

# Are home visiting programs for at-risk families effective in improving child outcomes?

## A PATHS Equity for Children project

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**Background:** Home visiting programs have been evaluated in highly structured and supervised conditions which may provide different results in real-world delivery systems. Since 1999, Healthy Child Manitoba has been funding and coordinating the province-wide *Families First Home Visiting Program* which provides home visiting services to families with children from prenatal to five years of age who are living in conditions of risk. Participation in the program is voluntary. *Families First* is built on the premise that parents with strong attachments to their infants are more capable of nurturing them and at lower risk for child abuse and neglect. Paraprofessional home visitors under the guidance of public health nurses and using an established curriculum, develop trusting relationships with parents to provide support and information about child development, parenting and health information as well as parental and child activities.

**Approach:** Home visiting program data were linked to health and social services data housed at the Manitoba Centre for Health Policy through a scrambled health identifier, making it impossible to identify children and their parents. After imputations, program data was divided into 4,575 children who received the program and 5,185 children who had not. A propensity score was calculated with logistic regression using 21 variables that may influence program participation such as alcohol use, smoking and violence between parents. These scores were used to incorporate inverse probability of treatment weights into the analyses to address the selection bias inherent in delivering a voluntary program. Generalized linear modelling calculated predictive probability\* and was used to test for an association between program participation and child outcomes.

\* A predicted probability of 0.07 means we estimate that 7 out of 100 children have the outcome.

**Objective:** This population health intervention research sought to determine whether or not the *Families First Home Visiting Program* for at-risk families was associated with decreases in child maltreatment and increases in children's immunization rates.

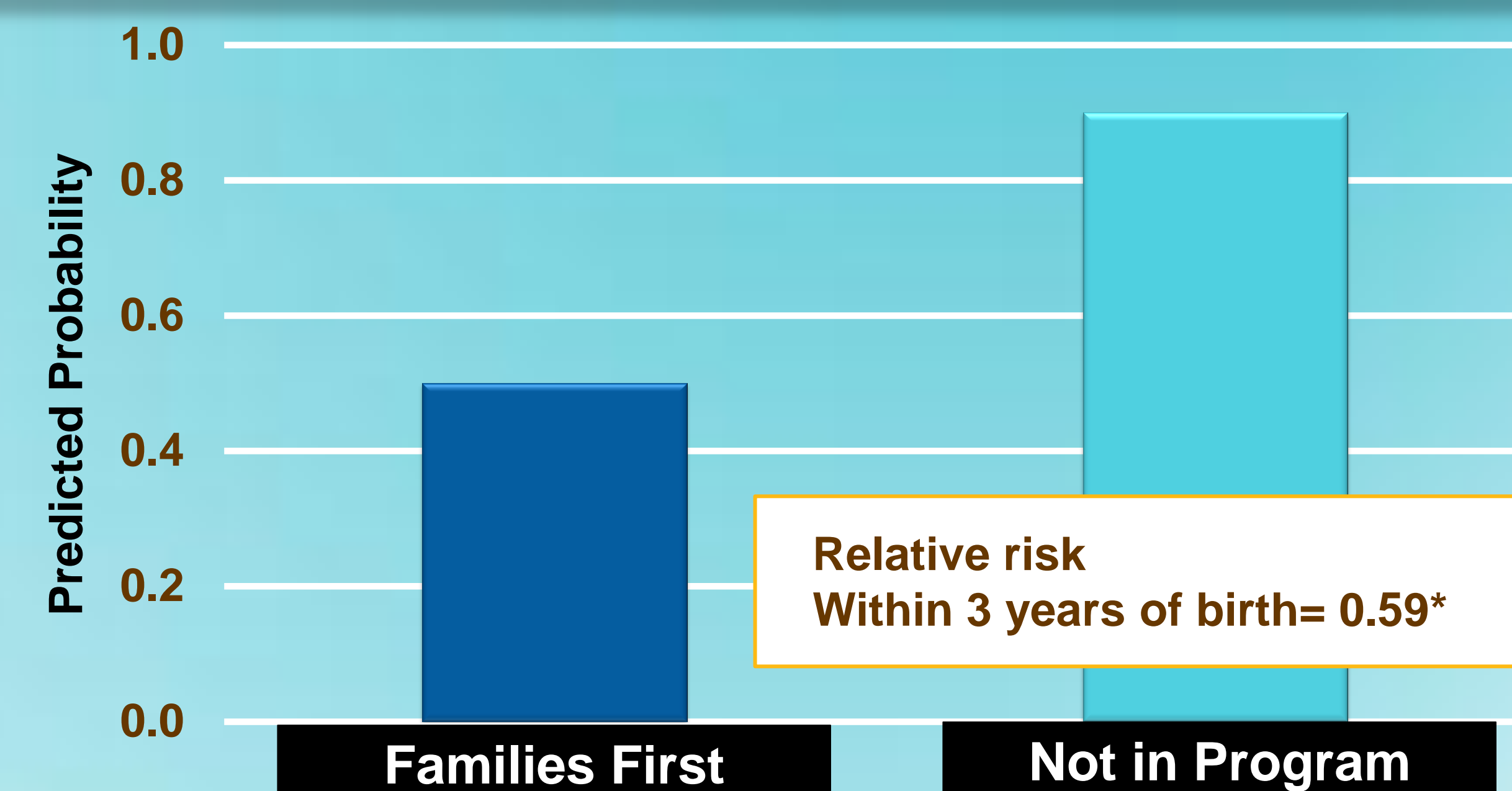
### Conclusion:

Our results indicate that home visiting programs as implemented in Manitoba are associated with decreases in child maltreatment and increases in children's immunization rates. These results will be useful for program planners in providing insights for program improvement. Home visiting programs could improve their reach so that more vulnerable families would benefit. The treatment effect on immunization rates was lower than expected and could be increased by improving the curriculum and training for home visitors.

