Original research

Does the inverse theory hypothesis apply to primary health care? Evidence from 5 564 Brazilian municipalities*

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ABSTRACT

Objective.   *To investigate the evolution of primary health care (PHC) coverage in Brazilian municipalities from 2007 to 2016 from the perspective of the inverse theory hypothesis.*

Method.   *This ecological study was performed with data from 5 564 Brazilian municipalities. Data were obtained from the Brazilian Institute of Geography and Statistics (IBGE) and from the Unified Health System database (DATASUS). The municipalities were classified according to their social development status using selected cluster indicators. After classification of the municipalities, PHC was analyzed by determining Family health Strategy (FHS) coverage through means and interquartile distance, with analysis of time series and correlations between variables.*

Results.   *Two groups of municipalities were detected: a group with more favorable (n = 3 293) and a group with less favorable conditions (n = 2 271). The difference between the groups for all indicators was statistically significant (P < 0.001). In general, regardless of the group, an increase in FHS coverage was detected along the study period. However, from 2009 on, mean FHS coverage became higher in the group with less favorable conditions. The increase in coverage was also faster in this group. Finally, a change in the correlation between indicators and PHC coverage in the first vs. last year of the historical series indicates that the criteria used to expand coverage in the group with less favorable conditions shifted to favor absolute poverty rather than inequality.*

Conclusions.   *PHC in Brazil fulfills its role of reducing access inequalities. Therefore, the inverse theory hypothesis does not apply to this case.*

Keywords   Primary health care; public policy; equity; health inequalities; Brazil.

The International Conference on Primary Health Care, convened in Alma-Ata in 1978, proposed primary health care (PHC) as the priority model for operationalization of health services, regardless of the health system adopted (1). Since then, several developed countries, including Canada and the United Kingdom, have implemented a concept of PHC as the gateway to the health care system. Conversely, many countries with peripheral economies have implemented a reductionist approach to PHC aimed at limiting health expenditures and targeting low-income populations and specific programs in the form of basic or essential service packages that cover priority areas such as maternal and child health (2).

In Brazil, the concept of PHC was constructed in a very particular way: despite its status as a peripheral economy, the country chose to define, over time, a national policy oriented toward primary care as a replacement for the more

traditional health care model (3). Over the last 30 years, since the Constitution of 1988 came into force, public policies have been transformed, leading to the establishment of health as a social right (4). In this regard, Brazil is recognized for its successful performance in implementing PHC, especially at the local level (5).

One of the most important effects of this process was the creation of the Family Health Program in 1994 (implemented since 1997), which introduced the principle of a family-centered model of care, operationalized at the municipal level, and using soft technology as a means of achieving high levels of problem-solving capacity (2). Since then, the executive branch has fostered the adoption of public policies that decentralize PHC practices, municipalizing the roles of financial management and organization of health services provision to ensure service quality. This shift has strengthened PHC in stark contrast to the traditional hospital-centered model, which is individualized, costly, and has low problem-solving capacity (6). In addition, this shift ultimately led to the creation, in 2006, of the National Primary Care Policy (*Política Nacional de Atenção Básica*, PNAB), which, among other organizational aspects, redefined family health no longer as a program but as a Strategy (the FHS), mandating the progressive replacement of all traditional primary care with the new model (7, 8). Within this context, PHC has come to be recognized as the preferred point of entry into the Brazilian health system (9).

Over the years, PNAB has made progress in promoting access to PHC for the most vulnerable populations. The impact of the latest revision of the PNAB, in September 2017 (10), has not yet been assessed; however, the 2011 revision is worthy of note—it established incentives for work in municipalities where it is difficult to attract or retain physicians, and created the Family Health Support Centers (*Núcleos de Apoio à Saúde da Família*, NASF) (11). The 2011 revision sought to remedy the limitations of the 2006 version in order to ensure equitable access for the most vulnerable populations. This pattern is consistent with the "inverse equity hypothesis" proposed by Victora et al. (12). According to these authors, new public health interventions and programs are initially more accessible (and more heavily utilized) by people of higher economic status, thus

increasing socioeconomic inequalities in health. Over time, this social gap is narrowed as the new technology or policy becomes attainable to the population of lower economic status, usually after the impact of intervention on wealthier groups has already peaked (12).

