


The Production of Health in the Amazonian Liquid Territory: Reflections on Riverine Primary Healthcare Units over the First 10 Years

A produção da saúde no território líquido amazônico: reflexões sobre as UBS Fluviais ao longo dos primeiros 10 anos


Maria Adriana Moreira^a

 <https://orcid.org/0000-0001-7305-1667>
E-mail: adrianamoreira2005@yahoo.com.br


Fabiana Mânica Martins^b

 <https://orcid.org/0000-0002-4440-2680>
E-mail: fabianamanica@ufam.edu.br

Vanessa Colares Magalhães Alves^a

 <https://orcid.org/0009-0001-5475-9018>
E-mail: nessah.colares@gmail.com

Geisy de Andrade Lima^c

 <https://orcid.org/0000-0001-7452-6062>
E-mail: geisylimacel@gmail.com

Josiane de Souza Medeiros^d

 <https://orcid.org/0000-0002-7426-440X>
E-mail: psimedeiros10@gmail.com

Júlio César Schweickardt^e

 <https://orcid.org/0000-0002-8349-3482>
E-mail: julio.ilmd@gmail.com

^aSecretaria Municipal de Saúde no Município de Manicoré, AM, Brazil.

^bUniversidade Federal do Amazonas. Departamento de Saúde Coletiva da Faculdade de Medicina, Manaus, AM, Brazil.

^cFaculdade de Medicina da Universidade Federal do Amazonas, Manaus, AM, Brazil.

^dUniversidade Federal do Amazonas. Departamento de Assistência Estudantil. Manaus, AM, Brazil.

^eFundação Oswaldo Cruz. Instituto Leônidas e Maria Deane. Laboratório de História, Políticas Públicas e Saúde na Amazônia. Manaus, AM, Brazil.

Abstract

The text aims to analyze the National Primary Health Care Policy (PNAB) with a focus on the regions of the Legal Amazon and the Pantanal, using the experience of the Fluvial Basic Health Units (UBSF) as a reference. The data were produced through the cartographic method, a narrative and reflective writing of praxis in research, management, and assistance in the Amazon. The authors produce this narrative as participants, starting from the inauguration of the first UBSF in Borba, Amazonas, in 2013, financed by the Ministry of Health. The authors are engaged in Permanent Health Education in action for the Amazon. For the analysis, the theoretical assumption of the liquid territory was used, a category developed by the authors that enhances the understanding of the region. It is evident that there are more than 30 active boats in the country, which increases access to health for riverside populations; moreover, the promotion of comprehensiveness and equity in the care offered to communities is observed. Challenges remain: the financing of these units and the need for continuous permanent education actions for professionals, aiming at health promotion that respects the specificities of the liquid territory of the Amazon.

Keywords: Riverine Health; Primary Health Care; Amazon.

Correspondence

Maria Adriana Moreira

E-mail: adrianamoreira2005@yahoo.com.br

Av Getúlio Vargas, SN, Altos do Banco do Brazil, Centro, Manicoré, AM, Brasil. CEP:69280-000.

Resumo

O texto busca analisar a Política Nacional da Atenção Básica (PNAB) em Saúde, com foco nas regiões da Amazônia Legal e do Pantanal, utilizando como referência a experiência das Unidades Básicas de Saúde Fluviais (UBSF). Os dados foram produzidos por meio do método cartográfico, uma escrita narrativa e reflexiva da práxis em pesquisa, gestão e assistência na Amazônia. Os autores produzem essa narrativa implicados, desde a inauguração da primeira UBSF, em 2013, em Borba, Amazonas, financiada pelo Ministério da Saúde, os corpos dos autores estão em Educação Permanente em Saúde in ato pela Amazônia. Para a análise utilizou-se o pressuposto teórico do território líquido, categoria desenvolvida pelos autores que potencializa a compreensão da região. Evidencia-se que existem mais de 30 embarcações atuantes no país, o que amplia o acesso à saúde para as populações ribeirinhas; além disso, observa-se a promoção da integralidade e equidade no cuidado oferecido às comunidades. Desafios permanecem: o financiamento dessas unidades e a necessidade de ações contínuas de educação permanente para os profissionais, com vistas à promoção de saúde que respeite as especificidades do território líquido da Amazônia.

Palavras-chave: Saúde Ribeirinha; Política Pública de Saúde; Cuidado; Amazônia.

Introduction

The National Primary Care Policy (PNAB), in its 2011 version, introduced the River Family Health Teams (eSFF) and Riverside Family Health Teams (eSFR) as a specific strategy for the Amazon and the Pantanal. This was an achievement of regional managers and workers who demanded a Unified Health System (SUS) closer to Amazon's reality, with specific funding and work logic adjusted to the territory's geographic characteristics. Thus, the first Primary River Health Unit (UBSF) was launched in December 2013 with funding from the Ministry of Health in Borba, state of Amazonas, Brazil.

The Amazon had already been serving vessels providing services to riverside populations since the 1920s, with the experience of itinerant boats traveling along the main river channels of the State of Amazonas (Schweickardt, 2011). In partnership with the Rubber Valorization Superintendence, other decades of the 20th century experimented with regional boats in the North region, such as the Floating Mobile Units Program. These units provided services from three river units: "Seringueiro I – Madeira River with headquarters in Manicoré; Seringueiro II – Juruá River with headquarters in Eirunepé; Seringueiro III – Purus River with headquarters in Lábrea. These units had a structure that included medical and dental offices, laboratory, kitchen, warehouse and accommodations for the team" (Schweickardt; Martins, 2017).

