How to Attract Physicians to Underserved Areas?

Policy Recommendations from a Structural Model

Costa, Nunes, & Sanches; ReStat (2024)

Presented by Kaden Grace

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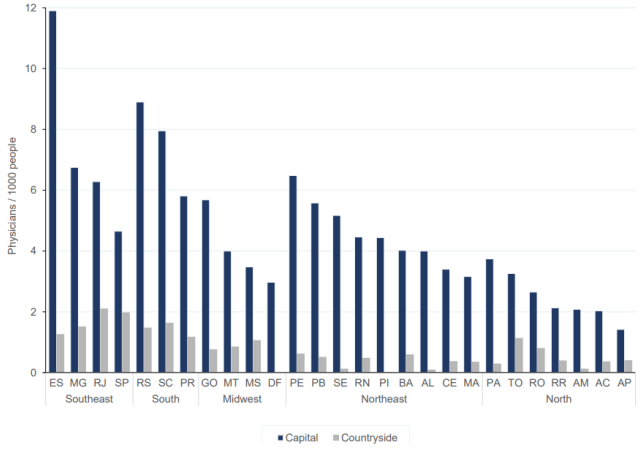
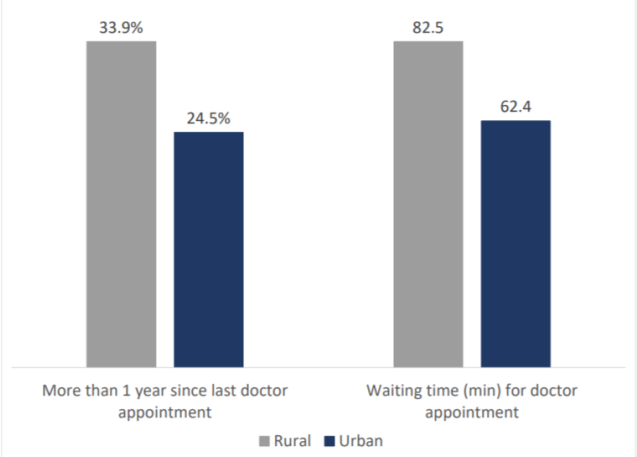
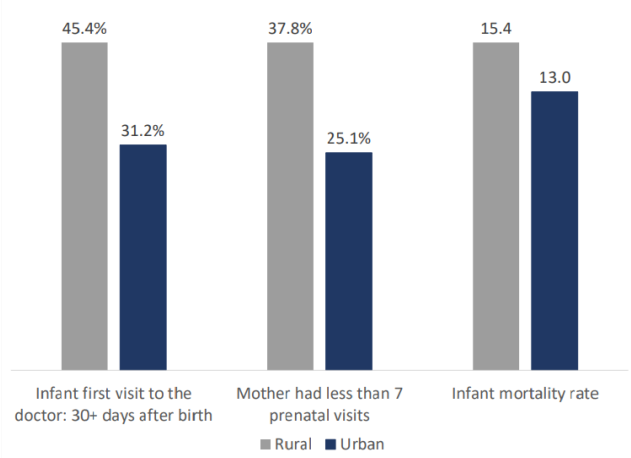
Physician Density



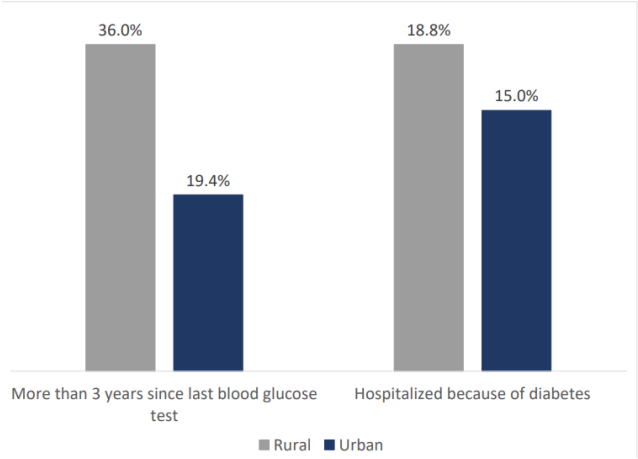
Access to Healthcare



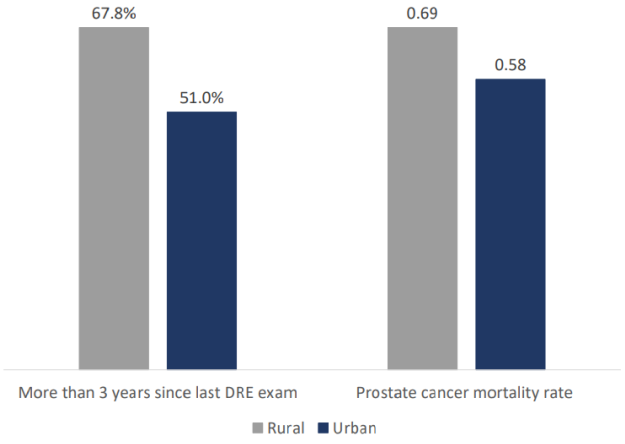
Health Effects: Infants



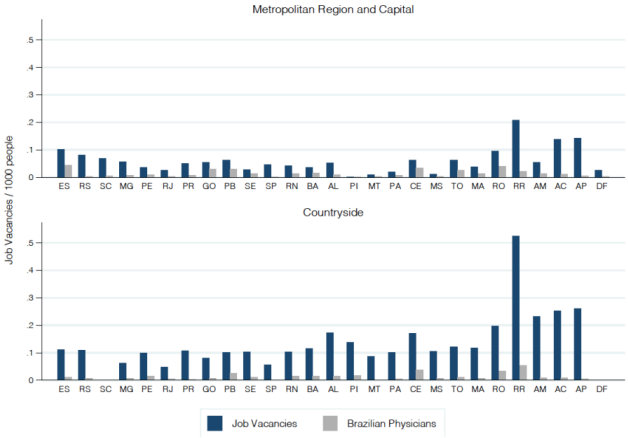
Health Effects: Diabetics



Health Effects: Men



Unfilled Vacancies



Model: Physician Labor Supply

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Includes:

- expected real wages (control function)
- amenities
- health infrastructure
- stock of physicians
- coverage of private health insurance
- physicians' age, gender, birthplace, graduation place, and school quality

Model: Healthcare Demand

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- Private sector chooses wages to maximize profit; regional competition
- Public sector wage is exogenous

Physician Data

- Unique dataset of 60,563 Brazilian generalist physicians (2001-2013)
- Sources:
  - Federal Council of Medicine records (physicians' characteristics, education)
  - Ministry of Labor data (formal employment relationships, wages)
  - National Register of Health Establishments (workplace information)
  - National Commission of Medical Residency (specialty training)

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- Physicians' wage elasticity is relatively low
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- Physicians' wage elasticity is relatively low
  - ≈ 0.4 in metropolitan areas and ≈ 0.7 in countryside areas
- Health infrastructure and amenities are positive
- # physicians per capita, health insurance coverage not significant
- Model successfully predicts location choices of 78.9% of physicians

Heterogeneity

Physicians from top medical schools:

- Value local amenities more highly
- Are less responsive to wages
- Derive lower utility from returning to their birthplace
- Have stronger preferences for staying near their medical school

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4. 50% increase in rural health infrastructure

   Reduced imabalance by 6% ($94.2m per percentage point)

Extensions

- Long-term retention and career trajectories
- Quality of healthcare delivered
- Specialist physicians