Family Health Strategy Coverage in Brazil, according to the National Health Survey, 2013

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Abstract *Objective: to present Family Health Strategy (ESF) coverage according to the National Health Survey (PNS), comparing to administrative data and previous coverage of the National Household Sample Survey (PNAD 2008), and describe the frequencies of home visiting teams. Methods: it was compared data from 2013 according to PNS and data from the Ministry of Health and the National Household Sample Survey (PNAD 2008). Home visiting indicators of PNS were stratified by education and Major Regions. Results: the proportion of households registered in Family Health Teams in Brazil was 53.4% (95%CI: 52.1-54.6), being higher in rural areas and in the Northeast. The proportion of residents in registered households was 56.2%, similar to the Ministry of Health (56.4%) and showed growth compared to PNAD 2008 (50.9%). There was variation between regions, UF and capitals. People with lower education level have received more home visiting monthly. Discussion: the ESF is an important promoter of health equity and its coverage and scope increase is successful in the country.*
Key words *Health surveys, Family Health Strategy, Primary Health Care, Health services coverage, Unified Health System*

Introduction

In the Last year there was a great expansion of the Family Health Strategy (FHS) in entire National Territory[1], with strong induction and support of the Ministry of Health, Being Considered as priority Strategy structuring of primary care, the main system gateway Unified Health (SUS). An ESF HAS essential role in the first contact in longitudinality and care coordination and should operate as basis for structuring Care Networks, with Support Services Support Diagnosis Expert Assistance and hospital[1-3].

The ESF works through family health teams, and since 2004 are composed of a doctor, a nurse, a nursing assistant and at least four community health agents, and oral health professionals. The family health teams operating in defined geographic areas and attached populations, containing up to 4,000 people for each team, with 3000 the average recommended, although this number may be lower according to the risk and social vulnerability of the population covered[3].

Starfield[4] points out that accessibility (structure), the geographical location of service, hours and days of operation, and the process of use of services by the population, are essential elements for primary care is considered the gateway to the health system[4]. It is understood that the operative primary care implies increased access to users' demands, including adequate hours of operation of the units, care and assistance to spontaneous demand and capacity in resolving claims brought by users. The qualified responsiveness of primary care also depends on the integration with other health care system levels[4-7].

Investment in primary health care has brought many positive results in various countries in the world[8-10] and also in Brazil[11], such as: the reduction in rates of infant mortality, a reduction in hospital admissions (that would not necessarily occur), greater service equality, more access for service users, continuity of care, less costs amongst other benefits.

The implementation of the ESF in the country experienced significant expansion of coverage in the last decade, with different rates between regions and population size of the municipalities. Administrative data from the Department of Primary Care (DAB) Attention Secretary to the Health Ministry of Health indicated that in 2012, 95 % of Brazilian municipalities counted a total of 33,404 deployed teams with the potential to cover 55 % of the population Brazilian. However, there are important differences in coverage and

in access to and supply of care in the Basic Health Units (UBS) in the municipalities, partly because of management mechanisms and social inequality in the country, with important implications for the access and use of services of health[1,3].

In 2013, the National Health Research (PNS) collected data on access and use of health services, such as coverage of family health strategy and information on home visits[12].

The objective of this study is to present the coverage of the Family Health Strategy estimated by the National Health Research (PNS), compared to administrative data and previous coverage of the National Survey by Household Sample (PNAD), and describes home visits frequencies teams.

Methods

The current study compares the PNS results with other household survey conducted by IBGE in 2008 (PNAD), and administrative data from the Ministry of Health, on family health coverage.

The PSN is a nationwide search and home-based, carried out through a partnership of the Ministry of Health and the Brazilian Institute of Geography and Statistics (IBGE) and is part of the Integrated Household Surveys (SIPD) IBGE and therefore uses a subsample Sample Master of this system, with the same stratification of primary sampling units (PSU), consisting of one or more census tracts[6].

The sampling plan of PNS by conglomerates was divided into three stages. At first we selected the primary sampling units (PSU). Within each PSU was selected a fixed number of households (second stage) permanent private, which ranged from 10 to 14. In each sampled household was selected one resident aged 18 years and over (third stage). At every stage, we used simple random sample as selection method[12].

The size of the sample was calculated as being approximately 81,000 households with the view to having some estimated parameters of particular interest in different geographical divisions. In the calculations, average values, variations and the effect of the sample plan (EPA) were taken into consideration with a predicted rate of non-responses being 20%[12,13].

The collection of data was carried out through interviews where hand held computers were used (*Personal Digital Assistance - PDA*) and which in turn were programmed to scrutinize the values that were obtained. The questionnaire was

divided into three parts: 1) Information from the selected household: one for every residence; 2) Information on all of the residents: a resident (*proxy*), that generally spoke to an interviewer on behalf of all of those that lived in the same house; and 3) selected resident: a resident adult (who was 18 years old or older) that was selected to answer certain specific questions[12].