Starting in 1987, the "*Saúde e Alegria*" ("Health and Joy") project in Santarém, state of Pará, began actions that combine health and art. The project involves boats traveling through riverside communities on the Tapajós River, accompanied by a team of health professionals and other specialists. The lead boat is called Navio-Abaré, which was later registered as UBSF Abaré (Figueira et al., 2020). The initial concept was for a floating hospital model, but it was later adapted to the policy to be a strategy to conduct actions in the primary healthcare of riverside communities¹.

¹ PROJETO SAÚDE E ALEGRIA. Abaré – Saúde da família fluvial. [s. d.]. Available from: <<https://saudeealegria.org.br/saude-comunitaria/abare-saude-familia-fluvial/>>. Access in: 20 apr. 2025.

Since the creation of the SUS in 1990, with decentralized municipal management, municipal managers have had to make numerous arrangements with regional agencies to comply with the universal right to health, particularly for riverside populations. However, as of 2011, an innovation occurred with the UBSF, as it was designed based on the PHC principles to operate in the Amazon riverside territory (Brasil, 2012). This health facility led to the creation of Family Health Teams (eSF) exclusively for this territory. Since it became a specific care strategy for this region, the Ministry of Health began to finance the construction of a raft-type vessel more suitable for the Amazon River, as well as supplies and eSF teams.

As a result, it was possible to promote access to health for riverside populations, who until then had been excluded from the provision of healthcare, with the deterministic geographical argument attributing the problem of access to the place. One cannot deny the complex Amazon territory, which ranges from issues such as low population density, water variations during the hydrological cycle, population dispersion, and distances crossed by river channels, lakes, streams, and creeks, where SUS users live (Schweickardt et al., 2016; Almeida et al., 2019).

The UBSFs form technological and service designs that bring care closer to local reality. Despite geographical challenges, there is power in these communities, workers, and traditional populations producing care networks in the liquid territory. The vessels bring the health team closer to people's needs as they move to promote care. Unlike the fixed PHC Unit (UBS), where people travel to the location, the UBSFs move through the waters and anchor in the port of the communities (El Kadri et al., 2019; Lima et al., 2016; Martins, 2021).

Work organization changes because the territory is specific. Users have different demands, and care is tailored differently despite having the same PHC programmatic actions and an ESF Team (Martins et al., 2022). Therefore, an important challenge in understanding that care needs to be differentiated due to the particularities of this place emerges, which is

the applicability of comprehensive care policy to people in a context with ways of life and worldviews marked by the liquid territory.

By liquid territory, we understand the production of how individuals live their lives, which produces “folds” in hegemonic thinking and prompts us to examine what lies within the territory. It is a counter-colonizing exercise, as Bispo dos Santos (2023) would say, of moving away from the place of normality (looking at the Amazon as a structural place of lack of care, workers, supplies, care continuity, low effectiveness, and coverage). Looking at the productions of riverside dwellers, workers, and managers amid a territory marked by the dynamics of water, where rivers are paths of access, freedom, meetings, a source of food, life, and health, is a way of counter-colonizing our thinking marked by the lack, the distance from the urban standard as normality in policy planning, for example. Current science visibly displays a colonialist production of this place, which is not what we want to reproduce here, as Martins et al. (2022) have already said.

This text aims to celebrate and analyze the 10th anniversary of the launch of the first UBSF in the Madeira River waters. The initiative stems from a group of thinkers about the river and riverside health from the Laboratory group “Laboratory of History and Public Policies of the Amazon (LAHPSA)”, which has been a considerable part of the research group's productions, a pioneer in publications on the UBSF.

The text is divided into three sections: in the first, we provide a brief history that we call **milestones in the path of the Primary Health Care Policy in the Amazon**; in the second, we address the **Liquid Territory category that puts tension on health policies for the region and other territories**; in the third, we have the **Intersections and dialogues with the Policy's creator**, bringing the narrative of manager **Maria Adriana Moreira**, who was present since the construction of the first UBSF and continues to mobilize Management and Continuing Education processes in the inland region of the state of Amazonas. It is from the interweaving of people like her in study groups that focus on health in

the Amazon that the concept of liquid territory emerges, introducing tension into our ways of researching, managing, providing assistance, and promoting continuing education in the SUS for over 10 years. The category reminds us that the relationship between public policies, health services, the riverside territory, and the voices of the population coexist and are powerful.

This study results from research conducted as meetings in the empirical field of the research called “Access of the riverside population to the emergency and urgent care network in the State of Amazonas”, of the Health Research Program for the SUS (PPSUS), which aimed to analyze the riverside population’s access to the Emergency and Urgent Care Network (RUE) in the state of Amazonas. This study aimed to enhance the SUS by expanding access, improving quality, and ensuring continuity of care for the riverside population. The project was submitted to the Research Ethics Committee and received a favorable opinion, numbered CAEE 99460918.3.0000.5020.

Milestones in the path of the Primary Health Care Policy in the Amazon

At the turn of the 19th century, there was a lack of comprehensive policies nationwide, a territory which was “a predominantly rural country, with an estimated 70% of illiterates in the 1920 Census – illiterate and sick, as the hygienist movement of the time claimed” (Lima; Fonseca; Hochman, 2005). During this period, the federal government centralized the policy, and the states assumed more local responsibilities such as health, education, and sanitation.

