



## ANALYSIS OF THE DISTRIBUTION AND COMPOSITION OF FAMILY HEALTH SUPPORT CENTRES IN THE STATE OF PARAÍBA, BRAZIL

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### ABSTRACT

**Objective:** To analyse the distribution of Family Health Support Centres (NASF) modalities in Paraíba – Brazil, its professional profile and the evaluation of NASF by family health teams.

**Method:** This is a descriptive, cross-sectional study, with a quantitative approach. Data was collect from the databases of: Brazilian Institute for Geography and Statistics, Department of Information Technology of Brazilian Unified Health System, National Registry for Health Establishments and Secretary of Health of the State of Paraíba. It was used the TabWin 3.6 b software to prepare the choropleth map, and data from the second external evaluation cycle of the National Program for Access and Quality Improvement in Primary Care to describe the professional composition of NASF.

**Results:** Paraíba has 271 NASF that had the support positively evaluated, and in which predominate the action of physiotherapists, nutritionists and psychologists.

**Conclusion:** The deployment of NASF is relevant for the strengthening of primary care. It is suggested to carry out studies on the influence of NASF on the work of the Family Health Strategy.

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## INTRODUCTION

Primary health care in Brazil, in the context of the Primary Care National Policy (PNAB), has a proposal of broad and democratic action, to be accomplished with the highest degree of improvement and decentralization.

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In this way, it seeks to guarantee the development of its activities in a manner that is closer to the population. Its foundations and guidelines are the universality, equity and integrality of assistance; territorialization; creation of a bond between staff and user, and accountability of care to all the subjects involved in the health-disease process, stimulating the users' autonomy in expanding and qualifying health care (Brazil, 2012b).

With this set of foundations and guidelines, primary care, as the users' preferred contact, the main gateway and communication center of the Health Care Networks (RAS), prioritizes the Family Health Strategy (ESF) as a strategy for expansion and consolidation, aimed at reorganizing the work process in health in the light of what is recommended by the Brazilian Unified Health System (SUS) (Brazil, 2012b).

Despite the prioritization of the Family Health Strategy in the consolidation of primary care, and the growing population coverage by family health teams, there are many challenges for the operation of primary care fundamentals and guidelines, even concerning the guarantee of access and quality of assistance. Therefore, the incentive to improve access and quality of care has been a national line of action to strengthen primary care.

In view of this scenario, the Family Health Support Centres (NASF) and the National Program for Access and Quality Improvement in Primary Care (PMAQ-AB) emerge as a strategy and program, respectively, to strengthen primary health care through strengthening of the ESF. These are currently considered two of the major advances in PNAB in the context of actions aimed at trying to expand access, resoluteness and care potentiality of primary care (Brazil, 2011b).

For the implementation of the ESF, it is mandatory the existence of a multidisciplinary team composed, minimally, of: community family physician, general practitioner or a specialist in family health; general practice nurse, or a nurse specialist in family health; nurse technician or auxiliary nurse; and community health agents. The agents must be in sufficient number, up to the limit of 12 per team, to cover 100% of the population assigned to the territory. A single agent must give assistance to a maximum of 750 people and each family health team must be of service to a maximum of 4,000 people, considering the vulnerability of the population served (Brazil, 2012b).

However, sometimes what is advocated by PNAB does not portray the reality of Brazilian municipalities, in which the team serves more than 4,000 people. This reality does not agree with the proposal of quality in the assistance provided and with the guarantee of access to the population, since, although the number of families served by the teams does not exceed the recommended, it overloads the workers and encumber the work dynamics (Leite *et al.*, 2009).

In order to increase the resolving power and comprehensiveness of referral teams in Brazil, it is proposed to implement multidisciplinary teams of interdisciplinary actions, the NASF teams. These should work towards the matrix support principles and show up as an important element in the implementation of health care networks, considering its ability to connect other services in the network (Leite *et al.*, 2009; Brazil, 2014b).

There are three modalities of NASF: NASF 1, linked to at least 5 and at most 9 family health teams and/or primary care teams; NASF 2, linked to at least three and at most 4 of those teams; and NASF 3, which can bind to one or two teams, aggregating itself to those groups in order to become one single enlarged team (Brazil, 2012a).

In the financial logic of Brazilian Health Ministry, each municipality can implement only one modality of NASF. For modalities 2 and 3, only one team per municipality is funded. Within these directions, each municipality implements NASF according to the size of its population and number of family health and primary care teams (Brazil, 2012a).

