

### Paths of the riverside population in the access to urgent and emergency care: challenges and potentialities

Caminhos da população ribeirinha no acesso à urgência e à emergência: desafios e potencialidades (resumo: p. 16)

Caminos de la población ribereña en el acceso a la urgencia y emergencia: desafíos y potencialidades (resumen: p. 16)

Vanessa Figueiredo de Almeida<sup>(a)</sup>

<vfa.enf@gmail.com> 

Júlio Cesar Schweickardt<sup>(b)</sup>

<julio.cesar@fiocruz.br> 

Ana Elizabeth Sousa Reis<sup>(c)</sup>

<anareis85@hotmail.com> 

Glenda Patricia da Silva Vieira Moura<sup>(d)</sup>

<glendavieiras@hotmail.com> 

<sup>(a, b, c)</sup> Instituto Leônidas e Maria Deane, Laboratório de História, Políticas Públicas e Saúde na Amazônia, ILMD/Fiocruz Amazônia. Rua Terezina, 476, Bairro Adrianópolis. Manaus, AM, Brasil. 69057-070.

<sup>(d)</sup> Faculdade Estácio do Amazonas. Manaus, AM, Brasil.

The study aimed to analyze the riverside population's access to urgent and emergency services in Maués, Amazonas, Brazil, through the methodology of participatory approach and the analysis of talking maps and narratives. The relevance of the Community Health Agent came was highlighted, as well as the importance of mechanisms to deliver care in the riverside territory, such as the Fluvial Primary Care Unit and launches known as *ambulanchas*. However, challenges also came to light, like transportation in urgent and emergency situations and lack of a professional with a higher education degree to provide initial care in the territory. In addition, articulation and communication between sectors and the referral process are still deficient. Thus, strategies are needed to integrate the different points of the Healthcare Network, enabling communication and articulation. Moreover, new strategies to promote healthcare access must be developed in meetings between management and workers, grounded on reflective dialogue.

**Keywords:** Access to health services. Urgency and emergency. Territory and health. Amazon.

## Introduction

Universal health access as a right of every citizen, guaranteed by the Brazilian 1988 Federal Constitution<sup>1</sup>, can be approached and analyzed in different ways. Access to healthcare has been amplified through the implementation of the Brazilian National Health System (SUS) and consolidated through the establishment of Healthcare Networks and other strategies in recent decades.

In Brazil, Healthcare Networks started to be implemented in 2010 with their priority Thematic Networks. The Urgent and Emergency Care Network, one of the priority Networks, was instituted by Directive no. 1600, of July 7, 2011<sup>2</sup>, as a reformulation of the National Urgent Care Policy. In the State of Amazonas, the planning of the Healthcare Network and of the Urgent and Emergency Care Network occurred right after the implementation of this new model of healthcare<sup>3</sup>. However, the Network does not function in the way it should, and organization and more investments are necessary for the establishment of this and of other care networks in the municipalities of Amazonas. However, the peculiarities of each municipality must be taken into account, as well as their challenges, potentialities, and existing innovations, in the spheres of both primary care and urgent and emergency care.

The articulation between primary care and urgent and emergency services is still incipient in Brazil as a whole and in the municipality analyzed here. Although the Healthcare Network and the Urgent and Emergency Care Network have been implemented, it is necessary to articulate the services in order to deliver comprehensive and continuous care<sup>4</sup>. Primary care is a component of the Urgent and Emergency Network and their actions must be integrated, so that effective communication and articulation enables the provision of longitudinal care, considering regional specificities.

The Amazon, with its social, cultural and geographical diversity, presents many other Amazons. Such plurality needs tailored attention when it comes to the making of public policies targeted at specific populations. The reformulation of the National Primary Care Policy (PNAB) achieved this by implementing Riverside and Fluvial teams, as well as the Fluvial Primary Care Unit in the Amazon and Pantanal regions<sup>5</sup>.

In this study, the term riverside takes into account the complexity and comprehensiveness of the definition of rural, as the specificities of the riverside population cannot be measured by a strictly geographical characteristic nor by a mere classification<sup>6</sup>. There are different ruralities in diverse contexts, either in the Amazon, Pantanal or in other regions<sup>5</sup>. Thus, to fit this conceptualization of rural, we used the term rural/riverside to refer to the municipality's Family Health teams and specifically to the riverside population.

The term rural/riverside presented here aims to encompass the discourses and meanings that professionals and the population understand as being rural and riverside. To them, there does not seem to be an exact distinction, as they frequently use the terms as synonyms. The management, in turn, does not define the teams as riverside. Although their profile of population demand is mostly composed of riverside dwellers, they are called rural teams. Therefore, we use the term rural/riverside in this study to designate the health teams.