64,348 households had interviews and the interviewees commented on the coverage of the ESF. In this way valid information was collected covering approximately 205,000 residents. In order to analyze the data, expansion factors or sample weights were used for: the UPAs, the households, all the residents and the selected residents[12,13].

The health supplement from the National Survey by Household Sampling (PNAD), conducted in 2008, got interviews records in 150,591 households and 391,868 people in all Brazilian states. The sampling plan of the National Household Survey was conducted through random sample of households, divided into three stages. The primary sampling units, municipalities at first were selected; in the second, selection, census tracts; and households composed the third selection. The National Household Survey 2008 included the health coverage of the theme of the family (households and registered residents). The respondent, proxy, accounted for all the inhabitants of domicile[14]. The SNP had a greater geographical spread in its sample, and higher precision of estimates compared to the National Household Survey. Important PNAD modules were maintained with small updates in order to allow monitoring of the two indicators.

The administrative data on the coverage and the forming of the family health teams are registered on the Information System for Basic Primary Care (SIAB) and are updated on a monthly basis. For teams that had already implemented eSUS-AB, the process was carried out on the Information System for Basic Primary Health Care (SIAB). The above information is available on the electronic site of the Health Ministry through the Department for Basic Health Care which has a Secretary for Health (DAB/SAS/MS). This information is updated monthly and can be monitored on the site[15].

In the current study the following indicators were presented:

1. *% of registered households in family health units* (the number of registered households at a family health care unit/number of households interviewed in the PNS and PNAD).

2. *% of residents with households registered at family health care units* (number of residents of households registered at a family health care unit/total number of households interviewed). A similar indicator was analyzed using data from DAB (the number of residents registered at a family health care unit/Population IBGE)

3. *% of registered households at a family health care unit one year ago or for longer that were visited by community health care workers (Agentes comunitários de saúde - ACS) or members of the family health care team on a monthly basis* (the number of registered households at a family health care unit one year ago or for longer that were visited by ACS or members of the family health care team monthly/number of households registered at a family health care unit one year ago or for longer);

4. *% of registered households at a family health unit one year ago or for longer that were not visited by community health care workers (ACS) or members of the family health care team on a monthly basis* (the number of registered households at a family health care unit one year ago or for longer that were not visited by ACS or members of the family health care team/number of households registered at the family health care unit one year ago or for longer).

Coverage indicators were stratified by Major Regions, Federation Units (UF), Capital, urban / rural and education. They have described the prevalence and 95% confidence intervals (95%); and the absolute numbers were estimated. When there was no overlap of confidence intervals, the difference was statistically significant.

The proportions of people who live in these households registered in family health unit to Brazil and capital of Brazilian states, were compared with administrative data from the Department of Primary Care (DAB) of the Ministry of Health. Another comparison proposal was the proportion of people residents in registered households in the family health unit, for Brazil, Major Regions and Federative Units from PNS, DAB and National Sample Survey (PNAD), in 2008.

Home visits from community health workers were stratified according to education and Major Regions. The data were analyzed using software Stata 11.0, through the survey module, which considers effects of complex sample. The project was approved by the National Commission of Ethics in Research (CONEP) in June 2013. At the time of interview, all individuals were consulted, informed and agreed to participate.

Results

The proportion of registered households in the family health unit in Brazil was 53.4% (95% CI: 52.1 to 54.6), being higher in rural areas (70.9%) than in urban (50.6 %). The Northeast region had the highest percentage with 64.7%, followed by the South (56.2%); Southeast had the lowest with 46.0% (Table 1).

The proportion of people who live in these households registered in family health unit, the value for Brazil was 56.2% (95% CI: 54.9 to 57.4) and is also higher in rural areas (72.3 %) than in urban (53.3%). The Northeast region also had the highest percentage (68.1%) and the Southeast, the lowest (48.3%) (Table 1).

When observed by Federative Units, the highest proportions of people who live in these households registered in family health unit were in Tocantins (93.6%), Paraíba (81.0%) and Piauí (80.3%), and lower in the Federal District, with 14.3% coverage (Table 1). Watching the capital, Brasilia and Salvador had the lowest percentages, 14.3% and 15.2%, respectively, and Palmas has the highest proportion (88.9%) (Figure 1.1).

Comparing these PSN data with DAB, also 2013, we observe similar values in both sources for Brazil: 56.2% by PNS and 56.4% by the DAB, with 0.3% of variation; and the total capital: 40.0% by NSP and 39.1% by the DAB (Table 2; Figure 1). However, when evaluating each state and capital, major differences are observed. Amapá and in Goiania, the levels were higher in DAB data, 58.6% and 47.1%, respectively; On the other hand, Boa Vista and Campo Grande values were higher after the NSP, 51.3% and 74.6%, respectively (Table 2; Figure 1).

