

Saving Lives at Birth: The Impact of Home Births on Infant Outcomes

Discussion

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Overview

- **Main question:** What is the effect of home births on the health outcomes of low-risk newborns?
- **Data:** Perinatal Registry of the Netherlands for 2000-2008
 - ▶ 25% of births took place at home during this period
- IV Results -

<i>Dependent variable:</i>			
	7-day mortality	28-day mortality	Apgar Score
Hospital	-8.287*** (3.157)	-9.219*** (3.353)	-0.018 (0.088)

Empirical Strategy Reiteration

$$Y_{izt} = \beta_0 + \beta_1 \text{Hospital}_{izt} + \beta_2 X_{izt} + \epsilon_{izt}$$

- i - infant, z - mother location, t - year
- Y_{izt} captures the infant's health, Hospital_{izt} is a dummy for hospital birth, X_{izt} is a set of controls
- **Endogeneity:** Having a higher risk for unhealthy infant is unobservable, and clearly affects the decision where to give birth
- **IV:** the distance between a mother's residence and the nearest hospital
- Identifies LATE - the causal effect for mothers that gives birth at home only if they live far from hospital

Assumptions

Three assumptions are required in order to get a consistent estimates:

- **Relevance:** The distance from hospital should be a strong determinant of giving birth location
 - ▶ Easily testable using F-test on the first stage equation
- **Exclusion:** Distance from hospital should affect the outcome through the delivery location decision only
- **Monotonicity:** Living near hospital will not affect, or will cause to deliver at hospital

Discussion

- Exclusion assumption violation - the distance IV may affect directly the health if sudden things that require hospital happen during the delivery
- Monotonicity assumption violation - Living near hospital makes it more confident to deliver at home, cause a needed evacuation will be easier