The objective of the present study is to describe the progression of PHC coverage in Brazilian municipalities from 2007 to 2016, within the context of the inverse equity hypothesis.

MATERIALS AND METHODS

This ecological study was conducted with data from 5,564 Brazilian municipalities from 2007 to 2016. It should be noted that, due to changes in the number of municipalities over the period of interest, only those municipalities that existed throughout this period were considered. It is also important to note that the decision was made to evaluate PHC from the standpoint of FHS coverage. We accept the limitation that the workflow of certain primary care units that do not belong to the Strategy (i.e., that provide traditional primary care) will not meet the same assumptions introduced by the PNAB.

Data from the 2010 Census, made available by the Brazilian Institute of Geography and Statistics (IBGE), were used to analyze social indicators (13). Data on population coverage by the FHS were obtained from the Unified Health System database DATASUS (http://tabnet.datasus. gov.br/cgi/deftohtm.exe?pacto/2015/ cnv/coapmunbr.def). These databases were made compatible by the record linkage technique.

Municipalities were classified according to their development. For this purpose, the multivariate two-step cluster analysis approach was employed (14). This technique allows identification of patterns between units of analysis (municipalities) with homogeneous characteristics and that are heterogeneous in relation to the other clusters (15, 16). The two-step approach is best suited to large databases because it reduces the scaling problem created by hierarchical techniques.

Seven social indicators were used to construct the clusters: a) infant mortality rate, estimated by the number of deaths of children under 1 per 1,000 liveborn children; b) dependency ratio, measured as the ratio of people under age 15 and

those aged 65 and over (dependent population) to those aged 15 to 64; c) Gini coefficient, which measures the degree of inequality in the distribution of household income *per capita*—its value ranges from zero to 1, with lower values denoting greater inequality; d) proportion of the population vulnerable to poverty, estimated by the proportion of individuals with a *per capita* income of less than half the minimum wage; e) richest 10% to poorest 40% ratio, which estimates the degree of inequality in the distribution of individuals according to *per capita* household income when comparing the average income of the richest 10% with that of the poorest 40%; f) Theil's L index, a measure of *per capita* household income inequality, given that income is not zero (therefore, a measure different from that of the Gini coefficient)—it ranges from zero to infinity, with higher values denoting greater inequality; g) and municipal human development index (HDI), a composite indicator encompassing dimensions of longevity, education, and income.

Here, it is important to define disparity as a measure of systematic and avoidable inequality that is unjust (or unfair) because it does not promote an attempt to offer the population equal opportunity (17). In this respect, some of the aforementioned indicators evaluate not only wealth but also disparity, such as the Gini coefficient, Theil's L index, and the income ratio.

Euclidean distance was chosen as the measure of similarity for the indicators of interest (18).

Information on the population covered by the FHS is based on the coverage estimates made by family health teams. The period of analysis was 2007–2016. This period corresponds to the time series which immediately followed the first version of the PNAB (7) and includes the year in which primary care was restructured in Brazil by ministerial order (11). This allows evaluation of the inverse equity hypothesis in the context of public policy. The data used to construct the indicators were obtained for the year 2010, both for greater precision (2010 was a census year) and because it corresponds to the midpoint of the period of interest.

Once constructed, clusters were characterized in relation to their originating indicators and classified as having more or less favorable economic status.

For this purpose, we compared the between-group mean and standard deviation of each indicator. Analysis of variance (ANOVA) was used to test for statistical significance of the difference in mean between each group.

To characterize FHS coverage in each group, measures of central tendency and interquartile ranges of FHS coverage were calculated for each year of the time series. To characterize the groups thus obtained, the means of each of the indicators used in their construction were considered. To allow observation of within-group variability, the standard deviation of each indicator was also obtained, as well as 95% confidence intervals (95%CIs) for their distribution. The mean difference in coverage between groups was evaluated for each year of observation by means of the respective CI.

The interquartile ranges were used to evaluate the degree of homogeneity of the groups. This, in turn, allowed assessment of differences in FHS coverage in the first and third quartiles of the distribution. The smaller the difference, the smaller the within-group variability.