Table 2 shows a comparison of the data from the PNS 2013 with the PNAD 2008, where we observed similar values between the two surveys for northern region (53.5% and 53.9%, respectively) and the northeast (68.1% in the PNS and 67.7% in the PNAD). For the rest of the regions and Brazil in general, the values were higher in the PNS, being 50.9% in the PNAD and 56.2 in the PNS for Brazil (+10.3%); 38,5% in the PNAD and 48.3% in the PNS for the southeast region (+25.4%); 53,0% in the PNAD and 58,4% in the PNS for the southern region (+10,3%); and 50,1% in the PNAD and 54,5% in the PNS for the central western area (+8,8%). In relation to the UFs, Amapá and Rio de Janeiro presented the largest differences in the time period, 19.4% in PNAD and 33.8% in the PNS for first (+74.6%)

and 19.2% in the PNAD and 35.1% in the PNS for the second (+82.7%).

When an evaluation on the level of education was done, it was shown that the proportion of residents in households registered at family health care units was larger amongst those with low levels of education compared with this with higher levels. This was the case for Brazilian regions, with the south east showing the highest fluctuations among the levels (Figure 2).

Also in relation to levels of schooling, Figure 3 shows the proportion of households registered at family health care units one year ago or longer and those households that had visits from community health care workers or members of the family health care team on a monthly basis. The highest value was registered in the central western region (58.3%) and the lowest in the south eastern region (41.6%). The proportion that was observed with low levels of schooling was larger than those with high levels of education, in all the Brazilian regions.

The northern and central western regions were those that showed the lowest proportion of household registered one year ago or longer and never had any visits from the ACS or members of the family health care team (10.8%). On the other hand, the largest proportion was seen in the south east region being 23.8% (Figure 3).

Discussion

The study found that more than half of the population concerns be registered in family health units, being higher in rural areas (nearly two-thirds of the population) compared to urban. The Northeast region had the highest percentage, followed by the South, the Southeast had the lowest proportion. Federation Units with higher proportions of people registered residents in households in the family health unit were in Tocantins, above 90%, Paraíba and Piauí, above 80%, and lowest in the Federal District. Among the capital, Brasilia and Salvador had the lowest percentages, about 15%, and Palms theme highest proportion, about 90%. The PNS coverage values were similar to the administrative records of the DAB, pointing consistency of administrative data, when compared to those reported by users. We also highlight the growth in ESF coverage in over 10% in the country.

The proposed organization of Primary health dates back to the UK in the 20s, when launching

Table 1. The proportion and total of registered households and residents in households registered at a family health care unit, with indications regarding the interval of confidence from 95% for Brazil (which includes its large regions and Federation Units) -2013.

Brazil, Large Regions and States	Households registered at a family health care unit			Residents in households registered at a family health care unit		
	Total (%)		Total (absolute number) Absolute Number	Total (%)		Total (absolute number) Absolute Number
	Proportion	Intervals of confidence 95% LL-LS		Proportion	Intervals of confidence 95% LL-LS	
Brazil	**53.4**	**52.1 - 54.6**	**34792**	**56.2**	**54.9 - 57.4**	**112537**
Urban	50.6	49.2 - 52.0	28431	53.3	52.0 - 54.7	91049
Rural	70.9	68.4 - 73.4	6361	72.3	69.8 - 74.7	21488
North	**51.5**	**48.9 - 54.1**	**2360**	**53.5**	**50.8 - 56.2**	**8939**
Rondônia	54.8	49.6 - 60.0	297	56.7	51.6 - 61.8	975
Acre	46.9	43.1 - 50.6	100	51.8	47.7 - 55.8	395
Amazonas	49.9	46.3 - 53.4	467	54.3	50.7 - 57.9	1990
Roraima	51.6	46.5 - 56.6	61	55.1	49.8 - 60.4	239
Pará	45.0	39.9 - 50.0	963	47.0	41.7 - 52.2	3723
Amapá	30.0	25.0 - 35.0	55	33.8	28.1 - 39.5	247
Tocantins	92.7	90.8 - 94.5	416	93.6	91.7 - 95.5	1370
North East	**64.7**	**63.2 - 66.3**	**11026**	**68.1**	**66.6 - 69.6**	**37886**
Maranhão	63.8	58.7 - 69.0	1188	66.5	61.1 - 71.9	4490
Piauí	78.4	74.1 - 82.7	740	80.3	76.1 - 84.5	2554
Ceará	65.7	62.2 - 69.1	1764	67.6	63.9 - 71.3	5934
Rio Grande do Norte	63.4	59.6 - 67.2	646	64.7	60.8 - 68.6	2182
Paraíba	78.6	74.9 - 82.2	976	81.0	77.1 - 85.0	3153
Pernambuco	63.3	59.3 - 67.3	1813	66.8	62.8 - 70.9	6116
Alagoas	65.7	62.9 - 68.5	638	68.1	65.6 - 71.3	2255
Sergipe	69.3	65.5 - 73.0	475	72.8	68.9 - 76.6	1598
Bahia	58.5	54.9 - 62.1	2785	64.0	60.7 - 67.2	9604
South east	**46.0**	**43.6 - 48.3**	**13189**	**48.3**	**45.9 - 50.8**	**40798**
Minas Gerais	70.7	66.1 - 75.3	4927	72.2	67.5 - 76.9	14857
Espírito Santo	54.8	49.5 - 60.0	705	57.3	51.7 - 62.9	2196
Rio de Janeiro	32.2	28.9 - 35.4	1907	35.1	31.6 - 38.6	5749
Sao Paulo	39.0	35.1 - 42.8	5650	41.2	37.3 - 45.2	17996
South	**56.2**	**53.0 - 59.3**	**5578**	**58.4**	**55.2 - 61.7**	**16810**
Paraná	55.0	49.8 - 60.2	1998	56.6	51.2 - 62.1	6221
Santa Catarina	74.0	67.5 - 80.5	1682	76.5	70.4 - 82.5	5068
Rio Grande do Sul	47.1	42.0 - 52.3	1899	49.5	44.2 - 54.9	5522
The Central Western Region	**53.2**	**51.0 - 55.5**	**2639**	**54.5**	**52.2 - 56.7**	**8104**
Mato Grosso do Sul	73.6	70.1 - 77.1	613	76.6	72.9 - 80.3	1935
Mato Grosso	65.6	60.9 - 70.3	706	66.0	61.4 - 70.6	2069
Goiás	56.3	52.1 - 60.6	1207	57.5	53.3 - 61.7	3704
Federal District	12.5	9.6 - 15.3	113	14.3	11.1 - 17.4	396