In this study, the riverside population is considered a social category. It is not limited to a geographical question - people that live by lakes and creeks; rather, it refers to individuals who live in rural/riverside communities, whose life is intrinsically connected with the liquid territory, and who have a dynamic relationship with the environment, influenced by the water cycle<sup>7,8</sup>. The term liquid territory has been employed in local and regional studies with a greater impact and scope. In the present study, this term does not denote only geographical characteristics and conditions; it refers to a place of experiences characteristic of riverside populations: back and forth movements, existential connections, and community relations of the daily life of riverside dwellers<sup>8</sup>.

The liquid territory is the site where relationships of care and of social and political organization are produced. Furthermore, it is the place where neighbors' solidarity and commitment are always present: even in the face of difficulties, they potentialize care provision through living networks. This territory is not restricted to a geographical aspect. It is perceived as an existential and care territory, expressed by the movement of rivers and the influence they exert on the life of riverside dwellers<sup>9</sup>.

In the midst of fixed and flowing elements existing in the paths traveled on a daily basis, either in rescues or in home visits to community dwellers, the Community Health Agents (CHA) deliver healthcare in the riverside territory. This territory is not fixed but has the fixed elements presented on maps and present in the memory of riverside dwellers, like schools, churches, healthcare units, and creeks<sup>10</sup>. In addition, there are the flowing elements, which represent the riverside dwellers' movement in the liquid territory, the connections and relationships established between users, community, and the healthcare network itself. They are back and forth movements in their daily life and in the daily routine of the health services; therefore, we can say that the fixed elements are strongly connected with the flowing ones<sup>11</sup>.

The municipality of Maués was chosen for this study due to the predominance of its rural/riverside population. In addition, because of its vast area, it presents a low population density, enabling a diversity of experiences in this territory that is characteristic of the Amazon region. The main objective of the study was to analyze the production of the riverside population's access to urgent and emergency services in the municipality of Maués, and to describe the dwellers' flows of access to these services.

## Methodological approach

This study derives from a broader research on "Riverside population's access to the Urgent and Emergency Care Network in the state of Amazonas". It presents some of the results of a Master's thesis submitted to the Postgraduate Program in Life Conditions and Health Situations in the Amazon Region. Its methodological approach is participatory research, carried out through a descriptive and exploratory case study in the municipality of Maués, Amazonas, Brazil.

Grounded on the participatory approach, the study uses "talking maps", described by Toledo and Pelicioni<sup>12</sup> as a technique that subsidizes the discussion of problems identified by a group, enabling a better understanding of the challenges present in their daily routine through the graphic description and reports they provide. In addition,



participant observation and field diaries were used to collect notes on the impressions identified during workshops in which the maps were developed and presented. We also conducted 14 semi-structured interviews with managers and professionals of the rural/riverside and hospital teams.

Two workshops were held: one on “Talking Maps”, focusing on the development and presentation of maps describing the riverside population’s access flows, and the other on “complex cases”, focusing on the discussion of urgent and emergency cases in the riverside area. The workshops were held on two days. On the first day, the participants of the “Talking Maps” workshop were two nurses responsible for the rural/riverside teams, the primary care coordinator, and 63 CHAs. On the second day, the participants were the two nurses and 64 CHAs.

The reports of the CHAs were transcribed and organized according to the analytical categories identified in the workshops. The main categories were healthcare transportation and territory of care. Results were constructed and discussed through the analysis of narratives about these professionals’ life experiences. We also adopted the analysis model proposed by Assis and Jesus<sup>13</sup>, considering organizational and political aspects as dimensions of health access.

The broader project “Riverside population’s access to the Urgent and Emergency Care Network in the State of Amazonas”, from which our study derives, was submitted to and approved by the Research Ethics Committee of the Federal University of Amazonas under CAAE no. 99460918.3.0000.5020. Therefore, our study complies with the ethical and legal requirements of research involving human beings, according to Resolution 466/2012 of the National Health Council – CNS<sup>14</sup>.

## Results and discussion

### Paths traveled in the search for health access in a riverside territory

The municipality of Maués has a vast territory and numerous rivers and creeks, with approximately 270 rural/riverside communities divided into twelve hubs<sup>15</sup>. The municipality has one of the lowest population densities of the region. The largest part of the population lives in the rural area. Aiming to deliver comprehensive care, the municipality of Maués assists the riverside population in health units that provide urgent and emergency care (Municipal Hospital) or primary care, through rural/riverside healthcare teams, especially by means of CHAs spread over the communities located along rivers and creeks.

In the beginning of the study, there were only four health units in the riverside area registered in the CNES (National Register of Healthcare Establishments). The units were closed in 2018; however, by the end of the study, new units had been constructed in the rural/riverside area and others had been renovated to better assist the population.