Health services in the inland region of Amazonas were decentralized with the creation of the SUS in 1990. However, some municipalities only managed to implement the PNAB in the 2000s. Before the SUS, health management was conducted by the state and federal governments through National Programs to combat tropical diseases and others endemic in the region, such

as malaria, plague, tuberculosis, leprosy, yellow fever, and mental illnesses (Schweickardt, 2017).

In 1956, the National Department of Rural Endemic Diseases (DNERu) was created to combat diseases in the country’s inland region using a campaign-based model. The DNERu ran campaigns to combat yaws, schistosomiasis, trachoma, helminthiasis, and Chagas disease and incorporated actions from the National Health Department to combat malaria, yellow fever, and plague. The Rockefeller Foundation was another institution that worked to combat yellow fever from the 1920s onwards, especially in the Northeast (BRASIL, 2004).

The public health agenda, from the 1970s onwards, was marked by the creation of the Superintendence of Public Health Campaigns (SUCAM), which incorporated the DNERu; the eradication of smallpox in the country; the establishment of the National Immunization Program (PNI), which was an example of the efficiency of Brazilian public health, until the Bolsonaro government placed the PNI under suspicion; the establishment of the National Rabies Prophylaxis Program within the Public Health Service Foundation (FSESP) and the decentralization of the Tuberculosis Control Program to the State Health Secretariats, as in the state of Amazonas, when the tuberculosis hospital was transferred to state management in 1979 (Schweickardt, 2011).

Additionally, in the 1970s, we highlight the Program for the Ruralization of Health and Sanitation Actions (PIASS), which primarily aimed to ruralize health actions by attracting medical professionals to the inland region (Schweickardt; Martins, 2017). The Amazon region was PIASS primary focus because the lack of professionals was something that had been dragging on for decades. To illustrate this situation, in the late 1960s, the government of Amazonas purchased hospital structures for rural municipalities, since most had minimal or no structure. These municipalities had no professionals after installing the structures,

as most were concentrated in the capital (Schweickardt; Martins, 2017).

An extremely relevant institution for the Amazon region was the Special Public Health Service (SESP). It was created in the context of the Second World War as part of an agreement with the United States government, which was interested in promoting rubber production. The SESP established a network of health services and structures in various riverbeds of the Amazon Valley, recruiting health professionals and creating training institutions, as exemplified by the Amazonas Nursing School at the Federal University of Amazonas (Sousa; Schweickardt, 2013). SESP's actions included hospital care and practices similar to those of PHC, as it utilized teams of visitors in the territory and developed prevention and health education initiatives. Ultimately, it was an experience that profoundly impacted the lives of many professionals who worked in municipalities within the rural North.

Health policy aimed at rural populations was still centralized in the municipal headquarters, with a hospital as the reference. There was no state or national coordination, and the region was underfunded, making it insufficient for the vast Amazon. Additionally, there was no specific policy in place for Indigenous, riverside, and quilombola populations. Before the SUS, the region relied on charity hospitals, religious and philanthropic institutions, and covenanted services contracted with the National Social Security Institute (INPS), which provided these services for its insured individuals. As a result, there was no state investment in the most remote Amazon regions.

This outlook would only change with the establishment of the SUS in 1990, which escalated the decentralized health policy to the municipalities and later facilitated the creation of the PNAB, initially structured by the Family Health Program (PSF), which was transformed into the Family Health Strategy (eSF), changing the logic of care to the coordination of health grounded on essential care in the territory.

In this process, the Community Health Workers Program (PACS) and ESF teams were implemented. In Borba, Amazonas, for example, located on the banks of the Madeira River, Primary Care coverage was expanded to 100% in the urban area during the 2005/2008 and 2009/2012 administrations. However, the riverside area was only served by campaign actions. Hence, the administration expanded family health teams to the riverside area before the creation of this format in the PNAB. Considering that, until then, there were only fixed ESF teams in the UBS, the creation of mobile teams to serve the riverside population was an innovation for the PHC policy.

When the specificity of the Legal Amazon and the Pantanal riverside populations was included in the agenda, a discussion began on the review of the 2006 PNAB by the National Council of State Health Secretaries (CONASS), the National Council of Municipal Health Secretariats (CONASEMS) and the Councils of Municipal Health Secretariats (COSEMS). Parallel to this movement, the municipal administration of Borba submitted the project for a UBSF to the Primary Care Department (DAB) management, which was approved together with the PNAB review. This approval enabled the implementation of eSFF, eSFR, and UBSF funding, as well as the construction of the vessels (Brasil, 2011).

PHC is the first level of care for the population. Its main characteristic is being a territorialized approach, that is, care close to people's lives. The PNAB aims to ensure social protection, promote universal care, and, above all, provide permanent care that considers the diverse health needs of the population. The Amazon and Mato Grosso do Sul Pantanal peoples accessed health services, ensuring the right to health with equity (Cecilio & Reis, 2018; Lima et al., 2021). According to the new PNAB, a significant investment was made in the Amazon region for the implementation and funding of riverside and river teams, as well as the construction of a UBSF (Almeida et al., 2019; Ferreira, 2021). Furthermore, the *Mais Médicos* Program (PMM) contributed to the supply of

professionals to hard-to-reach regions, especially the Amazon's riverside areas and Indigenous territories, as well as the construction and renovation of UBS facilities in these regions (Schweickardt et al., 2020).

