, the implementation of assertive measures to increase the effectiveness and efficiency of care.

In this context, the objective of the current study is to evaluate the institutional capacity to care for hypertensive patients in health services for older adults, based on the perception of health teams.

## Method

This is a cross-sectional study with a quantitative approach, carried out in the city of Manaus, AM, Brazil, from June to August 2019. Data collection was carried out in all

the four health services specialized in the care of older adults in the city of Manaus; the Center for Integral Attention to the Best Age (CAIMI, N=3) and the Polyclinic of the Open University of the Third Age (UnATI) (N=1). For the description of the article, the recommendations of the STROBE instrument were followed.

The sample was established by non-probabilistic convenience. The total number of health professionals that could be contacted in the four institutions comprised 105 people, of which 53 were interviewed. These institutions met the selection criteria: health professionals recognized by Resolution nº 287 (10/08/98) of the National Health Council (social workers, biologists, biomedical professionals, physical education professionals, nurses, pharmacists, physiotherapists, speech therapists, doctors, veterinarians, nutritionists, dentists, psychologists, and occupational therapists)<sup>17</sup>. In total, 52 professionals were excluded for reasons including: vacation or leave, being in a management position, and/or not agreeing to participate in the study.


Health professionals from the selected institutions were invited to a lecture that explained the research objectives in a simple and clear way. To ensure that there was no compromise in the care of the older adults, data collection took place individually after prior scheduling with professionals interested in participating in the study. After reading and consenting to the Free and Informed Consent Term, the instruments were applied in a room reserved for the study. The collection was carried out by a previously trained team.

The first instrument used was the socio-educational questionnaire, which contains questions to collect professional information (profession, sex, date of birth, institution of professional training, completion of *lato sensu* postgraduate courses, time of caring for the older adults, and assistance in the current institution). Subsequently, the Institutional Capacity Assessment for Attention to Chronic Conditions was applied. This instrument has been translated and cross-culturally adapted to several languages, including Brazilian Portuguese.<sup>16</sup>

The ACIC contains 35 guiding questions divided into seven dimensions, namely: i) organization of health care; ii) community resources; iii) self-management support; iv) decision support; v) delivery system design; vi) clinical information system; and vii) integration of the components of the care model for chronic conditions,<sup>16</sup> according to

Table 1. The dimensions in the ACIC are analyzed using a score that varies from 0 to 11 points. For the application of the instrument, it is necessary to establish a disease to be the guiding condition. Thus, SAH was selected due to its high prevalence in this target population, and for being a risk factor for other pathologies, such as stroke.

**Table 1** - Aspects of the seven dimensions of the Institutional Capacity Assessment for Attention to Chronic Conditions (ACIC).

Dimensions	Concepts
<b>Organization of Health Care</b>	The management of chronic conditions policies/programs can be more effective if the entire system (organization, institution, or unit) in which care is provided is guided and allows for greater emphasis on care for chronic conditions.
<b>Community resources</b>	The articulation between the health system (institutions or health units) and community resources plays an important role in the management/handling of chronic conditions.
<b>Self-management support</b>	Effective self-management support can help people with chronic conditions and their families cope with the challenges of living with and treating the chronic condition, as well as reducing health complications and symptoms.
<b>Decision support</b>	Effective management of chronic conditions ensures that healthcare professionals have access to evidence-based information to support decisions in the care of users. This includes evidence-based guidelines and protocols, consultation with experts, health educators, and user involvement <u>in order to</u> make health teams able to identify effective care strategies.
<b>Delivery system design</b>	There is evidence that effective management of care for chronic conditions involves more than simply adding interventions to a system focused on the care of acute conditions. Changes are needed in the organization of the system and realignment of care provision.
<b>Clinical information system</b>	Useful, timely, and individualized information for all users with chronic conditions. This is a critical aspect of effective models of care, especially those that employ population-based approaches.
<b>Integration of the components of the Chronic Conditions Care Model</b>	Effective health systems integrate and combine all elements of the model, for example, linking self-care goals with records in information systems, or associating local policies with activities in the users' care plans (places for the development of physical activities, structuring of community gardens, etc.).
<b>Interpretation of the results</b>  <p>0 1 2 3 4 5 6 7 8 9 10 11</p> <p>Limited support for chronic illness care</p> <p>Basic support for chronic illness care</p> <p>Reasonably good support for chronic illness care</p> <p>Fully developed chronic illness care</p>	

Source: Antonio Filho DS, Moysés SJ, Moysés ST (2013).<sup>16</sup>

From the data collection individually from the health professionals, the results were organized in a Microsoft Office Excel 2010 spreadsheet, and the partial mean achieved in each dimension and the final mean of each health establishment were

established.<sup>5,16</sup> After grouping and accounting for mean and simple standard deviation, the data were transported and analyzed in the Graph Pad Prism 8.0 program.