The municipality of the study has seven healthcare teams, defined as rural/riverside because they are not fixed teams in the territory. There is only one nursing technician and the CHAs, who assist directly the population on a daily basis<sup>15</sup>. The other professionals, like nurses and physicians, are responsible for the teams but do not live in the riverside area. They usually go with the fluvial team in the trips of the Fluvial Primary Care Unit, assisting the communities for which they are responsible. Whenever necessary, especially in urgent and emergency cases, the riverside dwellers go to the central part of the municipality seeking for hospital care, taken by a family member or by the CHA of their area. Some of them go to the reference community when it is possible, where the nursing technician provides first aid, and then they go to the hospital.

The reference community is defined as the hub for other communities located in nearby areas, by the beds of the rivers and creeks that surround the municipality of Maués. Some hubs encompass a more extensive area with a lower number of communities, as they need tailored care due to transportation time and the number of assisted families.

Rivers are the riverside dwellers' main pathway in the Amazon<sup>7</sup>. During droughts, roads and ways are formed where there used to be lakes and creeks, and people usually travel on foot. To access the health services in the city, the riverside dwellers usually utilize small boats that have a sterndrive engine<sup>16</sup>.

Average travel time to cover the distance between the nearest community and the central part of the municipality, where the hospital is located, is 30 minutes. From the farthest community to the hospital, the trip takes approximately 18 hours by boat (provided it has a sterndrive engine). The communities located farthest from the hospital are Santa Maria do Caiuá and Osório da Fonseca, both by the Paracuni river<sup>17</sup>. The riverside population's average travel time when seeking access to health services is approximately 4.2 hours<sup>16</sup>.

Travel time between the most distant communities and the municipal hospital is similar to travel time by boat to the capital city, Manaus: 18 to 20 hours on average. The duration of the trip depends on factors like weather and boat conditions, as well as period of the year and season<sup>5,8</sup>. This entails a reflection on the challenges faced by the riverside population to access the health services. In addition to the distance between communities, many people do not have their own means of transportation, like boats with sterndrive engines, to travel to the central part of the municipality.

According to the CHAs, who know the riverside territory and the courses of the waters, travel time depends mainly on boat type and engine power. Thus, it is difficult to estimate travel time through rivers, lakes and creeks, as the route can be facilitated or hindered by many factors.

The communities' main pathways to access the central part of the municipality are the rivers Maués-Açu, Maués-Miri, Parauari, Urupadi, Apocuitaua and Paraná do Urariá. These long rivers are crossed by lakes and creeks that give access to the most distant riverside communities.

The riverside population usually accesses the health services in the hospital navigating these rivers, mainly in urgent or emergency cases<sup>16</sup>, as there is no specific unit or assistance for urgent cases and emergencies in the communities.

The amplification of primary care through the implementation of Primary Care Units in the riverside territory and of Fluvial Units to deliver outpatient care enables to improve the assistance provided, as the presence of the health service in the territory increases this population's possibilities of healthcare access. Therefore, it improves the population's quality of life and health. The presence of a healthcare unit in the riverside territory facilitates access, as travel time to the unit is much lower than to the hospital, even when a sterndrive engine is used.

The map of the Novo Alvorecer community, located by the Limão Grande river (Figure 1), presents typical characteristics of the riverside context, as the resident population faces a long journey. The CHA presented the talking map of the community she monitors, highlighting the challenges faced by users in relation to transportation, as some of them do not have their own means of transportation nor the financial resources to pay for the travel ticket. Thus, they depend on the help of neighbors and of the CHAs themselves to go to the municipal hospital in urgent or emergency cases.



**Figure 1.** Talking map of the catchment area of one CHA from Hub 1, Limão Grande river, Novo Alvorecer Community.

Source: LAHPSA Collection, 2020 (In: Almeida, 2021)



The map shows that the Novo Alvorecer community has approximately 46 families followed up by the rural/riverside healthcare team. Among these users, there are diabetic and hypertensive individuals who have difficulties in accessing the health services in the city. That is why the implementation of the Fluvial Primary Care Unit is important: it takes healthcare to the riverside communities<sup>5</sup>. This care model, implemented in the municipality in February 2019, enables the performance of medical examinations and outpatient consultations, which would hardly be possible if it had not been implemented.

Another great advance for the local healthcare occurred in the following year, in May 2020, with the introduction of launches - called “*ambulanchas*” - to assist the most distant riverside communities. The “*ambulanchas*” stay in the hub community. When a patient needs to be removed, communication is performed via radio waves and, usually, the community agent or the nursing technician stabilizes the patient and takes them to the municipal hospital.

As we can see in Figure 1, some residences are distant from each other and, in some cases, it is not possible to travel on foot - it is necessary to use a boat with a sterndrive engine. The CHA visits residences on a daily basis in order to meet the demands of the local riverside population. In the end of the month, the CHA goes to the municipal hospital to deliver the production and to participate in meetings with the primary care coordinator and local managers. On this occasion, the CHA presents the population’s demands and the problems identified in the period, as well as the achievements.

