HARVARD T.H. CHAN
SCHOOL OF PUBLIC HEALTH
Department of Global Health and Population

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BRAZIL'S FAMILY HEALTH STRATEGY (FHS): FACTORS ASSOCIATED WITH COVERAGE EXPANSION OVER 15 YEARS (1998-2012)

Marcia C. Castro
Monica Viegas Andrade, Augusto Quaresma Coelho
Mauro Xavier Neto, Lucas Carvalho

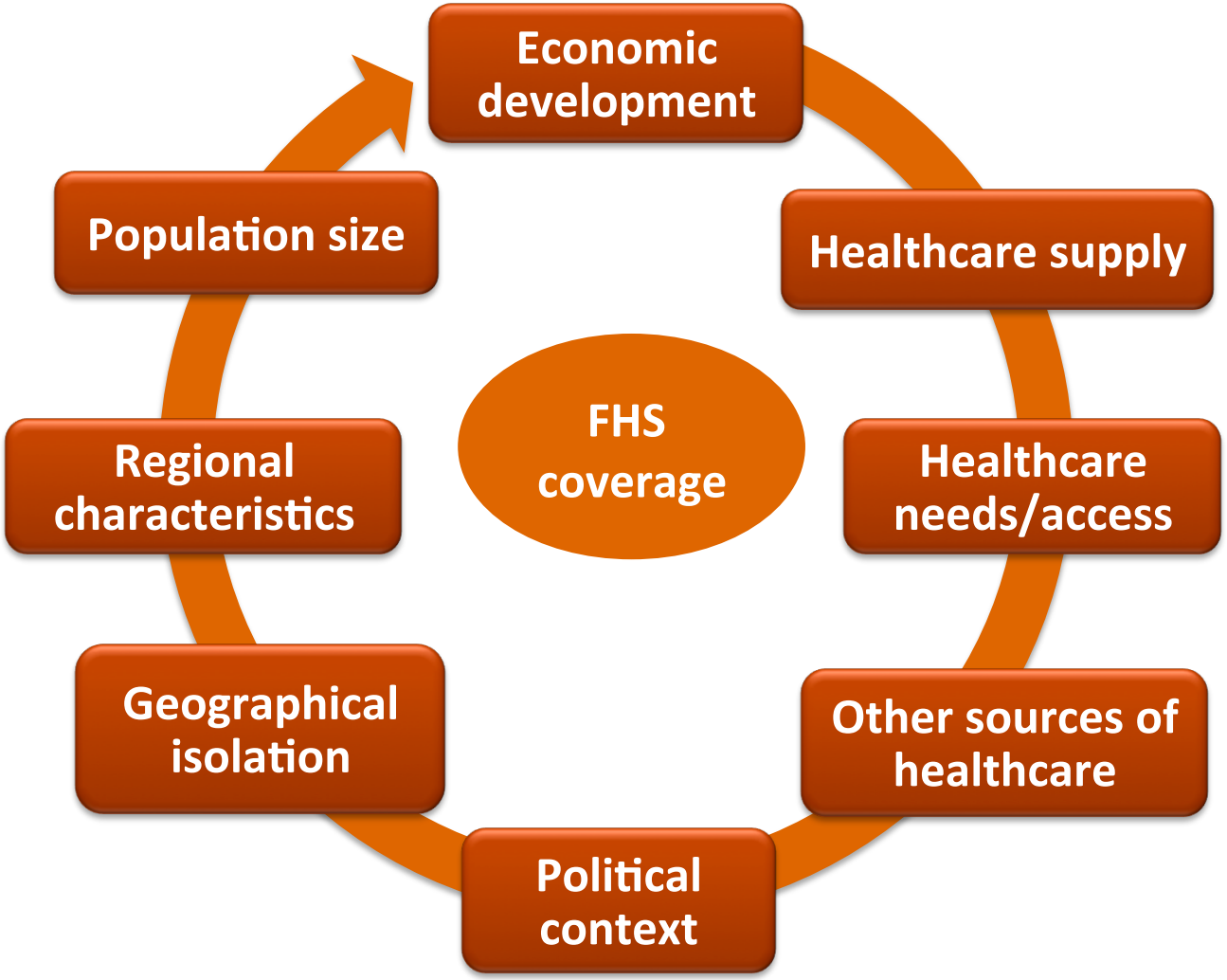
FHS in Brazil

- Declines in infant mortality
- Decline in avoidable hospitalizations
- Better health care access and utilization
- Reduction of social inequalities in healthcare access

FHS in Brazil

- Despite positive impacts, coverage is not universal
  - In 2012 about 50% coverage
- Some barriers to expansion are known
  - Shortage of professionals, budget constraints, remoteness
- Determinants of uptake and expansion?
  - Municipal analysis