In addition to modalities 1, 2 and 3 of NASF, in Paraíba – Brazil, there was the intermunicipal NASF, disposed in the art. 8, section I of Ordinance No. 154/2008. These NASF consisted of municipalities pooled in consortium when they did not meet the minimum requirement for implementing the modalities 1 and/or 2, regarding the number of teams (Brazil, 2008).

The National Registry for Health Establishments database, because of its outdated, still shows some municipalities of Paraíba with intermunicipal NASF. However, information of the Primary Care Department and the Secretary of Health of the State of Paraíba demonstrate that all state consortia were broken, respecting Ordinance No. 3124, which redefines the NASF 1 and 2 binding parameters for family health and primary care teams, and creates the modality 3 of NASF, making it possible to universalize these teams to all municipalities in Brazil and making the intermunicipal consortia obsolete. Some municipalities that formed consortia deployed NASF type 2 or 3, and a minority did not order the implementation of any modality, usually because a lack of interest from the municipal administration (Brazil, 2012a).

The Health Ministry recommendation for the professional composition is that the inclusion of staff is in accordance with the epidemiological reality of the territory, the demands of the referral team and ascribed users. For that, there is a wide range of professional categories that can comprise the NASF teams, including: acupuncturist physician, social worker, physical education professional, pharmacist, physiotherapist, speech therapist, Gynecologists/Obstetrician, homeopathic physician; nutritionist, paediatrician, psychologist, psychiatrist, occupational therapist, geriatrician physician, internist, occupational physician, veterinarian, art educator and public health sanitarian (Brazil, 2014b).

Given the importance of NASF as a strengthening strategy for primary care in Paraíba, and considering the need for understanding of its potential influence on improving the quality of care, this study aims to analyse the state of Paraíba panorama regarding the distribution of NASF modalities, the professional profile of the staff in the various, and evaluation of the family health teams on the support offered by NASF teams. This analysis is important because it provides the profile of the teams' design in a state that stands out in the national and regional setting in the framework of implementation and expansion of NASF.

## METHODS

This is a descriptive cross-sectional study, with a quantitative approach, set in the state of Paraíba - Brazil. The state has an estimated population of 3,972,202 inhabitants, distributed in 223 municipalities, divided into four macro regions and sixteen health regions. The family health teams deployed in the state held in the cover of 94.41% of the population (IBGE, 2014a; Brazil, 2015).

Data collection considered the most recent information at the time of research. In September 2015, it was performed a consultation on the databases of the Brazilian Institute for Geography and Statistics (IBGE), the Department of Information Technology of the Brazilian Unified Health System (DATASUS), the National Registry for Health Establishments (CNES) and Primary Care Department (DAB), this latter through the website <http://dab.saude.gov.br/portaldab/dab.php>, in the options "Manager" / "Family Health Coverage History". Data were exported in .xlsx format and implanted in the free distribution software MS TabWin 3.6 b, where a choropleth map was drawn by municipal distribution of NASF with descriptive method of analysis, verifying the distribution ratios of NASF in the state and the number of cities where there are no NASF registered in the ministry.

To verify the professional composition of the different NASF modalities, and to evaluate the family health teams regarding the support offered by the NASF teams, data from module II of the second cycle of external evaluation of PMAQ-AB, which is aimed to the evaluation of professionals on the support they receive from NASF; data from the second cycle of PMAQ were obtained with the team of external evaluation in Paraíba, which the authors of this study were part of. The professional composition of the different modalities of NASF was verified through an analysis of the frequency of responses to the question NII.33.2, which stands for: "Which NASF professionals support your team?". It refers to the suitability of the composition of teams to the needs of the territory, responded by 925 family health teams that declared to have received matrix support from NASF in question NII.9.5. Since the teams' evaluation on the support offered by NASF was verified by the analysis of frequency of responses to the question NIII.33.21: "On a scale of 0 to 10, what score would you assign to the support your team receives from NASF?", from the same instrument. Regarding the resolution of primary care from NASF work, it was considered as positive the assessments with award score higher than 6.