Such graphic representations express a little of the life experience and work of Community Health Agents in riverside areas. Each path expresses the memory of a challenge or achievement occurred during their experiences in the community, in visits or even in rescues of pregnant women in labor, as shown by the reports below:

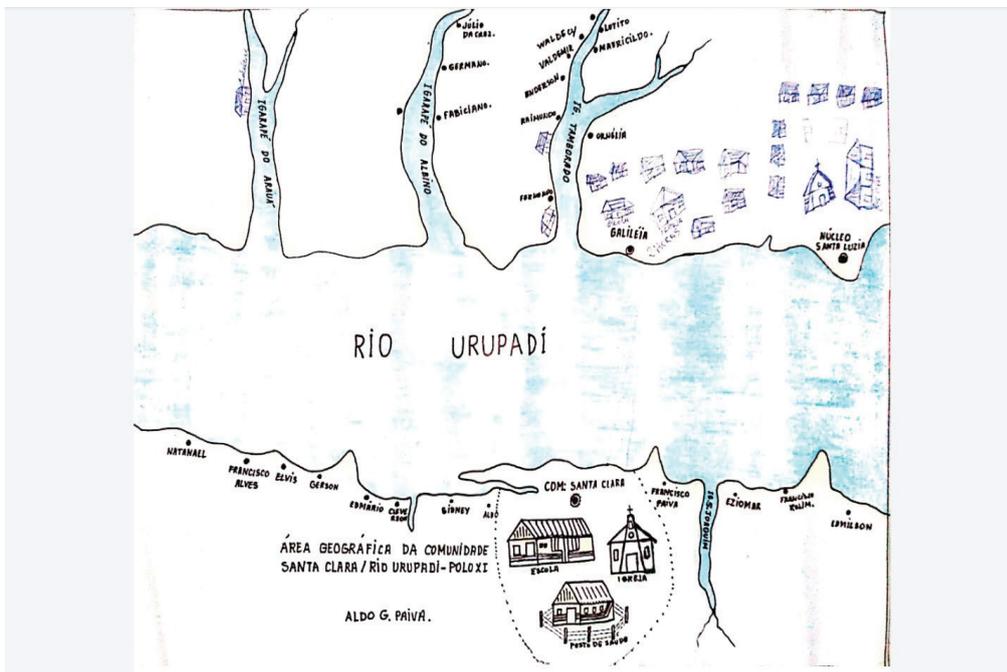
[...] It was about six in the morning. I was passing in front of the house of this woman and someone called me. I stopped there and found that the woman had given birth. I became a little desperate with the situation, because we don’t know exactly what had happened, only that the child was there, the umbilical cord had snapped very close to the belly and was bleeding a lot and there was nothing we could do, we couldn’t get [...] (CHA 1 - Complex cases workshop)

[...] In that period, the weather was dry, really dry... our boat was outside the community. The pregnant woman’s husband came to us and said that she was in labor... Then I went there, picked the woman up and put her on a borrowed canoe with a 5 HP sterndrive engine, and we came here. On the way, I called the nurse in charge to ask for an ambulance... but when we got to the middle of the Limão lake, the child was born... then I stopped the boat to assist the patient and called the nurse again. I told him that the ambulance should go to the port and wait for us there because we were on our way, and they managed to provide the necessary care [...] (CHA 2 - Complex cases workshop)



Most of the CHAs, either in the map presentations or in the complex cases workshop, reported labor-related challenges, when they had to take women in labor to the municipal hospital due to possible complications that could arise in the process. Some of them mentioned that transportation is a challenge they face in the daily routine of their work, especially when there are problems in the boat - for example, when the engine stops working in urgent and emergency situations, like labors. In these cases, it is necessary to row for a long time to the nearest community to receive help.

The map presented in Figure 2 shows some residences far from the central part of the community. Although many families live in the community's center, some still live in isolated sites and like to live there, as it is usually the place of memories related to childhood and to what they learned with their parents and grandparents. Older people's knowledge is present in their daily life, in fishing and farming techniques or in ways of living life calmly, in co-existence with nature. The map also depicts a school, churches, and the healthcare unit, which was being renovated at the time. They represent the fixed elements present in the everyday life of the community and permeate the flowing elements, which are the movements, paths, and their way of living life as riverside dwellers. The maps present the paths used in drought or flood periods, and are present in the memory of riverside dwellers.



**Figure 2.** Talking map of the catchment area of one CHA from Hub XI, Urupadi River, Santa Clara Community.

Source: LAHPSA Collection, 2020 (In: Almeida, 2021)



The riverside communities located by lakes and creeks are the places where meetings between riverside families and CHAs occur. The families' meetings with the other health professionals, in turn, occur in the visits of the Fluvial Primary Care Units. It is in this environment that fraternity and solidarity relationships are established, going beyond economic issues, involving mutual help and companionship, especially in urgent or emergency situations. When a community dweller needs support and the CHA does not have a fast means of transportation, someone shows up to help. This is the riverside communities way of life. In spite of challenges and even economic precariousness, with the help of CHAs and of community members, the riverside dwellers many times manage to save lives.

