

Does removing health user fees improve access to maternal healthcare?

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The user fees debate in maternal health



- A brief history
- Why might it not work?
- Maternal and newborn health: a special case?
- Few causal inference studies on this topic...

Removing health user fees in Zambia

- Why Zambia?
- Impact on utilisation of adult and >5 child health services:
 - Masiye, Chitah & McIntyre (2010): 55% increase
 - Lagarde, Barroy & Palmer (2006): 23% increase
 - Lepine & Lagarde (forthcoming in Health Economics): no increase



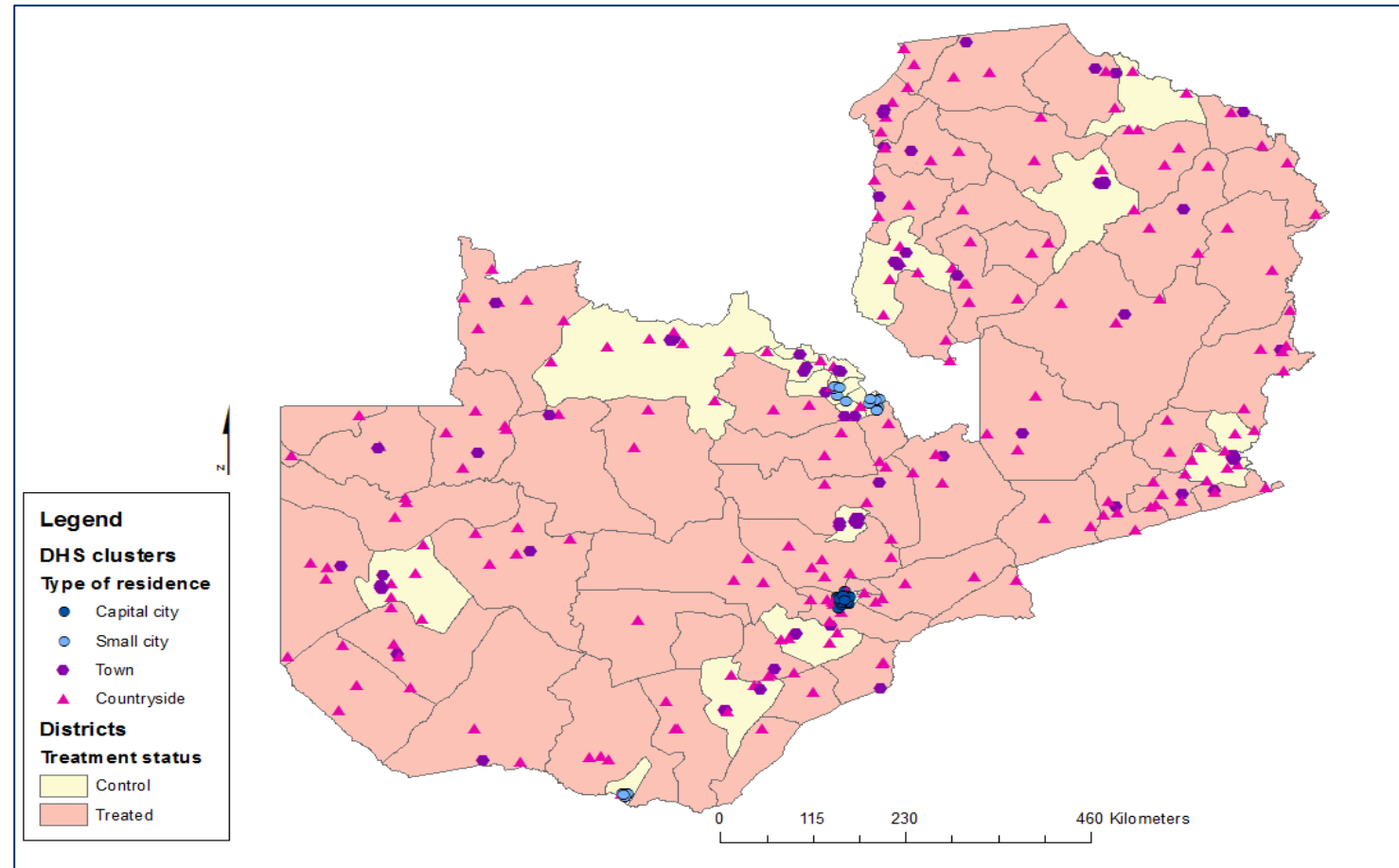
Policy implementation



- User fees introduced for adults and children >5 years in early 1990s
- User fees removed in April 2006 from 54 “rural” districts (out of 72)
- User fees removed in 2007 from 18 remaining “urban” districts

Data

Map of Zambia, districts and DHS sampling clusters by type of residence



- 2007 Demographic Health Survey. 319 sampling clusters
- Data on births from January 2002 – April 2007