Conceptual framework

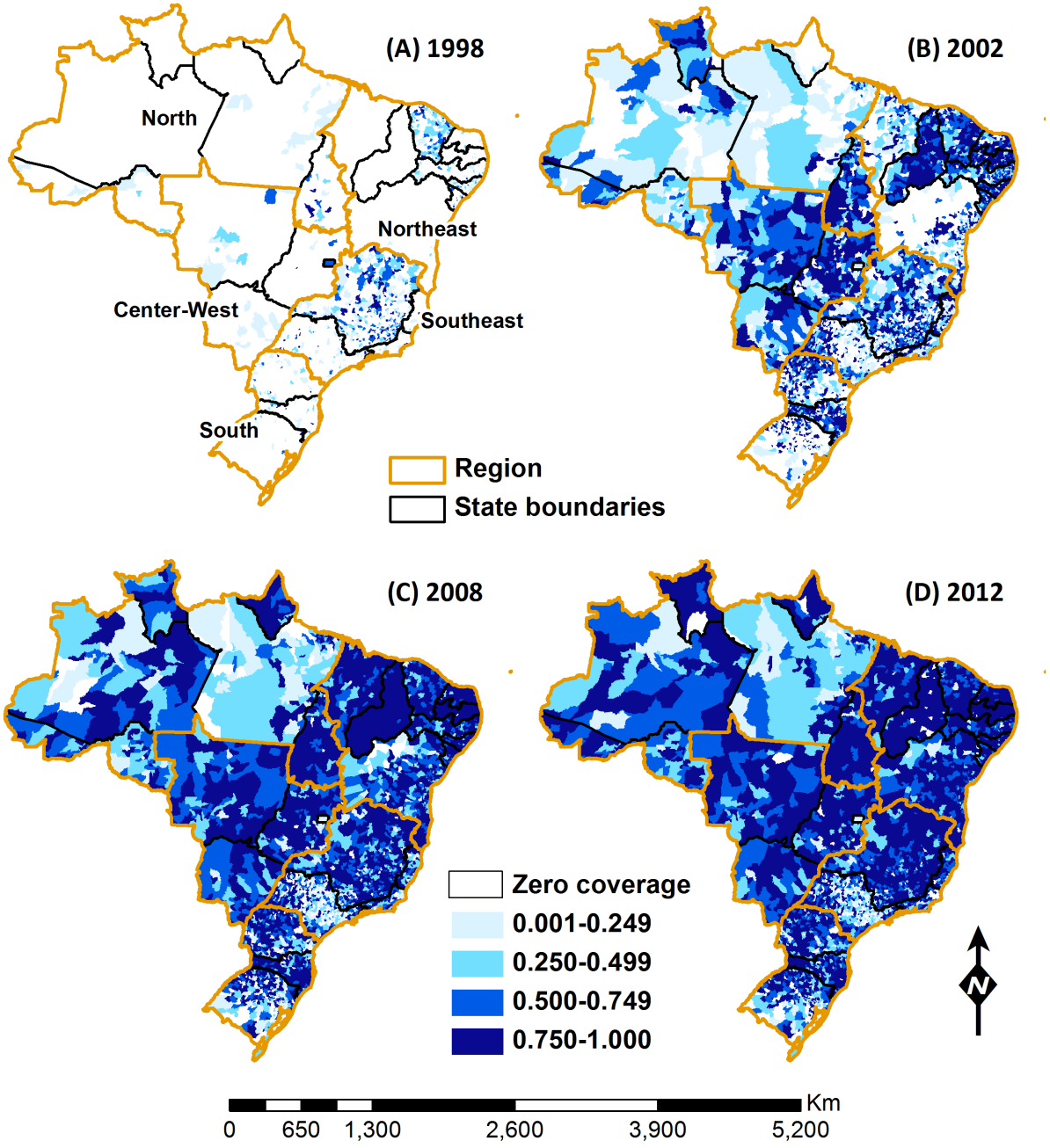


Conceptual framework - Data

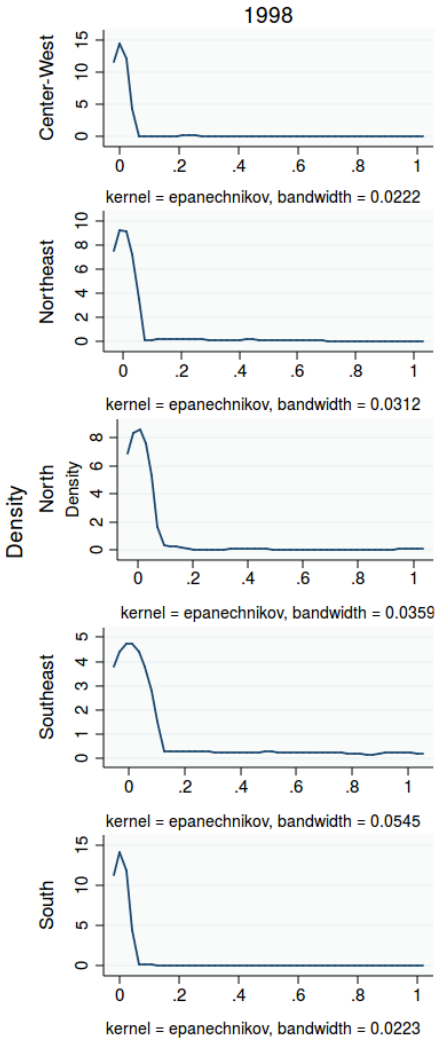
Domains	Variables
Economic Development	GDP per capita (at 2002 current prices) Proportion of the population covered by Bolsa Familia (*)
Healthcare Supply	Doctors per 1,000 inhabitants Beds and per 1,000 inhabitants
Geographical Isolation	Distance from municipalities with hospitals larger than 100 beds (meters) Population density (pop/Km^2)
Healthcare needs/access	Proportion of deaths with cause diagnosed as non-defined
Political Context	Two dummy variables for parties affiliations 1. Mayor's party the same as the Governor's 2. Mayor's party the same as the President's
Regional characteristics	Dummy variables for each of the 27 Federal Units
Population size	5 dummy variables according to 1998 population size
Other sources of healthcare	Proportion of the population covered by private health insurance (*)