In addition, we performed a time-series analysis of coverage for both groups through polynomial regression. The time variable was centered at the midpoint of the time series (19). Simple linear regression models were tested ($Y = \beta 0 + \beta 1X$), followed by second-order ($Y = \beta + \beta X + \beta X2$) and third-order ($Y = \beta 0 + \beta 1X + \beta 2X + \beta 3X$) polynomial models. The choice of best model was based on the degree of significance (P value); the best fit, assessed through the coefficient of determination (R^2); and residuals analysis.

Statistical significance of the trend model was accepted at $p < 0.05$. The outcomes for regression analysis were FHS coverage and the interquartile range of coverage for each group. The correlation between the indicators that generated the clusters and FHS coverage rates in each group, in the first (2007) and last (2016) years of the time series, was also measured.

Analyses were performed in the R version 3.4.2 software environment, using the *cluster* and *timeSeries* packages. Pursuant to Resolution 466/2012 of the Brazilian National Council for Research Ethics (CONEP), this study is exempt from ethics committee approval because it uses only secondary, non-nominal, aggregate data obtained from a public source.

RESULTS

Two-step cluster analysis of the set of 5,564 Brazilian municipalities yielded two groups after stratification by the seven selected social indicators. Table 1 summarizes the mean scores of each indicator for each group. Group 1 exhibited less favorable conditions: compared to Group 2, it was characterized by higher infant mortality, a higher dependency ratio, higher income inequality indicators (Gini coefficient, Theil's L index, and richest 10% / poorest 40% income ratio), a higher proportion of people vulnerable to poverty, and lower HDIs. Therefore, Group 2 can be described as having more favorable conditions. Between-group differences were statistically significant ($p < 0.001$) for all indicators of interest.

A difference in average coverage rate between the two groups was observed over the years (Figure 1A), as well as a difference in means between groups over the same period (Figure 1B). Overall, regardless of group, PHC coverage increased over the period of analysis. However, the relationship between coverages changed from 2009 onward. Until that year, coverage was greater in the group with more favorable socioeconomic conditions. Starting in 2007, the difference between groups (mean coverage in Group 1—mean coverage in Group 2) declined gradually and ultimately reversed, remaining thus inverted (and increasingly so) until the end of the time series. Therefore, since 2009, mean PHC coverage was higher in the group with less favorable conditions than in the group with more favorable conditions. Analysis of the difference in means revealed that, in absolute terms, there was no variation between the first and last year of the series—i.e., the absolute difference in mean coverage between the groups with more and less favorable socioeconomic conditions did not vary. However, this difference evidently changed direction (i.e., the relative difference between Groups 1 and 2 went from positive to negative) as coverage became greater in the group with less favorable conditions.

Figure 2 shows the trend of the two indicators used to evaluate changes in the series over time: coverage (Figure 2A) and interquartile range (Figure 2B). Corroborating the previous analysis, there was a trend toward increased coverage in both groups. However, the increase is more prominent in the group of municipalities with less favorable conditions, as shown by the slope of the line and the linear coefficient. These reveal the level of Group 1 was lower at the start of the series, increasing toward the end, while the rate of increase in coverage was higher in Group 1.

TABLE 1. Characterization of clusters of municipalities according to selected social indicators, Brazil, 2007–2016

Indicator	Group 1 (n = 3,293)			Group 2 (n = 2,271)			Total (n = 5,564)			Z	p-value
	Mean	SD	95%CI	Mean	SD	95%CI	Mean	SD	95%CI		
Infant mortality	25.99	6.05	14.14 − 37.84	14.57	2.73	9.22 − 19.91	19.25	7.14	5.26 − 33.23	9072.38	<0.001
Dependency ratio	59.53	7.73	44.38 − 74.69	45.90	4.25	37.58 − 54.22	51.49	8.95	33.95 − 69.03	7121.96	<0.001
Gini coefficient	0.54	0.06	0.43 − 0.64	0.46	0.06	0.35 − 0.58	0.494	0.066	0.365 − 0.624	2176.24	<0.001
% vulnerable to poverty	67.17	8.79	49.94 − 84.39	27.90	4.95	18.21 − 37.60	43.99	6.44	31.37 − 56.61	15884.43	<0.001
Richest 10% / poorest 40% ratio	19.15	2.24	14.75 − 23.54	11.15	3.59	4.11 − 18.18	14.42	3.19	8.17 − 20.68	1248.08	<0.001
Theil's L index	0.54	0.11	0.32 − 0.77	0.39	0.10	0.19 − 0.59	0.46	0.13	0.20 − 0.71	2594.34	<0.001
MHDI	0.59	0.04	0.51 − 0.67	0.71	0.04	0.62 − 0.79	0.66	0.07	0.52 − 0.80	11176.82	<0.001

Source: IBGE, DATASUS.