The use of secondary data, while it is advantageous to reduce the time and cost required for research, has some limitations, such as: reduced control over data; the possibility of working with data that do not depict the analysed reality; typos (outlier) and outdatedness of databases - the latter was the most challenging limitation in the preparation of this study. For this reason, it was collected data from the Secretary of Health of the State of Paraíba about the modalities of NASF in the state registered in the Health Ministry, and their distribution in the municipalities, provided by the State Coordination of Primary Care to the PMAQ-AB external evaluation teams.

## RESULTS AND DISCUSSION

The analysis of data from Primary Care Department indicates that the state of Paraíba has three modalities of NASF registered, and 142 NASF 1; 54 NASF 2 and 75 NASF 3 teams implemented. The distribution of NASF modalities, the professional composition of different modalities, and the path family health teams use to evaluate the support received by the NASF will be described subsequently.

### Distribution of NASF in the state of Paraíba

According to data consolidated in the Primary Care Department, there are 271 NASF teams registered in 200

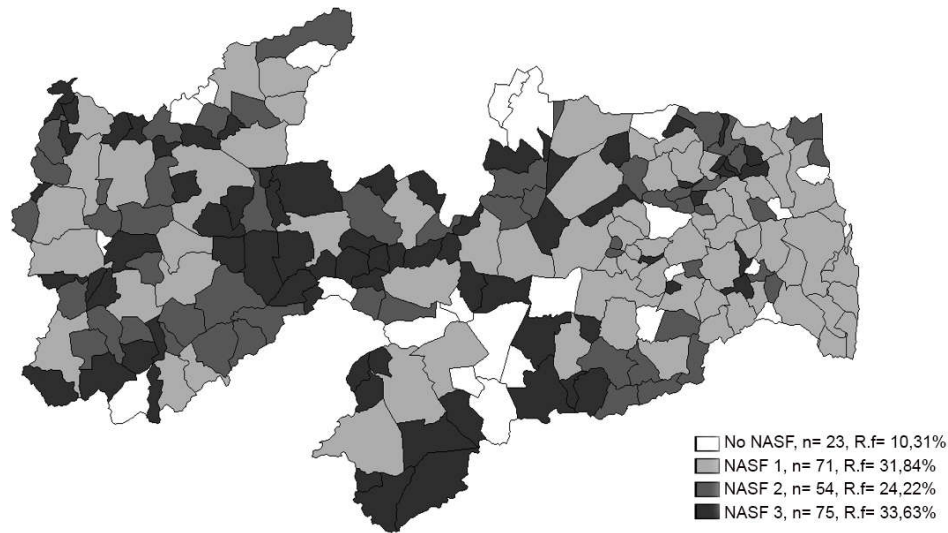
municipalities of Paraíba, which distribution by modality can be verified in Figure 1. As shown in Figure 1, the state of Paraíba has 71 municipalities (31.84%) relying on the support offered by NASF 1. This might be justified by the presence of the two largest urban centres, João Pessoa (belonging to the 1st Health Region/ Macroregion 1) and Campina Grande (belonging to the 16th Health Region/ Macroregion 2), consequently, these are the cities that group the greatest supply of health services and family health teams, what demands the establishment of this type of centres.

Data from the Primary Care Department show that the most populous cities of Paraíba: João Pessoa, Campina Grande, Santa Rita, Patos and Bayeux, respectively, concentrate together 57 NASF 1 (43.97%) in the state. It is worth noting that only João Pessoa has 34 NASF 1 teams registered, accounting for 24.11% of this percentage. In Paraíba, the region of Zona da Mata has the highest population density, with five of the ten most populated municipalities of Paraíba (João Pessoa, Santa Rita, Bayeux, Cabedelo and Sapê). The population density and consequent concentration of family health teams and / or primary care teams in the 1st Health Region/ Macroregion 1 shall justify the deployment of greater numbers of NASF 1 teams, according to the criteria established by Ordinance No. 3124 (IBGE, 2014a; Brazil, 2012a).

Figure 1 demonstrates that the distribution of NASF 2 in the state corresponds to 54 municipalities of Paraíba (24.22%). The majority of them is in the countryside region of Sertão in relatively smaller number, compared to modalities 1 and 3. The NASF 2 is located in cities with intermediate population density that have three or four family health and / or primary care teams (Brazil, 2012a).

NASF 3 modality is mainly concentrated in Borborema and in the Sertão region of Paraíba. It is present in 75 municipalities (33.63%), which are characterized by a low population density, small economic potential and by having a maximum of two family health and / or primary care team for specific populations. There are 23 (10.31%) municipalities located predominantly in Borborema and Agreste regions, which do not yet have coverage of any NASF team, as shown in Figure 1 (Brazil, 2012a).