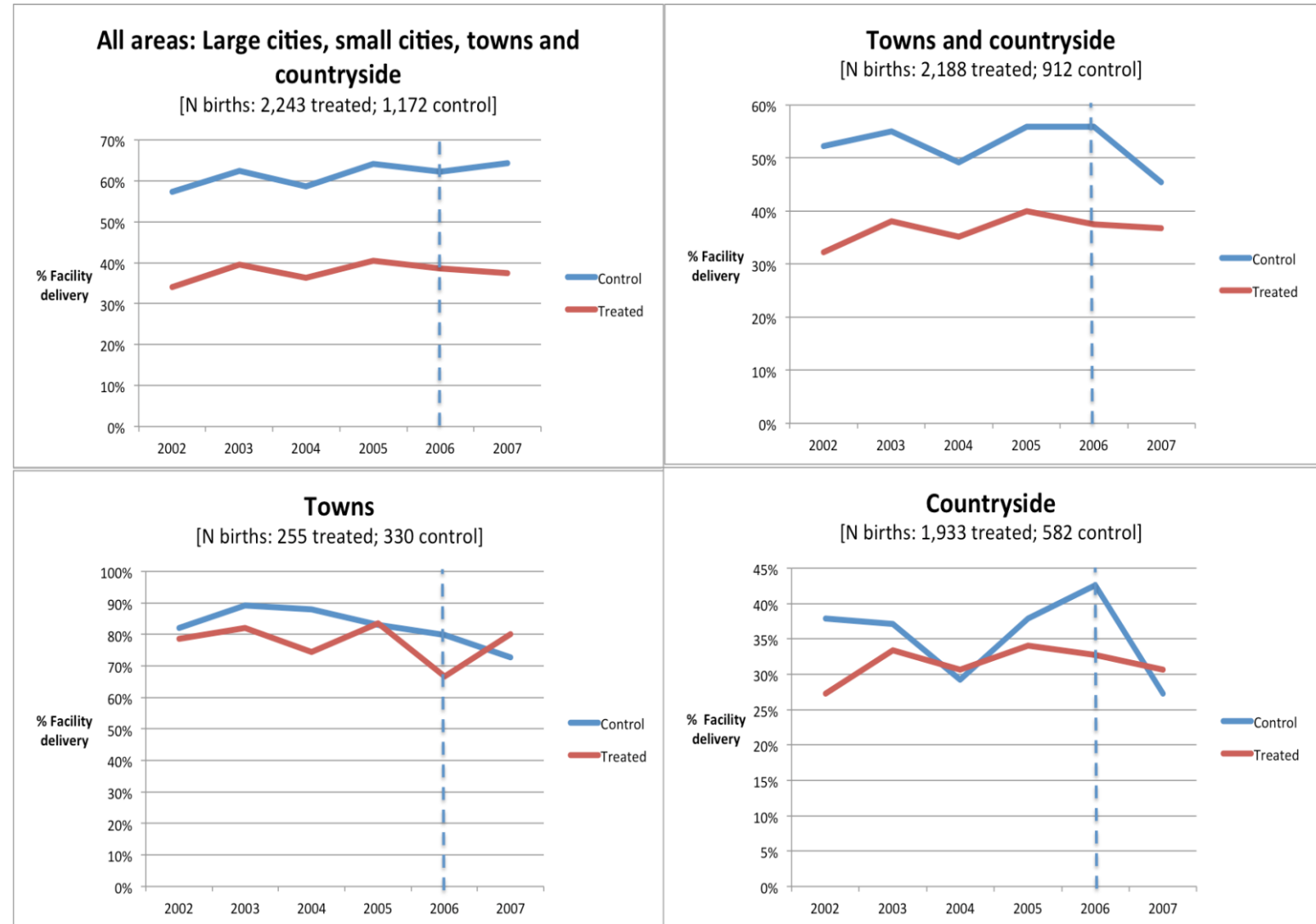
Sample size

	Number of births	
	Control districts	Treated districts
Capital city	103	39
Small city	128	12
Town	308	230
Countryside	549	1,757
TOTAL	1,088	2,038

Sample: Births occurred where woman is living now, April to December, 2002-2006, information about facility delivery is not missing.

Differences-in-differences

$$Y_{ijt} = \theta + \eta_j + \delta_t + \alpha Policy\ Change_{ijt} + \varepsilon_{ijt}$$