FIGURE 1. Mean primary health care coverage (A) and difference in means (B) between groups of municipalities, Brazil, 2007–2016[a]
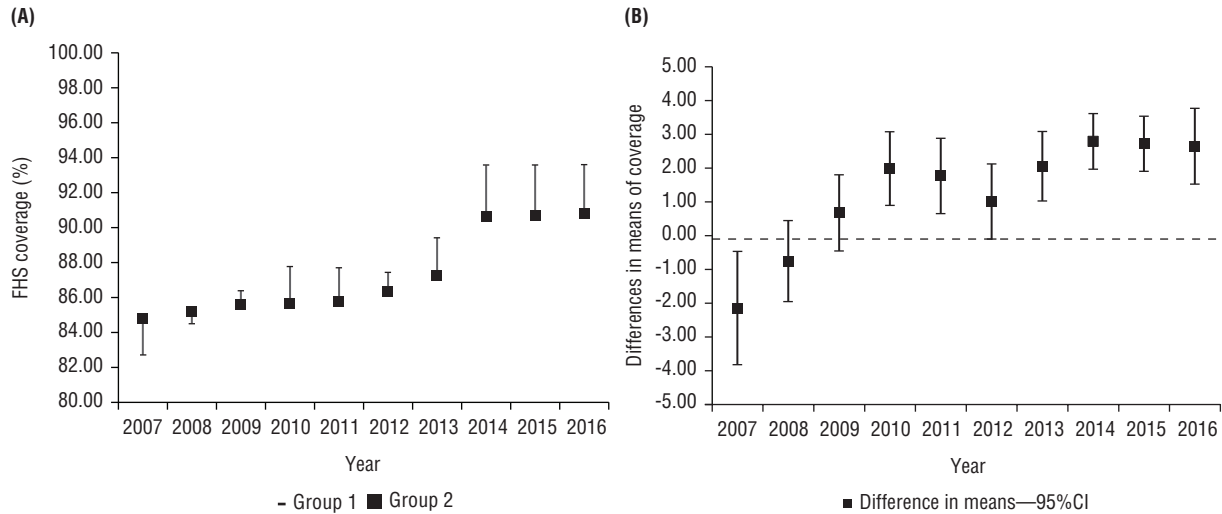
Each group encompassed a large number of municipalities, many of them with 100% FHS coverage. In this context, evaluation of the interquartile range—i.e., of the difference between the first and third quartiles—is an adequate indicator to evaluate the degree of data dispersion around the measures of central tendency. This provides a more precise understanding of how the data behave. What is observed is that the interquartile range, unlike coverage, steadily decreased over the period of analysis, reflecting a tendency toward homogeneity of coverage among the municipalities. Again, it is important to highlight the difference between the groups: during the same period, the difference increased, corroborating the fact that the increase in coverage did not occur at the same rate in the two clusters; it improved faster in the cluster of municipalities with less favorable conditions.

Finally, regardless of group, the selected indicators are directly correlated, with the exception of the MHDI, for which an inverse correlation is observed (Table 2). In Group 1, there was a change in the correlation between indicators and FHS coverage in the first and last year of the time series. The direct correlation between coverage and social indicators became stronger for infant mortality, dependency ratio, and proportion of vulnerable to poverty. The (inverse) correlation between coverage and indicators of income inequality became weaker over