According to data available from DAB and IBGE databases, it is possible to observe the relationship between the estimated population, the number of family health teams and modality of NASF registered in municipalities that have similar characteristics within the ranges set forth in Table 1 (IBGE, 2014a). There are municipalities in Paraíba that have one to eight family health teams in action and estimated population between 1,780 and 23,110 people, but still do not have the matrix support that NASF is able to offer, although they correspond to the profile to deploy it. This scenario suggests the need for greater involvement of municipal administration in requesting the implementation of NASF in their municipality. Table 1 shows that modalities 2 and 3 have a maximum number of five and three family health teams, respectively, diverging from the recommendations of the Health Ministry in Ordinance No. 3124. This amount would allow the implementation of modalities 1 and 2 of NASF. This data reveals that there are municipalities that, at the time of NASF deployment, had fewer family health teams and had new teams added afterwards.



n= number; R.f= Relative frequency.

**Figure 1. Distribution of NASF by modality in the state of Paraíba**

**Table 1. Distribution of NASF teams by modality in the state of Paraíba, Brazil**

NASF modality	Population interval*	Number of Family Health teams	Number of NASF teams	Mode (number of NASF teams)	Mode (%)
No NASF	1.780 - 23.110	1 to 8	0	0	100,0%
NASF 1	9.840 - 791.438	5 to 184	1 to 34	1	76,1%
NASF 2	5.473 - 13.355	3 to 5	1	1	100,0%
NASF 3	1.880 - 7.112	1 to 3	1	1	100,0%

Source: Health Ministry, Primary Care Department. \*Population estimated for July 2015. Source: IBGE.

**Table 2. Brazilian states with the highest number of NASF registered in the Health Ministry**

State	Number of NASF registered in the Health Ministry	Proportion of Family Health Strategy coverage by the estimated population	Region
Minas Gerais	728	79,18	Southeast
Bahia	364	71,28	Northeast
São Paulo	338	39,19	Southeast
Paraíba	271	94,41	Northeast
Santa Catarina	269	80,74	South
Paraná	250	67,75	South
Piauí	237	98,31	Northeast
Ceará	234	81,96	Northeast
Pernambuco	222	75,53	Northeast
Goiás	196	67,22	Central-West

Source: MS / DAB, competence October / 2015

**Table 3 - Composition of NASF that support family health teams evaluated in the second cycle of the External Evaluation of PMAQ-AB, in the state of Paraíba, Brazil**

Occupation	NASF Modality					
	NASF 1		NASF 2		NASF 3	
	No	%	No	%	No	%
Physiotherapist	704	95,65	112	98,24	70	93,33
Nutritionist	661	89,81	101	88,60	61	81,33
Psychologist	628	85,32	96	84,21	63	84,00
Social Worker	520	70,65	69	60,53	42	56,00
Physical Educator	468	63,59	50	43,86	34	45,33
Speech Therapist	388	52,71	57	50,00	25	33,33
Pharmacist	233	31,66	18	15,79	05	6,67
Pediatrician	134	18,21	11	9,65	06	8,00
Gynecologist / Obstetrician	138	18,75	14	12,28	05	6,67
Psychiatric Physician	82	11,14	06	5,26	03	4,00
Art Educator	66	8,97	05	4,39	04	5,33
Other Professional	37	5,03	06	5,26	04	5,33
Public Health Sanitarian	28	3,80	00	0,0	01	1,33
Occupational Therapist	29	3,94	01	0,88	01	1,33
Acupuncture Physician	22	2,99	00	0,0	02	2,67
Medical Practitioner (Medical Clinic)	18	2,44	01	0,88	00	0,0
Geriatrician	14	1,90	01	0,88	00	0,0
Veterinarian	09	1,22	00	0,0	01	1,33
Occupational Physician	07	0,95	00	0,0	00	0,0
Homeopath Physician	00	0,0	00	0,0	00	0,0

This suggests the possibility of two situations: the existence of family health teams that do not receive this type of matrix support, or even if NASF teams are meeting the demand of this new family health team, in this case, it would be assuming a larger number of teams than what is expected from the recommendations of the ordinance, overloading its services (Brazil, 2012a).