(*) only available from 2004-2012

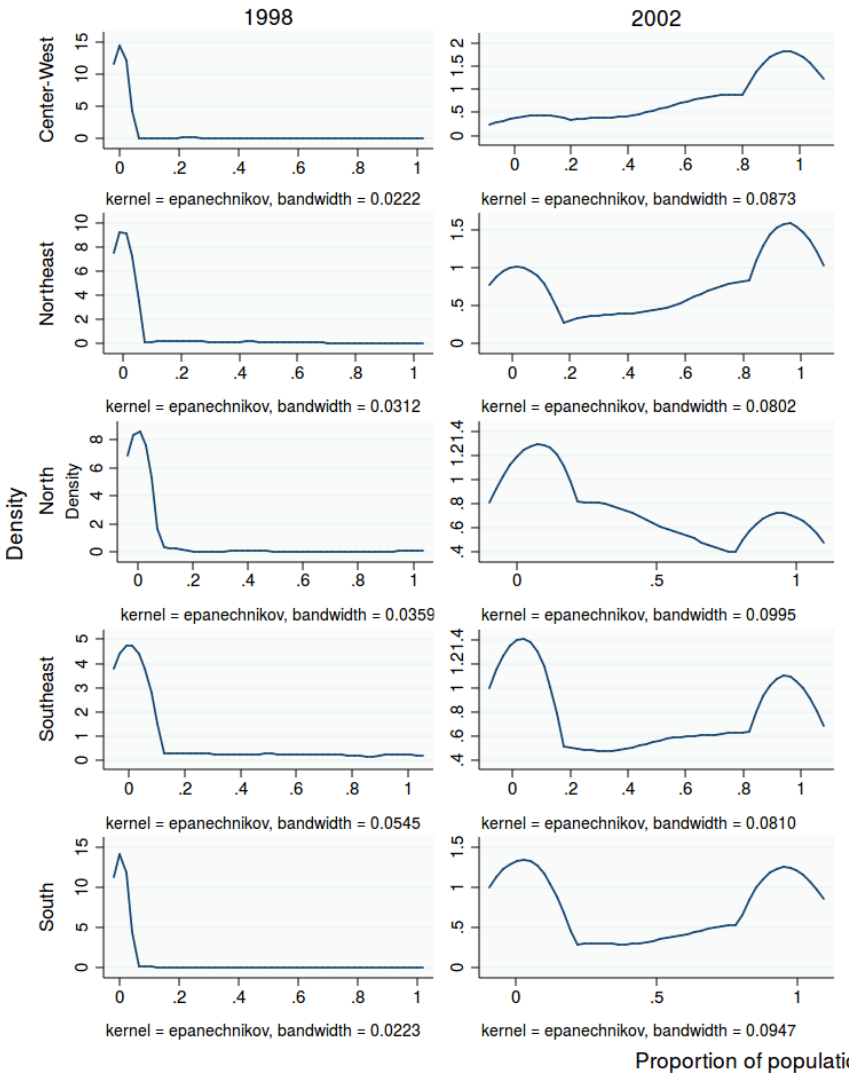
FHS coverage across Brazilian Municipalities