time, while the correlation (also inverse) between coverage and MHDI became stronger. This suggests a change in criteria for expanding coverage over the years, with greater value ascribed to absolute poverty rather than disparity when selecting priority municipalities. In Group 2, the (direct) correlation with infant mortality became weaker. It bears stressing that, in this group, this correlation operated in the opposite direction to that observed in Group 1. Moreover, the correlation between coverage and proportion vulnerable to poverty was not significant in any of the years of analysis; for indicators of income inequality, the correlation was inversely proportional to coverage, and the strength of correlation was likewise lower. It is important to note that, although significant, some correlations were weak. This is possibly attributable to the large number of municipalities rather than to the strength of association itself.
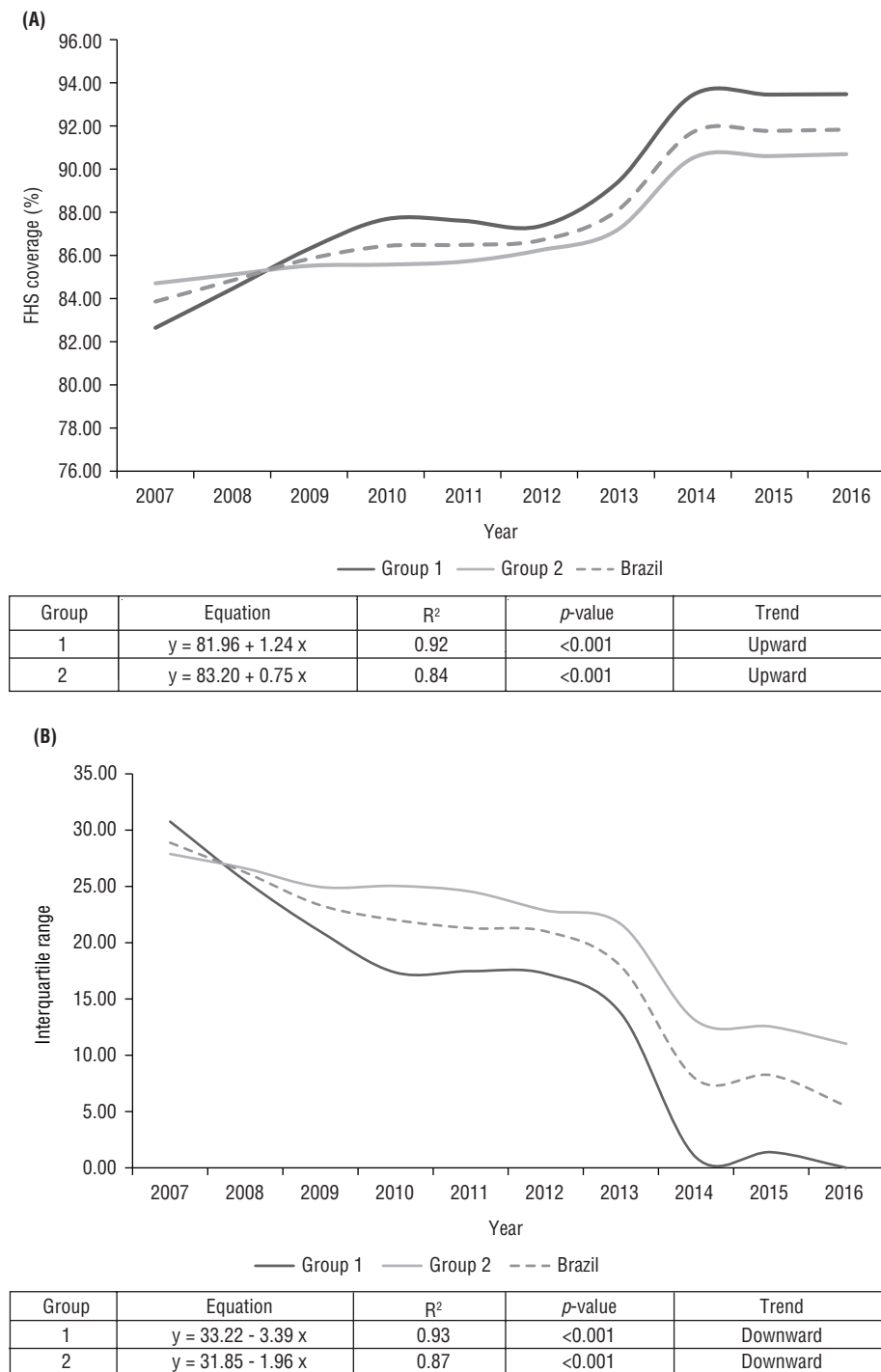
DISCUSSION

During the study period, there was an unequivocal increase in the allocation of municipal resources to public health services and activities (5). This demonstrates the expansion of the FHS at its most decentralized level. However, despite the vast legal and institutional framework implemented to improve access to services, some barriers persist in the implementation of PHC within the