According to data from the Primary Care Department, Paraíba occupies a prominent position on the national scenario as shown in Table 2. Data showed in Table 2 highlights the fact that Paraíba, although smaller in land area and densely populated than other northeastern states, such as Ceará and Pernambuco, has also a higher number of NASF teams registered, corresponding to an even greater family health coverage.

On the observation of Figure 1 and tables 1 and 2, it is clear that although Paraíba takes a place of national prominence, being the fourth Brazilian state and the second in the Northeast ranking of registered teams, there is still much to improve, because the implementation of NASF did not occur in some municipalities, while in others, the embodiment did not correspond to the amount of family health teams recommended by Ordinance No. 3124 (Brazil, 2012a).

#### **Professional composition of NASF modalities in the state of Paraíba**

NASF aims to increase the actions and resolution potentiality of primary care, while supports the insertion of the Family Health Strategy in the networks and the territorialisation of primary care, offering a specialized rearguard and technical-pedagogical support to the health teams. The work of NASF assumes a strategy for health work organization that is developed from the integration of family health teams involved in the assistance of common health issues in a given territory, with teams of professionals from knowledge fields different than those of the professionals from the referral teams (Brazil, 2009; Sampaio *et al.*, 2013; Brazil, 2014b).

Considering the influence of socio-economic and political aspects on the health-disease process of individuals, families and collectivities, and NASF's objective of increasing the resolving potentiality of referral teams, Ordinance No. 2,488 states that the composition of NASF teams should be defined by the municipal administration along with the family health staff, following priority criteria identified based on epidemiological data, local and regional needs, and demands presented by the health teams that will be supported. Due to the particularity of these aspects in each territory, the Health Ministry offers a wide range of professional categories that NASF might select for its composition in view of facilitating the provision of interdisciplinary practices that meet the territorial demands (Brazil, 2011c).

According to Ordinance No. 3,124, the composition of the teams, regarding the number of professionals, depending on the NASF modality, should be stipulated based on the sum of hours worked by the professionals. For NASF 1 the sum of the workload of all professionals must be at least 200 hours per week; each occupation must have a minimum of 20 hours and a maximum of 80 hours of weekly workload. For NASF 2 the sum must be at least 120 hours a week, and each occupation must have a minimum of 20 hours and a maximum of 40

hours. And for NASF 3, the sum must be at least 80 hours weekly, and each occupation must complete at least 20 hours and up to 40 hours per week of work (Brazil, 2012a).

The criteria mentioned above do not preclude the possibility of a NASF team having more than one professional of the same category. Thus, according to the demands of the territory and / or insertion difficulties of some professionals in certain locations, one team may have more than one professional of the same knowledge field. In Paraíba, the analysis of the composition of NASF, according to data from the second external evaluation cycle of PMAQ-AB, reveals the predominance of physical therapists, nutritionists, psychologists, social workers, physical education professionals and speech therapists in NASFs deployed throughout the state, regardless of the modality analysed (Table 3) and the geographical location of the teams. Because of the relationship between the composition of NASF and the local and regional demands of care, it is important to have an overview of health situations that predominantly require assistance from primary care services in Paraíba. Some easily identified health issues, especially within primary care, such as violence, abuse of alcohol and other drugs, musculoskeletal problems, heart disease, chronic diseases and mental disorders, allow us to infer that the demand for care is broad and diverse (IBGE, 2014b). In addition to many health and social vulnerability situations that professionals from the Family Health Strategy face, there are challenges that cut across other issues, such as: lack of adequate infrastructure and funding, uneven distribution of professionals, especially physicians, due the concentration of them in urban centres; and problems related to the organization of work processes of the teams.

Moreover, sometimes the professionals who make up the family health teams, besides being overloaded by the high demand of work due to the large number of people served, are faced with situations in which their knowledge field appear to be limited to offer a qualified and resolute care for certain health conditions, requiring the matrix support of an interdisciplinary team (Scheffer, 2015).

In this context, NASF appears to offer a specialized rearguard to the family health teams, expanding the scope of actions offered by them and including new knowledge fields available to the population. However, in practice, the professionals of NASF sometimes end up assuming some unmet care demands, due to workload of referral teams (Brazil, 2014b; Sampaio *et al.*, 2013.).

