$81 A Month: A PATHS Equity Study Evaluating the Impact of an Unconditional Income Supplement on Child Health

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Background

- Infant and child health follows a socioeconomic gradient. Manitoba implemented an unconditional prenatal income supplement – Healthy Baby Prenatal Benefit (HBPB) – where low-income women receive a small monthly cheque during pregnancy.

Objectives

- Evaluate the impact of the Healthy Baby Prenatal Benefit on child outcomes.

Methods

- Data came from the PATHS Data Resource comprising 99% of children living in Manitoba. Our sample included all mother-newborn pairs, from 2003-2010, where the mother received income assistance during pregnancy.
- We compared women on income assistance who received the HBPB to women on income assistance who did not.
- We adjusted for over 25 variables from a newborn risk screen and administrative data using inverse probability of treatment weights.

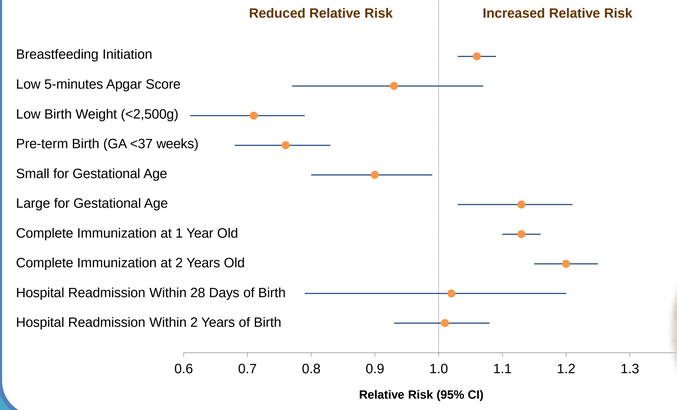
Results & Conclusions

- HBPB was associated with improvements in many of the measured outcomes. Sensitivity tests for unmeasured confounding suggested several results were robust.
- Providing an unconditional monthly income supplement to low-income women may improve child outcomes.

Effect of Healthy Baby Benefit

	RR (95 % CI)
Breastfeeding Initiation	1.06* (1.03 - 1.09)
Low 5-minutes Apgar Score	0.93 (0.79 - 1.09)
Low Birth Weight (< 2,500 g)	0.71* (0.63 - 0.81)
Pre-term Birth (GA < 37 weeks)	0.76* (0.69 - 0.84)
Small for Gestational Age	0.90* (0.81 - 1.00)
Large for Gestational Age	1.13* (1.05 - 1.23)
Complete Immunization (one year old)	1.13* (1.10 - 1.16)
Complete Immunization (two year old)	1.20* (1.15 - 1.25)
Hospital Readmission (within 28 days of birth)	1.02 (0.84 - 1.25)
Hospital Readmission (within 2 years of birth)	1.01 (0.94 - 1.09)

* Indicates a statistically significant relative risk compared to the control group