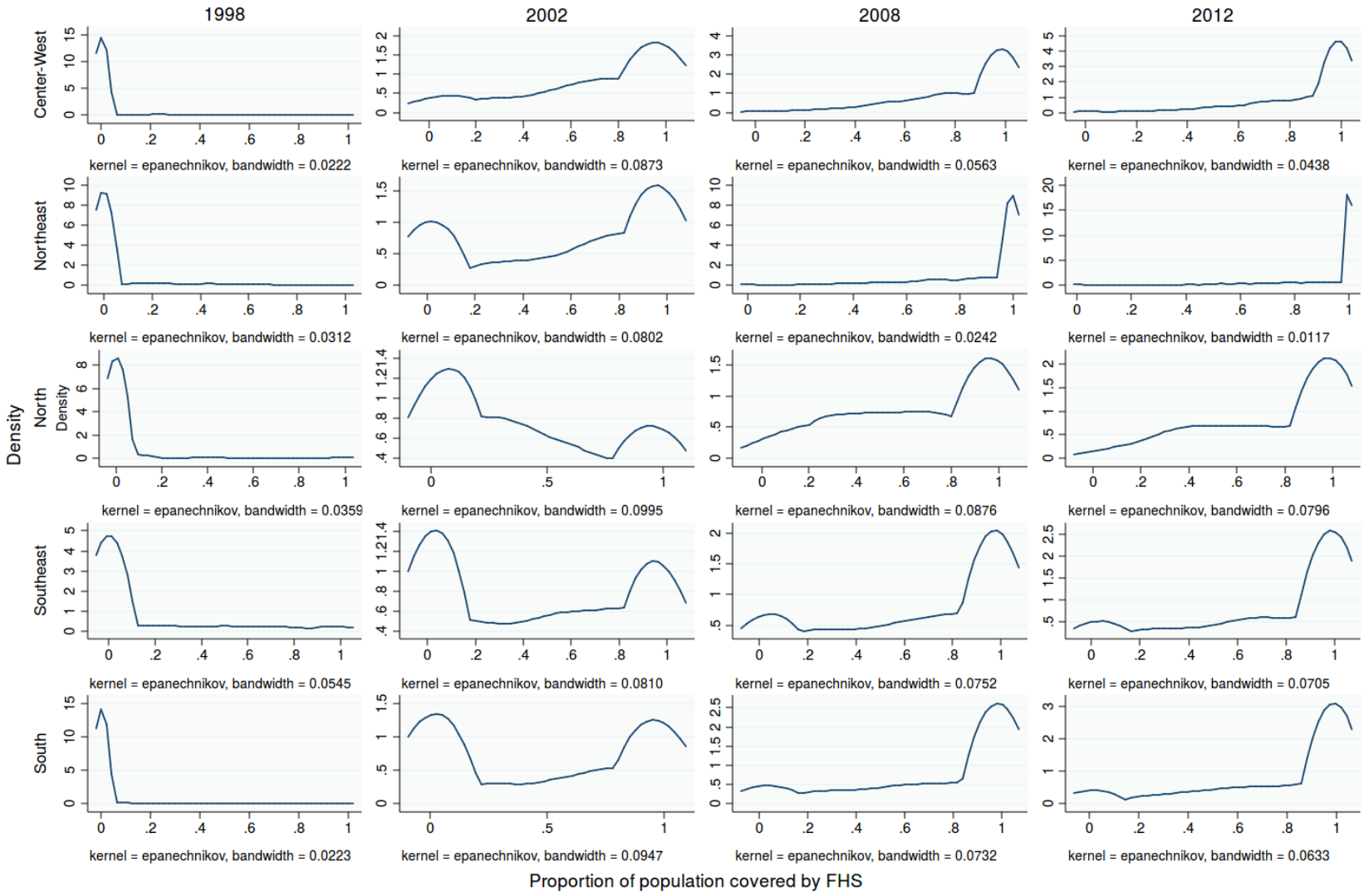
Density by region



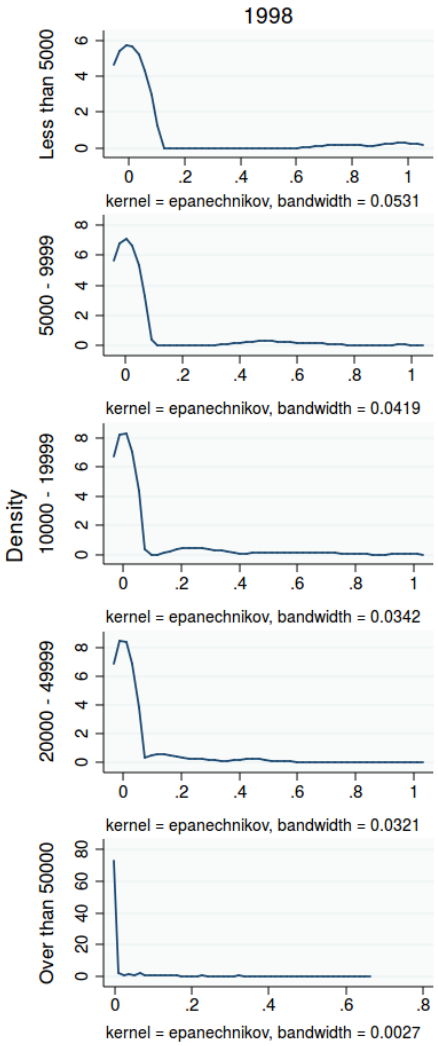
Density by region



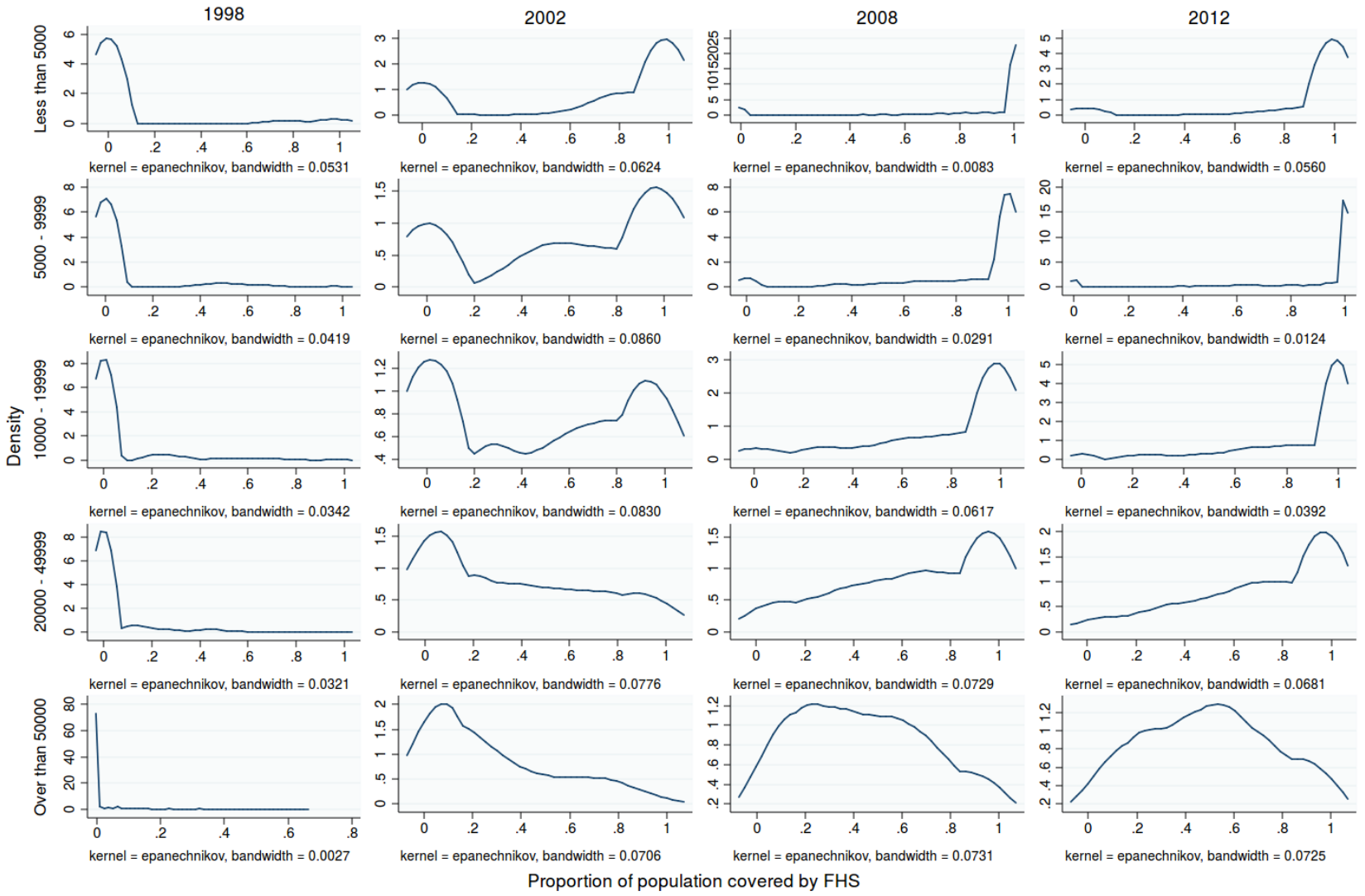
Density by region



Density by population size

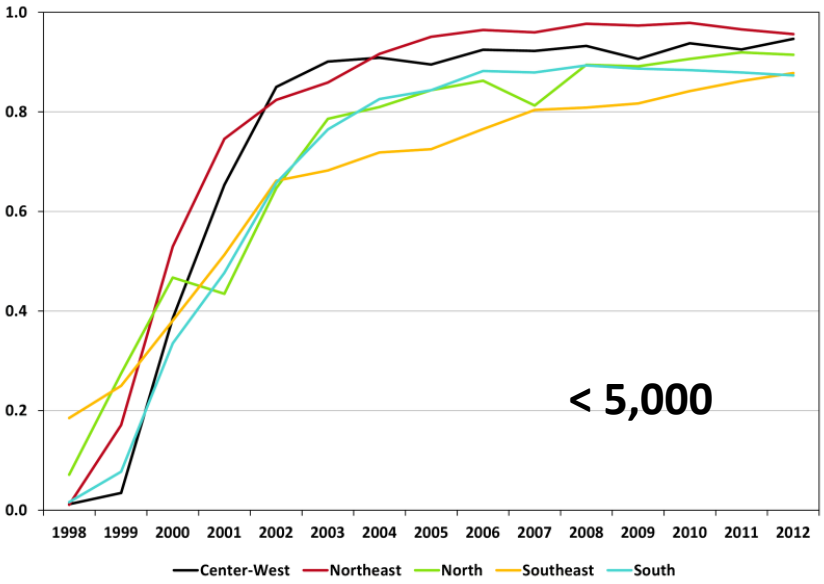


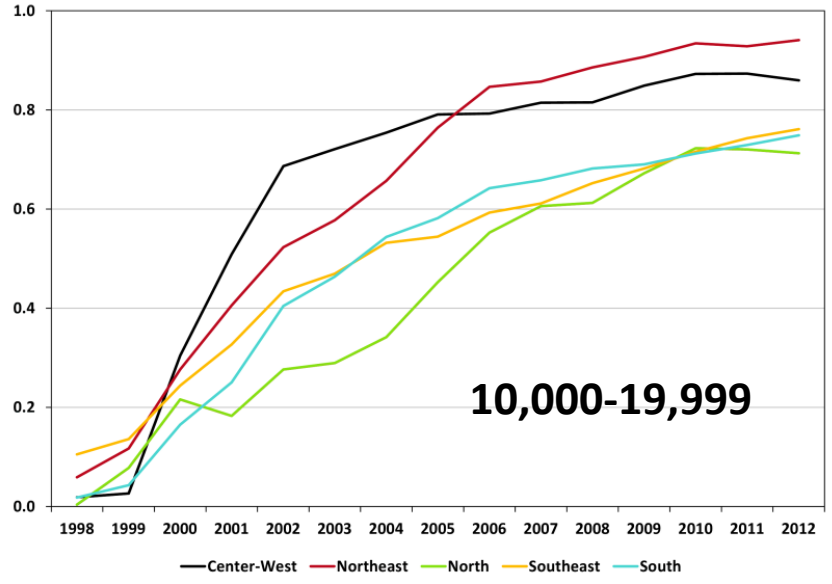
Density by population size

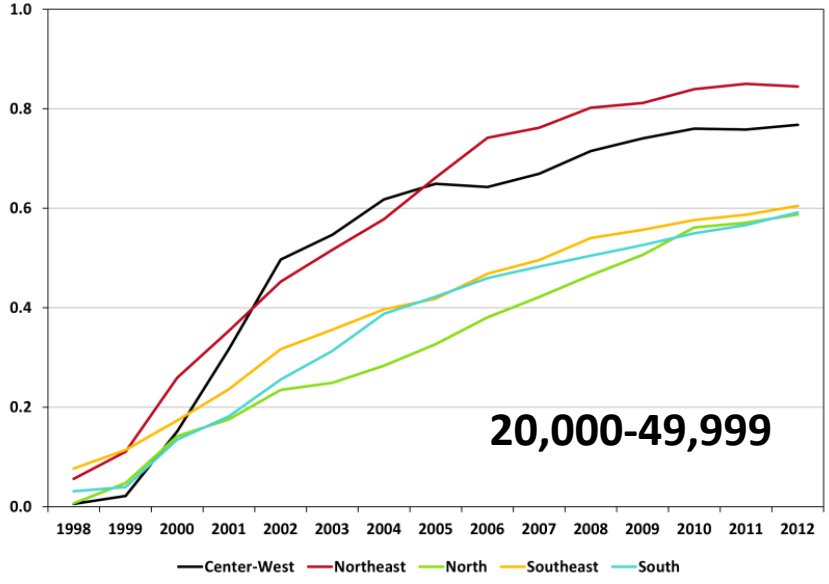