There are many factors that influence the choice of the professional categories that will compose the NASF by the municipal managers, such as, the availability of professionals in the network, the demands of the family health teams and the local and regional care demands inherent in the population assisted by the referral team. In the context of the studies on the main health conditions that demand assistance of family health teams in primary care, the National Health Survey (PNS), carried out by IBGE in agreement with the Health Ministry, in 2013, demonstrates that Noncommunicable Chronic Diseases (NCD) account for more than 70% of the causes of death. Cardiovascular diseases, cancer, diabetes, chronic respiratory diseases and neuropsychiatric disorders cause a high number of deaths before the age of 70 and loss of quality of life, provoking inability and a high degree of limitation of the ill population in their work and leisure activities (Brazil, 2011a).

The expansion of primary care and improvement of assistance since the 1990s, according to the Health Ministry, are some of the major factors that led to approximately 20% of reduction in mortality rates by NCDs observed in the last decade. Primary care, as a strategy for the organization of the health system in the implementation of actions to promote health, prevention of diseases, diagnosis, treatment of the more prevalent health problems, and individual and collective rehabilitation, has the follow-up of users with chronic diseases as one of their challenges (Brazil, 2011a).

Data from PNS reveal that 3.2% of Paraíba population aged over 18 years old, use some device to help on mobility and 3.6% of them cannot, or have difficulty of standing, considering the use of device to assist locomotion. Additionally, research shows that musculoskeletal problems are also likely to cause problems in locomotion (IBGE, 2014b).

Heart disease affects 3.1% of the population over 18 years old in Paraíba, and is the cause of 9.6% of those affected with intense or very intense level of limitations for daily activities. 1.8% of Paraíba population, in the same age group, reported medical diagnosis of stroke and, of them, 40.4% have intense or very intense degree of limitations in usual activities arising from it (IBGE, 2014b).

These are some of the prevalent conditions in primary care that can justify the high prevalence of physiotherapists and speech therapists (especially for the care of people who have been victims of stroke) in the composition of the three NASF modalities, due to their clinical and assistance activities to reduce damages and injuries. The professional practice of physical therapists enables them to develop in the context of primary care, actions related to rehabilitation, complementary and integrative practices, physical activity / body practices, and actions to the health of children, women and the elderly, are being, therefore, concerned only for rehabilitation (COFFITO, 2011).

The performance of the speech therapist is included in the clinical and the social field. In primary care, this professional works with rehabilitation actions, aimed at reducing disability, seeking to improve the quality of life and promoting social integration of individuals with mental health issues related to communication, favouring the socialization and the recovery of the self-esteem of users and their families in psychosocial risks or mental illness. For the child health approach, it is focused on the promotion, protection and recovery of health, in an individual and collective basis (Fernandes *et al.*, 2013).

Regarding chronic diseases, 21.6% of Paraíba population over 18 years old report having medical diagnosis of hypertension. Of these, 39.4% held last visit in basic health unit. 83.9% of the hypertensive were referred to some consultation with specialist. 7.4% of them have intense to very intense level of limitations on daily activities due to their condition or complication resulted from it (IBGE, 2014b). 4.5% of the population, in the same age group, is affected by diabetes. Of these, 55.2% performed the last consultation at the basic health unit and 79.7% were referred to the specialist. 13.8% of people with diabetes in Paraíba have an intense or very intense degree of limitations in their usual activities due to diabetes or health complications related to it. Such conditions, associated with the prevalence of cardiovascular diseases, may justify the insertion of nutritionists and physical educators in NASF teams in Paraíba (IBGE, 2014b).

For the Federal Council of Nutrition, the nutritional transition in Brazil is marked by the double burden of diseases, the coexistence of infectious and transmissible diseases, malnutrition and specific nutritional deficiencies, and food-related NCDs, such as obesity, hypertension, cardiovascular diseases, diabetes and some types of cancer, in all income brackets of the population, particularly among the families with the lowest socioeconomic power. In the context of primary care, the nutritionist can and must act, as a priority, in the family and community spheres, carrying out planning, organization, elaboration of referral protocols, training and permanent education for family health professionals within their area of coverage (Federal and Regional Councils of Nutrition System, 2008; Oliveira *et al.*, 2014).

The insertion of the physical education professional in NASF, aims at the prevention, promotion, protection and rehabilitation of health in the context of the social determinants of health for the population. The physical educator can act in the practices of diagnosis, planning, and specific intervention to the field of physical practices and physical activities. In addition, they can also act together with the multiprofessional team, in the management of activities, dealing with health policies. For an effective action, the professional must accompany and contribute to the academic-scientific transformations of health field, guaranteeing the level of updating of the contribution of its interventionist practices (Souza *et al.*, 2011; Scabar *et al.*, 2012).