To test the normality of the variables – organization of health care; community resources; self-management support; decision support; delivery system design; clinical information system; and integration of the components of the chronic conditions care model – the Kruskal-Wallis test was used. The comparison between the scores of each dimension, as well as the subcomponents achieved by the institutions, was performed using one-way ANOVA, followed by Tukey's post-test, considering the significance level  $p < 0.05$ .

In order to protect the confidentiality of the research participants, as well as the institutions visited, a system of identification by letters was adopted, with institutions randomly identified by the letters of the alphabet A, B, C, and D. The study followed the procedures to meet the ethical precepts of Resolutions 466/2012, 510/2016, and 580/2018. After approval by the State Health Department (SUSAM), the project was approved by the Research Ethics Committee of the Federal University of Amazonas (UFAM) on April 21, 2019, under no. CAAE 09899819.0.0000.5020.

## Results

The sample of 53 participants consisted of physiotherapists (26%), followed by nurses (19%), psychologists (11%), doctors (11%), dentists (11%), and social workers (8%). Nutritionists, pharmacists, physical education professionals, and occupational therapists together made up 14%, as shown in Table 1. More than half of the professionals (68%) were female, with a mean age of  $39.4 \pm 7.5$  years.

Regarding professional training institutions, it was found that 51% were trained in public institutions; 42% were specialists in Gerontology/Public Health or Collective Health; and 52% were specialists in other areas of Health, making a total of 94% of specialists in areas related to Health. Regarding the time of professional experience and assistance to older adults, the mean was  $13.22 \pm 7.4$  years and  $7.0 \pm 5.0$  years, respectively. On average, professionals had  $6.0 \pm 5.0$  years of assistance at the institution.

**Table 1** - Socio-educational data from the sample of participants (n=53). Brazil, 2021

Variable	Total	Institution A (n=11)	Institution B (n=9)	Institution C (n=17)	Institution D (n=16)
<b>Sex (n; %)</b>					
Female	36; 68	6; 55	7; 78	11; 65	12; 75
Male	17; 32	5; 45	2; 22	6; 35	4; 25
<b>Age (mean in years <math>\pm</math> SD)</b>	39.4 $\pm$ 7.5	39.27 $\pm$ 8.27	42.44 $\pm$ 8.72	40.29 $\pm$ 5.86	36.81 $\pm$ 7.65
<b>Professional nucleus (n; %)</b>					
Physiotherapy	14; 26	3; 27	2; 22	4; 24	5; 31
Medicine	6; 11	2; 18	-	3; 18	1; 6
Psychology	6; 11	1; 9	-	1; 6	4; 25
Nursing	10; 18	1; 9	2; 22	5; 29	2; 13
Odontology	6; 11	1; 9	2; 22	2; 12	1; 6
Social assistance	4; 8	1; 9	1; 11	1; 6	1; 6
Pharmacy	3; 7	1; 9	1; 11	1; 6	-
Nutrition	2; 4	1; 9	-	-	1; 6
Occupational therapy		-	-	-	-
Physical Education	2; 4	-	1; 11	-	1; 6
Professional					
<b>Undergraduate training location (n; %)</b>					
Public higher institution	27; 51	7; 64	5; 56	12; 71	3; 19
Private higher institution	26; 49	4; 36	4; 44	5; 29	13; 81
<b>Lato sensu specialization (n; %)</b>					
No specialization	3; 6	1; 9	-	-	2; 13
Specialization in Geriatrics/Gerontology or Public Health or Collective Health	22 ;42	3; 27	2; 22	6; 35	11; 69
Specialization in other areas of Health	28; 52	7; 64	7; 78	11; 65	3; 19
<b>Professional practice (mean in years <math>\pm</math> SD)</b>					
Time of professional practice in assistance	13.22 $\pm$ 7.4	14.82 $\pm$ 7.37	15.89 $\pm$ 9.13	15.29 $\pm$ 6.19	8.43 $\pm$ 7.10
Time of professional practice caring for older adults	7.0 $\pm$ 5.0	7 $\pm$ 3.35	8.71 $\pm$ 6.73	7.39 $\pm$ 4.69	5.27 $\pm$ 4.39
Time of professional practice in the evaluated institution	6.0 $\pm$ 5.0	5.00 $\pm$ 4.00	7.66 $\pm$ 6.86	6.00 $\pm$ 4.00	4.27 $\pm$ 2.96

