



Universidade Federal da Bahia
Instituto de Saúde Coletiva
Programa Integrado de Pesquisa, Ensino e Cooperação
Técnica em Atenção Básica – GRAB



Mesa redonda – Uma agenda estratégica para a atenção primária à saúde no SUS

Impacto positivos da atenção primária à saúde na saúde da população

Rosana Aquino

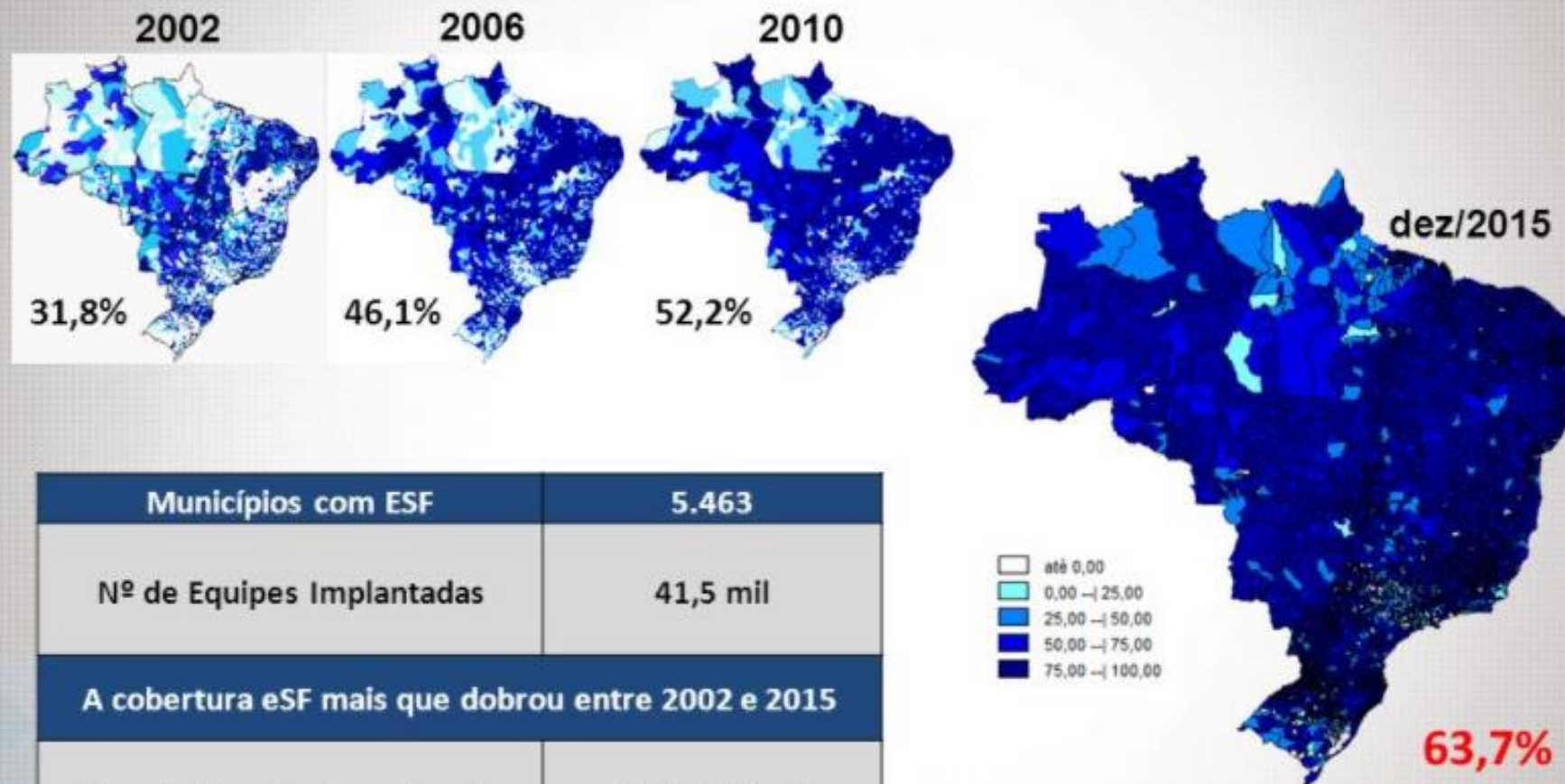
Rio de Janeiro,
20 de março de 2018

Pontos para discussão

- **30 anos de APS no Brasil: quais os avanços?**
- **De que ameaças estamos falando?**
- **O que é estratégico para APS?**
- **Quais os desafios para uma agenda de pesquisa sobre APS?**

30 anos de APS no Brasil: quais os avanços?

Cobertura Saúde da Família



Municípios com ESF	5.463
Nº de Equipes Implantadas	41,5 mil
A cobertura eSF mais que dobrou entre 2002 e 2015	
População coberta estimada	124 milhões*

Fonte: Histórico DAB

* Parâmetro de Cobertura de 3.450 habitantes por equipe e como referência a população IBGE, 2012 (estão inseridos municípios com menos de 3.450 habitantes).

Intervenções no âmbito da APS: ampliação do acesso e elenco de práticas



- 2008 - Núcleo de Apoio à Saúde da Família (NASF);
- 2011 – Academia da Saúde;
- 2011 – Equipes de Saúde da Família Ribeirinha (ESFR) e Unidades Básicas de Saúde Fluviais (UBSF) - populações ribeirinhas na AM Legal e Mato Grosso do Sul;
- 2011 – Consultórios de Rua - população em situação de rua;
- 2011 – Atenção Domiciliar – SAD;
- 2013 – Programa Mais Médicos

Políticas e programas: ampliação do acesso e elenco de práticas



- 1999 - Política Nacional de Alimentação e Nutrição;
- 2003 - a Política Nacional de Saúde Bucal – Programa Brasil Sorridente – ações no âmbito da APS e atenção especializada;
- 2006 - Política Nacional de Práticas Integrativas e Complementares em Saúde;
- 2007 - Programa Saúde na Escola (PSE), política intersetorial da Saúde e da Educação;
- 2011 - Programa Farmácia Popular do Brasil;
- 2014 - Política Nacional de Atenção Integral à Saúde das Pessoas Privadas de Liberdade no Sistema Prisional (PNAISP);

Intervenções no âmbito da APS: financiamento, M&A, formação de profissionais e infraestrutura de UBS



- 1996 – criação do Piso de Atenção Básica – PAB;
- 1998 – 2015 - Sistema de Informação da Atenção Básica (SIAB);
- 1997 – 2003 - Pólos de Capacitação, Formação e Educação Permanente de Pessoal para a Saúde da Família;
- 2001 - Programa de Interiorização do Trabalho em Saúde – PITS;
- 2005 - Avaliação para a Melhoria da Qualidade (AMQ)
- 2009 - Projeto de Expansão e Consolidação da Saúde da Família (PROESF)
- 2011 - Programa Nacional de Melhoria do Acesso e da Qualidade da Atenção Básica (PMAQ)
- 2011 - Programa de Requalificação de Unidades Básicas de Saúde.



Impactos da ESF na saúde da população

Mortalidade infantil e de menores de 5 anos:

- Estudos nacionais demonstraram impacto da ESF, desde os primeiros anos de sua implantação;
- Declínio da TMI, especialmente, do componente pós-neonatal, e da TMM5;
- Evidências de redução das desigualdades;
- Ampliação do acesso a ações e serviços de saúde (consultas médicas, atividades educativas, visitas domiciliares, atenção pré-natal e cobertura vacinal).