the Dawson Report, which resulted in the English health system configuration, especially in the dissemination of health centers took place, attended by doctors generalist and multidisciplinary team[7,16]. In recent decades, has increased the number of countries with investment in Primary[4]. In Brazil, the implementation of the Family Health Strategy experienced great expansion of coverage from the 2000s, with different rates between regions and population size of the municipalities[17]. of the 2008 PNAD Health Supplement data showed about 27.5 million registered households, or 47.7%, corresponding to 50.9% of the population, were covered by the Family Health Program at the time. Thus, the current study showed expansion of 10.3% of national cover-

Table 2. Comparison of the proportion of residents in households registered at a family health care unit, according to the PNAD 2008, the PNS and data from The Department for Basic Primary Health Care/the Secretary for Health Assistance/Health Ministry, December 2013, for Brazil, large regions and States.

| Brazil, Large Regions and Unit Federations	PNAD (2008)	PNS (2013)	DAB (2013)	PNS variation in relation to the PNAD	PNS Variation in relation to the DAB
Brazil	**50.9**	**56.2**	**56.4**	**10.3**	**-0.3**
North	**53.9**	**53.5**	**52.8**	**-0.8**	**1.4**
Rondônia	48.0	56.7	61.2	18.1	-7.4
Acre	49.3	51.8	70.1	5.1	-26.1
Amazonas	56.4	54.3	48.7	-3.7	11.5
Roraima	48.1	55.1	44.3	14.6	24.3
Pará	50.7	47.0	44.8	-7.2	5.0
Amapá	19.4	33.8	58.6	74.6	-42.3
Tocantins	94.1	93.6	88.2	-0.5	6.1
North East	**67.7**	**68.1**	**75.8**	**0.5**	**-10.1**
Maranhão	64.6	66.5	80.1	3.0	-16.9
Piauí	85.5	80.3	96.6	-6.1	-16.9
Ceará	62.1	67.6	73.5	8.9	-8.0
Rio Grande do Norte	61.6	64.7	81.0	5.0	-20.1
Paraíba	86.4	81.0	93.5	-6.2	-13.4
Pernambuco	75.7	66.8	72.1	-11.8	-7.3
Alagoas	64.7	68.5	74.1	5.9	-7.6
Sergipe	79.8	72.8	85.6	-8.7	-15.0
Bahia	59.2	64.0	65.7	8.1	-2.6
South east	**38.5**	**48.3**	**44.3**	**25.4**	**8.9**
Minas Gerais	65.6	72.2	72.2	10.0	0.0
Espírito Santo	58.9	57.3	54.5	-2.7	5.1
Rio de Janeiro	19.2	35.1	44.9	82.7	-21.8
Sao Paulo	31.0	41.2	30.1	32.9	37.0
South	**53.0**	**58.4**	**56.5**	**10.3**	**3.3**
Paraná	54.6	56.6	60.3	3.7	-6.1
Santa Catarina	74.7	76.5	74.6	2.4	2.6
Rio Grande do Sul	39.2	49.5	42.1	26.2	17.6
The Central Western Region	**50.1**	**54.5**	**55.7**	**8.8**	**-2.2**
Mato Grosso do Sul	75.5	76.6	64.1	1.5	19.4
Mato Grosso	55.6	66.0	63.0	18.6	4.8
Goiás	53.0	57.5	64.0	8.4	-10.1
Federal District	12.7	14.3	20.1	12.3	-28.7

age, which coincides with the administrative data from the Ministry of Health.