It is possible to understand the frequency of physical educators in the composition of NASF, in view of NASF Guidelines, proposed by the Health Ministry, under the National Health Promotion Policy, which propose the re-signification of the body practices/ physical activity, from the understanding of health as a result of the social determinants of life, and also because of the high prevalence of NCDs in the country (Brazil, 2010a; Scabar *et al.*, 2012, Brazil, 2010b).

In this context, the Health Academy Program, created in 2011 by the Health Ministry, is still a new demand of activities for all professionals of the family health and NASF teams, and constitutes a strong space for action, mainly for physical educators and nutritionists. This program has the purpose of promoting corporal practices and physical activities, healthy eating, healthy lifestyle, care production, and others actions in the context of health promotion, prevention and care of NCDs, as well as promoting comprehensive care for intersectional actions with other services of the health network (Brazil, 2014a).

In the field of mental health, 4.8% of the population in Paraíba over 18 years of age report to have received a diagnosis of depression by a mental health professional. Of these, 46.0% use drugs for depression and only 14.5% do psychotherapy. 69.5% of the cases were referred and all consultations with a specialist in mental health were obtained. 20.6% of those who report a diagnosis of depression have an intense or very intense degree of limitations in habitual activities due to depression (IBGE, 2014b). These data suggest a strong medicalization of psychological disorders, often related to the stressful routine, which must be cared under primary care and also show a corresponding lack of supply of psychotherapeutic spaces, which use speech as an alternative device of care. In the scope of demand in mental health, about one in four people seeking primary care services

have some mental disorder according to ICD-10. If those who have mild psychic suffering (subclinical cases) are included, the proportion reaches one suffering person in every two people seeking the services (Brazil, 2013).

Thus, there is a growing demand in mental health in primary care and the need to insert a professional with knowledge focused on this area. In this sense, the data analysed show that the psychologist is the professional usually selected to meet such demand (Leite *et al.*, 2013).

Despite being a rearguard option in matrix support in mental health, and among the possibilities of composition of the NASF, the psychiatrist only constitutes 11.14% of the professional composition of NASF 1, 5,26% of NASF 2 and 4, 00% of NASF 3, as shown in table 3. In 2011, only 7,032 (3.44%) physicians in Brazil were psychiatrists, and Paraíba counted with only 66 of them in this specialty. In 2015, despite an increase in number of physicians in the country and in the number of psychiatrists to 9,010, the percentage of these professionals in the national scope decreased to 2.7%, considering the increase in the number of doctors in other specialties. The number of psychiatrists in Paraíba rose to 90 in 2015. It is also noteworthy that these specialists, when available to work in the public health system, still have their allocations prioritized in the Psychosocial Care Centre (CAPS), as this service is the main reference for the care of people with severe and persistent psychic disorders (Scheffer, 2015).

The shortage of psychiatrists refers to a broader reflection on one of the challenges that managers face in choosing the professional composition of NASF and Family Health Strategy: the lack of professionals available in the network to compose the teams. This means that, sometimes, the choices of professionals to compose the NASF do not necessarily correspond to the epidemiological demands of the population served or to the needs of the teams, but are at the mercy of the availability of some professional categories.

In addition, in the case of the family health, the difficulty of maintaining professionals in the teams, which has the consequence of the high turnover of professionals, making it difficult to create the link with the assisted population. According to the Health Ministry, mental health professionals working in NASF must: perform clinical activities relevant to their professional responsibility and prioritize collective approaches; support the family health team in addressing cases on the demands of mental health; negotiate with the family health teams about the cases that require a conjoint intervention; avoid practices of "medicalization" in common situations to everyday life; promote actions aimed at the diffusion of a culture of anti-asylum attention, reducing stigma and exclusion related to madness; mobilize community resources to build spaces for psychosocial rehabilitation in the community; connect intersectional actions; and increase the bond with families, assuming them as partners in care (Brazil, 2010b).

In addition to the conditions that affect health already mentioned, the professionals deal with situations of violence in a daily basis. Moreover, the main cause of death among young men is external causes, with a focus on violence and accidents. These occurrences are directly related to the persistence of a sexist culture and abusive use of alcohol. All these situations demand actions of the psychosocial scope (Waiselfisz, 2015).