Going to scale with community-based primary care:
An analysis of the family health program and infant mortality
in Brazil, 1999–2004

James Macinko^{a,*}, Maria de Fátima Marinho de Souza^b,
Frederico C. Guanais^c, Celso Cardoso da Silva Simões^d

^aUniversity of Pennsylvania, RWJF Health and Society Scholars program, 3641 Locust Walk, Philadelphia, PA 19104, USA

^bSecretariat of Health Surveillance, Ministry of Health, Brasília, Brazil

^cMinistry of Social Development and the Fight against Hunger, Brasília, Brazil

^dInstitute of Geography and Statistics (IBGE), Rio de Janeiro, Brazil

Table 5
Marginal effects^a by outcome, Brazilian microregions 1999–2004

Variable	Infant mortality rate	Post-neonatal mortality rate ^b	Diarrhea mortality ^b
Coverage of family health program	−0.447** (−0.506, −0.387)	−0.591** (−0.909, −0.273)	−1.034* (−2.030, −0.037)
Physicians per 1000 population	−0.251** (−0.439, −0.064)	−0.401* (−0.816, 0.015)	−1.088 (−2.880, 0.704)
Hospital beds per 1000 population	0.348** (0.242, 0.455)	−0.526 (−1.310, 0.257)	−1.038 (−3.536, 1.459)
Hepatitis B coverage (%)	−0.376** (−0.452, −0.300)	0.359 (−0.252, 0.971)	−3.770** (−5.951, −1.589)
Population (1000s)	−1.048** (−1.340, −0.755)	−2.873** (−4.154, −1.593)	−4.715** (−7.439, −1.991)
Population in poorest income quintile (%)	0.213** (0.102, 0.323)	0.497* (0.035, 0.958)	0.801 (−0.229, 1.831)
Mothers with no formal education (%)	0.190** (0.134, 0.245)	0.093 (−0.459, 0.644)	1.879** (−0.628, 3.130)
Mothers with no prenatal care (%)	0.252** (0.204, 0.300)	0.784** (0.420, 1.147)	−0.619 (−1.570, 0.332)
LBW births (% of all births)	−0.546** (−0.686, −0.406)	0.973 (−0.414, 2.360)	−1.572 (−5.245, 2.101)

Robust 95% confidence intervals in parentheses; microregion fixed effects not shown.

* $p < 0.05$; ** $p < 0.01$.

^aMarginal effects represent percent change in the outcome associated with a 10 percent change in the independent variable. All marginal effects were calculated in terms of elasticities evaluated at the means of all other independent variables.

^bRates expressed as per 1000 live births and are based on observed counts that have not been adjusted for underreporting of infant deaths in some municipalities.

- TMI declinou **13%** de 1999 a 2004, enquanto que a cobertura da ESF aumentou de **14% para 60%**.
- Controlando por outros determinantes, **10%** de aumento de cobertura esteve associado a **0,45% de declínio na TMI**, a **0,6% na TMI pós-neonatal** e **1 % na TMI por diarreia**, mas não esteve associado a TMI neonatal.

Impact of the Family Health Program on Infant Mortality in Brazilian Municipalities

Rosana Aquino, MD, PhD, Nelson F. de Oliveira, PhD, and Mauricio L. Barreto, MD, PhD

Despite stagnation in economic growth, civil wars, and the HIV/AIDS epidemic, with the exception of a few countries in Africa and Asia, infant mortality continued to decline throughout the 1990s in developing countries, although the rate of decline was less than in the 2 previous decades.¹ Although social and economic factors are still fundamental determinants of these trends, even in contexts of recession and economic crisis, the persistent reduction in infant mortality draws attention to other factors. Support is increasing for the idea that the decline in infant mortality is the result of a broad range of determinants, many of which result from social policies that were implemented during this period.

Objectives. We evaluated the effects of the Family Health Program (FHP), a strategy for reorganization of primary health care at a nationwide level in Brazil, on infant mortality at a municipality level.

Methods. We collected data on FHP coverage and infant mortality rates for 771 of 5561 Brazilian municipalities from 1996 to 2004. We performed a multivariable regression analysis for panel data with a negative binomial response by using fixed-effects models that controlled for demographic, social, and economic variables.

Results. We observed a statistically significant negative association between FHP coverage and infant mortality rate. After we controlled for potential confounders, the reduction in the infant mortality rate was 13.0%, 16.0%, and 22.0%, respectively for the 3 levels of FHP coverage. The effect of the FHP was greater in municipalities with a higher infant mortality rate and lower human development index at the beginning of the study period.

Conclusions. The FHP had an important effect on reducing the infant mortality rate in Brazilian municipalities from 1996 to 2004. The FHP may also contribute toward reducing health inequalities. (*Am J Public Health.* 2008;99:87-93. doi:

Variables	Infant Mortality Rate		Neonatal Mortality Rate, RR (95% CI)	Postneonatal Mortality Rate, RR (95% CI)
	Crude RR (95% CI)	Adjusted RR (95% CI)		
FHP coverage				
No FHP ^a (Ref)	1.00	1.00	1.00	1.00
Incipient FHP ^b	0.84 (0.82, 0.85)	0.87 (0.86, 0.89)	0.90 (0.89, 0.92)	0.82 (0.80, 0.84)
Intermediate FHP ^c	0.77 (0.75, 0.79)	0.84 (0.82, 0.86)	0.86 (0.84, 0.89)	0.78 (0.75, 0.81)
Consolidate FHP ^d	0.68 (0.64, 0.73)	0.78 (0.73, 0.83)	0.81 (0.76, 0.88)	0.69 (0.62, 0.76)
Total fertility rate ≤2.4 children per childbearing-age woman		0.90 (0.87, 0.93)	0.92 (0.88, 0.95)	0.88 (0.84, 0.92)
Per capita income ≥BR\$258.00		0.92 (0.89, 0.94)	0.93 (0.89, 0.96)	0.89 (0.85, 0.93)
Functional illiterates rate ≤26.0% of individuals aged ≥15 y		0.87 (0.84, 0.89)	0.89 (0.86, 0.92)	0.83 (0.79, 0.87)
Percentage of persons living in households with running water ≥96.0%		0.91 (0.89, 0.93)	0.93 (0.90, 0.95)	0.88 (0.85, 0.91)
Gini index ^e ≤0.55		1.18 (1.14, 1.22)	1.21 (1.16, 1.26)	1.10 (1.05, 1.16)
Local hospitalization		0.88 (0.82, 0.96)	0.88 (0.80, 0.96)	0.94 (0.84, 1.06)

- Associação negativa estatisticamente significativa entre cobertura do ESF e TMI, no período de 1996 a 2004:

- Incipiente - **13%** (IC 95% 11% - 14%)
- Intermediário - **16%** (IC 95% 14% - 18%)
- Consolidado - **22%** (IC 95% 17% - 27%)

- Mortalidade pós-neonatal: **18%, 22% e 31%**

- Maior efeito em municípios com maior TMI e menor IDH: redução de inequidades.

- Consultas médicas, atividades educativas, visitas domiciliares, atenção pré-natal e cobertura vacinal

The Health Effects Of Decentralizing Primary Care In Brazil

When ambulatory care facilities are turned over to local control, a locality's infant mortality rate appears to improve.

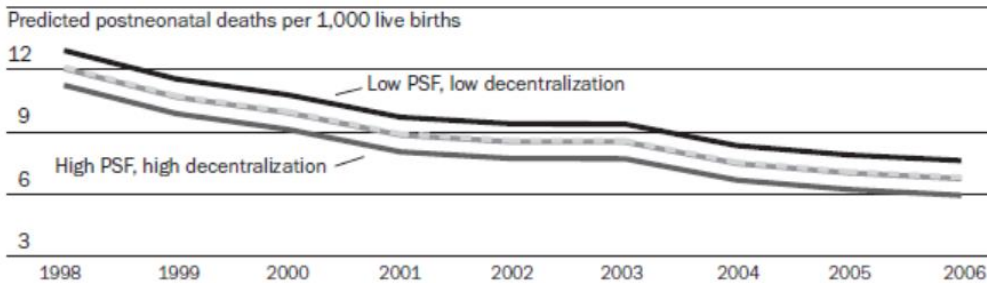
by Frederico C. Guanais and James Macinko

ABSTRACT: A renewed focus on primary health care could lead to improved health outcomes in developing countries. Moving more control to local authorities, or decentralization, is one approach to expanding primary care's reach. Proponents argue that it increases responsiveness to local needs and helps local resources reach those in need. Critics argue that it might increase fragmentation and disparities and provide opportunities for local economic and political

rounding decentral programs identified [Health Affairs 28,

EXHIBIT 4

Average Predicted Postneonatal Mortality Rates Per 1,000 Live Births In Brazil, At Different Levels Of Administrative Decentralization And Family Health Program (PSF) Coverage, 1998-2006



SOURCE: Authors' calculations using data from Brazilian Ministries of Health and Finance, Brazilian Institute for Applied Economic Research, and Brazilian Census Bureau.

NOTES: Predicted values for postneonatal infant mortality, controlling for all other control variables (see Exhibit 2). High level of PSF coverage is defined as population coverage of 75 percent or more; high administrative decentralization is defined as the top fiftieth percentile of municipal control of ambulatory control facilities. Low PSF, high decentralization and high PSF, low decentralization are so close in value that the two graph lines are indistinguishable from each other. Low PSF, high decentralization is plotted as a gray dotted line; high PSF, low decentralization, as a solid gray line.