Regarding distances, represented by travel time: to riverside dwellers, such time is relative. Sometimes, what is considered "far" or "distant" is not perceived like this. They face such distances on a daily basis, but through their experience and relationship with nature, they recognize the dynamics of the rivers and travel by them, no matter if it is a long or short trip.

### **Challenges to the articulation between primary care and urgent and emergency services**

According to Directive no. 1600/2011<sup>3</sup>, which instituted the Urgent and Emergency Care Network, assistance to SUS users must be provided at all entry points, either in primary care or in urgent and emergency services, aiming to deliver comprehensive and effective care<sup>3</sup>. However, these ideal models set forth in the directives and resolutions of the Ministry of Health are not always adequate to the riverside context. Therefore, other ways of enhancing healthcare should be used - through the liquid territory, which is fluid and dynamic and permeates the life of the riverside population, and through the living work of CHAs and rural/riverside teams.

The essence of the Urgent and Emergency Network is the organization of services and assistances related to urgent and emergency care. In its care units, it is possible to perceive the articulation between urgent and emergency services or sectors and primary care, which is recommended in the Directive. This articulation aims to promote continuity of care in an efficient way, integrated into actions and services in all levels of care.

Articulation between those sectors enables to mitigate the fragmentation of care inside the services and in the Healthcare Network itself. However, sometimes the articulation does not happen. In some cases, like the cities of Amazonas, the Urgent and Emergency Care Network does not function as set forth in the Policy. The urgent and emergency services and the primary care teams are present and provide care, but in the riverside area, their action is much more difficult and challenging.

Articulation between the services and even between the health teams in different sectors is still a challenge to managers, especially when they are dealing with a specific population, like riverside dwellers. To the riverside population, care provision is still fragmented, as urgent and emergency services are available only in the municipal hospital or in the capital city. Many riverside dwellers do not return to the follow-up in another level of care after being discharged from hospital.



The municipal management has difficulties in outlining assistance protocols due to organizational, political and infrastructure issues, and because of the resources needed for hiring professionals to work in the riverside area. According to the managers, providing urgent and emergency care in areas so far from the municipal hospital and that do not have enough resources is quite a challenge. Another one is making investments to organize the teams of the urgent and emergency services when the service is underfunded. Such underfunding intensifies the fragmentation of services and healthcare, hindering continuity of care, provision of comprehensive care, and health equity<sup>18</sup>.

The establishment of professionals in riverside communities is another challenge, due to the units' inadequate sanitation and infrastructure. For example, lack of electrical energy to maintain the equipment and supplies necessary to assist the riverside population<sup>19</sup>, or lack of Internet access for communication with the teams of the Municipal Health Department or of different Network services (communication is still performed exclusively via radio waves in the hub communities that have this resource). Structural questions, issues related to the system's flows, underfunding, and problems with the referral process can hinder the population's access to the health services<sup>20</sup>.

Despite the challenges, the riverside dwellers seek access to the health services in the municipal hospital. However, the specificities of this population have not been prioritized, and there are no standardized care flows or protocols. It is important to outline and implement referral and counter-referral flows, so that the user is continuously followed up in the Healthcare Network and care fragmentation is mitigated<sup>21,22</sup>.

Provision of follow-up care for the riverside population is an even greater challenge, as they lack the financial resources to go to the city with the necessary frequency. Thus, users, mainly riverside dwellers, need tailored care that takes into account the context where they live and the challenges they face to access the urgent and emergency services.

The referral process is a challenge to the management, as the communities are distant from the municipal hospital and, many times, users do not return for the follow-up. In addition, there is not a complete riverside health team to provide care for the riverside population, which hinders referrals and follow-ups even more. Another challenge regards communication between the primary care and urgent and emergency teams: only when there are compulsory notification cases or cases that demand many other higher complexity services do those sectors communicate with each other.

A problem that is very common in Brazil, and it is not different in the Amazon region, is the search for outpatient care in hospitals and emergency rooms. A large part of the population still has a hospital-centered view and understands that the hospital is the service that has the greatest effectiveness and speed<sup>23</sup>.

In some situations, the riverside dwellers go to the hospital because assistance seems to be speedier there compared to the Primary Care Unit, as it is not necessary to schedule an appointment nor to stay in the city for a long time. Some riverside users do not have residences in the city nor any relatives who can shelter them during this period. Many users go to hospitals or emergency rooms seeking for speedy assistance, but their health problem could have been dealt with in primary care<sup>21</sup>.



