What factors explain the trends in the use of the private sector in developing countries? iHEA World Congress Pre-Symposium on the Private Sector

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### OVERVIEW OF THE PRESENTATION

#### BACKGROUND AND MOTIVATION

DATA AND METHODS

DESCRIPTIVE FINDINGS

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### BACKGROUND RESEARCH

- Growing awareness of the importance of the private sector in many LMICS, believed to play an important - and potentially even dominant - role in the delivery of health services.
- Some studies have measured size of private sector, but most have been cross-sectional and sometimes with different measure of private sector.
- Little is known about the factors which predict use of the private sector - an exception Hanson and Berman (1998) "preliminary" analysis of the levels of the private sector.

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### **RESEARCH QUESTIONS**

- 1. What have been the trends in the use of private health care providers in low and middle-income countries 1990-2008?
- 2. What factors are associated with increased use of the private sector across countries 1990-2008?

# INTERNATIONALLY STANDARDIZED HOUSEHOLD SURVEY DATA

- ► Data was extracted from 154 standard Demographic and Health Surveys (DHS) conducted in LMICs 1990-2008.
- Survey collects data on household seeking behavior of women (reproductive health services) and of children born within 3-5 years of the survey (treatment for fever/cough/diarrhea).
- Nationally representative weighted averages of private sector utilization.

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### DEFINITION OF THE PRIVATE SECTOR

- ► All non-governmental health service providers.
- This definition includes private for-profit, NGOs, mission, and other private providers delivered through clinics, hospitals, or pharmacies.
- Relies on reported status of the provider perception of private rather than strict measure of provider ownership or affiliation.

#### MEASURES OF PRIVATE SECTOR UTILIZATION

The proportion of women who report:

- 1. Family planning services that were provided in a private health facility.
- Among children (< 3/5 years) that report diarrhea in past</li>
  weeks and sought care, the proportion treated by a private provider.
- 3. Among children (< 3/5 years) that report fever/pneumonia in past 2 weeks and sought care, the proportion treated by a private provider.
- 4. Among live births (< 3/5 years) the proportion that took place in a private facility.

### EXPLANATORY VARIABLES

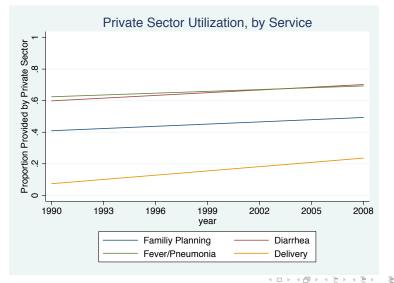
- ► Income: GDP per capita (2005 PPP), logged, WDI
- Health Expenditures: Health Expenditures per capita, logged, WHOSIS
- Development Assistance for Health: per capita, OECD-CRS
- ► Education: years of completed education of women 15-44, IHME
- ► Primary health: coverage of DTP3 vaccine, IHME
- ► Urban: proportion of the population in urban area, WDI
- ► Government effectiveness: WGI

#### **EMPIRICAL STRATEGIES**

Two approaches were used:

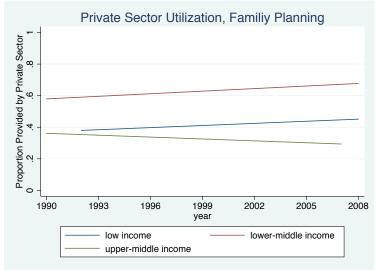
- 1. <u>Unbalanced panel</u>: country-level aggregate modeled as a function of explanatory variables, country fixed-effects, and a year time dummies.
- 2. <u>First differences</u>: change in utilization is modeled as a function as a change in the explanatory variables.

# STEADY INCREASE IN THE USE OF THE PRIVATE SECTOR



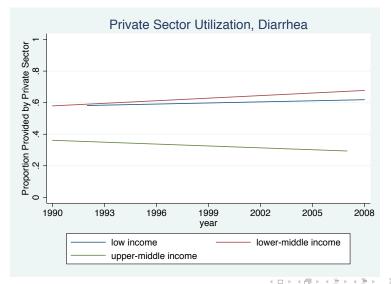
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# BUT UTILIZATION IS NOT GROWING IN ALL COUNTRIES



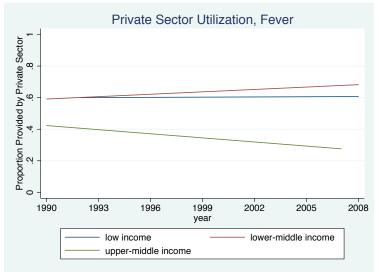
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# BUT UTILIZATION IS NOT GROWING IN ALL COUNTRIES



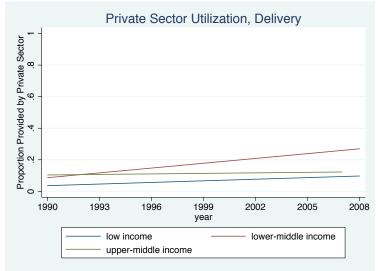
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# BUT UTILIZATION IS NOT GROWING IN ALL COUNTRIES



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# BUT UTILIZATION IS NOT GROWING IN ALL **COUNTRIES**



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### SUMMARY OF AGGREGATE TRENDS

- Overall the use of the private sector has increased across all services investigated with deliveries in private sector increasing the most dramatically.
- Aggregate trends mask regional heterogeneity: with utilization declining in upper-middle income countries and increasing fastest in low-middle income countries.
- Most of the declines in the use of the private sector can be seen in PAHO regions (not shown) potentially due to increase in social protection.

### PANEL DATA REGRESSION RESULTS

	FP	Diarrhea	Fever	Delivery
lngdppcap	0.116**	0.021	0.031	-0.011
	(0.054)	(0.060)	(0.050)	(0.008)
Inhealthexpend	-0.014	0.004	0.018	0.016***
-	(0.030)	(0.033)	(0.028)	(0.004)
dahpercapita	-0.000	-0.000	0.001	-0.004***
	(0.003)	(0.004)	(0.003)	(0.001)
eduyr1544	-0.187***	-0.029	-0.061	0.045***
	(0.046)	(0.056)	(0.041)	(0.008)
dtp3	-0.006***	-0.004**	-0.004***	-0.001***
*	(0.002)	(0.002)	(0.002)	(0.000)
urban	0.029***	0.011*	0.011**	0.002**
	(0.005)	(0.006)	(0.005)	(0.001)
goveff	-0.038**	-0.024	0.002	-0.023***
0	(0.017)	(0.019)	(0.016)	(0.003)
Constant	-0.157	0.269	0.295	-0.141**
	(0.389)	(0.437)	(0.346)	(0.063)
Observations	150	145	148	658
R-squared	0.919	0.925	0.943	0.880
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### SUMMARY OF PANEL DATA REGRESSIONS

- Strongest predictor of private sector utilization vaccine coverage and also more effective government a predictor of lower private sector.
- Countries with growing urban populations have seen larger increases in utilization of the private sector.

### SUMMARY OF PRESENTATION

- Evidence that while overall the use of the private sector has increased, there is also evidence that it decreasing in importance in many upper-middle income countries.
- The private sector appears to have grown more in countries that have seen less improvement in vaccination coverage and where government is less effective. Urbanization also appears to be contributing to the growth of the private sector.