- O declínio da mortalidade pós-neonatal foi maior em municípios com alto nível de descentralização e alta cobertura de ESF (11,2 para 5,9 por 1000 NV) em comparação aos municípios com baixo nível de descentralização e de cobertura de ESF (12.87 to 7.57 por 1000 NV), no período de 1998 a 2006.
- Os dois processos tem efeitos independentes na redução da TMI pós-neonatal, mas maiores reduções foram observadas na presença de ambos.

Reducing Childhood Mortality From Diarrhea and Lower Respiratory Tract Infections in Brazil

AUTHORS: Davide Rasella, MPH, Rosana Aquino, MD, PhD, and Mauricio L. Barreto, MD, PhD

Instituto de Saúde Coletiva, Federal University of Bahia, Salvador, Brazil

KEY WORDS

primary health care, family health program, Brazil, health services evaluation, under-5 mortality, diarrhea, lower respiratory infections

ABBREVIATIONS

PHC—primary health care
FHP—Family Health Program
BR—Brazilian reais

www.pediatrics.org/cgi/doi/10.1542/peds.2009-3197

doi:10.1542/peds.2009-3197

Accepted for publication May 14, 2010

Address correspondence to Davide Rasella, MPH, Instituto de Saúde Coletiva, Federal University of Bahia, Rua Basílio da Gama, Salvador, CEP 40.110-040 Bahia, Brazil. E-mail: davide.rasella@gmail.com

PEDIATRICS ISSN Numbers: Print, 0031-4005; Online, 1098-4275.

Copyright © 2010 by the American Academy of Pediatrics
FINANCIAL DISCLOSURE: The authors have no financial relationships relevant to this article.

TABLE 3 Fixed-Effect Negative Binomial Models for Association Between Causes of Mortality of Children Younger Than 5 Years and FHP Coverage: Brazil, 2000–2005

Variables	Mortality From Diarrheal Diseases, RR (95% CI)	Mortality From Lower Respiratory Infections, RR (95% CI)	Mortality From Injuries, RR (95% CI)
Crude			
FHP coverage	1.00	1.00	1.00
No FHP ^a	0.84 (0.75–0.94)	0.84 (0.78–0.91)	1.04 (0.98–1.13)
Low ^b	0.75 (0.66–0.85)	0.75 (0.68–0.82)	0.91 (0.83–1.00)
Intermediate ^c	0.61 (0.53–0.70)	0.74 (0.66–0.83)	0.99 (0.89–1.11)
High ^d			
Adjusted^e			
FHP coverage	1.00	1.00	1.00
No FHP ^a	0.89 (0.79–1.00)	0.87 (0.80–0.94)	1.05 (0.97–1.13)
Low ^b	0.82 (0.73–0.94)	0.80 (0.72–0.88)	0.92 (0.84–1.01)
Intermediate ^c	0.69 (0.60–0.80)	0.81 (0.72–0.92)	1.01 (0.89–1.14)
High ^d			
No. of observations	8130	10 074	10 998
No. of municipalities	1355	1679	1833

CI indicates confidence interval; RR, rate ratio.

^a Coverage equal to 0% of the population.

^b Coverage of <30% of the municipal population.

^c Coverage of 30% to 69.9% of the municipal population.

^d Coverage of ≥70% of the municipal population.

^e Models adjusted for total fertility rate, per capita income (monthly), percentage of functional illiterates among individuals older than 15, percentage of individuals living in households with running water, percentage of individuals living in households with sewerage, and local hospitalizations.

WHAT'S KNOWN ON THIS SUBJECT: The FHP, one of largest PHC programs in the world, was created in Brazil in 1994 and experienced a dramatic expansion, but few studies have analyzed its general impact, and none has analyzed specific causes of preventable mortality.

WHAT THIS STUDY ADDS: The FHP succeeded in reducing mortality rates for children younger than 5 years in Brazil; it had a stronger effect on diarrheal diseases and lower respiratory infections, even after controlling for environmental, social, and economic variables.

abstract

OBJECTIVE: To evaluate the effects of the Family Health Program (FHP), a strategy for reorganization of primary health care in Brazil, on mortality of children younger than 5 years, particularly from diarrheal

age from 2000 to n municipalities variable regres- a negative bino- emographic and

- Associação estatisticamente significativa entre cobertura da ESF (baixa, intermediária e alta) e TMM5 no período de 2000 a 2005: -4% (IC 95% 2-6%); 9% (IC 95%: 7% - 12%) e 13% (IC 95% 10% -15%)
- Maior efeito sobre a mortalidade pós-natal - 7%, 12% e 17%
- Mortalidade de doenças diarreicas - 11%, 18% e 31%
- IRA: 13%, 20% e 19%

Internações por condições sensíveis:

- **Diversos estudos demonstraram impacto da ESF nas ICSAP, mas existem controvérsias;**
- **Complexidade do fenômeno: acesso a internações e gravidade dos eventos;**
- **Construção do indicador de ICSAP.**

Trends in Primary Health Care-sensitive Conditions in Brazil

The Role of the Family Health Program (Project ICSAP-Brazil)

Ines Dourado, MD, MPH, PhD, Veneza B. Oliveira, MD, PhD,† Rosana Aquino, MD, PhD,*
Palmira Bonolo, MD, PhD,‡ Maria Fernanda Lima-Costa, MD, PhD,†
Maria Guadalupe Medina, MD, PhD,* Eduardo Mota, MD, PhD,*
Maria A. Turci, MSc,† and James Macinko, PhD§*

Background: This study describes trends in hospital admission rates for primary healthcare-sensitive conditions (PHCSC) in Brazil.

Objectives: To evaluate the impact of increased primary healthcare availability through the implementation of the Family Health Program (FHP) on PHCSC admissions rates at the national, regional, and state-levels between 1999 and 2007.

Research Design: An ecologic panel data study was used and a fixed effects multivariate negative binomial model was used to estimate the association of PHCSC admission rate and FHP controlling for other relevant covariates.

(Med Care 2011;49: 577–584)

Indicators of some types of hospital activity have long been used as a way to measure the effectiveness of ambulatory care. One of these indicators, hospitalization for ambulatory care-sensitive conditions, was developed in the 1990s in the United States as a corollary of the concept of avoidable mortality and has been used as a measure of access and quality of primary care, both internationally^{1–3} and in Brazil.^{4–6}

The use of ambulatory care-sensitive conditions is based on the premise that timely and high-quality primary healthcare can help to avoid hospital admissions altogether or at least reduce their frequency for some health problems

- **De 1999 a 2007 (nacional e regiões): decréscimo das taxas de ICSAP (183,9 a 143,3) e não-ICSAP (394,6 a 368,6 por 10 mil hab).**
- **Associação da ESF com redução das ICSAP.**

Major Expansion Of Primary Care In Brazil Linked To Decline In Unnecessary Hospitalization

ABSTRACT In 1994 Brazil launched what has since become the world's largest community-based primary health care program. Under the Family Health Program, teams consisting of at least one physician, one nurse, a medical assistant, and four to six trained community health agents deliver most of their services at community-based clinics. They also make regular home visits and conduct neighborhood health promotion activities. This study finds that during 1999–2007, hospitalizations in Brazil for ambulatory care–sensitive chronic diseases, including cardiovascular disease, stroke, and asthma, fell at a rate that was statistically significant and almost twice the rate of decline in hospitalizations for all other causes. In municipalities with high Family Health Program enrollment, chronic disease hospitalization rates were 13 percent lower than in municipalities with low enrollment, when other factors were held constant. These results suggest that the Family Health Program has improved health system performance in Brazil by reducing the number of potential

EXHIBIT 3

Ambulatory Care–Sensitive Hospitalization Rates For All Chronic Conditions, By Level Of Family Health Program Enrollment In Brazil, 1999–2007

Quintile of municipalities by enrollment	Adjusted prevalence ratio compared to quintile 1 (lowest enrollment)
Quintile 2	0.96
Quintile 3	0.92
Quintile 4	0.89
Quintile 5 (highest enrollment)	0.87

SOURCES Brazilian Ministry of Health, Institute for Applied Economic Research, and Brazilian Institute of Geography and Statistics. **NOTES** All adjusted prevalence ratios are significant ($p < 0.001$). Results from fixed-effects negative binomial regression of hospitalizations per municipality, controlling for log population size, age distribution, hospital beds per 10,000, clean water, female illiteracy rates, log income, and years (1999 as reference). Family Health Program enrollment estimated using instrumental-variable approach described in text