Regarding the predominance of social worker's in the composition of NASF, it is suggested that the choice is related to the inherent demands of the situations of social vulnerability existing in the territory. In addition, these demands point to the need to strengthen inter-sectoral care networks through the connection of the Family Health Strategy with other services, such as: Specialized Social Assistance Center, Social Assistance Referral Centre, Tutelary Councils and Public Prosecution Service.

From the data available, it is possible to note that the analysis of some prevalent conditions in primary care, in the state of Paraíba, points to health problems that constitute the demand met by the family health teams in the municipalities, regardless of their size and the specificities related to the different sociodemographic profiles inherent to the state. Such demands may be one of the aspects that help to understand the predominance of knowledge fields related to physical therapy, nutrition, psychology, social assistance, physical education and speech therapy in the composition of NASF. The predominance of these professional categories in the composition of NASF in Paraíba may be an indicative of a repressed demand and several health problems of the population in the territories of the family health teams, especially where the attention offered is more fragile.

Due the workload of family health teams and the complexity of demands in primary care, there is a need for referral teams to receive support that provides a specialized back-up to assist them in comprehensive, more qualified, and empowered care. Thus, the simple addition of professionals to help the demand response is considered positive by the referral teams, although the matrix support does not establish itself in practice as it is advocated in theory (Sampaio *et al.*, 2013).

### **Evaluation of NASF by family health teams**

From the matrix support perspective, NASF and family health teams should interact in order to ensure the exchange of professional experiences and knowledge in a way that the population served in the territory can benefit from expanding the potential to resolve situations that compromise their health. In this context, the evaluation of NASF by the family health teams becomes an important tool because it reveals how they interpret the work relations, and gives subsidies to the managers to evaluate the effectiveness of NASF implementation as a modality of matrix support in Brazilian states.

Data from the second cycle of external evaluation of PMAQ-AB allow the analysis of satisfaction of the family health teams regarding the work done by NASF in the ambit of the matrix support offered in Paraíba. The data show that the majority (90.27%) of the teams evaluated positively the support offered by NASF, demonstrating that, from the perspective of their professionals, the centres potentiate the assistance offered in primary care, both for clinical extension and for actions of health education. This positive evaluation suggests to the managers that NASF implementation has been a valid alternative and that, despite the limitations, has contributed to the work of the Family Health Strategy.

The implementation of the NASF teams, which should consider the specifics of the area of action in their project, is an advance in public health in Brazilian municipalities,

representing an important milestone in the expansion of actions and with possibilities to achieve better results in health production, with a focus on health promotion and care for the population (Barros *et al.*, 2012; Martiniano *et al.*, 2013).

There are limiting factors for NASF's performance in Paraíba, from the lack of professionals in the network that provide the diversity of specific knowledge to compose NASF teams, which, in turn, limits their adequacy to the epidemiological reality and to the demands of family health teams and the population assigned in the territory, to the very fragility of some services in the health care networks, which hinders the integral care of the individual. Nevertheless, in light of what has been discussed, it is undeniable that to a high degree, the NASF assists the Family Health Strategy to deal with the overload of demands in primary care.

## Conclusion

The health demands of population have become increasingly complex, as health is not only understood as the absence of disease. This ratifies the urgent need to strengthen primary care, since it acts as a guideline in health care networks and is the main gateway for the user to access health services.

In this sense, NASF implementation has been shown to be a relevant strategy to strengthen primary care, especially in the scope of the Family Health Strategy, because, despite the limitations mentioned in this study, NASF potentiates the actions of the family health teams, and increase the possibilities of health care demands of the population assisted.

In the state of Paraíba, the expansion of the implementation of this device has placed it in a prominent position in the national scenario. Despite that, no study on the distribution of NASF in the state had been conducted prior to this. This study might base other studies within the same scenario and will make available to the academic community, managers and the population in general, a picture of the distribution and professional composition of the NASF implanted in Paraíba, as well as make it possible the visualization of possible weaknesses and potentialities, which may support the development of future analyses regarding the conformation of matrix support offered by the NASF teams to the family health teams in the state.

Given the increase in the number of NASF implemented in Paraíba, it is suggested to carry out an in-depth study on the work dimensions of the professionals that constitute the NASF and on their influence on the work process of the family health teams in the state.

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