Portugal et al. (2020) affirm that the geographic isolation of the Amazon region restricts residents' access to primary public services, including the health system. The scattered and isolated population poses a significant challenge to health actions in this territory. Therefore, implementing strategic activities in riverside areas by the 2011 PNAB guarantees the principle of equity from a public health perspective and the inclusion of these populations in health policies, which were previously invisible from the PNAB's perspective.

The territorial issue is one of the characteristics that attach a distinct degree of complexity to the production of health in these populations (Dolzane; Schweickardt, 2020). Therefore, the so-called "very far away" regions, from the perspective of the micropolitics of care, pose challenges for management and health workers. However, this condition should not be an argument that overcomes the famous barriers to access. Public policy, by definition, has to correct historically produced injustice and social inequities in a given territory and region (Heufemann; Lima; Schweickardt, 2016).

By proposing the development of longitudinal and comprehensive care for these populations in light of their local specificities, the 2011 updated PNAB encourages the effective development of proposals that encompass these population singularities in the organization of primary care actions, and this circumstance was an important confrontation given the existing challenges (Maciel; Schweickardt; Lima, 2018).

The PNAB was implemented through MS/GM Ordinances No. 2.488 and 2.490, dated 2011. Municipalities in the Legal Amazon and Mato Grosso do Sul can choose between two organizational arrangements for ESF, as well as the options already in place for the rest of the country (BRASIL, 2012). These organizational arrangements are as follows:

I - Riverside Family Health Teams (eSFR): They perform most of their functions in PHC Units built and located in the communities belonging to the assigned area and are accessed by river; II - River Family Health Teams (eSFF): They perform their functions in Primary River Health Units (UBSF) (Brazil, 2012, p. 14).

The eSFFs operate with one or two teams on vessels called UBSF. The Units are equipped with the necessary furniture and equipment infrastructure to serve the riverside population of the Legal Amazon and the Pantanal of Mato Grosso do Sul (BRASIL, 2012). The Legal Amazon is made up of the following states: Acre, Amapá, Amazonas, Mato Grosso, Pará, Rondônia, Roraima, Tocantins, and part of Maranhão. However, the states that required the most UBSF structure were those that most depend on rivers for health and transportation, namely Pará, Amazonas, and Acre.

The UBSF has a minimum structure that includes a doctor's office, a nursing office, a dental office, an area for storing and dispensing medicines, a laboratory, a vaccination room, bathrooms, a waste disposal area, cabins with beds adequate for the entire team, a kitchen, and a procedure room. All environments must comply with the standardized visual identity per the established national guidelines.

Data from the Ministry of Health's Primary Health Care Secretariat (SAPS/MS) for December 2024 show 91 requests from municipalities for the construction of UBSF. Of these, 35 are in operation with funding from the MoH, 41 completed units are in the process of requesting accreditation, eight are under construction, five are in preparatory action, and two works were canceled. In the state of Amazonas, 47 of the 91 UBSF projects requested have been approved, with 16 units in operation and funded by the MoH; next, the state of Pará has 33 units, 14 of which are in operation and receiving funding from the MoH (Table 1).

The UBSFs operate, on average, fifteen to twenty days per month in an area assigned

Table 1 — Status of work and implementation of the UBSFs by state.

UF	Preparatory action	Work Cancelled	Under implementation	Concluded	Operating	General total
AC	1	1	-	-	4	6
AM	1	1	6	23	16	47
AP	-	-	-	1	1	2
MS	1				-	1
PA	2	-	2	15	14	33
RR	-			1	-	1
TO	-	-	-	1	-	1
Total	5	2	8	41	35	91

Source: of Primary Health Care Secretariat/Ministry of Health-SAPS/MS (2025).

to a linked eSFF, including river travel to the communities and direct care for the riverside population, repeating this route every sixty days. After the care period in the area, the teams prepare the trip report and then take a break. Then, the teams conduct ongoing health education and planning, monitoring, and evaluation activities between trips. In some municipalities, the UBSF travels to other riverside territories in the intervening months, where the riverside teams (eSFR) are.

The UBSFs have been adjusted to adapt care to an “itinerant context”, where walk-in demand can occur outside regular working hours, such as in urgent and emergency situations. Thus, the teams have extended hours, including urgent and emergency care situations, where health professionals provide care at night (El Kadri et al., 2019; Martins, 2021). The opportunity for a team to be present in the territory enables care to be closer to people’s lives, fostering a relationship of trust, connection, and longevity.

The UBSF configuration can improve PHC, since the units offer a technical care model that effectively enables the inclusion of riverside populations that have historically been excluded from healthcare. This model addresses regional inequalities to establish a Sustainable Urban System (SUS) that responds to people’s needs (El Kadri et al., 2019; Martins, 2022).

Schweickardt et al. (2016) affirm that the UBSF operates in a care territory, connecting different communities through planned and coordinated action. It is a technology that connects local lives and care and work management. Thus, riverside health depends on managing the territory. Before anything, it is necessary to know the population’s ways of life, their flows, movements, and their subjectivities established in this place.

Riverside healthcare should not be limited to medical or biomedical care; therefore, health promotion and education actions should underpin the health team’s actions in dialogue with the territory’s practices and knowledge (Martins et al., 2021). The territory is alive, a space for social action and relationships between humans and non-humans, which require new dialogues for comprehensive, universal, and cosmopolitical health.