- Municípios com alta cobertura de ESF (quartil 5) tiveram **13% de redução da taxa de hospitalização por doenças crônicas** em comparação com municípios com baixa cobertura (quartil 1)
- Maior cobertura de ESF esteve associado com **23% de redução nas hospitalizações por asma**.
- Redução nas taxas de hospitalização por AVC (1 a 4%) e outras doenças cardiovasculares (2 a 9%) foram menores mas ES.
- Pequeno aumento, no quintil 5, nas taxas de hospitalizações por HAS (2%), DM (9%) e DPOC (3%)

Impact of primary health care on mortality from heart and cerebrovascular diseases in Brazil: a nationwide analysis of longitudinal data

 OPEN ACCESS

Davide Rasella *postdoctoral researcher*¹, Michael O Harhay *PhD student*³, Marina L Pamponet *researcher*¹, Rosana Aquino *associate professor*^{1,2}, Mauricio L Barreto *professor*^{1,2}

¹Instituto de Saúde Coletiva, Federal University of Bahia, Rua Basílio da Gama, s/n, Salvador, Bahia, Brazil; ²Ciência, Tecnologia e Inovação em Saúde, INCT-CITECS, Salvador, Bahia, Brazil; ³Center for Clinical Epidemiology and Biostatistics, University of Pennsylvania School of Medicine, Philadelphia, USA

Table 3 | Fixed effect negative binomial models for adjusted association* between standardised mortality rates and average coverage of Family Health Program (FHP) in 1622 selected municipalities in Brazil, 2000-09

Variables	Adjusted rate ratio (95% CI)		
	Cerebrovascular diseases mortality rate	Heart diseases mortality rate	Accidents mortality rate
Average FHP population coverage in past 4 years:			
No coverage	1	1	1
Incipient (>0 to <30%)	0.92 (0.89 to 0.95)	0.92 (0.88 to 0.96)	0.99 (0.96 to 1.02)
Intermediate (≥30% to <70%)	0.83 (0.80 to 0.86)	0.81 (0.78 to 0.85)	0.99 (0.96 to 1.02)
Consolidated (≥70%)	0.77 (0.74 to 0.81)	0.75 (0.71 to 0.79)	1.02 (0.98 to 1.07)
Average FHP population coverage in past 6 years:			
No coverage	1	1	1
Incipient (>0 to <30%)	0.90 (0.87 to 0.92)	0.90 (0.86 to 0.94)	0.99 (0.96 to 1.02)
Intermediate (≥30% to <70%)	0.82 (0.79 to 0.85)	0.79 (0.75 to 0.82)	1.00 (0.97 to 1.03)
Consolidated (≥70%)	0.73 (0.70 to 0.76)	0.69 (0.65 to 0.73)	1.03 (0.98 to 1.07)
Average FHP population coverage in past 8 years:			
No coverage	1	1	1
Incipient (>0 to <30%)	0.89 (0.86 to 0.92)	0.89 (0.85 to 0.93)	1.00 (0.97 to 1.03)
Intermediate (≥30% to <70%)	0.81 (0.78 to 0.84)	0.78 (0.75 to 0.83)	1.01 (0.97 to 1.04)
Consolidated (≥70%)	0.69 (0.66 to 0.73)	0.64 (0.59 to 0.68)	1.02 (0.98 to 1.07)
No of observations	16 220	16 150	16 220
No of municipalities	1622	1615	1622

*Models adjusted for percentage of population below poverty line, per capita income (monthly), percentage of population having basic household appliances, percentage in households with inadequate sanitation, percentage illiteracy among >15 year olds, presence of local hospital beds, number of physicians per 1000 inhabitants, urbanisation rate, percentage highly educated among >25 year olds, and presence of tomography and ultrasonography in the municipality.

- Cobertura da ESF negativamente associada com taxa de mortalidade por doenças cerebrovasculares e cardíacas e não associado com mortalidade por acidente (usado como controle).
- ESF consolidado (cobertura anual e nos últimos 8 anos) e mortalidade:
 - Doença cerebrovascular: 0,82 (IC 95% 0,79-0,86) a 0,69 (IC95% 0,66 – 0,73)
 - Doença cardíaca: 0,79 (IC 95% 0,75-0,80) a 0,64 (IC 95% 0,59-0,68);
 - Redução nas hospitalizações por estas afecções.
- ESF cobertura e aumento de ações de saúde: atividades educativas, visitas domiciliares, consultas médicas.

Hospitalizations of children due to primary health care sensitive conditions in Pernambuco State, Northeast Brazil

Internações hospitalares de crianças por condições sensíveis à atenção primária à saúde em Pernambuco, Nordeste do Brasil

Hospitalizaciones de niños por condiciones sensibles a la atención primaria de salud en el Estado de Pernambuco, Nordeste de Brasil

Suzana Costa Carvalho ¹
 Eduardo Mota ¹
 Inês Dourado ¹
 Rosana Aquino ¹
 Carlos Teles ¹
 Maria Guadalupe Medina ¹

Cad. Saúde Pública, Rio de Janeiro, 31(4):744-754, abr, 2015

Table 2

Crude and adjusted rate ratios (RR) obtained by negative binomial regression for the association of the hospitalizations for primary care sensitive conditions rate in children under five with Family Health Program (FHP) coverage and demographic data, living conditions and the supply and use of healthcare services in Pernambuco State municipalities, Northeast Brazil, 1999 to 2009.

Variable	Bivariate analysis	Adjusted multivariate analysis
	RR (95%CI)	RR (95%CI)
FHP coverage *		
Incipient	1.00	1.00
Intermediate	0.88 ** (0.85-0.91)	0.96 *** (0.93-0.99)
Consolidated	0.70 ** (0.67-0.73)	0.94 *** (0.89-0.99)
Percentage of population under five #		
≤ 9.6	1.00	1.00
> 9.6 ≤ 10.5	1.40 ** (1.31-1.49)	1.19 ** (1.12-1.27)
> 10.5 ≤ 11.4	1.69 ** (1.57-1.83)	1.25 ** (1.15-1.35)
> 11.4	2.08 ** (1.90-2.27)	1.30 ** (1.17-1.43)

- **44,1% das internações foram por ICSAP (557,6 - 318,9, redução de -42,8%), 3 vezes maior do que nas outras internações.**
- **Maior cobertura da ESF apresentou efeito protetor contra ICSAP (razão de taxa = 0,94; IC95%: 0,89-0,99).**
- **A diminuição de ICSAP - melhoria na situação de saúde e pode estar associada à consolidação da ESF.**
- **Necessidade de estudar acesso e qualidade da APS**

Does expanding primary healthcare improve hospital efficiency? Evidence from a panel analysis of avoidable hospitalisations in 5506 municipalities in Brazil, 2000–2014

Everton Nunes da Silva,² Timothy Powell-Jackson¹

What are the new findings?

- ▶ We found that expansion of primary care through the FHS was not associated with a reduction in avoidable hospitalisations in Brazil.
- ▶ The findings suggest that the increase in primary care consultations did not substitute for avoidable hospitalisations; if anything, they facilitated more access to hospitals, perhaps through referrals and increased case detection.

Recommendations for policy

- ▶ The findings challenge the idea that primary healthcare will automatically address hospital inefficiencies through reductions in avoidable hospitalisations.

- **Expansão da atenção primária através da ESF não estava associada a uma redução de hospitalizações evitáveis no Brasil.**
- **Os aumento das consultas de APS encontrada podem estar associado com maior facilidade de acesso a hospitais, de referências e maior detecção de casos.**

Revisão sistemática sobre APS

(Bastos e cols., 2017)

- Considerável evidência sobre associação entre ESF e redução da TMI e TMM5, principalmente com a mortalidade pós-neonatal;
- A associação da ESF e ICSAP é menos clara, mas a maioria dos estudos reportaram redução das taxas de ICSAP;
 - COMPLEXIDADE NA CADEIA CAUSAL;
 - CONDIÇÕES DOS MUNICÍPIOS, ESPECIALMENTE, DISPONIBILIDADE DE LEITOS, PROFISSIONAIS DE SAÚDE E CONDIÇÕES DO DIAGNÓSTICO;
 - EFEITOS DA ESF SOBRE AS CONDIÇÕES CRÔNICAS PODEM ENVOLVER LONGOS PERÍODOS DE TEMPO.