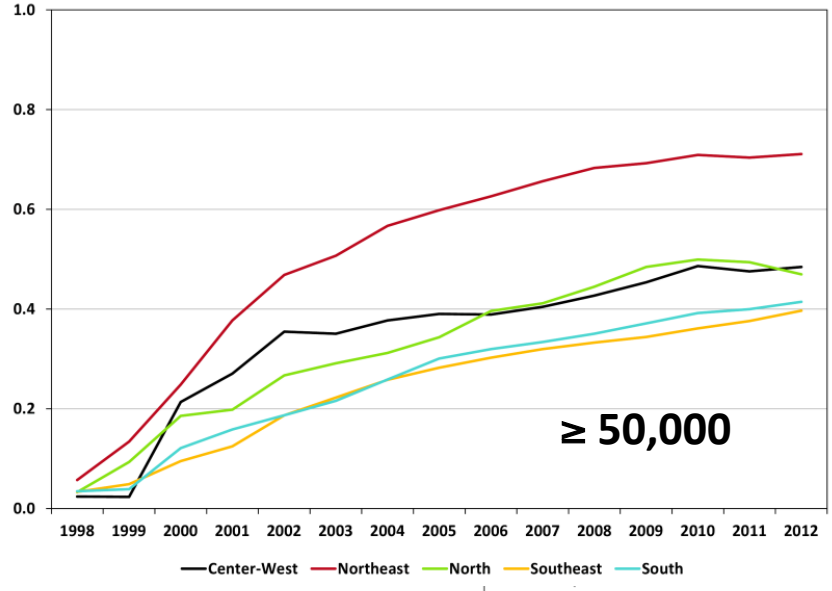
Coverage - Region & Population Size

Proportion of the population covered by the Family Health Strategy









Correlates of uptake and expansion

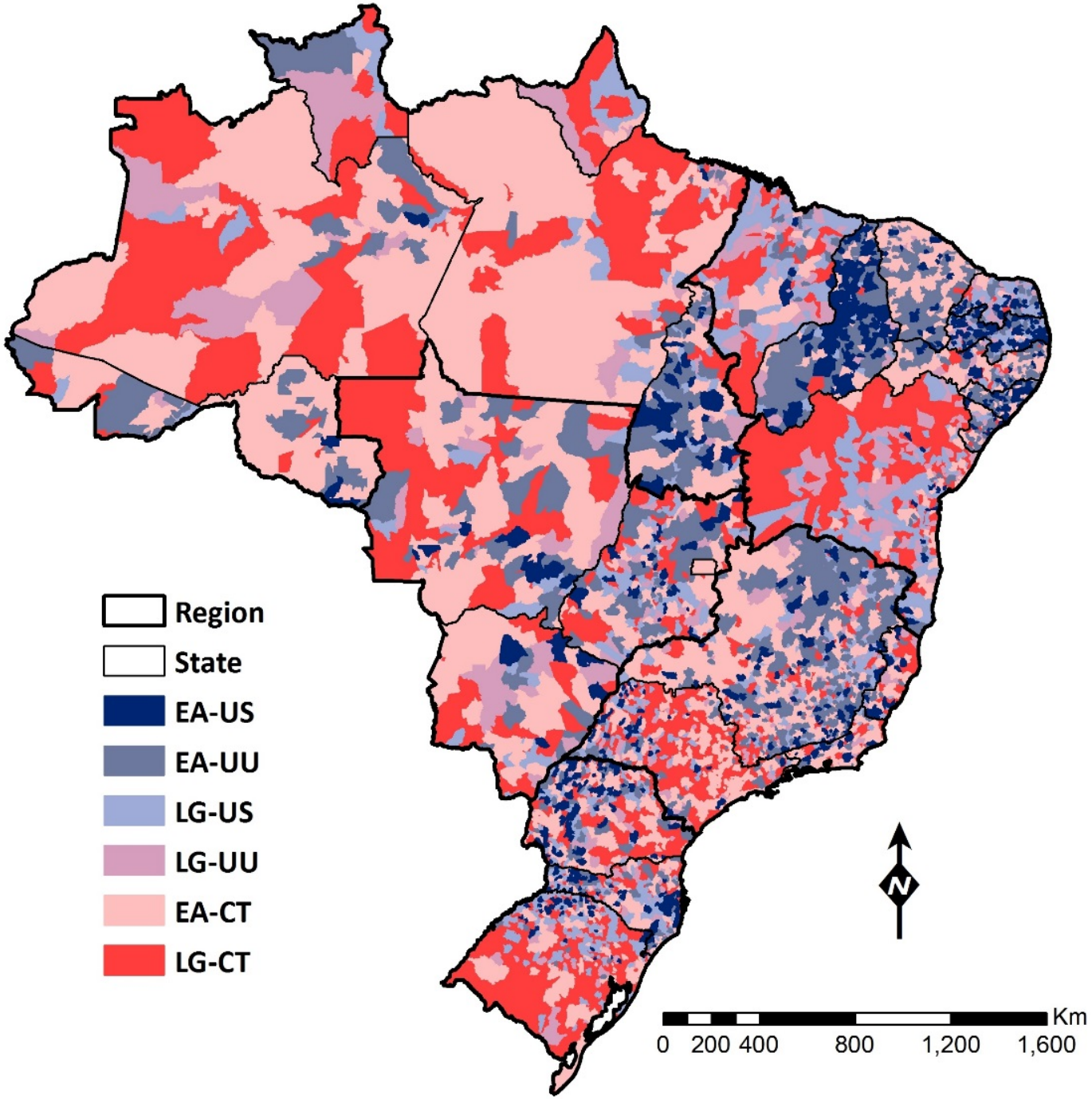
- Population size - inversely associated with initial uptake and expansion
  - Larger municipalities tend to start with lower coverage and to progress with slow expansion
- Political alignment of Mayors & Governors favored both adoption & expansion
  - Only observed for small municipalities
- Private health insurance was a disincentive for expansion
- Municipalities with higher gaps in healthcare access showed a negative association with uptake (difficulties to start), but had faster coverage expansion