Studies show countries that have good primary health care have better health care outcomes which include: children's health (reduced numbers of babies born that are under-weight, lower rates of infant mortality); the early detection of such cancers as colorectal, breast, uterus/cervical and melanoma; lower numbers of early deaths due to the implementation of preventative measures; and greater life expectancy[9,10]. Also in Brazil, studies have shown a greater reduction in infant mortality in municipalities where the PSF was implemented[11]. This showed the importance of widening health coverage as well as access to primary health care in the country and the various states.

Authors have expanded the scope of the concept of access beyond the entry into service, seeking to incorporate also the results of the care received equity[18]. The issue of access is bound to aspects such as host, following the counter-ment in the system, accountability with the enrolled population, both in relation to the services that are offered, as in acting in the territory[4]. More recently, Kringos et al.[19] added two other dimensions of access: the use of primary care services, or the actual consumption of these services, and equity in access, as to the suitability of the provision of services and health needs.

1.1 Capitals and Capital Totals

■ PNS 2013   ■ DAB 2013
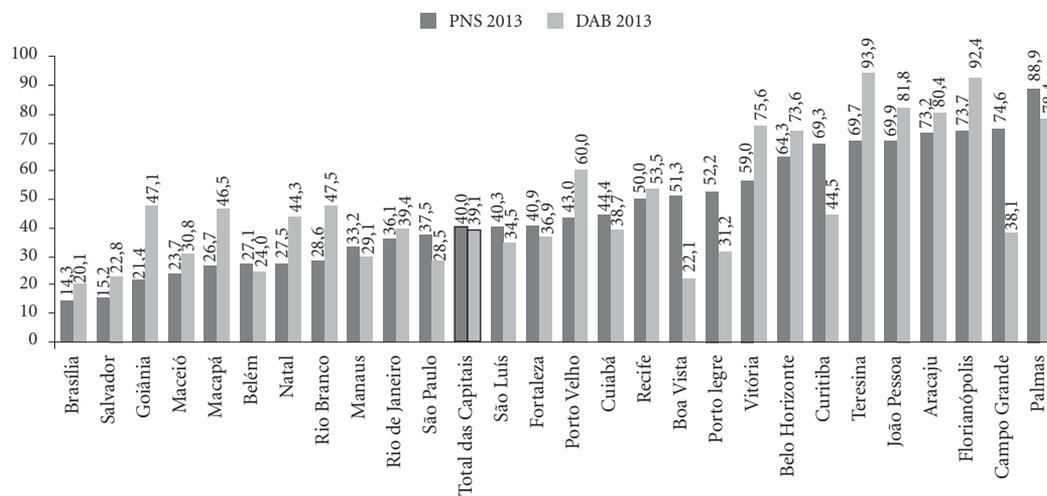
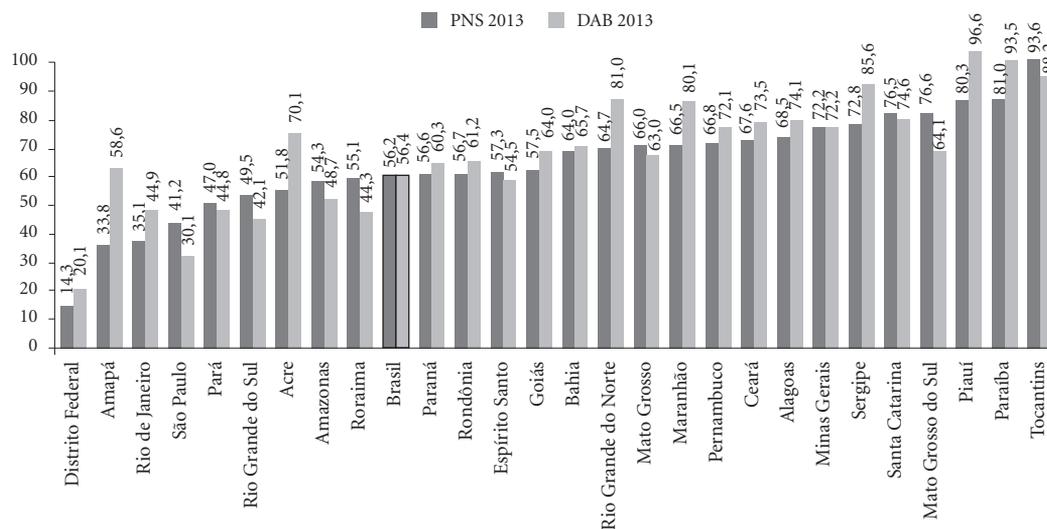**1.2 States and Brazil**

■ PNS 2013   ■ DAB 2013

Figure 1. Comparison of the proportion of residents in households registered at a family health care unit, according to the PNS and data from the DAB/MS*, for the capitals and the capital totals; and states in Brazil - 2013.

* The Department for Primary Health Care/the Secretary for Health Assistance/the Health Ministry. December 2013.

Still, the National Household Survey in 2008 found that the coverage was greater in the Northeast and lowest in the Southeast, regional differences also observed in the PNS. Most UF showed an increase in population coverage when compared to data from discrete 2008[14]. were observed increases of 1.5%, as in Mato Grosso do Sul, until significant 74.6% and 82.7%, Amapá and Rio de Janeiro respectively. Coverage in these states was approximately 19% in 2008, and thus, despite the increase in the period, coverage is still less than 40%, both in Amapá (33.8%) and in Rio de Janeiro (35.1%). The DF kept low coverage in the period, from 14.3% in 2013[14].