In the municipal hospital, many cases are, in fact, demands for outpatient care, which could have been assisted in primary care. According to the report of one of the hospital's nurses:

[...] most of the assistances here are not urgent and emergency cases; most of them are outpatient care, because here they go straight to the doctor, right, it's not necessary to schedule an appointment at the unit, they come here and are assisted straight away [...] <sup>17</sup>. (Nurse)

The riverside dwellers usually go to hospitals when they do not succeed in receiving assistance immediately at the Primary Care Unit, as they cannot stay in the city for too long. They seek speedy assistance and tests carried out on the same day, if possible, without having to return on the following day to schedule an appointment or test. Even if they have to stay in the hospital for hours, they prefer it due to the possibility of being assisted on one day. However, this search for outpatient care that could be dealt with in primary care ends up overburdening the hospital service <sup>23,24</sup>. Thus, good articulation and communication between teams of different sectors would enable a better organization to solve this problem.

According to the professionals of the riverside teams and to the managers of the Primary Care Units, communication between the urgent and emergency services and the primary care teams is not good – in other words, there is not a good referral process. In addition, inexistence of specific care flows or lack of knowledge about the functioning of these flows hinders communication and articulation. Good communication between teams would allow for a longitudinal and comprehensive follow-up of users, so that they do not get lost in the Network as a consequence of healthcare fragmentation <sup>25</sup>.

Specific actions are needed that take into account the riverside context. The challenges and potentialities present in the daily life of the communities and of the teams that provide healthcare in a singular territory like the Amazon region must also subsidize the actions. Thus, the making of public policies must consider these singularities, and funding must be adequate to the region's cities <sup>26</sup>.

It is essential that the problems faced by the population, which are usually identified by the CHAs, receive proper attention. Such professionals, considered care promoters, are important actors in the daily life of the riverside communities. They make a difference as living networks in the territory of healthcare.



## Final remarks

The study clarified how the riverside population accesses urgent and emergency services, and shed light on challenges and potentialities present in the specific territory. The amplification of the riverside population's access to urgent and emergency services needs attention on the part of the managers. Local specificities and innovations in the daily routine of the service must be taken into account.

It is important to consider the specificity and singularity of riverside communities, outlining assistance flowcharts that include the challenges and potentialities of the territory. The precepts and objectives of the Urgent and Emergency Care Network must be adapted to such populations. There are deficits in the referral process and, many times, there is no continuity of care due to flaws in the process or in the communication and articulation between services.

Delivery of care to these communities must be prioritized, especially in urgent and/ or emergency cases, by means of investments in public policies for specific populations, with adequate and sufficient funding. In this sense, other public health policies must be made, in order to amplify the implementation of "*ambulanchas*" in different riverside areas and to form qualified teams for this type of care, so that the Urgent and Emergency Care Network can function effectively. In addition, the municipal management should develop strategies to enhance and integrate the actions performed by different services.

Planning strategic guidance actions and holding meetings between community, management, primary care, and urgency and emergency services can amplify the riverside population's access to health services. The CHAs' knowledge about the problems of riverside communities is fundamental to improve strategies and even to develop assistance flows targeted at this population. The CHAs' view and experience as workers and, at the same time, community members and riverside users, subsidizes and informs the development of strategies suited to the local reality. Thus, for an efficient articulation between different services, it is necessary to understand the functioning of the Healthcare Networks.

The CHAs can be perceived here as a living network that, through the micropolitics of healthcare, overcomes the norms present in formal networks. However, they do not leave aside effectiveness and continuity of care, considering the user's dynamics of life and the relationships between user, community and health team. Countless challenges are present in the daily routine of the CHAs, but the gratitude of the community dwellers overcomes these difficulties and motivates these workers in their working process and community life. Many times, these professionals save lives when access to the place is hard. They are seen by the community members as first aid professionals and rescuers, receiving their respect and admiration in each achievement.



### Authors' contribution

All authors actively participated in all stages of preparing the manuscript.

### Funding

This study was funded by the Research Foundation of the State of Amazonas through Notice no. 001/2017 – PPSUS. The first and the last authors had FAPEAM scholarships in the Postgraduate Program in Life Conditions and Health Situations in the Amazon (PPGVIDA).

### Acknowledgments

The authors would like to thank the Municipal Health Department of Maués, for the availability and partnership in the development of the research, and the Research Foundation of the State of Amazonas (FAPEAM), for funding the study.

### Conflict of interest

The authors have no conflict of interest to declare.

### Copyright

This article is distributed under the terms of the Creative Commons Attribution 4.0 International License, BY type (<https://creativecommons.org/licenses/by/4.0/deed.en>).