Acesso e qualidade dos serviços de saúde:

- **Ampliação do acesso às ações e serviços básicos de saúde;**
- **Unidade de saúde da família como fonte usual de cuidado;**
- **Elenco de ações e serviços de saúde.**

A Cobertura da Estratégia de Saúde da Família (ESF) no Brasil, segundo a Pesquisa Nacional de Saúde, 2013

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

Deborah Carvalho Malta ¹
 Maria Aline Siqueira Santos ²
 Sheila Rizzato Stopa ³
 José Eudes Barroso Vieira ⁴
 Eduardo Alves Melo ⁵
 Ademar Arthur Chioro dos Re

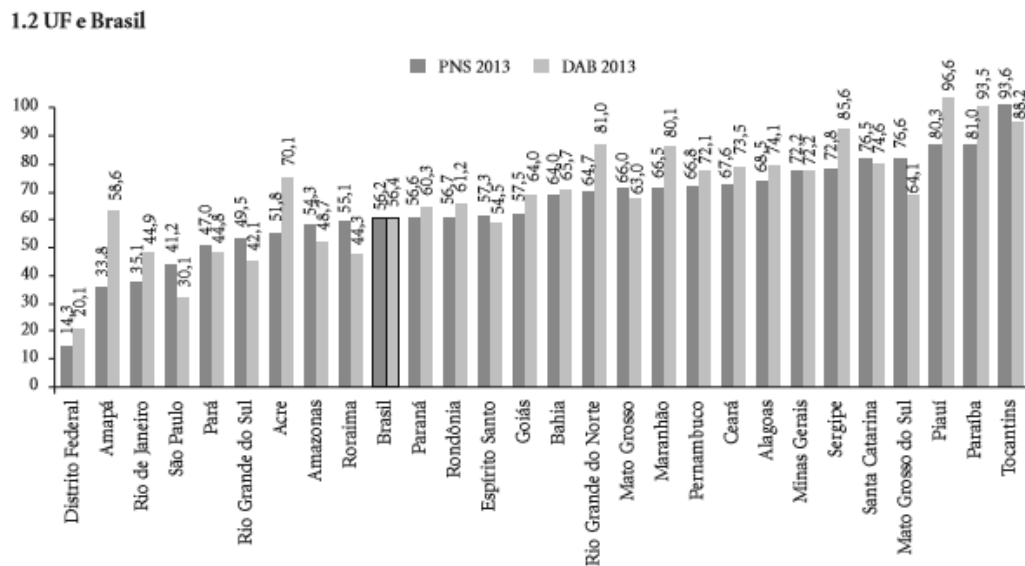


Figura 1. Comparação da proporção de pessoas moradoras em domicílios cadastrados em unidade de saúde da família, segundo PNS e dados do DAB/MS*, para capitais e total de capitais; e para UF e Brasil – 2013.

- Proporção de domicílios cadastrados em USF no Brasil: 53,4% (IC95%: 52,1-54,6), maior na área rural (70,9%) que na urbana (50,6%).
- NE (64,7%), Sul (56,2%), CO (53,2%), N (51,5 %) e SE (46,0%).
- Escolaridade do chefe: menos de 1 ano (66,3%), nível médio completo ou equivalente (48,3%) e superior completo (26,6%).

The effect of the Family Health Strategy on usual source of care in Brazil: data from the 2013 National Health Survey (PNS 2013)



Inês Dourado*, Maria Guadalupe Medina and Rosana Aquino

Abstract

Background: A usual source of care (USC) has been conceptualized as having a health provider or place available for patients to consult when sick or in need of medical care. Having a USC is a means to achieve longitudinality of care with Primary Health Care (PHC) providers. Brazil has made enormous progress in PHC and thus provides an important opportunity to investigate USC in a middle-income country context.

Methods: This study uses data from a nationally representative household survey, the 2013 National Health Survey ($n = 62,986$), to describe the prevalence of having a USC in Brazil and to investigate to what extent the Family Health Strategy (FHS) has contributed to USC prevalence. Analyses include descriptive, bivariate and multivariable Poisson regression.

Results: Show very high rates of people reporting any type of USC (74.4 %) and more than one third reporting PHC as their USC. Household enrolment in the FHS was positively associated with having any USC (PR:1.09; 95 % CI: 1.07–1.12) and a stronger association with having PHC as the regular source of care (PR:1.63;95 % CI:1.54–1.73). FHS enrolment was negatively associated with reporting emergency/urgent care facilities as one's USC (PR: 0.67; 95 % CI: 0.59–0.76). The association between the more consolidated FHS with having a USC was strongest in the poorest regions of the country (North, Northeast and Central-West). Having PHC as one's USC showed a positive dose-response relationship with the FHS in all regions, especially in the Central-West.

Conclusions: Our results have important implications for the health care model in Brazil and in other countries, especially those seeking to base their national health systems more strongly on primary health care. The study suggests expanding primary health care can increase the establishment of a USC which can help assure better monitoring of chronic conditions and attention to patient needs.

Keywords: Usual source of care (USC), Primary health care, Family health strategy, National health survey, Brazil

- A maioria da população (**74,5%**) relata ter uma fonte usual de cuidado:
 - APS = **35,5%**
- Domicílio cadastrado na ESF:
 - Fonte usual de cuidado = **PR: 1,09; IC 95%: 1,07-1,12**
 - APS = **PR: 1,63; IC 95%: 1,54-1,73**
 - Emergência/urgência: **PR: 0,67; IC 95% 0,59-0,76**

A associação ESF consolidado e USC: mais forte nas regiões mais pobres (N, NE e CO).

Ter APS como USC e ESF: relação dose-resposta positiva em todas as regiões, especialmente no Centro-Oeste

Table 3 Prevalence ratios (PR) from poisson regression models for the association between FHS enrollment and USC, stratified by Country Region. Brazil 2013

Usual source of care	Any USC			Primary Health Provider			Private Provider			Not emergency care			Emergency room/urgent care		
	PR*	95 % CI		PR*	95 % CI		PR*	95 % CI		PR*	95 % CI		PR*	95 % CI	
Level of FHS*** enrollment															
Incipient (vs not enrolled)	1,06	1,03	1,09	1,45	1,36	1,55	0,85	0,79	0,92	1,13	1,09	1,17	0,81	0,71	0,91
Consolidated	1,09	1,07	1,12	1,63	1,54	1,73	0,74	0,68	0,81	1,20	1,17	1,24	0,67	0,59	0,76

Promoção da saúde e prevenção de doenças crônicas: o que fazem as equipes de Saúde da Família?

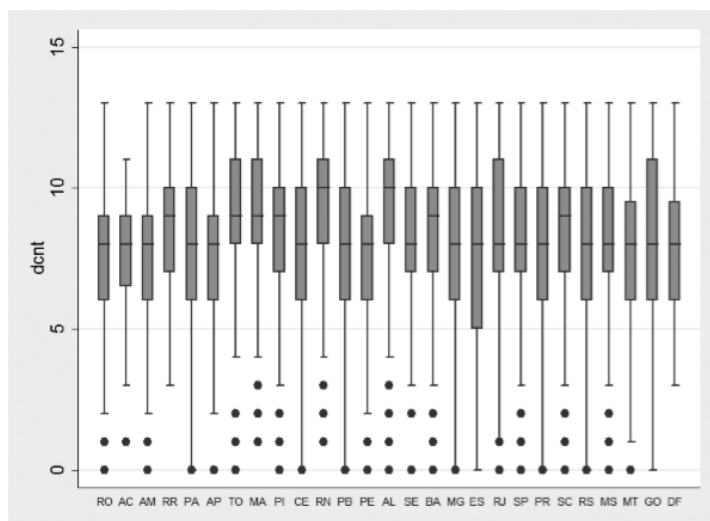
Health promotion and chronic disease prevention: what are Family Health teams doing?

Maria Guadalupe Medina¹, Rosana Aquino², Ana Luiza Queiroz Vilasbôas³, Eduardo Mota⁴, Elzo Pereira Pinto Júnior⁵, Leandro Alves da Luz⁶, Davilyn Santos Oliveira dos Anjos⁷, Isabela Cardoso de Matos Pinto⁸

RESUMO Este estudo objetiva descrever as ações crônicas realizadas pelas equipes de Saúde da Família e a melhoria do acesso e da qualidade das ações prestadas pelos profissionais de saúde através de comprovação documental. Os dados foram analisados a partir da base de dados do PMAQ-AB. Os resultados mostraram que as ações analisadas, especialmente aquelas realizadas em escolas, além de pouca comprovação documental dessas ações no âmbito das equipes de Saúde da Família.

PALAVRAS-CHAVE Avaliação em saúde crônica; Estratégia Saúde da Família.

Gráfico 1. Box plots da distribuição das equipes de Atenção Básica segundo número de ações de promoção da saúde e prevenção de DCNT e por unidade federada. Brasil, 2012



Fonte: Banco de dados PMAQ-AB, primeiro ciclo, 2012; BRASIL, 2012.