Correlates of uptake and expansion

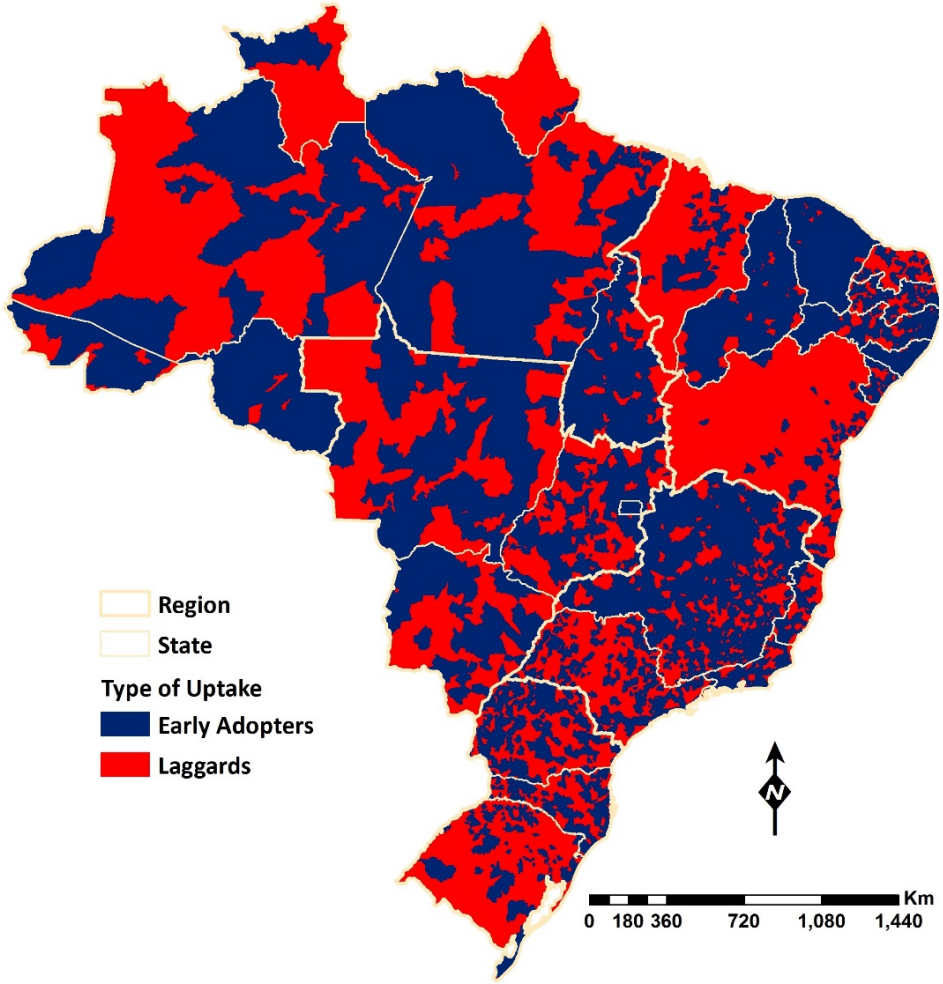
- Important regional differences
  - State dummy variables were significant for the majority of states located in the Northeast region
- Supply of health care services/providers and higher economic development favor coverage expansion
- The proportion of the population receiving *Bolsa Família* was positively associated with FHS coverage in 2004, but inversely associated with expansion
  - In 2004 poorer municipalities had already reached high level of coverage, but expanded slower (higher marginal benefits of implementation but difficulties to expand it)