Brazilian Unified Health System (20). Uchôa et al. (21) analyzed the influence of context (measured by income indicators, access to supplementary health and income redistribution programs, and demographic density) on the performance of municipalities to assess the potential of PHC. These data suggest a direct relationship between the context effect and processes of territorialization, coordination of care, comprehensiveness, and supply. It is important for PHC to take these attributes into consideration, requiring, above all, a change in the proposed organization of services aimed at understanding the health needs of the local population at the time and place where care is provided (22, 23). The literature shows that the main obstacles to full implementation of PHC include underfunding and low coverage (20, 21). Thus, the premise of conferring priority to PHC must become a reality, with greater investment in the structure and organization of service provision.

The inverse equity hypothesis states that new health policies first generate inequality, only to attenuate inequality over time. In other words, new public health programs and interventions initially reach people of higher socioeconomic status, thus increasing the disparity between richer and poorer persons at first (12). This means that disparity is only minimized when access to health services becomes greater among the less socioeconomically advantaged. It should be noted

FIGURE 2. Trend of average primary health care coverage (A) and dispersion in relation to mean coverage between groups (B) over time, Brazil, 2007–2016[a]

(A)

Group	Equation	R²	p-value	Trend
1	y = 81.96 + 1.24 x	0.92	<0.001	Upward
2	y = 83.20 + 0.75 x	0.84	<0.001	Upward

(B)

Group	Equation	R²	p-value	Trend
1	y = 33.22 - 3.39 x	0.93	<0.001	Downward
2	y = 31.85 - 1.96 x	0.87	<0.001	Downward

Source: IBGE, DATASUS.
[a] Group 1: more vulnerable; Group 2: less vulnerable.

that, even in public health actions directed at the most vulnerable populations, it is difficult to achieve a decrease in disparity if the population with a higher socioeconomic level has not yet reached low levels of mortality and morbidity (24).

There is evidence that Brazil has improved the social and economic conditions of its population over the last 20 years (24, 25). This is largely due to the implementation of macrostructural policies, including conditional cash transfer programs such as *Bolsa Família* (25, 26). Nevertheless, social inequalities persist, suggesting that reductions in absolute inequality with increases in relative inequality are not unusual—a phenomenon observed when indicators of inequality improve, but at a slower rate in lower-income strata of the population (27, 28). However, the present study showed that FHS coverage in Brazil does not confirm this theory.

Further characterization of how the concept of equity can be operationalized is required to understand the reasons why the inverse equity hypothesis does not fit the Brazilian experience. The literature has described this principle in two main dimensions: health conditions and access to and utilization of health services. Both largely refer to the social determinants of health (29). While disparities lead to differential exposure of the vulnerable population to risk factors for diseases (infectious or noncommunicable), access to health services determines the extent to which this population's demands are met and has a direct impact on service capacity. In this sense, health promotion—the paradigm adopted by the FHS—includes a set of strategies to increase health and reduce inequalities (30).

Another aspect that is no less relevant is that in Brazil's recent history there have been growing tensions between a move to democratize health and a neoliberal project that seeks to achieve a bare-bones State with no commitment to the fulfillment of any rights, including health (31). This points to the FHS' ability to play a leading role in bringing together managers and civil society to construct a political project that results in improvements and meets the health needs of the population (32). Given the progressive dismantling of the health sector in recent months, within a broader context of other threats to democracy, there is a trend toward complete switch from social rights to market logic. Several forces hostile to the social institutions and resources that defend health as a right are now working together (33).

Since 2017, Brazil has had a new PNAB, which must be viewed with caution due to the threat of returning to a selective, limited conception of primary care, which would run counter to the

TABLE 2. Correlation between selected social indicators and Family Health Strategy coverage, Brazil, 2007–2016[a]