Realização de ações:

- > 70% - ações dirigidas a mulheres (82,1%), homens (87,4%), DM (89,5%), autocuidado (89,6%), HAS (74,6%), e alimentação (71,7%);
- incentivo a atividades físicas (61,0%), práticas corporais (42,7%), ações dirigidas aos idosos (36,5%),
- detecção precoce de HAS (45,7%), avaliação antropométrica (26,2%) e nutricional (21,4%) nas escolas

Realização de 1 ou + ações:

- gerais: 96,0% / 16,1% documentos;
- escolas: 75,3% / 53,7% documentos

Interação com programas sociais:

- **Evidências de interação dos efeitos da ESF e do Programa Bolsa Família na melhoria do estado de saúde da população.**

Effect of a conditional cash transfer programme on childhood mortality: a nationwide analysis of Brazilian municipalities



Davide Rasella, Rosana Aquino, Carlos A T Santos, Rômulo Paes-Sousa, Mauricio L Barreto

Summary

Background In the past 15 years, Brazil has undergone notable social and public health changes, including a large reduction in child mortality. The *Bolsa Família* Programme (BFP) is a widespread conditional cash transfer programme, launched in 2003, which transfers cash to poor households (maximum income US\$70 per person a month) when they comply with conditions related to health and education. Transfers range from \$18 to \$175 per month, depending on the income and composition of the family. We aimed to assess the effect of the BFP on deaths of children younger than 5 years (under-5), overall and resulting from specific causes associated with poverty: malnutrition, diarrhoea, and lower respiratory infections.

Methods The study had a mixed ecological design. It covered the period from 2004–09 and included 2853 (of 5565) municipalities with death and livebirth statistics of adequate quality. We used government sources to calculate all-cause under-5 mortality rates and under-5 mortality rates for selected causes. BFP coverage was classified as low (0–17.1%), intermediate (17.2–32.0%), high (>32.0%), or consolidated (>32.0% and target population coverage ≥100% for at least 4 years). We did multivariable regression analyses of panel data with fixed-effects negative binomial models, adjusted for relevant social and economic covariates, and for the effect of the largest primary health-care scheme in the country (Family Health Programme).

Findings Under-5 mortality rate, overall, increased. The rate ratios (RR) for the effect of intermediate coverage, 0.88 (0.85–0.91) for consolidated BFP coverage was 0.24–0.50) and diarrhoea (0.47; 0.37–0.59).

Interpretation A conditional cash transfer programme, overall, and in particular for deaths at large middle-income country such as Brazil.

Funding National Institutes of Science and Technological Development.

Published Online
May 15, 2013
[http://dx.doi.org/10.1016/S0140-6736\(13\)60715-1](http://dx.doi.org/10.1016/S0140-6736(13)60715-1)
See Online/Comment
[http://dx.doi.org/10.1016/S0140-6736\(13\)61035-1](http://dx.doi.org/10.1016/S0140-6736(13)61035-1)
Instituto de Saúde Coletiva,
Federal University of Bahia,
Salvador, Bahia, Brazil
(D Rasella PhD, R Aquino MD,
C A T Santos PhD);
Prof M L Barreto MD);
Department of Exact Sciences,
State University of Feira de
Santana, Feira de Santana,
Bahia, Brazil (C A T Santos);
Instituto de Saúde Coletiva

	BFP models		FHP models		FHP and BFP (adjusted)
	Crude	Adjusted	Crude	Adjusted	
BFP population coverage					
Low (0.0–17.1%)	1.00	1.00	–	–	1.00
Intermediate (17.2–32.0%)	0.91 (0.90–0.93)	0.93 (0.91–0.95)	–	–	0.94 (0.92–0.96)
High (>32.0%)	0.82 (0.80–0.85)	0.86 (0.83–0.89)	–	–	0.88 (0.85–0.91)
Consolidated (>32.0% and TPC ≥100% for at least 4 years)	0.76 (0.72–0.80)	0.81 (0.76–0.85)	–	–	0.83 (0.79–0.88)
FHP municipality population coverage					
No FHP (0.0%)	–	–	1.00	1.00	1.00
Incipient (<30%)	–	–	0.97 (0.92–1.02)	0.98 (0.94–1.03)	0.99 (0.94–1.04)
Intermediate (≥30%)	–	–	0.89 (0.85–0.93)	0.91 (0.87–0.96)	0.93 (0.88–0.97)
Consolidated (≥70% and implemented for at least 4 years)	–	–	0.81 (0.77–0.86)	0.85 (0.80–0.90)	0.88 (0.83–0.93)
Income per person (monthly, >BRS\$380)*	–	0.94 (0.92–0.97)	–	0.93 (0.91–0.96)	0.95 (0.92–0.97)
Proportion of municipality population eligible for BFP* >22.4%	–	1.07 (1.02–1.11)	–	1.10 (1.06–1.15)	1.07 (1.03–1.12)
Proportion of individuals living in households with inadequate sanitation* <16.7%	–	1.10 (1.05–1.15)	–	1.11 (1.06–1.16)	1.10 (1.05–1.15)
Proportion of individuals older than 15 years who are illiterate† >11.1%	–	1.04 (1.00–1.09)	–	1.05 (1.01–1.10)	1.04 (1.00–1.08)
Total fertility rate† >2.32	–	1.08 (1.04–1.11)	–	1.08 (1.05–1.12)	1.07 (1.03–1.10)
Rate of admission to hospital (per 100 inhabitants)* >4.27	–	1.02 (0.99–1.04)	–	1.02 (0.99–1.04)	1.01 (0.99–1.04)
Number of observations	17 118	17 118	17 118	17 118	17 118
Number of municipalities	2853	2853	2853	2853	2853

Data are rate ratio (95% CI) unless otherwise specified. TPC=target population coverage. *Cutoff is median value. †Cutoff taken from Rasella and colleagues, 2010.¹²

Table 2: Fixed-effect negative binomial models for association between under-5 mortality rates and Bolsa Família Programme (BFP) and Family Health Programme (FHP) coverage

- Redução da TMM5 associada com PBF (0,81 IC95% 0,76–0,85) e ESF (0,81 IC95% 0,77–0,86), sendo maior no nível consolidado, e não associados com causas externas (controle). Maior efeito do PBF sobre desnutrição e do PSF sobre diarreia e IRA.

- Interação do PBF e ESF e redução da TMM5 (0,95, IC95% 0,91–0,99)

The Combined Effects of the Expansion of Primary Health Care and Conditional Cash Transfers on Infant Mortality in Brazil, 1998–2010

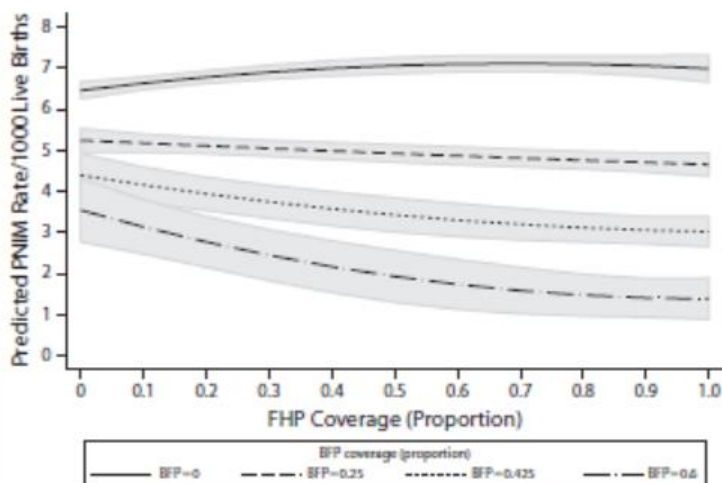
Frederico C. Guanais, PhD

Income inequality in Brazil is among the highest in the world, and major inequalities of health status across socioeconomic levels are pervasive despite improvements associated with an expansion in health and social programs since the late 1990s.³² In 1988, a newly drafted federal constitution mandated universal access to health care, leading to the creation of the Unified Health System. The main driver of the early implementation of the Unified Health System was expansion of primary health care, mainly through the Family Health Program (FHP) introduced in 1994. Currently the FHP has 109.3 million registered users (57.3% of the Brazilian population). The program finances primary care services by team of health professionals composed of physician nurses, technicians, and community health agents serving specific catchment areas. Pre-

Objectives. I examined the combined effects of access to primary care through the Family Health Program (FHP) and conditional cash transfers from the *Bolsa Família* Program (BFP) on postneonatal infant mortality (PNIM) in Brazil.