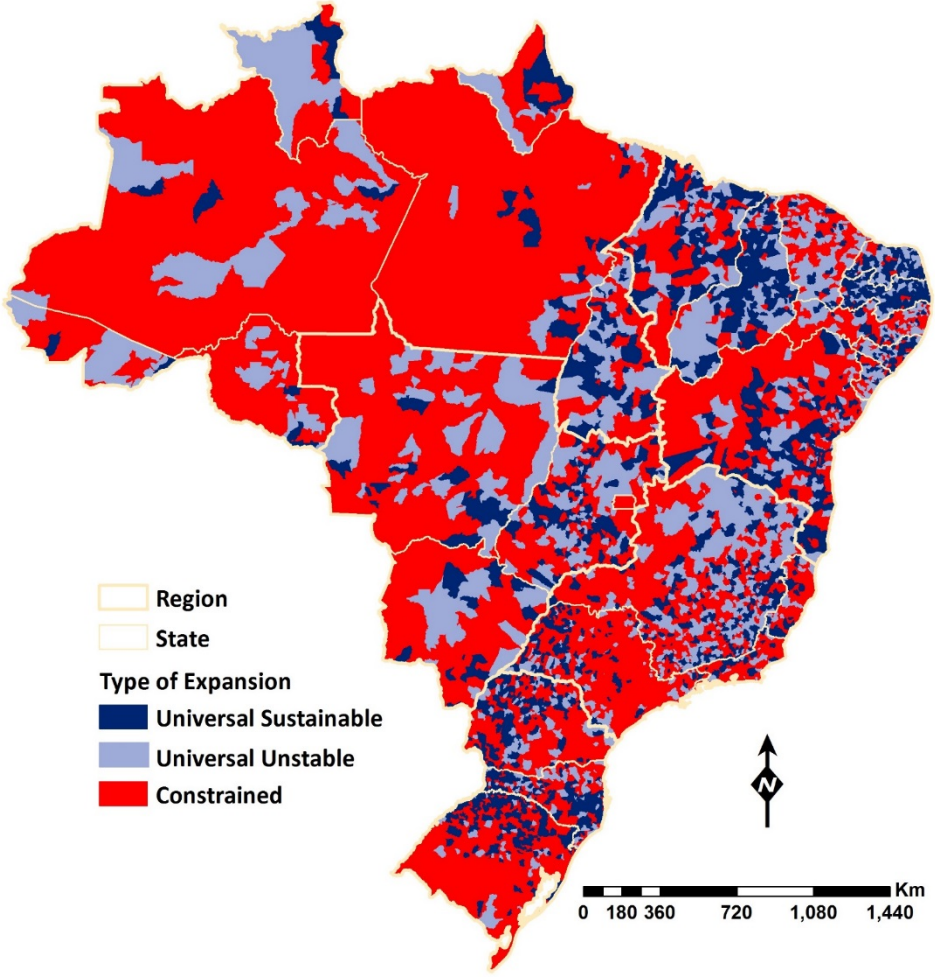
Uptake and expansion patterns

Uptake of the FHS	Expansion of the FHS Coverage: UNIVERSAL AND SUSTAINABLE (US)	UNIVERSAL BUT UNSTABLE (UU)	CONSTRAINED (CT)
EARLY ADOPTERS (EA)	Mayors quickly implement the FHS and expand consistently the coverage reaching universal level (N=749)	Mayors quickly implement the FHS, reach universal coverage, but the coverage trajectory is very unstable (N=915)	Mayors quickly implement the FHS but do not reach universal coverage (N=1,018)
LAGGARDS (LG)	Mayors delay the implementation of the FHS, but once started, coverage expands sustainably and reach universal level (N=1,073)	Mayors delay the implementation of the FHS, expand it in an unstable trajectory but reach universal coverage (N=524)	Mayors delay the implementation of the FHS, and do not reach universal coverage (N=1,228)


Region
State
EA-US
EA-UU
LG-US
LG-UU
EA-CT
LG-CT
N
0 200 400 800 1,200 1,600
Km

Uptake and expansion patterns





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Policy Recommendation I

POLICY IMPLEMENTATION MUST TAKE INTO ACCOUNT DIFFERENT PROFILES OF MUNICIPALITIES

- Uptake and coverage expansion - not homogeneous
- Two distinct groups of municipalities:
  - Early adopters - mostly smaller in less developed areas; start with high level of coverage and expand faster
  - Laggards - mostly larger (do not reach universal coverage)
- Diseconomies of scale
  - Larger heterogeneity in healthcare in larger municipalities

Policy Recommendation II

DEFINITION OF FINANCING MECHANISMS IS FUNDAMENTAL FOR THE PROGRAM UPTAKE AND SUSTAINABILITY

- 1998: national FHS coverage < 5%
  - Increased by 60% from 1998 to 1999, and by 128% from 1998 to 2000
- Sustainability over time may be a problem as municipalities are responsible for an important part of PHC expenditure
  - Instabilities and discontinuities
    - Small/poor municipalities

Policy Recommendation IV

EFFORTS TO EXPAND COVERAGE NEED TO FOCUS ON DEVISING NEW POLICIES THAT ENCOMPASS BOTH PRIVATE AND PUBLIC SECTORS

- Private Health Insurance - disincentive to expansion
- Dual health system in Brazil - obstacle for public primary care and expansion of FHS
- Mayors, mainly in larger cities, choose not to implement FHS due to low demand
- Multiple primary care providers interrupts continuity of care and undermines coordination role of FHS

Three lessons

- The funding mechanism is critical for program implementation, and must be accompanied by ways to support the supply of primary care physicians in low density areas
- In more developed and bigger areas the main challenge is lack of incentives to pursue universal coverage, especially due to the availability of private insurance
- Population size is a crucial element to guarantee coverage sustainability over time