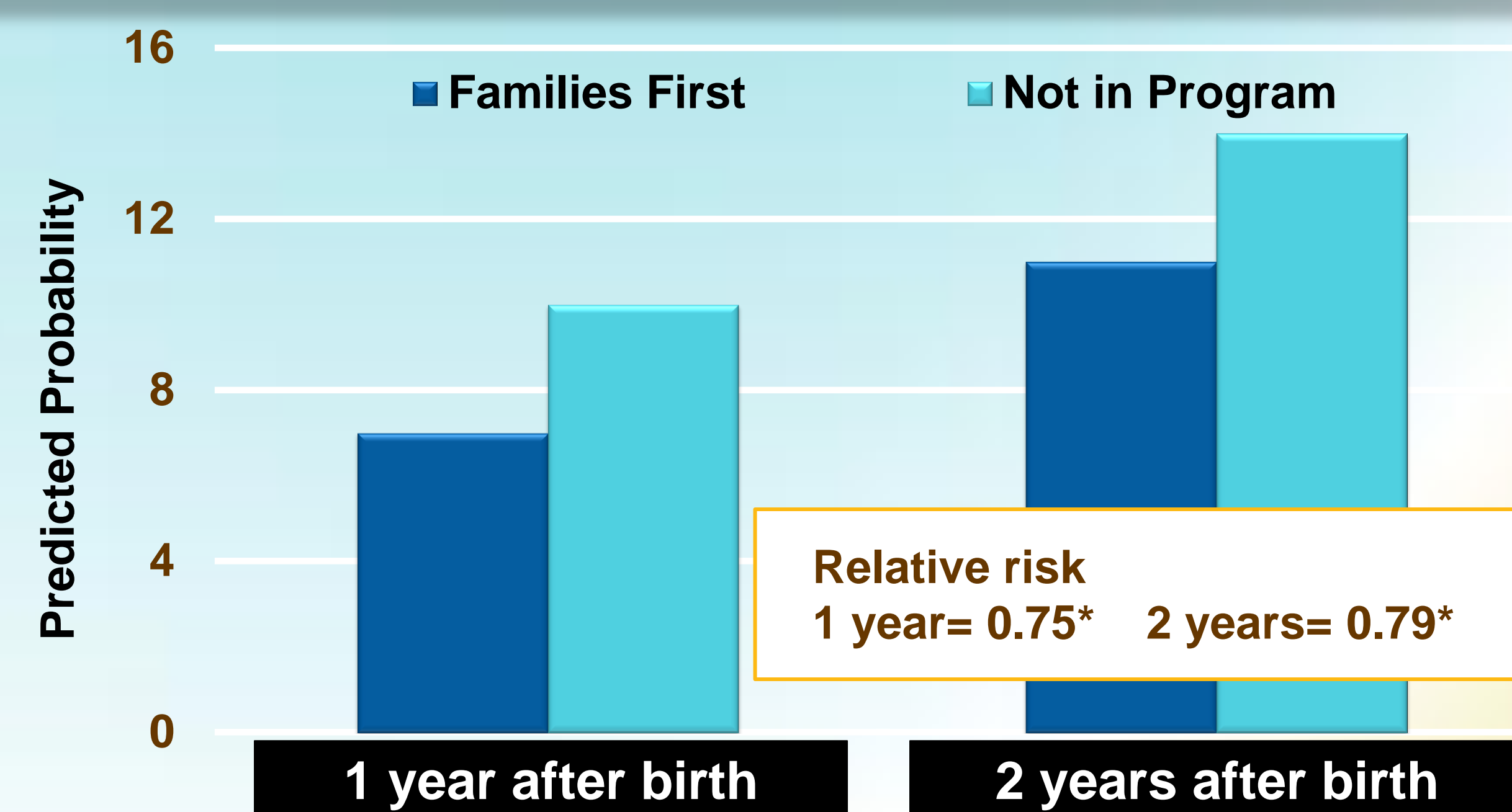
Table 1: Characteristics of Families

	Unweighted		Weighted	
	In FFHV	Not in FFHV	In FFHV	Not in FFHV
Parent Survey (Risk Score) (mean)	38.5	36.7	<b>37.4</b>	<b>37.4</b>
Socioeconomic Factor Index II (mean)	0.5	0.7	<b>0.6</b>	<b>0.6</b>
Mother's age at birth (mean)	21.1	20.8	<b>20.9</b>	<b>20.9</b>
Alcohol and/or drug use (%)	38.0	38.8	<b>38.3</b>	<b>38.3</b>
Smoking during pregnancy (%)	49.8	56.0	<b>52.9</b>	<b>52.9</b>
Social Isolation (%)	16.5	9.5	<b>12.8</b>	<b>12.9</b>
Maternal low education (%)	52.2	53.2	<b>53.1</b>	<b>53.0</b>