Methods. I employed longitudinal ecological analysis using panel data from 4583 Brazilian municipalities from 1998 to 2010, totaling 54 253 observations. I estimated fixed-effects ordinary least squares regressions models with PNIM rate as the dependent variable and FHP, BFP, and their interactions as the main independent variables of interest.

Results. The association of higher FHP coverage with lower PNIM became stronger as BFP coverage increased. At the means of all other variables, when BFP coverage was 25%, predicted PNIM was 5.24 (95% confidence interval [CI]=4.95, 5.53) for FHP coverage=0% and 3.54 (95% CI=2.77, 4.31) for FHP coverage=100%. When BFP coverage was 60%, predicted PNIM was 4.65



Note. BFP = Bolsa Família Program; FHP = Family Health Program. Predictive margins calculated for parameter estimates from model 5. Shaded areas represent 95% confidence intervals.

FIGURE 1—Predictive margins of postneonatal infant mortality (PNIM) rate by Family Health and Bolsa Família program coverage: Brazil, 1998–2010.

- A associação do aumento da cobertura da ESF e redução da TMI pós-neonatal torna-se mais forte com o aumento da cobertura do PBF.

- Cobertura de PBF = 25%
 - ESF=0% - TMIP = 5,24 (IC95% 4,95, 5,53)
 - ESF=100% - TMIP = 3,54 (IC95% 2,77, 4,31)
- Cobertura de PSF = 60%
 - ESF=0% - TMIP = 4,65 (IC95% 4,36, 4,94)
 - ESF=100% - TMIP = 1,38 (IC95% 0,88, 1,89)
- Combinação de efeitos da ESF e PBF na redução da mortalidade infantil.

Effect of the Brazilian Conditional Cash Transfer and Primary Health Care Programs on the New Case Detection Rate of Leprosy

Joilda Silva Nery^{1*}, Susan Martins Pereira¹, Davide Rasella¹, Maria Lúcia Fernandes Penna², Rosana Aquino¹, Laura Cunha Rodrigues³, Mauricio Lima Barreto¹, Gerson Oliveira Penna⁴

¹ Federal University of Bahia, Institute of Collective Health, Salvador, Bahia, Brazil, ² Fluminense Federal University, Health Sciences Center, Institute of Community Health, Niterói, Rio de Janeiro, Brazil, ³ London School of Hygiene and Tropical Medicine, Department Infectious and Tropical Diseases, London, United Kingdom, ⁴ University of Brasília, Tropical Medicine Center, Brasília, Distrito Federal, Brazil

Abstract

Background: Social determinants can affect the transmission of leprosy and its progression to disease. Not much is known about the effectiveness of welfare and primary health care policies on the reduction of leprosy occurrence. The aim of this study is to evaluate the impact of the Brazilian cash transfer (Bolsa Família Program-BFP) and primary health care (Family Health Program-FHP) programs on new case detection rate of leprosy.

Methodology/Principal Findings: We conducted the study with a mixed ecological design, a combination of an ecological multiple-group and time-trend design in the period 2004–2011 with the Brazilian municipalities as unit of analysis. The main independent variables were the BFP and FHP coverage at the municipal level and the outcome was new case detection rate of leprosy. Leprosy new cases, BFP and FHP coverage, population and other relevant socio-demographic covariates were obtained from national databases. We used fixed-effects negative binomial models for panel data adjusted for relevant socio-demographic covariates. A total of 1,358 municipalities were included in the analysis. In the studied period, while the municipal coverage of BFP and FHP increased, the new case detection rate of leprosy decreased. Leprosy new case detection rate was significantly reduced (RR 0.79; 95% CI = 0.74–0.83) and significantly increased in municipalities with consolidated BFP coverage (RR 1.05; 95% CI = 1.02–1.09) and higher coverage tertile (RR 1.12; 95% CI = 1.08–1.17).

Conclusions: At the same time the FHP coverage increased, the new case detection rate of leprosy in Brazil, the Bolsa Família Program coverage reflects a reduction in leprosy.

Citation: Nery JS, Pereira SM, Rasella D, Penna MLF, et al. (2014) Effect of the Brazilian Conditional Cash Transfer and Primary Health Care Programs on the New Case Detection Rate of Leprosy. PLoS Negl Trop Dis 8(2): e81911. doi:10.1371/journal.pntd.0003357

Editor: Richard O. Phillips, Kwame Nkrumah University of Science and Technology, GHANA

Received: February 8, 2014; **Accepted:** October 18, 2014

Copyright: © 2014 Nery et al. This is an open-access article distributed under the terms of the [Creative Commons Attribution License](http://creativecommons.org/licenses/by/4.0/), which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

Funding: Financial support for the study was provided by Conselho Nacional de Desenvolvimento Científico e Tecnológico (CNPq) (grant number 301307/2012-2). URL: <http://www.cnpq.br/>. JSN's salary was supported by Conselho Nacional de Desenvolvimento Científico e Tecnológico (CNPq) (grant number 301307/2012-2). The funders had no role in study design, data collection and analysis, decision to publish, or preparation of the manuscript.

Competing Interests: The authors have declared that no competing interests exist.

* Email: joilda_nery@yahoo.com.br

Table 3. Fixed-effect negative binomial models for association between new case detection rate of leprosy and Bolsa Família Program and Family Health Program coverage, Brazil 2004–2011.

	New case detection rate of leprosy Risk Ratio (95% CI)				
	BFP Models		FHP Models		BFP and FHP Model
	Crude	Adjusted	Crude	Adjusted	
BFP population coverage					
Low (0.0–27.75%)	1.00	1.00	-	-	1.00
Intermediate (27.76–48.10%)	0.86 (0.84–0.88)	0.90 (0.87–0.92)	-	-	0.89 (0.86–0.91)
High (>= 48.11%)	0.83 (0.80–0.87)	0.87 (0.83–0.90)	-	-	0.85 (0.81–0.88)
Consolidated (>=48.11% and TPC >=100% for at least 4 years)	0.73 (0.69–0.77)	0.81 (0.77–0.85)	-	-	0.79 (0.74–0.83)
Family Health Programme Coverage¹					
1 st tertile (0–72.02%)	-	-	1.00	1.00	1.00
2 st tertile (72.03–95.06%)	-	-	0.99 (0.96–1.02)	1.02 (0.99–1.05)	1.05 (1.02–1.09)
3 st tertile (Over 95.06%)	-	-	1.04 (0.99–1.08)	1.09 (1.05–1.13)	1.12 (1.08–1.17)
Illiteracy rate >= 20.42% *	-	1.12 (1.07–1.18)	-	1.14 (1.08–1.20)	1.12 (1.07–1.18)
Gini Index >= 0.54 *	-	1.07 (1.03–1.11)	-	1.07 (1.03–1.11)	1.07 (1.04–1.11)
Unemployment rate >= 7.47% *	-	1.19 (1.16–1.23)	-	1.20 (1.16–1.23)	1.20 (1.16–1.23)
Urbanization rate >= 59.8% *	-	0.99 (0.93–1.06)	-	1.01 (0.94–1.07)	0.99 (0.93–1.06)
Average number of residents per household >= 3.6 *	-	1.04 (1.01–1.07)	-	1.05 (1.02–1.09)	1.04 (1.01–1.08)
Percent of the population younger than 15 years >= 31.1% *	-	1.11 (1.07–1.14)	-	1.13 (1.10–1.17)	1.12 (1.08–1.15)
Percentage of poor people in the municipality >= 27.42%	-	1.13 (1.09–1.18)	-	1.14 (1.09–1.19)	1.13 (1.08–1.18)
Number of observations	10,808	10,808	10,808	10,808	10,808
Number of municipalities	1,351	1,351	1,351	1,351	1,351

Data are risk ratio (95% CI) unless otherwise specified. TPC = target population coverage. ¹Cutoff taken from tertiles of the distribution of FHP coverage of the total population. *Cutoff is median value.
 The regression model to be estimated was as follows: $Y_{it} = \alpha_i + \beta_1 BFP_{it} + \beta_2 FHP_{it} + \beta_3 X_{it} + \epsilon_{it}$
 Where Y_{it} was the leprosy detection rate for the municipality i in year t ; α_i is the fixed effect for the municipality i that captures all unobserved time-invariant factors, BFP_{it} is the Bolsa Família Program coverage for the municipality i in the year t , FHP_{it} the Family Health Program coverage for the municipality i in the year t , X_{it} was the value of each n covariate of the model with in the municipality i in the year t , and ϵ_{it} was the error.
 doi:10.1371/journal.pntd.0003357.t003

Detecção de novos casos :

- Redução em municípios com PBF consolidado (RR 0.79; 95% CI =0.74–0.83);
- Aumento nos municípios com ESF com média (RR 1.05; 95% CI =1.02–1.09) e alta cobertura (RR 1.12; 95% CI =1.08–1.17).