The riverside population constitutes a sociopolitical category with rights and a voice. Being a riverside population is not limited to those who live on river and lake banks, as Medeiros (2020) affirms; if we consider it this way, we reinforce the geographical determinism that naturalized people and places. Thus, participation and negotiations with management are part of providing health in this territory. One should remember that participation and social control represent significant achievements of SUS.

Liquid territory and local health policy

One of the primary challenges in providing access to health services for the population in the Amazon region is to simultaneously establish the principles of comprehensiveness, universality, and equity in the provision of health promotion care (Dolzane; Schweickardt, 2020). The Amazon is a territory in constant movement due to the fluidity of its mighty rivers. It establishes a relationship between the water cycle and the lives of the people living there. The annual periods of high or low water levels create barriers or facilitate access, but they always constitute an element of negotiation and dialogue with the territory.

Suppose this is the case for the population. In that case, it is no different for public health policies, especially regarding access and the quality of responses to the demands of riverside populations (Schweickardt et al., 2019; Schweickardt; Kadri; Lima, 2019). The permanence and movement of the territory teach us that public policies need to keep up with the life dynamics. Thus, putting the territory under reflection means we must engage in dialogue with the diverse life forms in the Amazon region (Schweickardt et al., 2019).

The space is a place of permanent construction that geographer Massey affirms is where multiple subjects and beings coexist. In this sense, a relational policy requires an open mind for the participation of the different and the diverse. Thus, the challenge lies in the practice and exercise of recognizing “coevalness” (the place of co-presence), where multiple trajectories can coexist (Maciel, Schweickard, & Lima, 2018).

Waters are not merely a natural boundary, as they are a place of life and belonging. The river is a place of existence, experience, and learning, especially about nature and enjoying one's territory. Therefore, the water cycle is part of the life dynamics, influencing survival, work activities, leisure, and access to public policies that are their right. Therefore, we have a territory immersed in inconstancy and constant movement, and it requires new knowledge,

experiences, and differentiated actions (Martins, 2021).

The territory in the Amazon is liquid, which encompasses the cultural and social identity of the riverside population. It reflects the natural physical characteristics of the region, which are associated with the movement of water, as well as with other places in the Amazon region and other care locations. “Liquid” refers to fluidity, movement, something connecting people and life. Thus, we understand that liquid territory is not restricted to a physical place but instead carries a set of symbolic and cultural relations that translate into people's ways of life and memory. Notably, to the riverside population, waters represent not only the setting where their lives unfold but are part of the stories and experiences of everyday life, whether at work, in health, or leisure (Schweickardt et al., 2020).

Researchers constructed the liquid territory category at the Amazon History and Public Policies Laboratory. Initially considered a metaphor, it gained momentum as an analytical category that helps to think about and debate public policies and research methods in the Amazon (Martins, 2021). Therefore, it does not refer to water as a metaphorical element to talk about the territory, but as a space that speaks of people, the place, practices, imagination, stories, the house, paths, myths, non-humans, the owners of the forest and the waters, and one's own body. Ultimately, liquid territory addresses a concrete, palpable reality but coexists with many other imaginaries in the lives of the water people. No one enters the waters without asking permission from their owners. So, it is not just Black, white, clear, or dark water, but waters with many visible and invisible presences. This is a decolonized way of thinking, as has been learned through the living networks of care with traditional midwives, shamans, and traditional bone-fixers, for example.

Considering a health policy for the population living in a liquid territory meant facing the challenge of implementing an alternative logic for providing healthcare beyond the simple “differentiated” one. It means problematizing the praxis in reality and coexisting with the historical

challenge of including people in comprehensive care without losing sight of the many lives in the territory.

Intersections and dialogues with the Policy's creator, Adriana Moreira

In this final section, we engage in a dialogue with Maria Adriana Moreira, the creator of the Project that we now call the Primary Riverside Health Unit. Adriana begins the conversation by stating that the UBSF is the realization of a dream. Firstly, it responds to one of the most important SUS principles, equity, since every Brazilian has the right to health and care in their local singularities. Next, to respond to the desire to offer a cozy and, at least, dignified space for the team that works in riverside areas. We should reflect on the matter that working in communities does not need to be uncomfortable or a "risk" for workers, especially given everything the Amazon region brings to people's imagination. Therefore, Adriana says that having air conditioning to serve during the day and at night in the cabins for resting is important.

Some PHC principles are found in river health, such as universality and accessibility. The UBSF must serve all who request or need care. The river UBS was dreamed of and created to provide access to riverside residents. Therefore, it makes no sense to make a trip with these costs without serving all who need it because, in comprehensive care, every individual along the riverside is entitled to receive excellent care for all their needs. When the team is unable to provide comprehensive care, the user must be referred to the municipal headquarters for further assistance.

Regarding bonding and longitudinal care, the team needs to know their community members, who have the trust and freedom to receive care from the team. Adriana affirms that bonding is only achieved when a relationship of trust is established between the user and the team, ensuring continuity of care. Even if the user undergoes medium or high-complexity procedures in the city or capital, the team must

know and follow up on the individual, supporting care continuity, bearing in mind that PHC is the care coordinator and organizer.

Maria Adriana also points out that the emphasis on family health is not just about care but also about prevention and health promotion. Therefore, it is essential to conduct home visits and provide health education in schools and to community members. She highlights that, at the health conference, the community presidents demanded more UBSF time in the community so that they could have the opportunity to listen to leaders and people.