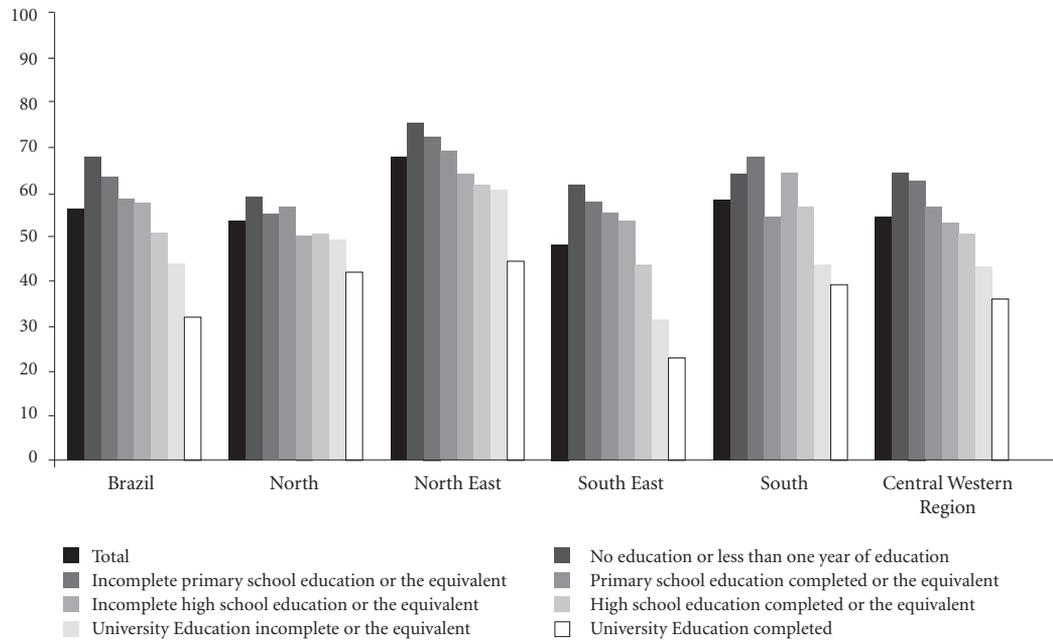Data from the PNS to Brazil are very close to those reported by DAB in December 2013, whose

Figure 2. Proportion of residents in households registered at a family health care unit, by level of education, covering Brazil and Regions – 2013.
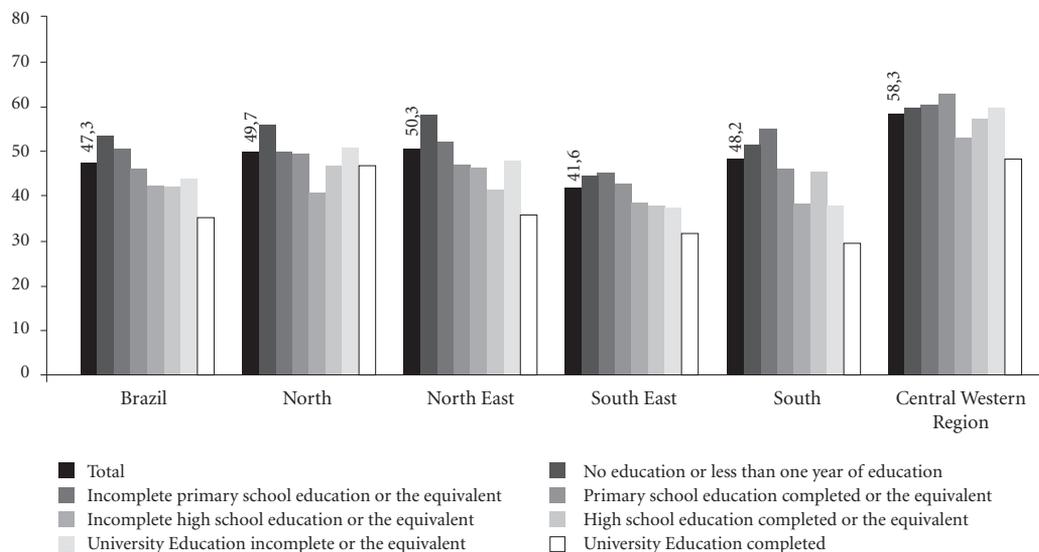
estimated coverage was about 109 million people or 56% of the population in 5346 municipalities and 34,715 teams. Considering the Community Health Agents, coverage rises to 125.5 million, virtually the same identified by PNS[12]. Such a comparison shows the compatibility of the information, the magnitude and the reach of the program in the country. In the analysis by region, there is the importance of high coverage of the Northeast, where in some states exceeded 90% as Piauí and Paraíba, and others above 80% as Rio Grande do Norte, Sergipe and Maranhão. However, it draws attention the fact that he had no growth between 2008 and 2013 in the Northeast (-0.5%); on the contrary, there was a decline in states like Pernambuco, Sergipe and Paraiba; as well as in the North (-0.8%), driven by the decline of Roraima. It is noteworthy that in these regions, coverage is already quite high and it becomes challenging expand and keep it high. Evaluation studies of the National Program for Improving Access and Quality of Primary Care (PMAQ) raised that the main difficulties reported by users in primary care are in the lack of doctors, lack of jobs and tokens[1]. Other studies also highlight the toggle medical professionals, the establishment of these difficulties, high