Results

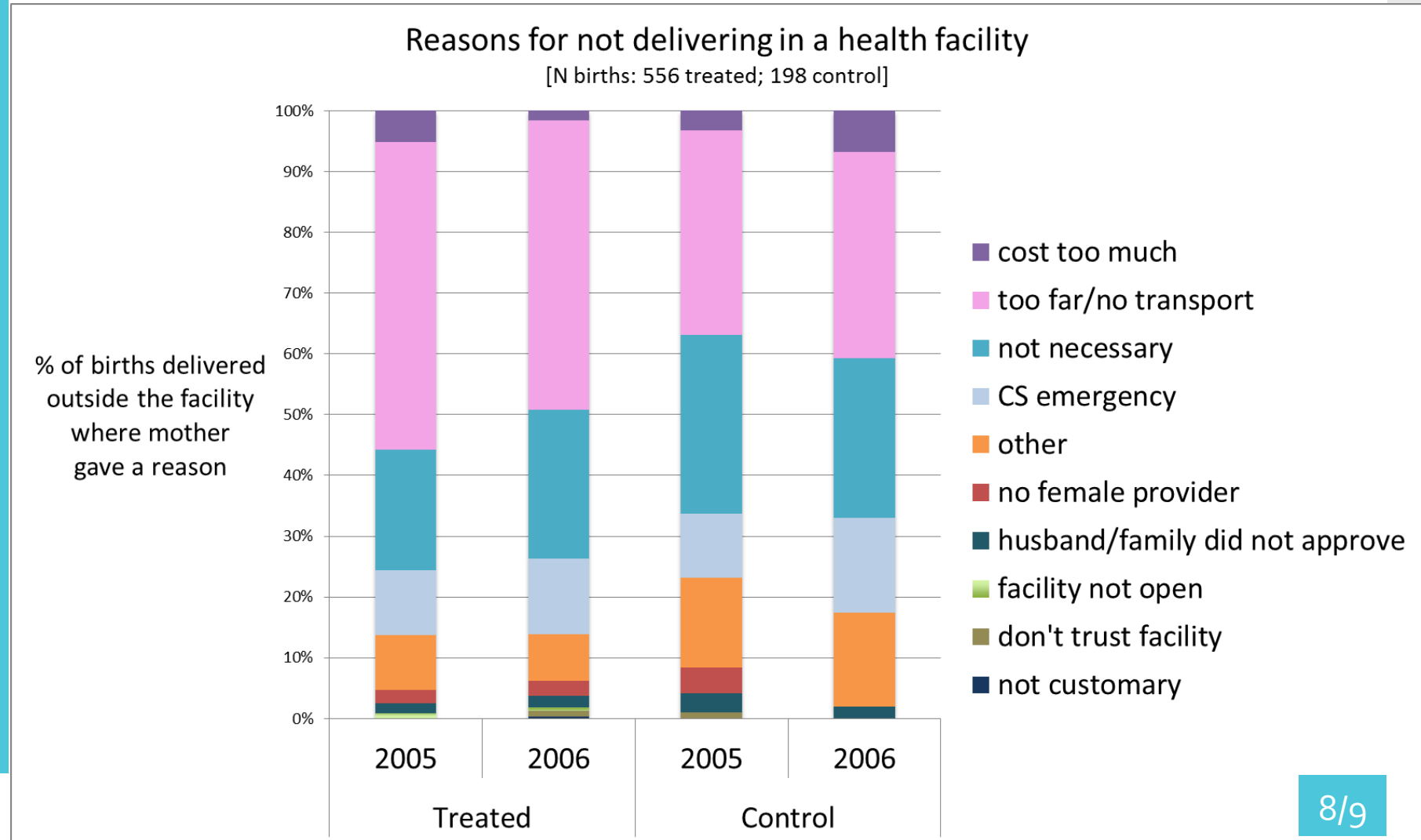
	(1)	(2)	(3)	(4)	(5)	(6)
Model	OLS 2002-2006	Logit 2002-2006	OLS 2005 & '06	OLS 2002-2006	OLS 2002-2006	OLS 2002-2006
Areas	All areas	All areas	All areas	Towns & country	Town only	Countryside only
Effect of policy	Zero NS	Zero NS	Zero NS	Zero NS	Zero NS	Zero NS
Observations	3,126	3,074	1,569	2,844	538	2,306
Nb districts	70	66	70	68	40	66
District FE	YES	YES	YES	YES	YES	YES
Year FE	YES	YES	YES	YES	YES	YES
Controls	NO	NO	NO	NO	NO	NO

Sample: births occurred where woman is living now, Apr-Dec, 2002-2006, information about facility delivery is not missing.

Model (2): 4 districts and 52 obs dropped due to 100% facility attendance or 100% home births over the period

- Decrease in quality of care and drug shortages?
- Implementation problems?
- Other barriers?

Why no effect?



Limitations

- Short post-treatment period (9 months)
- Contamination
- Differential trends in control vs treated districts
- Migration problem

Thank you for
listening!

- Any questions?
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Results

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Model	OLS 2002-2006	Logit 2002-2006	OLS 2005 & '06	OLS 2002-2006	OLS 2002-2006	OLS 2002-2006
VARIABLES	All areas	All areas	All areas	Towns & country	Town only	Countryside only
2006 & Treated	0.00494	0.0204	0.00662	-0.00390	-0.0615	-0.0407
	(0.0450)	(0.2212)	(0.0538)	(0.0508)	(0.0814)	(0.0580)
Constant	0.438***		0.481***	0.395***	0.777***	0.313***
	(0.0249)		(0.0146)	(0.0253)	(0.0658)	(0.0226)
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Clustered standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1

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