Regarding the organizational dimensions of health care and community resources, no significant differences were observed between the evaluated health services (Figure 1).

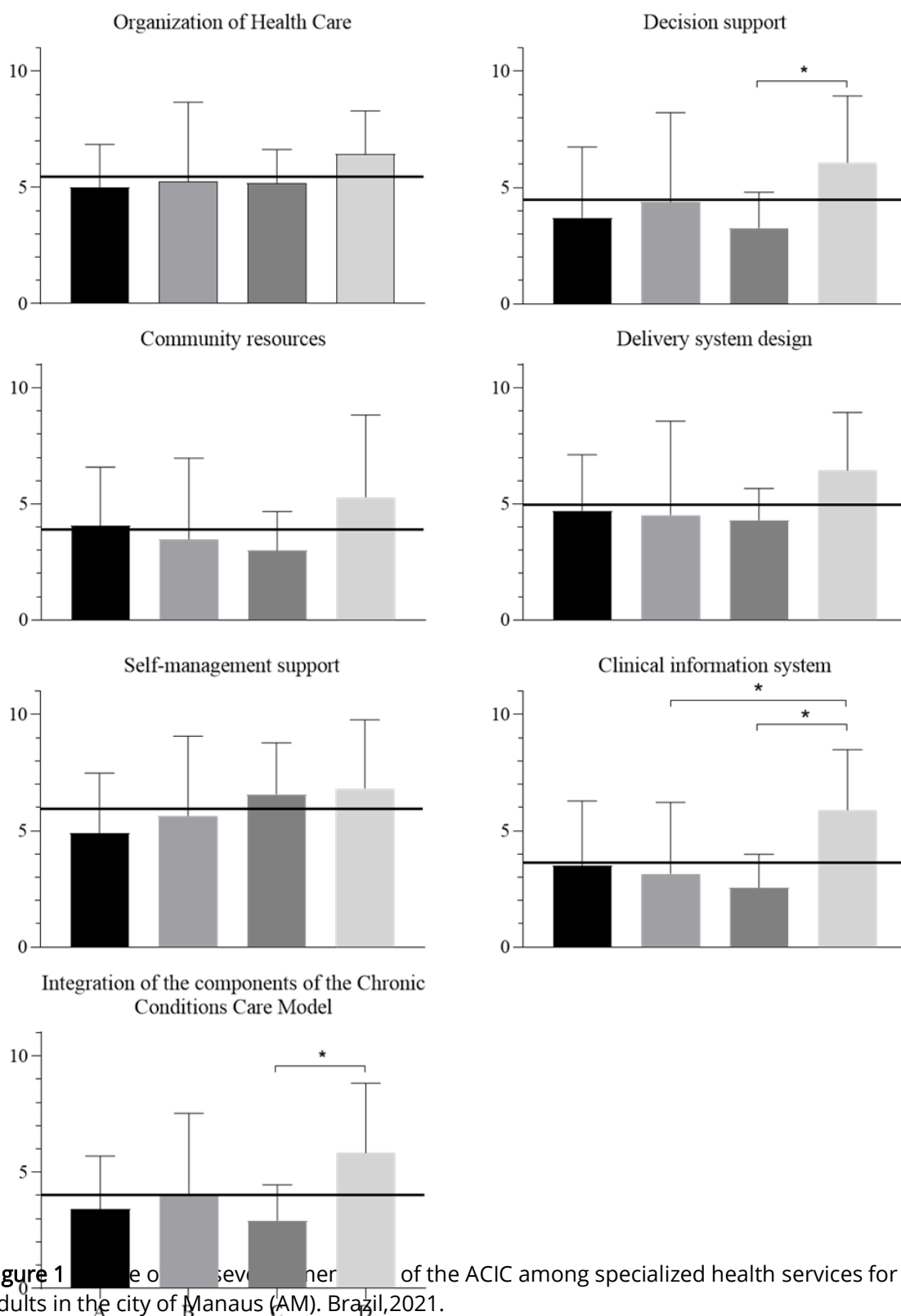


Figure 1. Score of seven dimensions of the ACIC among specialized health services for older adults in the city of Manaus (AM), Brazil, 2021.