	Social indicator		Infant mortality	Dependency ratio	Gini coefficient	% vulnerable to poverty	Richest 10%/ poorest 40% ratio	Theil's L index	MHDI	cobESF2007	cobESF2016
Cluster 1 (n = 3,293)	Infant mortality	r	1	0.399	0.558	0.623	0.124	0.469	-0.615	0.094	0.111
		P-value		<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	Dependency ratio	r		1	0.239	0.680	0.403	0.258	-0.651	0.105	0.166
		P-value			<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
	Gini coefficient	r			1	0.322	0.643	0.977	-0.019	-0.189	-0.165
		P-value				<0.001	<0.001	<0.001	0.272	<0.001	<0.001
	% vulnerable to poverty	r				1	0.285	0.330	-0.825	0.106	0.150
		P-value					<0.001	<0.001	<0.001	<0.001	<0.001
	Richest 10%/ poorest 40% ratio	r					1	0.676	-0.151	-0.110	-0.076
		P-value						<0.001	<0.001	<0.001	<0.001
	Theil's L index	r						1	-0.038	-0.168	-0.146
		P-value							0.030	<0.001	<0.001
	MHDI	r							1	-0.188	-0.247
		P-value								<0.001	<0.001
	cobESF2007	r								1	0.565
		P-value									<0.001
	cobESF2016	r									1
Cluster 2 (n = 2,271)		P-value									
	Infant mortality	r	1								
		P-value									
	Dependency ratio	r	0.166	1							
		P-value	<0.001								
	Gini coefficient	r	-0.122	0.370	1						
		P-value	<0.001	<0.001							
	% vulnerable to poverty	r	0.451	0.559	0.155	1					
		P-value	<0.001	<0.001	<0.001						
	Richest 10%/ poorest 40% ratio	r	-0.062	0.450	0.865	0.261	1				
		P-value	0.003	<0.001	<0.001	<0.001					
	Theil's L index	r	-0.104	0.288	0.949	0.115	0.827	1			
		P-value	<0.001	<0.001	<0.001	<0.001	<0.001				
	MHDI	r	-0.549	-0.466	0.012	-0.762	-0.153	0.063	1		
		P-value	<0.001	<0.001	0.574	<0.001	<0.001	0.003			
	cobESF2007	r	0.122	-0.178	-0.239	-0.041	-0.226	-0.166	0.054	1	
		P-value	<0.001	<0.001	<0.001	0.059	<0.001	<0.001	0.009		
	cobESF2016	r	0.090	-0.163	-0.194	0.002	-0.194	-0.134	0.036	0.513	1
		P-value	<0.001	<0.001	<0.001	0.930	<0.001	<0.001	0.088	<0.001	

[a] Group 1: more vulnerable; Group 2: less vulnerable.

tenets of universal and comprehensive care on which the FHS was built (10). The new PNAB may worsen the inequalities mentioned in the analysis portion of this study, resulting in setbacks in the achievement of comprehensive PHC, since its guidelines relativize population-wide FHS coverage, segment the provision of care, repositions the FHS within the broader context of PHC and returns to the traditional format of PHC provision, and undermines the status of community health agents.

In view of this situation, efforts must be made to gather all the scientific evidence that highlights the achievements of PHC—the results of a historic undertaking in a context of marked inequality (34). The possibility that it was created and expanded in compliance with the principle of equity—thus escaping the inverse equity hypothesis—must be evaluated and widely publicized.

This study has limitations. First, it is important to note that the availability of a service *per se* does not guarantee access;

factors related to supply and demand need to be considered, such as the establishment of service networks (with PHC as their point of entry) and user satisfaction, among others (35-37). Use of the municipal level as the scale of evaluation does not account for, e.g., inequality in the spatial distribution of health facilities, which may be concentrated in neighborhoods or districts with more or less favorable living conditions. In fact, the indicator used here considers the number of family health teams and a

small number of teams is sufficient to cover most or all of the population in smaller municipalities. This does not directly translate into increased access when considering inequalities within municipalities themselves, especially in situations of vulnerability, such as in rural or violent areas.

In addition, since annual data for social indicators were not available, data for the midpoint of the period of analysis were used. Fortunately, the fact that it was a census year ensured data quality. However, it precluded observation of the consistent reduction of poverty and extreme poverty which occurred in the period and made possible, for example, growth of the private sector as a

provider of health insurance. It should be noted, however, that these issues do not necessarily have an impact on the increase in FHS coverage. Again, the distinction between coverage and access is essential, as these concepts refer to different attributes and one is not a direct consequence of the other. A strength of the study is that we had data available for nearly 6,000 municipalities, demonstrating the robustness of our analysis and allowing us to evaluate the context of a continent-sized nation characterized by marked inequality.