#### Editor

Antonio Pithon Cyrino

#### Associated editor

Charles Dalcanale Tesser

#### Translator

Carolina Siqueira Muniz Ventura

#### Submitted on

11/30/21

#### Approved on

07/29/22

## References

1. Brasil. Constituição (1988). Constituição da República Federativa do Brasil. Brasília: Senado Federal; 1988.
2. Assis MMA, Jesus WL. A. Acesso aos serviços de saúde: abordagens, conceitos, políticas e modelo de análise. *Cienc Saude Colet*. 2012; 17(11):2865-2875.
3. Brasil. Ministério da Saúde. Portaria nº 1.600, de 7 de Julho de 2011. Reformula a Política Nacional de Atenção às Urgências e institui a Rede de Atenção às Urgências no Sistema Único de Saúde. Brasília: Ministério da Saúde; 2011.
4. Jorge AO, Coutinho AAP, Cavalcante APS, Fagundes MAS, Pequeno CC, Carmo M, et al. Entendendo os desafios para a implementação da Rede de Atenção às Urgências e Emergências no Brasil: uma análise crítica. *Divulg Saude Debate*. 2014; (52):125-45.
5. El Kadri MR, Santos BS, Lima RTS, Schweickardt JC, Martins FM. Unidade Básica de Saúde Fluvial: um novo modelo da Atenção Básica para a Amazônia, Brasil. *Interface (Botucatu)*. 2019; 23:e180613. Doi: <https://doi.org/10.1590/interface.180613>.
6. Pessoa VM, Almeida MA, Carneiro FF. Como garantir o direito à saúde para as populações do campo, da floresta e das águas no Brasil? *Saude Debate*. 2018; 42(1):302-14.
7. Pereira FR, Schweickardt JC, Lima RTS, Schweickardt KHSC. O banheiro no território líquido da Amazônia: a micropolítica do trabalho de uma equipe de saúde ribeirinha. In: Schweickardt JC, El Kadri MR, Lima RTS, organizadores. *Atenção Básica na Região Amazônica: saberes e práticas para o fortalecimento do SUS*. Porto Alegre: Rede Unida; 2019. p. 92-107.
8. Schweickardt JC, Sousa RTL, Simões AL, Freitas CM, Alves VP. Território na Atenção Básica: abordagem da Amazônia equidistante. In: Ceccim RB, Kreutz JA, Campos JDP, Culau FS, Wottrich LAF, Kessler LL, organizadores. *In-formes da Atenção Básica: aprendizados de intensidade por círculos em rede*. Porto Alegre: Rede Unida; 2016. p. 101-32.
9. Heufemann NEC, Schweickardt JC, Lima RTS, Farias LN, Moraes TLM. A produção do cuidado no “longe muito longe”: a Rede Cegonha no contexto ribeirinho da Amazônia. In: Feuerwerker LCM, Bertussi DC, Merhy EE, organizadores. *Avaliação compartilhada do cuidado em saúde: surpreendendo o instituído nas redes*. Rio de Janeiro: Hexis; 2016. p. 102-13.
10. Medeiros JS. Caminhos da população ribeirinha: produção de redes vivas no acesso aos serviços de urgência e emergência em um município do Estado do Amazonas [dissertação]. Manaus: Fundação Oswaldo Cruz; 2020.
11. Santos M. *Metamorfoses do espaço habitado*. São Paulo: Hucitec; 1988.
12. Toledo RF, Pelicioni MCF. A educação ambiental e a construção de mapas falantes em processo de pesquisa-ação em comunidade indígena na Amazônia. *Interacções*. 2009; 5(11):193-213. Doi: <https://doi.org/10.25755/int.382>.
13. Santos-Melo GZ, Andrade SR, Souza CRS, Erdmann AL, Meirelles BHS. Organização da rede de atenção à saúde no estado do Amazonas - Brasil: uma pesquisa documental. *Cienc Cuid Saude*. 2018; 17(3):1-8.
14. Brasil. Ministério da Saúde. Conselho Nacional de Saúde. Resolução nº 466, de 12 de Dezembro de 2012. Aprova diretrizes e normas regulamentadoras de pesquisas envolvendo seres humanos. Brasília: Ministério da Saúde; 2012.