Table 2 presents the analysis of each of the components of the dimensions, demonstrating that institution D showed statistically significant values when compared



to the other institutions in the following items: policies and incentives for attention to chronic conditions; effective behavior change interventions and support groups; evidence-based guidelines; education of teams in attention to chronic diseases; leadership of health teams; monitoring; records; *feedback*; relevant information on subgroups of patients who require specialized services; therapeutic plans; records or information systems; community programs; organizational plan for the care of chronic diseases; monitoring routine for consultations; patient assessment; and goal planning.

**Table 2** - Results of the institutional capacity assessment questionnaire for attention to chronic conditions in institutions in Manaus-AM (n=53). Brazil, 2021

Dimensions	Subcomponents	Institution A (n= 11)	Institution B (n=09)	Institution C (n=17)	Institution D (n=16)	p
		M±SD	M±SD	M±SD	M±SD	
Organization of health care	Organizational leadership of the system for chronic disease care	3.8±0.8	5.0±3.0	4.1±1.5	5.9±2.4	<b>0.03</b>
	Organizational goals for chronic disease care	4.4±2.4	4.6±4.0	4.5±2.4	5.9±2.7	0.42
	Strategies for improving chronic disease care	5.8±2.4	5.2±2.7	5.7±1.5	6.0±2.3	0.86
	Policies and incentives for chronic disease care	5.4±2.3	5.3±3.7	3.9±1.7	6.6±2.9	<b>0.05</b>
	Institutional authorities	4.6±2.0	5.8±4.1	6.6±2.3	7.0±2.3	0.13
	Benefits & Incentives	6.0±2.5	5.5±4.4	6.4±2.4	7.2±2.1	0.51
Community resources	Associate patients with community resources	4.1±3.2	3.2±3.3	2.9±2.7	4.9±4.0	0.35
	Partnerships with community organizations	4.3±2.8	3.0±3.2	3.1±2.7	5.6±3.6	0.09
	Regional or local health plans	3.8±2.9	4.2±4.1	3.0±2.5	5.4±3.8	0.23
Self-management support	Assessment and documentation of self-care needs and activities performed	5.1±2.9	5.0±4.0	5.3±3.5	7.4±3.4	0.21
	Self-care support	4.3±3.3	5.8±3.7	5.8±3.7	6.1±3.6	0.61

	Psychosocial support for patients and families	5.1±2.6	6.2±4.2	6.8±2.6	6.1±3.5	0.61
	Effective interventions for behavior change and support groups	5.2±3.2	5.6±4.6	8.4±2.7	7.6±2.9	<b>0.04</b>
<b>Decision support</b>	Evidence-based guidelines	3.5±3.3	5.0±3.5	3.8±2.3	6.4±2.7	<b>0.03</b>
	Involvement of experts in improving primary care	4.0±3.4	4.3±4.3	4.0±2.3	6.6±3.3	0.09
	Education of teams in chronic disease care	3.9±3.5	4.2±4.0	2.5±2.1	5.7±3.6	<b>0.05</b>
	Information to patients about the guidelines	3.3±3.1	4.0±4.1	2.7±2.2	5.4±3.2	0.08
<b>Delivery system design</b>	Line of care for attention to chronic diseases	4.3±2.6	4.6±2.9	4.5±3.2	6.4±2.8	0.19
	Leadership of healthcare teams	3.7±2.6	4.0±4.6	3.8±2.4	6.9±2.9	<b>0.01</b>
	Appointment system	4.5±2.5	5.4±4.4	5.3±3.3	5.9±2.9	0.75
	Monitoring	3.7±2.9	4.0±4.4	2.9±2.5	6.0±2.8	<b>0.03</b>
	Consultations planned for chronic disease care	6.3±4.1	4.7±4.7	4.2±2.9	6.8±3.1	0.16
	Referral to specialist or diagnostic support services	5.7±2.7	4.4±4.4	5.1±2.3	6.8±2.5	0.23
<b>Clinical information system</b>	Records	2.5±2.3	2.0±2.4	2.2±2.0	5.3±3.0	<b>0.002</b>
	Alert to professionals	4.2±3.2	3.3±3.6	3.3±2.5	5.3±2.9	0.22
	<i>Feedback</i>	3.3±2.8	3.1±3.2	1.9±1.8	6.2±3.3	<b>0.000</b>
	Relevant information on subgroups of patients requiring specialized services	3.9±3.1	3.6±3.5	2.4±2.2	5.9±3.6	<b>0.01</b>
	Therapeutic plans for patients	3.6±3.3	3.8±3.6	3.0±1.7	6.7±3.2	<b>0.004</b>
<b>Integration of the components of the care model for chronic</b>	Informing patients about protocols	3.4±2.2	3.9±4.0	3.3±2.5	5.6±3.6	0.16
	Records or information systems	4.5±2.9	4.2±3.4	3.1±2.5	6.3±3.3	<b>0.03</b>
	Community programs	2.7±2.4	3.4±3.5	1.4±1.2	5.4±3.7	<b>0.001</b>