Adriana says that the effective implementation of this healthcare policy for forest and water peoples is challenging, given the persistent financial resource limitations. A specific example that can be observed is the preservation of the budget even amid financial market fluctuations over the last ten years, during which the amount of financing for the construction of a UBSF remains the same as that built 10 years ago (approximately BRL 1,800,000). Furthermore, there has been no provision for adjustments that consider preventive maintenance and renovations of these river units in this same budget freeze.

The monthly UBSF cost is BRL 90,000.00, and the exact amount will be paid over the ten-year term of this policy. This amount aims to cover the costs of the eSFF and the oral health team; however, it is insufficient to finance the full cost of a 20-day trip, as noted by Ferreira (2021). This cost is not feasible when compared to expenses such as payment for the health team and crew, fuel, food, healthcare materials, medicines, laboratory and dental supplies, hygiene and cleaning materials, and stationery, as well as preventive maintenance, which is also not included in the cost, says Adriana.

Another relevant point to consider, develop, and implement is streamlining solutions and budgets regarding the physical structure of these river units. In this regard, proposals for ecological, social, and sustainable incorporation are necessary for the structure's economic sustainability. Installing solar panels, which

help reduce sustainability-related costs, can make them a viable option for reducing expenses.

The geographical challenges inherent to the Amazon region, including large distances, a scattered population, low population density, and an extensive hydrographic network, significantly impact logistics and travel planning. Thus, ensuring differentiated care means investing in finances, training riverside health workers, producing materials to support care, and conducting research on the work processes and these people's lives, all of which are ways to strengthen the policy.

Another challenge for riverside health is access to emergencies, and transportation and logistics are the most significant problems due to the long distances and river seasonality, as already affirmed by Almeida et al. (2022). The greater the number of riverside health teams and support boat ambulance structures, the better the possibility of providing care in emergencies. We have observed that when the riverside area is under territorialized management, it is possible to organize the flows to ensure quality and timely care for the water.

We conclude our conversation with Adriana Moreira, a manager committed to implementing an equitable health policy for the riverside population, reiterating many studies in this text and corroborating that the lack of effectiveness of municipal administrations in providing specific and differentiated care to these populations shows that we still have many challenges that are associated with the realities of each riverbed, micro-regions, and the water cycle. This situation highlights the need for ongoing education among teams and health education among users, enabling shared management of care processes in the liquid Amazon territory.

Inconclusive Final Considerations that Motivate Us

Things that mobilize us in this narrative of many hands: the UBSF is the realization of a dream! How does the creator of this dream mobilize us as a powerhouse of creation and innovation in the Amazon? She argues that it is the answer to the SUS equity principle; for people who have access to health care in their home port,

it is the presence of the State and the affirmation of their presence as citizens. Furthermore, the UBSF also provides a dignified and comfortable space for health teams during their trips to provide care services in the territory.

However, implementing this policy faces challenges that must be considered, and overcoming strategies must be adopted, such as financing and structural maintenance of the units, as well as financing of operational costs, which have remained stagnant and unadjusted over the last ten years to cover increasing expenses.

There is an urgent need for sustainable solutions, such as the installation of solar panels. Investment in training and research is crucial to strengthen this policy further. Territorial management, which should not adopt the same parameters used for urban or metropolitan areas, and ongoing health education are crucial to overcoming challenges and ensuring quality and long-term care for riverside communities, including care for urgent and emergency cases.

Thus, implementing the Primary River Health Unit (UBSF) and the Riverine and River Family Health Strategy (eSFR and eSFF) was undoubtedly a significant achievement in promoting the inclusion of a population previously invisible to public health policies. Over the past 10 years of the UBSF, the practices and experiences in the liquid territory have contributed to strengthening Primary Health Care (PHC) in the Amazon, ensuring expanded quality access for riverside populations.

The Amazon is the ideal setting for effectively exercising the SUS equity principle and as an innovative space. We need to overcome the episteme of absences, the result of a colonizing discourse of science, to affirm presences. The geographical component cannot be viewed as a hurdle and should not prevent the State's presence. On the contrary, it must put pressure on the ways of doing policies, just as the liquid territory mobilizes our thought to create other local and plural epistemes in the production of care in the Amazon, and this is indeed a powerful place of invention and innovation (Figure 1).

Figure 1 — UBSF Unit of Manicoré/AM. Photo of Health Professional Rodrigo Paula on one of the trips.