In conclusion, expansion of coverage is an important analytical category for the detection of health disparities. Our

description of trends in coverage, in light of the inverse equity hypothesis, demonstrates this.

Conflicts of interest. None declared.

Disclaimer. Authors hold sole responsibility for the views expressed in the manuscript, which may not necessarily reflect the opinion or policy of the RPSP/ PAJPH or the Pan American Health Organization.

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RESUMO

A teoria da equidade reversa se aplica na atenção primária à saúde? Evidências de 5 564 municípios brasileiros

Objetivo. Investigar a evolução da cobertura da atenção primária à saúde (APS) nos municípios brasileiros de 2007 a 2016, no contexto da teoria da equidade reversa.

Métodos. Estudo ecológico realizado com dados de 5 564 municípios brasileiros. Os dados foram obtidos do Censo de 2010 e do sistema DATASUS. Os municípios foram classificados quanto ao seu desenvolvimento a partir de indicadores sociais selecionados, através de análise de cluster. Analisou-se a cobertura pela Estratégia Saúde da Família (ESF) nos grupos criados através da média e distância interquartílica, por análise de séries temporais e correlação entre variáveis.

Resultados. Foram criados dois agrupamentos de municípios, de condições mais (n = 3 293) ou menos favoráveis (n = 2 271). A diferença entre os grupos, para todos os indicadores avaliados, foi significativa (P < 0,001). Em geral, independentemente do grupo, houve aumento na cobertura da ESF ao longo do período. Contudo, a partir de 2009, a cobertura média da ESF passou a ser maior no grupo com condições menos favoráveis. O aumento na cobertura também foi mais acelerado nesse grupo. Finalmente, uma mudança na correlação entre os indicadores e a cobertura de APS no primeiro e no último ano da série histórica indica que os critérios utilizados para expansão da cobertura no grupo com condições menos favoráveis passaram a valorizar a pobreza absoluta e não a iniquidade.

Conclusões. A APS no Brasil cumpre seu papel de política redutora de desigualdade de acesso. Portanto, não se aplicou a este caso a teoria da equidade reversa.

Palavras-chave   Atenção primária à saúde; políticas públicas; equidade; iniquidade em saúde; Brasil.

RESUMEN

¿Se aplica la hipótesis de la equidad inversa a la atención primaria de salud? Pruebas obtenidas en 5 564 municipios brasileños

Objetivo.   Investigar la evolución de la cobertura de la atención primaria de salud en los municipios brasileños desde el 2007 hasta el 2016 en el contexto de la hipótesis de la equidad inversa.

Métodos.   Estudio ecológico realizado con datos de 5 564 municipios brasileños, obtenidos a partir del censo del 2010 y de la base de datos del Sistema Único de Salud (DATASUS). Los municipios se clasificaron según su grado de desarrollo con un análisis por conglomerados, a partir de algunos indicadores sociales seleccionados. Se examinó la cobertura con la estrategia de salud de la familia en los grupos creados sobre la base de la mediana y del rango intercuartílico, con análisis de series temporales y correlación entre variables.

Resultados.   Se crearon dos grupos de municipios con condiciones más favorables (n = 3 293) o menos favorables (n = 2 271). Se observó una diferencia significativa (P < 0,001) entre los grupos en todos los indicadores evaluados. En general, independientemente del grupo, aumentó la cobertura con la estrategia de salud de la familia a lo largo del período de estudio. Sin embargo, a partir del 2009, la tasa mediana de cobertura con dicha estrategia se incrementó en el grupo con condiciones menos favorables. El aumento de la cobertura también fue más acelerado en ese grupo. Finalmente, un cambio de la correlación entre los indicadores y la cobertura de la atención primaria de salud en el primero y el último año de la série histórica indica que los criterios utilizados para la ampliación de la cobertura en el grupo con condiciones menos favorables asignaron valor a la pobreza absoluta, pero no a la inequidad. Conclusiones. La atención primaria de salud en Brasil cumple su función como política de reducción de la desigualdad en el acceso. Por lo tanto, la hipótesis de la equidad inversa no se aplica en este caso.

Palabras clave   Atención primaria de salud; políticas públicas; equidad; inequidad en salud; Brasil.