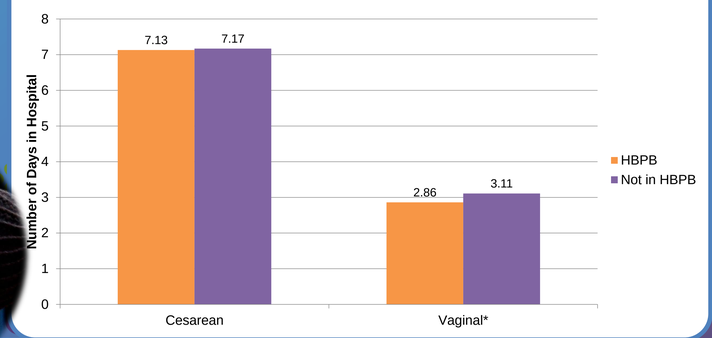


Measuring the Robustness of Differences in Outcomes

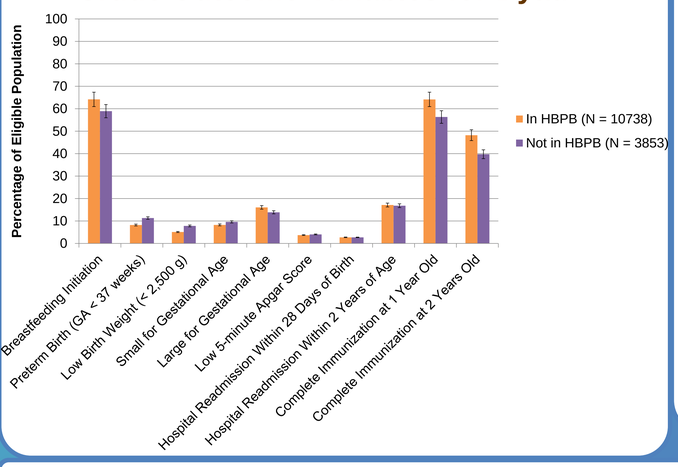
	Crude Rates (%)		Risk Ratio	95% CI	*P* value	Sensitivity to unmeasured confounding[a]
	HBPB	No HBPB				
Breastfeeding initiation	64.2	58.9	1.06	(1.03-1.09)	*P*<.001	56.4
Low birth weight (<2500 g)	5.1	7.8	0.71	(0.63-0.81)	*P*<.001	61.8
Preterm (<37 weeks gestation)	8.2	11.3	0.76	(0.69-0.84)	*P*<.001	62.9
Small for gestational age	8.3	9.6	0.90	(0.81-0.99)	.05	1.8
Large for gestational age	16.1	13.9	1.13	(1.05-1.23)	.001	38.8
Low 5-minute Apgar score	3.7	4.0	0.93	(0.79-1.09)	.36	ns
Neonatal readmission (<29 days)	2.7	2.7	1.02	(0.84-1.25)	.82	ns
	Unweighted Means		**Weighted Mean (95% CI)**			
			HBPB	No HBPB	*P* value	
Birth hospital length of stay	HBPB	No HBPB				
Births by C-section	7.1	7.6	7.13 (6.78-7.48)	7.17 (6.79-7.55)	0.87	
Vaginal births	2.9	3.1	2.86 (2.79-2.92)	3.11 (3.03-3.20)	*P*<.001	

[a] Gamma Sensitivity Test; ns= outcome not statistically significant, thus Gamma Sensitivity not calculated. Higher numbers suggest less sensitivity to unmeasured confounders.

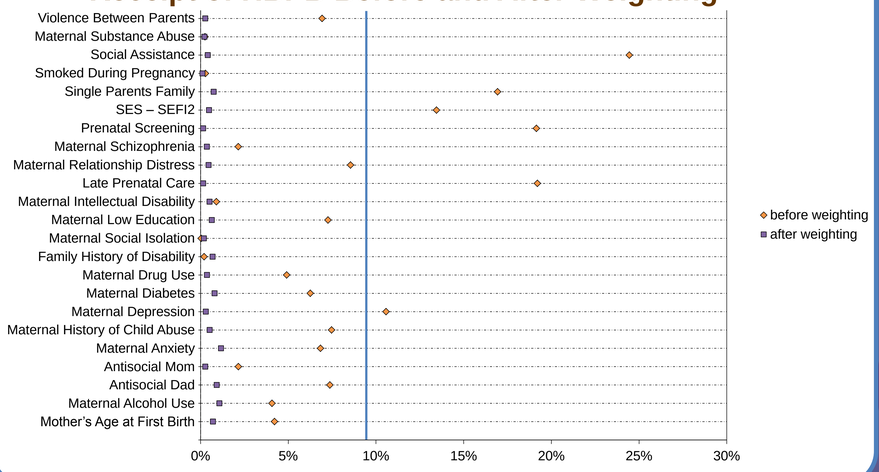
Average Length of Stay After Birth Admission



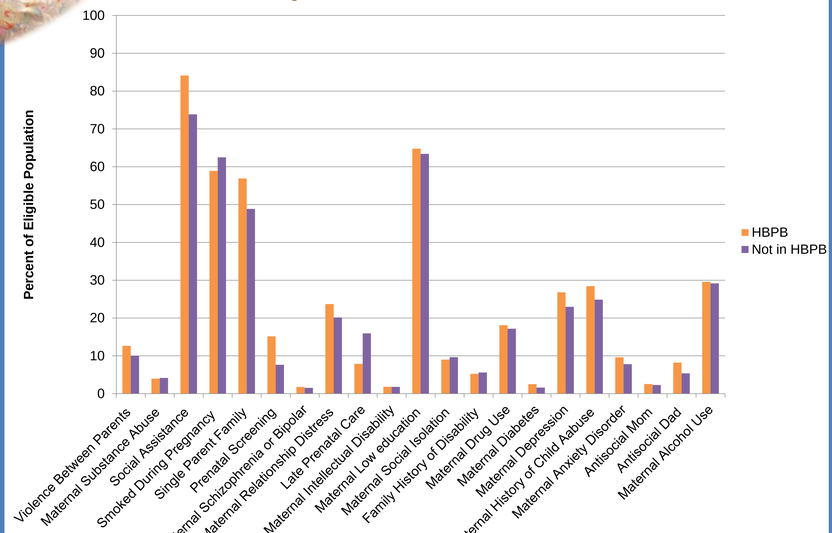
Crude Outcome Variables for Dyad



Standardized Differences Between Receipt and Non-Receipt of HBPB Before and After Weighting



Descriptive Counts of Variables



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