References

- ALMEIDA, E. R. et al. Atenção Básica à saúde: avanços e desafios no contexto amazônico. In: SCHWEICKARDT, J. C.; KADRI, M. R. E.; LIMA, R. C. T. S. (org.). *Atenção Básica na região Amazônica: saberes e práticas para o fortalecimento do SUS*. Porto Alegre: Rede Unida, 2019. p. 15-50. Available from: <<https://editora.redeunida.org.br/wp-content/uploads/2018/11/ED.o8-S%C3%89RIE-SA%C3%9ADE-E-AMAZ%C3%94NIA.pdf>>. Access in: 27 abr. 2025.
- ALMEIDA, V. F. et al. Caminhos da população ribeirinha no acesso à urgência e à emergência: desafios e potencialidades. *Interface - Comunicação, Saúde, Educação*, v. 26, p. e210769, 2022. DOI: 10.1590/interface.210769
- BISPO DOS SANTOS, A. *A terra dá, a terra quer*. São Paulo: Ubu Editora/Piseagrama, 2023.
- BRASIL. Fundação Nacional de Saúde. *100 anos de Saúde Pública: a visão da Funasa*. Brasília: Funasa, 2004.
- BRASIL. Ministério da Saúde. *Portaria n. 2.488, de 21 de outubro de 2011*. Aprova a Política Nacional de Atenção Básica, estabelecendo a revisão de diretrizes e normas para a organização da Atenção Básica, para a Estratégia Saúde da Família (ESF) e o Programa de Agentes Comunitários de Saúde (PACS). Brasília, DF: Ministério da Saúde, 2011. Available from: <https://bvsms.saude.gov.br/bvs/saudelegis/gm/2011/prt2488_21_10_2011.html>. Access in: 5 set. 2024.
- BRASIL. Ministério da Saúde. Secretaria de Atenção à Saúde. Departamento de Atenção Básica. *Política Nacional de Atenção Básica, no âmbito do Sistema Único de Saúde (SUS)*. Brasília: Ministério da Saúde, 2012. Available from: <<http://189.28.128.100/dab/docs/publicacoes/geral/pnab.pdf>>. Access in: 27 abr. 2025.
- CECILIO, L. C. O.; REIS, A. A. C. Apontamentos sobre os desafios (ainda) atuais da atenção básica à saúde. *Cadernos de Saúde Pública* [online], v. 34, n. 8, p. 1-14, 2018. DOI: 10.1590/0102-311X00056917. Available from: <<https://www.scielo.org/article/csp/2018.v34n8/e00056917/pt/>>. Access in: 5 set. 2024.
- DOLZANE, R. S.; SCHWEICKARDT, J. C. Atenção básica no Amazonas: provimento, fixação e perfil profissional em contextos de difícil acesso. *Trabalho, Educação e Saúde* [online], v. 18, n. 3, e00288120, 2020. DOI: 10.1590/1981-7746-soloo288. Available from: <<https://www.scielo.br/j/tes/a/hhHHV9zz8WKyQPVK3LtYfvF/?lang=pt>>. Access in: 12 nov. 2023.
- EL KADRI, M. R. et al. Unidade Básica de Saúde Fluvial: um novo modelo da Atenção Básica para a Amazônia, Brasil. *Interface*, v. 23, p. 1-14, 2019. DOI: 10.1590/Interface.180613. Available from: <<https://www.scielo.br/j/icse/a/jjWLyMsndVmG3N9BTc5M4GG/?lang=pt#>>. Access in: 20 dez. 2023.
- FERREIRA, C. P. *Análise de custo de uma Unidade Básica de Saúde Fluvial: estudo de caso do município de Tefé, Amazonas*. 2021. Dissertação (Mestrado em Condições de Vida e Situações de Saúde na Amazônia) - Instituto Leônidas e Maria Deane, Fundação Oswaldo Cruz, Manaus, 2021.
- FIGUEIRA, M. C. S. et al. Fluvial family health: work process of teams in riverside communities of the Brazilian Amazon. *Rural and Remote Health*, v. 20, p. 1-9, 2020. DOI: 10.22605/RRH5522. Available from: <<https://www.rrh.org.au/journal/article/5522>>. Access in: 21 ago. 2020.
- HEUFEMANN, N. E.; LIMA, R. T. S.; SCHWEICKARDT, J. C. A produção do cuidado em saúde num território amazônico: o 'longe muito longe' transformado pelas Redes Vivas. In: MERHY, E. E. et al. (org.). *Avaliação compartilhada do cuidado em saúde: surpreendendo o instituído nas redes*. Rio de Janeiro: Hexis, 2016. p. 332-335.
- LIMA, N. T.; FONSECA, C. M. O.; HOCHMAN, G. A saúde na construção do Estado Nacional no Brasil: reforma sanitária em perspectiva histórica. In: LIMA, N. T. et al. (org.). *Saúde e Democracia: história e*

perspectivas do SUS. Rio de Janeiro: Editora Fiocruz, 2005. p. 27-57.

LIMA, R. T. S. et al. Saúde em vista: uma análise da Atenção Primária à Saúde em áreas ribeirinhas e rurais amazônicas. *Ciência & Saúde Coletiva*, v. 26, n. 6, p. 2053-2064, jun. 2021. DOI: 10.1590/1413-81232021266.02672021. Available from: <<https://www.scielo.br/j/csc/a/PvFjywqqXgsPy5Phds5XyRq/#>>. Access in: 5 set. 2024.

LIMA, R. T. S. et al. Saúde sobre as águas: o caso da UBS de Saúde Fluvial. In: CECCIM, R. B. et al. (org.). *Intensidades na Atenção Básica*: prospecção de experiências informes e pesquisa-formação. 1. ed. v. 2. Porto Alegre: Rede Unida, 2016. p. 269-294.

MACIEL, F. B.; SCHWEICKARDT, J. C.; LIMA, R. T. S. Política de desenvolvimento e a saúde no território da Amazônia: o caso do médio Tapajós/PA. In: ALVARENGA, E. et al. (org.). *Trabalho, cuidado e saúde*: caminhos dos serviços e da pesquisa na Amazônia. Porto Alegre: Rede Unida, 2018. p. 264-278.