turnover, particularly in inner cities in the North and Northeast of the country, on the outskirts of large cities and in risk areas[20-23]. The reduction in states that already had high coverage, can be explained by the difficulty in setting professional. The recent creation of the Program More Doctors, which set these professionals in remote areas, in small towns and in risk areas, was after the PNS and therefore has not been possible here to assess its impact on coverage.

The large regional disparities in coverage by Federative Units and between capitals have been attributed to recent studies the diversity of local management processes between municipalities and states. Even with strong induction of the federal government, organizational processes are very different and this results in large differences in site deployment, including affecting local coverage, access to services and responses. These differences partly reflect the priorities in the implementation and organization and different stages of management and prioritization[7,16,24,25].

The study also noted another dimension beyond widening the coverage for the family health care medical teams in Brazil which was the prioritization of services such as: house visits to vulnerable families which aims to promote

3.1 Those that had monthly visits

- ■ Total
- ■ Incomplete primary school education or the equivalent
- ■ Incomplete high school education or the equivalent
- ☐ University Education incomplete or the equivalent
- ■ No education or less than one year of education
- ■ Primary school education completed or the equivalent
- ■ High school education completed or the equivalent
- ☐ University Education completed

3.2 Those that were never visited

- ■ Total
- ■ Incomplete primary school education or the equivalent
- ■ Incomplete high school education or the equivalent
- ☐ University Education incomplete or the equivalent
- ■ No education or less than one year of education
- ■ Primary school education complete or the equivalent
- ■ High school education completed or the equivalent
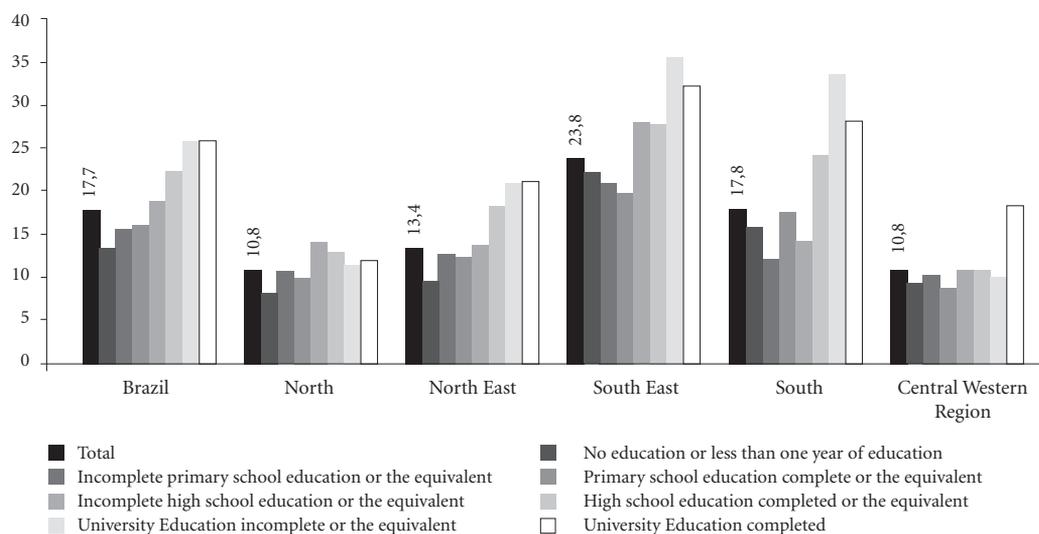- ☐ University Education completed

Figure 3. Proportion of households registered at a family health care unit one year ago or longer and those households that had visits from community health care agents (ACS) or members of the family health care team on a monthly basis, or never had a visit; by level of education, covering Brazil and Regions – 2013.

more social inclusion and a reduction in health inequality. The PNAD 2008 showed that among the households registered, 31.0% had monthly incomes per capita to the value of ½ and one minimum monthly Brazilian salary. 54.0% of households had an income of up to two minimum Brazilian monthly salaries. There was a reduction in this proportion in as much as house-

hold incomes increased per capita to 16.3% with household incomes above five minimum monthly Brazilian salaries. Also in a similar fashion, the levels of education, was connected to household income. In 2008 households that had occupants with no or little schooling (less than one year of education), 63.8% were registered on the Family Health Program. In households in which the per-

son in question had 11 years or more of education, this percentage was 33.5%[14].