<b>conditions</b>	Organizational plan for chronic disease care	3.8±2.8	3.6±3.6	2.5±1.6	5.8±3.3	0.01
	Monitoring routine for appointments, patient assessment, and goal planning	4.2±3.5	4.3±3.7	2.9±2.5	6.8±2.4	0.004
	Guidelines for chronic disease care	2.1±1.7	4.8±4.0	4.4±3.6	5.1±3.5	0.12

(\*) Statistically significant value ( $p < 0.05$ ). ANOVA *one-way*, and *Tukey post-test*.

## Discussion

The data show that the health centers evaluated in the city of Manaus (AM) have a basic institutional capacity for care and management of older patients with SAH. The dimensions with greater fragility were: clinical information system (score  $3.9 \pm 2.7$  points); community resources ( $4.0 \pm 2.9$  points); integration of the components of the care model ( $4.1 \pm 2.7$  points); and decision support ( $4.4 \pm 2.9$  points). The dimensions that achieved the best scores were: self-management support ( $6.1 \pm 2.7$  points); organization of health care ( $5.5 \pm 2.1$  points); and delivery system design ( $5.1 \pm 2.6$  points).

The clinical information system was identified as the main weakness, corroborating the results of a survey carried out in Campo Grande, Mato Grosso do Sul (MS), with five primary care teams, totaling 30 professionals.<sup>18</sup> One of the factors that may contribute to this finding is the fact that none of the institutions evaluated in the present study has an information system that includes electronic medical records, which can delay the monitoring capacity and, consequently, reduce the care capacity. An investigation carried out in the state of Minas Gerais, in 2019, highlights that electronic medical records improved the functioning of the health institution, increasing the quality and strengthening the care process, in addition to providing agility and safety to the care.<sup>19</sup>

The community resources dimension obtained one of the lowest scores. The item assesses the ability to articulate the service with neighborhood associations, churches, schools, and non-governmental organizations, as well as the incorporation of regional and/or local health plans.<sup>16</sup> The data show that there is difficulty in attracting partnerships through other means that do not come from government transfers. Previous investigations indicate that insufficient partnerships with the community do

not provide the necessary support to users.<sup>16,20-21</sup> Despite this, these partnerships are rarely observed, which leads some studies that use the ACIC not to detail more information about this dimension.<sup>22</sup>

Regarding the integration of the components of the care model for chronic conditions, it was found to be fragmented, corroborating other studies.<sup>15,18,21,23</sup> In addition, despite the presence of a multidisciplinary team, the level of interdisciplinarity has not yet been reached. One of the possible explanations is the high demands of users compared to the few professionals allocated in each of the Health Units. Research emphasizes that high demands are characterized as a problem, since they lead professionals to postpone the adoption of innovations and adherence to small changes.<sup>21</sup>

Decision support was shown to be in a process of improvement, as, according to the survey data, it is not yet widely anchored in evidence-based guidelines. The findings of this dimension differ from those found in the Federal District region, in which 21 professionals were approached in the evaluation and Diabetes Mellitus and SAH were adopted as guiding conditions. In that study, decision support presented an average of  $7.8 \pm 2.4$ , being classified as having a reasonable capacity for attention to chronic conditions in this dimension.<sup>24</sup> It was evidenced that the institutions were permanently searching for improvements, emphasizing the initiative of planning for adaptations of health policies. Despite the constant updating of clinical guidelines by Brazilian societies of each specialty, these guidelines still do not have full application in Health services.