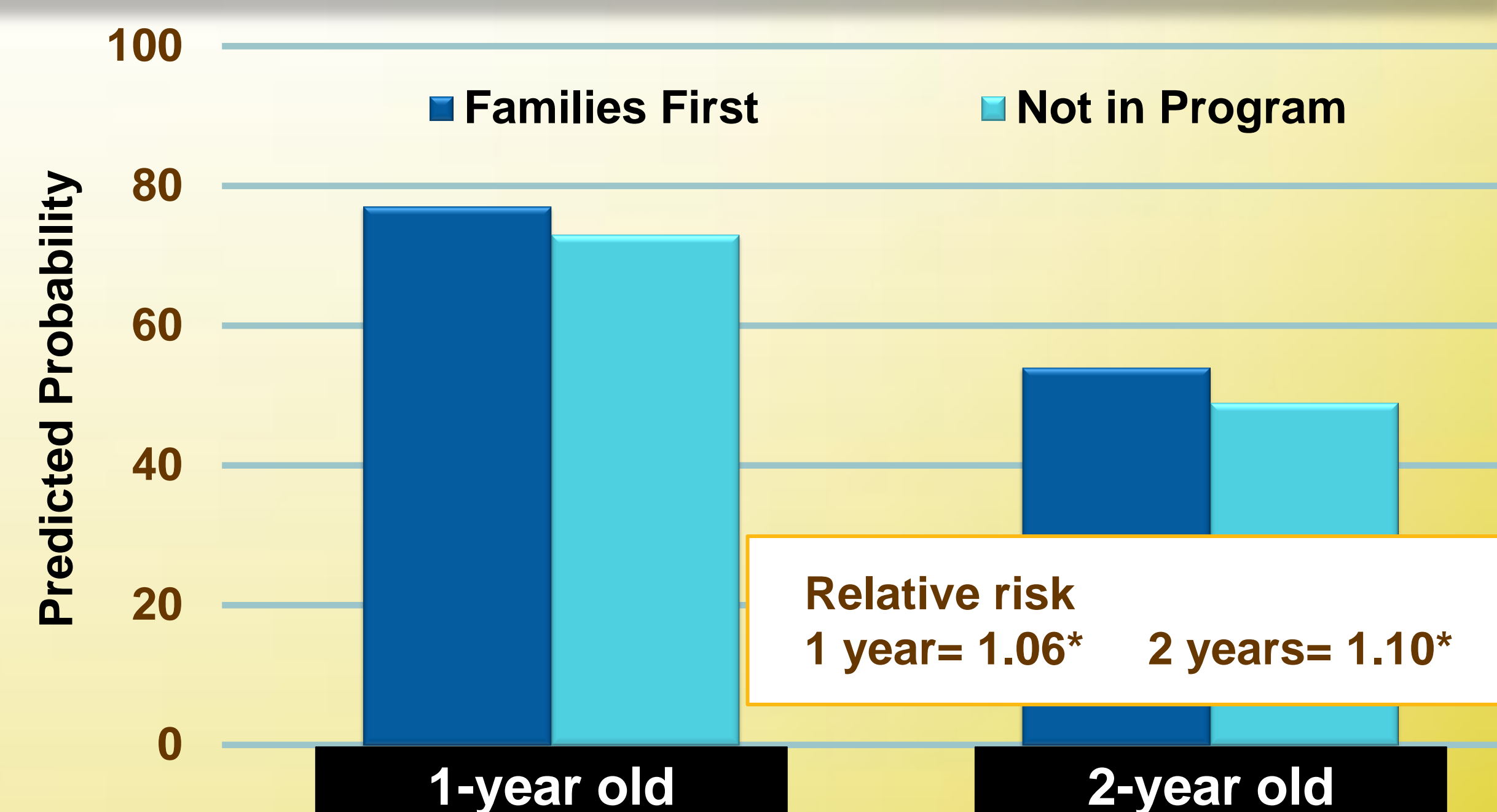
### Injury for Child Maltreatment



### Children in Care



### Complete Immunization



\* = Statistical significant (p<.05)

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The authors acknowledge the Manitoba Centre for Health Policy for use of data contained in the Population Health Research Data Repository under project # 2012-002 (HIPC# 2011/2012-24A). The results and conclusions are those of the authors and no official endorsement by the Manitoba Centre for Health Policy, Manitoba Health, or other data providers is intended or should be inferred. Data used in this study are from the Population Health Research Data Repository housed at the Manitoba Centre for Health Policy, University of Manitoba and were derived from data provided by Manitoba Health and Manitoba Family Services, Manitoba Jobs & The Economy, the Healthy Child Manitoba Office, and the Winnipeg Regional Health Authority.