15. Almeida VF, Schweickardt JC, Firmo FO, Oliveira JJQ, Barros HCR, Ribeiro FL, et al. Os fluxos da população ribeirinha na terra do guaraná: o caso do município de Maués, Amazonas. In: Soares EPB, Schweickardt JC, Guedes TRON, Reis AES, Freitas JMB, organizadores. *A arte do cuidado em saúde no território líquido: conhecimentos compartilhados no Baixo Rio Amazonas, AM*. Porto Alegre: Rede Unida; 2021. p. 193-209.
16. Guimarães AF, Barbosa VLM, Silva MP, Portugal JKA, Reis MHS, Gama ASM. Acesso aos serviços de saúde por ribeirinhos de um município no interior do estado do Amazonas, Brasil. *Rev Pan-Amaz Saude*. 2020; 11:e202000178. Doi: <http://dx.doi.org/10.5123/s2176-6223202000178>.
17. Almeida VF. Fluxos da população ribeirinha no acesso aos serviços de urgência e emergência: um estudo de caso no município de Maués, AM [dissertação]. Manaus: Fundação Oswaldo Cruz; 2021.
18. Mello GA, Pereira APCM, Uchimura LYT, Iozzi FL, Demarzo MMP, Viana ALA. O processo de regionalização do SUS: revisão sistemática. *Cienc Saude Colet*. 2017; 22(4):1291-310.
19. Dolzane RS, Schweickardt JC. Provisão e fixação de profissionais de saúde na atenção básica em contextos de difícil acesso: perfil dos profissionais de saúde em municípios do Amazonas. *Trab Educ Saude*. 2020; 18(3):1-18.
20. Viegas APB, Carmo RF, Luz ZMP. Fatores que influenciam o acesso aos serviços de saúde na visão de profissionais e usuários de uma unidade de referência. *Saude Soc*. 2015; 24(1):100-12.
21. Alves MLF, Guedes HM, Martins JCA, Chianca TCM. Rede de referência e contrarreferência para o atendimento de urgências em um município do interior de Minas Gerais – Brasil. *Rev Med Minas Gerais*. 2015; 25(4):469-75.
22. Frango BCTM, Batista REA, Campanharo CRV, Okuno MFP, Lopes MCBT. Associação do perfil de usuários frequentes com as características de utilização de um serviço de emergência. *REME Rev Min Enferm*. 2018; 22:e1071.
23. Antunes BCS, Crozeta K, Assis F, Paganini MC. Rede de atenção às Urgências e Emergências: perfil, demanda e itinerário de atendimento de idosos. *Cogitare Enferm*. 2018; 23(2):e53766.
24. Sampaio J, Ferreira TPS, Oliveira IL, Soares RS, Gomes LB, Coelho TM, et al. Acesso e barreira: na peregrinação entre os pontos da rede de urgência e emergência o cuidado se fragmenta. In: Merhy EE, Baduy RS, Seixas CT, Almeida DES, Slomp Júnior H, organizadores. *Avaliação compartilhada do cuidado em saúde: surpreendendo o instituído nas redes*. Rio de Janeiro: Hexis; 2016. p. 127-37.
25. Maximino VS, Liberman F, Frutuoso MF, Mendes R. Profissionais como produtores de redes: tramas e conexões no cuidado em saúde. *Saude Soc*. 2017; 26(2):435-47.
26. Lima RTS, Simões AL, Heufemann NE, Alves VP. Saúde sobre as águas: o caso da Unidade Básica de Saúde Fluvial. In: Ceccim RB, Kreutz JA, Campos JDP, Culau FS, Wottrich LAF, Kessler LL, organizadores. *Intensidades na Atenção Básica: prospecção de experiências “informes” e pesquisa-formação*. Porto Alegre: Rede Unida; 2016. p. 269-94.



O estudo objetivou analisar a produção do acesso da população ribeirinha aos serviços de urgência e emergência em Maués, Amazonas, Brasil, tendo como metodologia a abordagem participativa, uso de mapas falantes e análises das narrativas. Destacou-se a importância do agente comunitário de saúde (ACS) e dos mecanismos de atuação em território ribeirinho, como Unidade Básica de Saúde Fluvial e “ambulanchas”. Mas expõe ainda desafios com relação ao transporte sanitário em situações de urgência e emergência e a falta de um profissional de nível superior em território para o atendimento inicial. Além disso, a articulação e a comunicação entre os setores e o processo de referenciamento ainda são deficientes. Assim, é essencial que sejam elaboradas estratégias que integrem os diferentes pontos da Rede, viabilizando essa comunicação e a articulação. E, por meio de encontros com diálogo reflexivo entre a gestão e trabalhadores, sejam pensadas novas estratégias que viabilizem esse acesso.

**Palavras-chave:** Acesso aos serviços de saúde. Urgência e emergência. Território e saúde. Amazônia.

El objetivo del estudio fue analizar la producción del acceso de la población ribereña a los servicios de emergencia en Maués, Amazonas, Brasil. Teniendo como metodología el abordaje participativo, el uso de mapas orales y el análisis de las narrativas. Se subrayó la importancia del Agente Comunitario de Salud y de los mecanismos de actuación en territorio ribereño, como UBS Fluvial y “ambulanchas”. Pero también expone desafíos con relación al transporte sanitario en situaciones de urgencia y emergencia y la falta de un profesional de nivel superior en el territorio para la atención inicial. Además, la articulación y comunicación entre los sectores y el proceso de referencia todavía es deficiente. Por lo tanto, es esencial la elaboración de estrategias que integren los diferentes puntos de la red, viabilizando esa comunicación y articulación. Y que por medio de encuentros con diálogo reflexivo entre la gestión y los trabajadores se piensen nuevas estrategias que viabilicen ese acceso.

**Palabras clave:** Acceso a los servicios de salud. Urgencia y emergencia. Territorio y salud. Amazonia.