The self-management support dimension was identified as the greatest strength in this investigation, differing from the finding of a survey carried out with professionals from the Family Health Strategy teams (FHS), in Campo Grande, MS, in which the design of the health service delivery system was identified as the greatest strength.<sup>18</sup> This field refers to the assessment of self-care needs established by the service, as well as support for behavior change and support for family members. Some strategies observed in the data collection process show the institutional search to encourage self-care by users, as the presence of psychological therapy groups, group therapies, and lectures on self-care was found, aiming at behavior changes and the search for active aging, as well as *Tai Chi Chuan* classes and other physical activity practices. Greater knowledge of the user in

relation to chronic conditions, greater acceptance of their concerns and those of their families, and the implementation of effective interventions, contribute to changes in the behavior of individuals in relation to their health condition.<sup>16,18,23</sup>

Considering the organization of health care, the partial score shows that the city of Manaus, AM, had a basic capacity for structuring policies and managing programs for people with SAH. A similar survey carried out among health professionals at the FHS in Campo Grande, MS, highlighted the importance of this dimension in the provision of services, given that it directly affects the interdisciplinarity of health professionals.<sup>18</sup> An evaluation carried out in the north of Portugal with doctors and nurses, in which the disease analyzed was Diabetes Mellitus, concluded that the receipt of incentives in the fulfillment of goals related to the reduction in the aggravation of NCDs reflected a positive attitude in health professionals,<sup>20</sup> demonstrating a strategic movement by management to generate changes in behavior and care practice.

The care line design component includes the definition that the effective management of NCDs involves more than adding several interventions to a system still based on care for acute causes or emergencies, and recognizes the need for restructuring based on the needs of users: predominantly chronically ill patients.<sup>16</sup> The study results demonstrate that there is replanning of some actions, but they are still centered on some specific functions and professionals.

Some research carried out in Basic Health Units and in the FHS showed divergent results when compared to this study, since the findings demonstrated a reasonable capacity for attention to chronic conditions.<sup>18,23</sup> On the other hand, similar studies concluded that the Health Services evaluated had a basic capacity to care for chronic conditions due to weaknesses in dimensions, such as: community resources, decision support, clinical information system, and integration of the components of the care model to chronic conditions,<sup>18,21</sup> in synergy with the data presented in this investigation.

As limitations, the lack of time of professionals during their workday to participate in the data collection process is highlighted, which may have contributed to the lack of confirmation of all professionals belonging to the institutions. In addition, the choice of only one disease as the guiding condition, which limited the evaluation of institutions in a more comprehensive way.

The contribution of the study is the identification of weaknesses and strengths in the care offered to the chronically ill patient, which allowed the reflection and establishment of coping strategies to improve the comprehensiveness of care, a reduction in damage caused by the presence of diseases, rational use of human financial and material resources, and greater user satisfaction with the Unified Health System. The research brought implications that allow us to understand the dimensions that require improvement and, with that, more efforts can be directed to them. For the strengths presented, there is a possibility of improving the actions already implemented, with the objective of improving and achieving significant results in each of them.

## Conclusion

The results of the study indicate that health institutions for older adults in the city of Manaus, AM, had a basic health care capacity, according to the ACIC classification. According to the perception of health professionals who work in these institutions, the dimensions that presented the greatest strengths were: self-management support, organization of health care, and delivery system design. On the other hand, the dimensions with the greatest weaknesses were: clinical information system, community resources, integration of the components of the care model, and decision support.

The data obtained make it possible to strengthen care, improving the effectiveness and efficiency of long-term care for this population, so that health institutions can effectively plan the resources available in their establishments, based on the knowledge of the weaknesses and strengths of the location. One way to speed up this process would be to provide *feedback* to establishments through new surveys, in order to attest to the changes that occurred after the adoption of new measures aimed at improving care, in addition to the development of other studies from the service user perspectives.

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