Conclusão: o ESF tem sido efetiva em aumentar a detectar novos casos, enquanto o PBF tem reduzido a incidência de Hanseníase.

Características dos estudos

- Grande número dos estudos utilizaram desenho ecológico misto, tendo o município como unidade de agregação;
- Estudos ecológicos que utilizaram modelos de painel de dados apresentam boa qualidade, segundo critérios selecionados;
- Comparação é feita através da comparação de níveis de cobertura da ESF em grupos de municípios.

(Medina e cols., 2017; Bastos e cols., 2017)

**De que ameaças estamos
falando?**

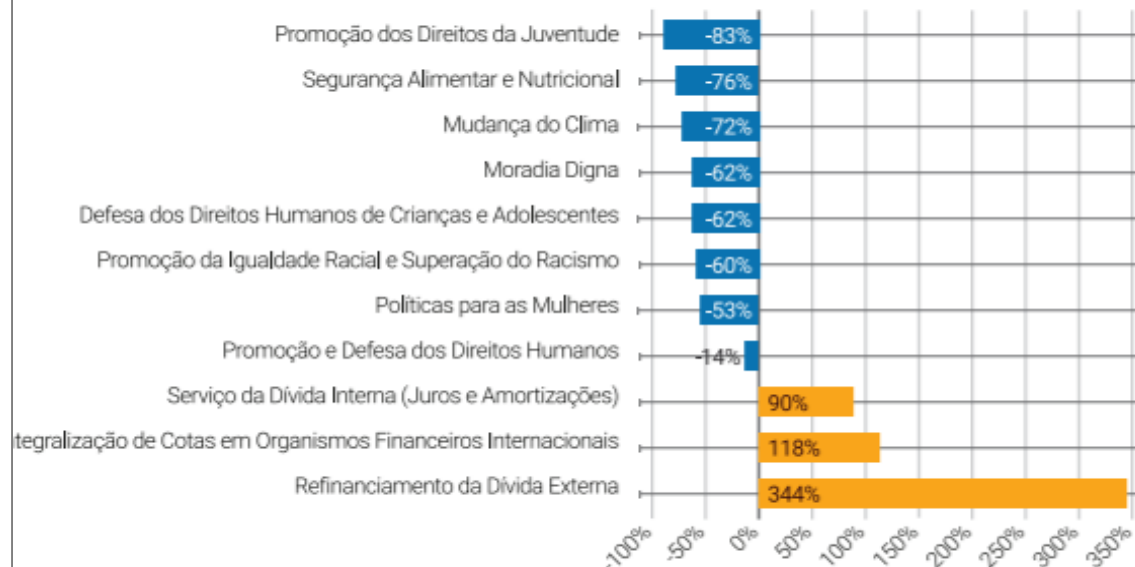


VS



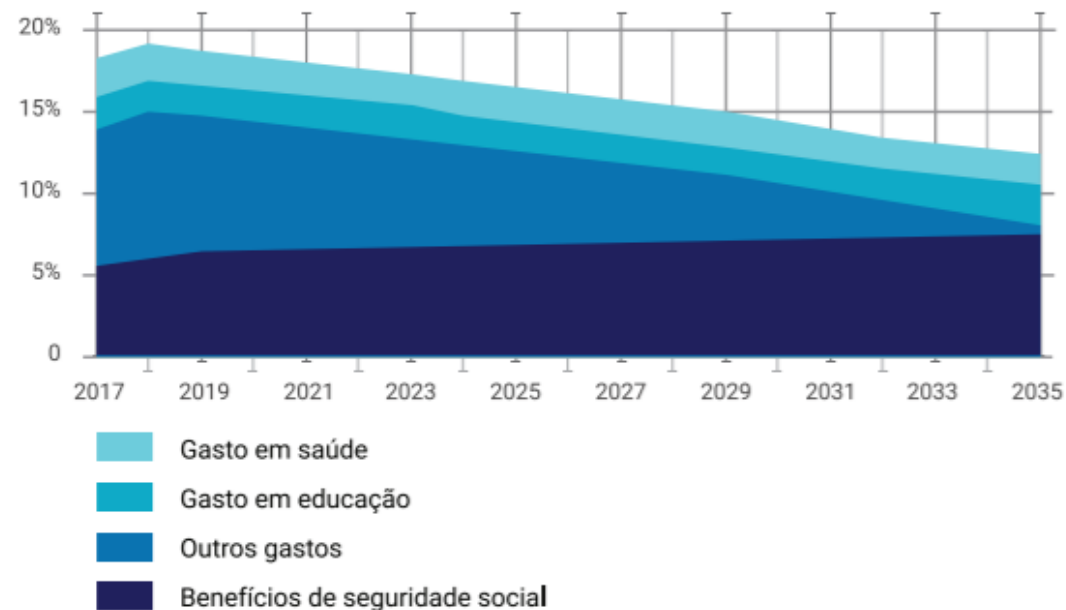
Quais os possíveis cenários?

Fig 10. Variações orçamentárias nominais de programas selecionados do Brasil, 2014-2017.



Fonte: Cálculos dos autores com base em dados de SIGA Brasil.

Fig 11. Gasto social estimado como porcentagem do PIB com a EC 95, 2017-2036.



Fonte: Forum 21 et al, 2016, apud Rossi & Dweck, 2016

PNAB, 2017: os retrocessos

- Indução federal para implantação de outras modalidades de equipes de APS, flexibilização da carga horária dos integrantes das equipes (até profissionais da mesma categoria poderão ser contratados para cumprir as 40h);
- Carteira de serviços essenciais;
- Redução do número de ACS para 1 por equipe – 4 para nas regiões de “vulnerabilidade social”;
- 40% dos 329 mil agentes já possuem qualificação como técnicos em enfermagem e podem realizar as “novas funções”.

O que é estratégico para APS em uma conjuntura de cortes e congelamento de recursos para o SUS?

Estratégico: o que é? para quem?

- financiar o “mundo real”?
- aumentar a participação do setor privado?
- “flexibilizar” as diretrizes nacionais = “adequação” da APS às restrições orçamentárias dos municípios?
- criar “padrões mínimos” para APS abaixo dos padrões vigentes desde 1993?
 - Modalidades de equipes;
 - Cesta de serviços básicos.

- APS como porta de entrada para redes regionalizadas e integradas que garantam acesso universal e a atenção às necessidades de saúde da população;
- Equidade na distribuição de serviços de saúde – áreas remotas e desassistidas;
- APS resolutiva e de qualidade
 - promoção da saúde e prestação de cuidado;
 - equipes multiprofissionais qualificadas.

**Quais os desafios na elaboração
de uma agenda estratégica para
pesquisa em APS?**

Avaliação do impacto da APS

- **Compromisso da pesquisa com a defesa do SUS e da saúde da população;**
- **Desigualdades regionais -> infra-municipais: eixo fundamental;**
 - **Consolidação da APS (e possíveis mudanças) difere segundo os contextos regionais, estaduais e locais;**
 - **Entender a heterogeneidade dos impactos da APS;**
 - **Análise de populações beneficiárias – populações cobertas e não cobertas.**

Avaliação do impacto da APS

- **Estratégias metodológicas para mensurar e atribuir o impacto às intervenções avaliadas;**
 - **definição da intervenção – avançar em indicadores para além da cobertura potencial das equipas de APS;**
 - **estabelecimento de contrafactuais rigorosos;**
 - **Dispositivos que conectem informações dos indivíduos e de suas unidades de atenção primária à saúde de referência (e-SUS).**
- **Abordagem dos mecanismos que possam explicar os impactos da APS;**
 - **diferentes conformações das equipas de atenção primária à saúde;**
 - **uso de diferentes metodologias quantitativas e qualitativas.**

SEMINÁRIO PREPARATÓRIO

Obrigada!
Rosana Aquino
aquino@ufba.br



DE ALMA ATA À ESTRATÉGIA
SÚMULA DE FAMÍLIA: 30 ANOS DE
APS NO SUS – AVANÇOS,
DESAFIOS E MELHORIAS

20 DE MARÇO DE 2018 • 9H | AUDITÓRIO TÉRREO | ENSP/FIOCRUZ