Similar behavior in relation to levels of education and income were found in the PNS in 2013. Therefore when the level of education in a population is lower, this suggests greater coverage through the Family Health Program. In relation to the coverage amongst the households, where the main breadwinner of which had less than one year of formal education, 66.3% had completed some form of basic education. Households where the main earner had the equivalent of 12 years of education, they represented 48.3% and 26.6% was the percentage for those that had completed higher education. Significant differences were also observed between urban and rural areas, the coverage proportion being 50.6% and 70.9% respectively. This data shows that SUS's goal of prioritizing coverage for at risk populations (the most vulnerable, low levels of education, low income etc) has been met[4,12,25]. In the future, where there is a greater availability of income data, new analysis will be possible[26]. The PNS argues on the importance of the Family Health Program in promoting equality in the country and reducing vulnerability in as much as it is possible to guarantee access to at risk populations which are often poor.

The indicator which is home visits also showed that the regular visits (such as on a monthly basis) by the ACS and the other members of the Family Health team are more frequent for sectors of the population with lower levels of education. This showed the prioritization for the most vulnerable in the population. But there were more people who had not been visited at their homes amongst the population with high incomes. The PMAQ study found that the percentage of household visits by the Family Health team in the 1st cycle was 70%. Also the teams established priorities in relation to families that are going to be visited, due to the vulnerability of these families[27].

Basic primary care constitutes an important entry point into SUS as it is the first contact that the population have with the health service. At this point it is responsible for dealing with the majority of problems and needs that present themselves. Among its principle ones, we can highlight: the personal care and attention that should be given to service user during their lives, the continuous building of relationships between service users and medical staff, the capacity to deal with all health problems (finding positive outcomes for more than 85% of prob-

lems), coordination - the ability to coordinate responses to various needs which means adopting an approach that favors equal treatment for all promotes. The other principles are: multidisciplinary teams where service users have access to specialists at any point during their treatment[4].

Past studies have shown that access to primary health care contributes, not only to the reduction in the numbers of hospital admissions (thus improving the indicators), but also in the reduction of socio-economic inequality. It can improves people´s quality of life, equality in general and the population's health[4,28]. The increase in coverage and the widening of family health care is an important promotor for equality[19]. SUS has completed its mission by using the ESF to direct the health care.

Penchansky[29] highlights five potential access dimensions to health services: availability, accessibility, geography, accommodation, the ability to pay for the services and acceptability. The increase in coverage and the wide geographical distribution of the basic health centers has allowed the ESF to promote access to SUS and this also has meant more capacity to meet the needs of service users.

As for the limitations of the study, the interviewees gave their opinions on their perceptions of the coverage of the family health care teams. One resident would speak on behalf of all the others in their households. Data in relation to the coverage for home visits could be subject to bias based on the information from the residents. Also the use of comparative data with the PNAD 2008 can be limited in its use due to: the difference in the sample process from the two studies, the PNS's bigger sample spread and the different methodologies used. The comparison with administrative data can be subjected to information limitations from the Health Information System.

Also the theme that is being dealt with refers to the coverage of the services and not necessarily the quality of the care. According to Donabedian[30], the structure is an important element in quality of the care. There are, however, other dimensions to ensure the quality of the care given such as: the work process, inputs, flux, accessibility, equality, amongst others.

Due to the evidence, the Health Ministry has been investing in widening the coverage of the Family Health Care teams by better understanding how the strategy works in improving health care outcomes. Apart from widening the coverage, the Health Ministry implemented the National Program to Improve Access to and the

Quality of Basic Health Care (PMAQ-AB) which has reinforced a culture of using contracts and conducting evaluations in basic health care. It also collected information about the structure and the functioning conditions of the UBSs and the quality of the care[31]. Other prominent measures taken include an increase in finances for: the Basic Health Program for Improving the UBSs, the Brazilian Tele-health Program Network, the Program for Valuing Basic Health Care, and the More Doctors Program[27].

Conclusion

The study found that more than half of the population concerns be registered in family health units, being higher in rural areas, and has been growth in coverage in the last five years. Prioritizing risk families points, strategy, another important dimension is that the reduction of inequalities.

We also point out that the SNP of margin calls are similar to administrative records of the DAB, pointing consistency of administrative data and the opportunity to use them in new analyzes of the ESF.

There are numerous challenges in the consolidation of primary care in the country, and certainly the increase in coverage is a critical step, but are still needed others related to improving the management, integration of primary care with the network of health services, financing, solving , quality of care, among others, which is essential for ensuring equitable and comprehensive care.

Collaborations

DC Malta worked on the initial idea of this study and aided in analyzing and interpreting the data. DC Malta also critically reviewed the drafts and approved the final version which was published. MAS Santos and SR Stopa aided in reviewing the research documents used for this study. They also analyzed the data and formatted the article. CL Szwarcwald, JEB Vieira, EA Melo and AA Chioro dos Reis contributed to analyzing the data and they reviewed the final draft. All of the above individuals reviewed this paper and approved the final version.

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