MARTINS, F. M. *As saúdes na Amazônia ribeirinha*: análise do trabalho em saúde no território líquido. 2021. Tese (Doutorado em Ciências do Ambiente e Sustentabilidade na Amazônia) - Universidade Federal do Amazonas, Manaus, 2021. Available from: <<https://tede.ufam.edu.br/handle/tede/8850>>. Access in: 2 maio 2024.

MARTINS, F. M. Cartografias do Cuidado no Território Líquido: a produção da saúde ribeirinha na Amazônia. In: MARTINS, F. M.; SCHWEICKARDT, K. H. S. C.; SCHWEICKARDT, J. C. (org.). *Cartografias do Cuidado no Território Líquido*: a produção da saúde ribeirinha na Amazônia. Porto Alegre: Rede Unida, 2022. p. 19-222.

MARTINS, F. M. et al. Produção de existências em ato na Amazônia: “território líquido” que se mostra à pesquisa como travessia de fronteiras. *Interface (Botucatu)*, v. 26, p. 1-14, 2022. DOI: 10.1590/interface.210361. Available from: <<https://www.scielo.org/article/icse/2022.v26/e210361/>>. Access in: 21 abr. 2024.

MEDEIROS, J. S. Caminhos da população ribeirinha: produção de Redes Vivas no acesso aos serviços de urgência e emergência em um município do Estado do Amazonas. 2020. 235 f. Dissertação (Mestrado em Saúde Pública) - Instituto Leônidas e Maria Deane, Fundação Oswaldo Cruz, Manaus, 2020.

PORTUGAL, J. K. A. et al. Promoção da saúde entre os ribeirinhos de um município do Amazonas entre os anos de 2017 a 2019. In: MOLIN, R. S. D. (org.). *Saúde em foco*: temas contemporâneos. Guarujá: Científica Digital, 2020. p. 541-550.

SCHWEICKARDT, J. C. A história da política de controle da hanseníase no estado do Amazonas. In: SCHWEICKARDT, J. C. et al. (org.). *História e política pública de saúde na Amazônia*. Porto Alegre: Rede Unida, 2017. p. 71-104.

SCHWEICKARDT, J. C. *Ciência, nação e região*: as doenças tropicais e o saneamento no estado do Amazonas, 1890-1930. Rio de Janeiro: Editora FIOCRUZ, 2011.

SCHWEICKARDT, J. C. et al. A saúde na Amazônia (fluida e flutuante): Territórios líquidos e complexos para a produção de sentidos e de práticas. In: FERLA, A. A.; SCHWEICKARDT, J. C.; GAI, D. N. (org.). *Atenção básica e formação profissional em saúde*: Inovações na Amazônia. 1. ed. Porto Alegre: Rede Unida, 2019. p. 217-225.

SCHWEICKARDT, J. C. et al. O programa mais médicos na saúde indígena: o caso do Alto Solimões, Amazonas, Brasil. *Revista Panamericana de Salud Pública*, v. 24, p. 1-8, 2020. DOI: 10.26633/RPSP.2020.24. Available from: <<https://iris.paho.org/handle/10665.2/51349>>. Access in: 27 abr. 2025.

SCHWEICKARDT, J. C. et al. Território na Atenção Básica: uma abordagem da Amazônia equidistante. In: CECCIM, R. B. (org.). *Informes da Atenção Básica*: aprendizados de intensidade por círculos em rede. 1. ed. Porto Alegre: Rede Unida, 2016. p. 101-132. v. 1.

SCHWEICKARDT, J. C.; KADRI, M. R. E.; LIMA, R. T. S. Territórios, águas, gentes e modos de fazer saúde num território em permanente movimento. In:

SCHWEICKARDT, J. C.; KADRI, M. R. E.; LIMA, R. T. S. (org.). *Atenção Básica na Região Amazônica: saberes e práticas para o fortalecimento do SUS*. Porto Alegre: Rede Unida, 2019. p. 8-14.

SCHWEICKARDT, J. C.; MARTINS, L. R. História das políticas de saúde no Amazonas: da Zona Franca ao SUS, 1967-1990. In: SCHWEICKARDT, J. C. et al. (org.). *História e política pública de saúde na Amazônia*. 1. ed. Porto Alegre: Rede Unida, 2017. p. 19-42.

SOUSA, A. B. L.; SCHWEICKARDT, J. C. “O Sesp nunca trabalhou com índios”: a (in)visibilidade dos indígenas na atuação da Fundação Serviços de Saúde Pública no estado do Amazonas. *História, Ciências, Saúde-Manguinhos*, v. 20, n. 4, p. 1635-1655, out. 2013. DOI: 10.1590/S0104-597020130005000012. Available from: <<https://www.scielo.br/j/hcsm/a/ZL8JPc76BVVbHr3NcXtG9qj/?lang=pt>>. Access in: 12 nov. 2023.

Contribution of the authors

Data collection process: Maria Adriana Moreira, Fabiana Martins, and Geisy Lima. Methodology Development or design: Julio César and Fabiana Martins. Article's conception, design and writing: Fabiana Manica. Josiane, Maria Adriana Moreira, Geisy Lima participated in the organization of the text and final draft. Acquisition of financial support for the project that gave rise to this publication: Júlio Schweickardt. All authors reviewed and approved this version for publication.

Data Availability Statement

The research data are available within the main text of the article.

Editors: José Miguel Olivar; Marcelo Eduardo Pfeiffer Castellanos

Received: 09/28/2024

Resubmitted: 03/25/2025

Approved: 02/27/2025