Disparities in Short Interval Pregnancy by Hospital Religious Affiliation

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BACKGROUND

- Short interval pregnancies affect ~30% of pregnancies in the US [1] and are associated with greater risk of both maternal morbidity and neonatal morbidity [2, 3]
- While the causal relationship between inter-pregnancy intervals and obstetric outcomes remains a topic of active research [4, 5], there is strong support that contraceptive services help women space their pregnancies [6, 7]
- Institutional policies prohibiting contraception in Catholic hospitals are a significant barrier to care [8]

OBJECTIVE

Measure the relationship between delivery at a Catholic hospital and risk of short interval pregnancy in the Illinois Medicaid population

METHODS

- Retrospective cohort study using Medicaid claims data from 01/01/2010 to 12/30/2011
- Population: all enrollees aged 15-45 in Illinois
- Primary outcome: interval from index birth to subsequent conception, calculated based on birth or other pregnancy outcome
- Catholic-affiliated vs. non-Catholic hospitals compared using Cox regression, adjusting for age, race/ethnicity, and rural vs. urban residence

REFERENCES

SCAN ME

Table 1. Characteristics of women in the index birth cohort (by percent)

	Catholic (n = 26,775)	Non-Catholic (n = 69,518)	Total (n = 96,293)
Age Group			
15-24	55.1	53.3	53.8
25-34	38.3	39.8	39.4
34-45	6.6	7.0	6.9
Race/Ethnicity			
Non-Hispanic White	42.4	39.7	40.4
Non-Hispanic Black	32.2	35.3	34.4
Hispanic	18.3	18.0	18.1
Non-Hispanic Other	7.1	7.0	7.0
Rural Residence	20.5	23.6	22.8

Table 2. Cox proportional hazards models of the time from index birth to next conception (n = 96,293)

Covariate	Unadjusted		Adjusted	
	Hazard Ratio	95% CI	Hazard Ratio	95% CI
Catholic (vs. non-Catholic)	**1.12**	(1.09, 1.16)	**1.12**	(1.09, 1.16)
Age (decades)			0.65	(0.63, 0.67)
Age squared			0.91	(0.88, 0.95)
Race/Ethnicity Non-Hispanic White			Ref.	
Non-Hispanic Black			**1.22**	(1.18, 1.27)
Hispanic			0.98	(0.94, 1.03)
Non-Hispanic Other*			1.01	(0.94, 1.07)
Rural (vs. non-rural)			1.06	(1.02, 1.11)

*Includes "Unknown."

Table 3. Percentage of women conceiving within 6, 12 and 18 months following index birth

	Observed percentage	Marginal percentage based on logistic model**
6 months*		
Catholic	6.5	6.6
Non-Catholic	5.8	5.8
Difference (95% CI†)	**0.7** (0.4, 1.1)	**0.8** (0.4, 1.1)
12 months*		
Catholic	15.7	15.7
Non-Catholic	13.6	13.6
Difference (95% CI†)	**2.0** (1.4 2.7)	**2.1** (1.5, 2.7)
18 months*		
Catholic	24.0	23.9
Non-Catholic	21.3	21.3
Difference (95% CI†)	**2.6** (1.7, 3.6)	**2.6** (1.6, 3.5)

*N = 88,803 at 6 months, 66,448 at 12 months, 40,164 at 18 months
**Estimated marginal percentage based on logistic regression adjusting for age (linear and quadratic), race/ethnicity and rural versus non-rural residence;
†For observed percentages, calculated based on Normal approximation for the difference; for marginal percentages calculated based on covariance matrix of model estimates using the delta method.

RESULTS

- 96,293 index births, 28% at Catholic hospitals (Table 1)
- Delivery at a Catholic hospital associated with 12% higher risk of short interval pregnancy adjusting for co-variates (Table 2)
- Catholic hospital associated with increasing absolute risk of conception at 6, 12 and 18 months (Table 3)
- Non-Hispanic Black race also associated with an increased risk of short interval pregnancy

CONCLUSIONS

- Illinois Medicaid enrollees at Catholic hospitals had greater risk of subsequent short-interval pregnancy compared to other hospitals
- As the market-share of Catholic hospitals' expands, providers and policy-makers must work to ensure patients have access to all postpartum contraceptive options.

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