

Using Administrative Data to Study Child Health

Marni Brownell, PhD
Anita Kozyrskyj, PhD
Don Fuchs, PhD
Rob Santos, PhD

***MCHP 20th Anniversary Conference:
Going for the Gold***

Winnipeg, Manitoba, March 9, 2010

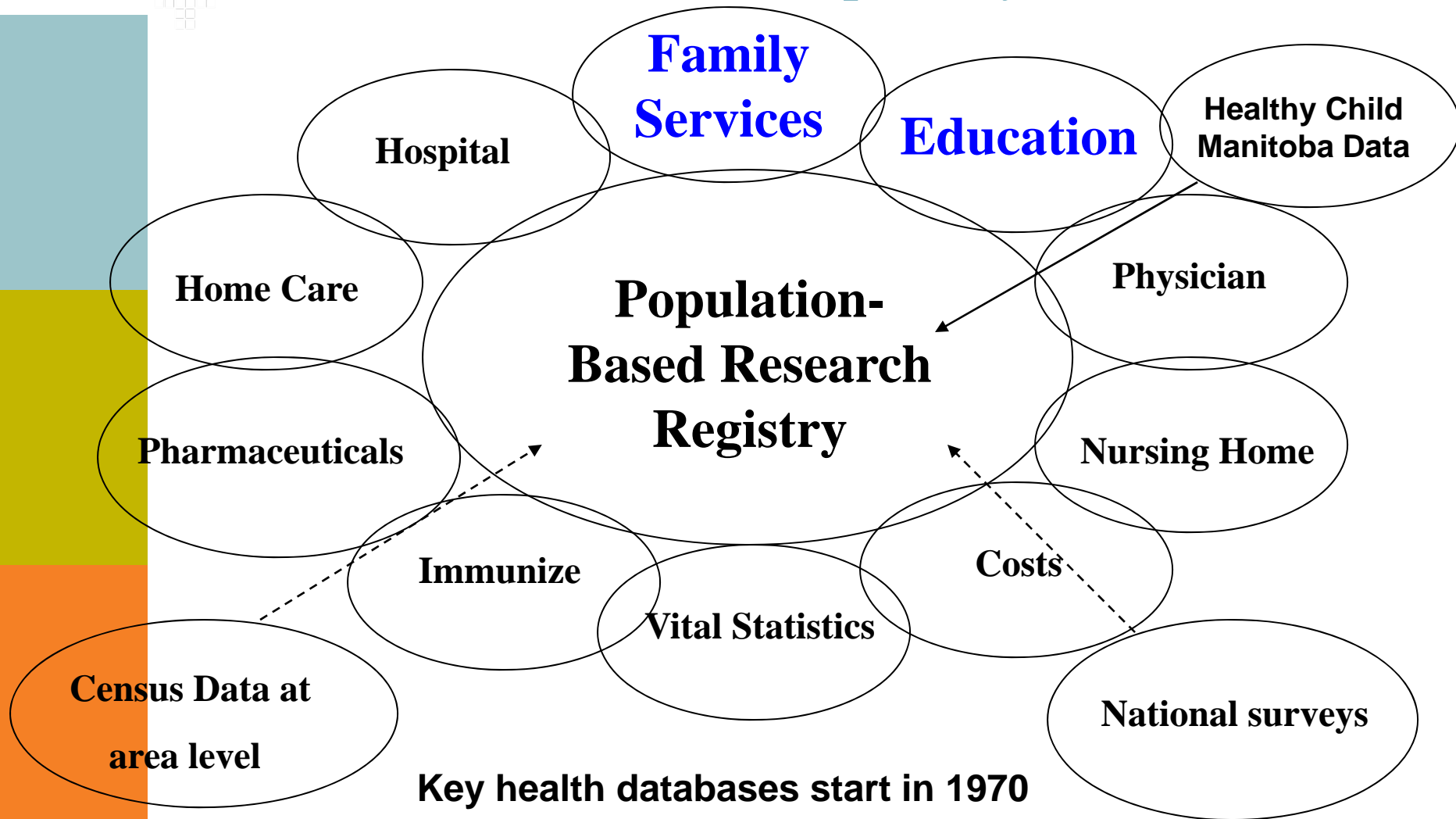




Three Pillars of MCHP:

- **The Repository**
- **The Research**
- **Knowledge Translation**

Manitoba Population Health Research Data Repository



Population Health Research Data Repository

Health

Administrative

- ▣ [Hospital](#)
- ▣ [Medical](#)
- ▣ [Drug](#)
- ▣ Immunization
- ▣ Longterm care
- ▣ [MIS](#)
- ▣ Public Health
- ▣ Home Care
- ▣ [Mental Health](#)
- ▣ Health Links
- ▣ [Emergency](#)
- ▣ Waiting lists
- ▣ Remote Consult

Survey

- ▣ [CCHS](#)
- ▣ [NPHS](#)
- ▣ MB Heart

Clinical

- ▣ Alcohol
- ▣ [Bone mineral density](#)
- ▣ Genetics
- ▣ Pediatric diabetes
- ▣ MRI

De-Identified Data Files

- *Separate but Linkable* -

Registries

- ▣ Manitoba Health Insurance Registry
- ▣ Vital Statistics - mortality
- ▣ Provider Registry
- ▣ Metis Registry

Social

Healthy Child Manitoba

- ▣ Baby First Evaluation
- ▣ Baby First Screening
- ▣ Families First Screening
- ▣ Early Development Instrument
- ▣ Healthy Baby

Community and Social Services

- ▣ Child & Family Services Information System
- ▣ Child Day Care
- ▣ Income/Employment Assistance
- ▣ City of Winnipeg Housing
- ▣ Social/Recreational Programs

Survey Social Data: [Census](#)

Education

- ▣ [Manitoba Schools](#) - including Winnipeg
- ▣ Post-Secondary - [Red River College](#)

Database Support


- ▣ Drug data support files
- ▣ Conversion files (e.g., postal code, ICD)
- ▣ Case mix files (e.g., CMG, ACG)
- ▣ Facilities
- ▣ Electronic User Site Locator
- ▣ Tariff and fee tables
- ▣ Mapping/electronic boundary files
- ▣ Population counts
- ▣ Training feasibility research

Justice

- ▣ Incident Reporting System

Using linked data to build a picture of development throughout childhood

Prenatal:
FF screen
Prenatal care
Maternal serum screen



At birth:
Birth weight
Gestational age
Apgar scores
Breastfeeding
Complications
FF screen



Early Years:
Immunization
Child care



School Entry:
EDI
School enrolment
Early literacy
Special needs



Middle Years (~7-11):
Grade retention
Grade 3 assessment
School enrolment
Grade retention
Special needs



Middle Years (~12-14):
Grade 7/8 assessments
School enrolment



Youth (~15-19):
Grade 12 assessments
High school marks
Special needs
High school completion



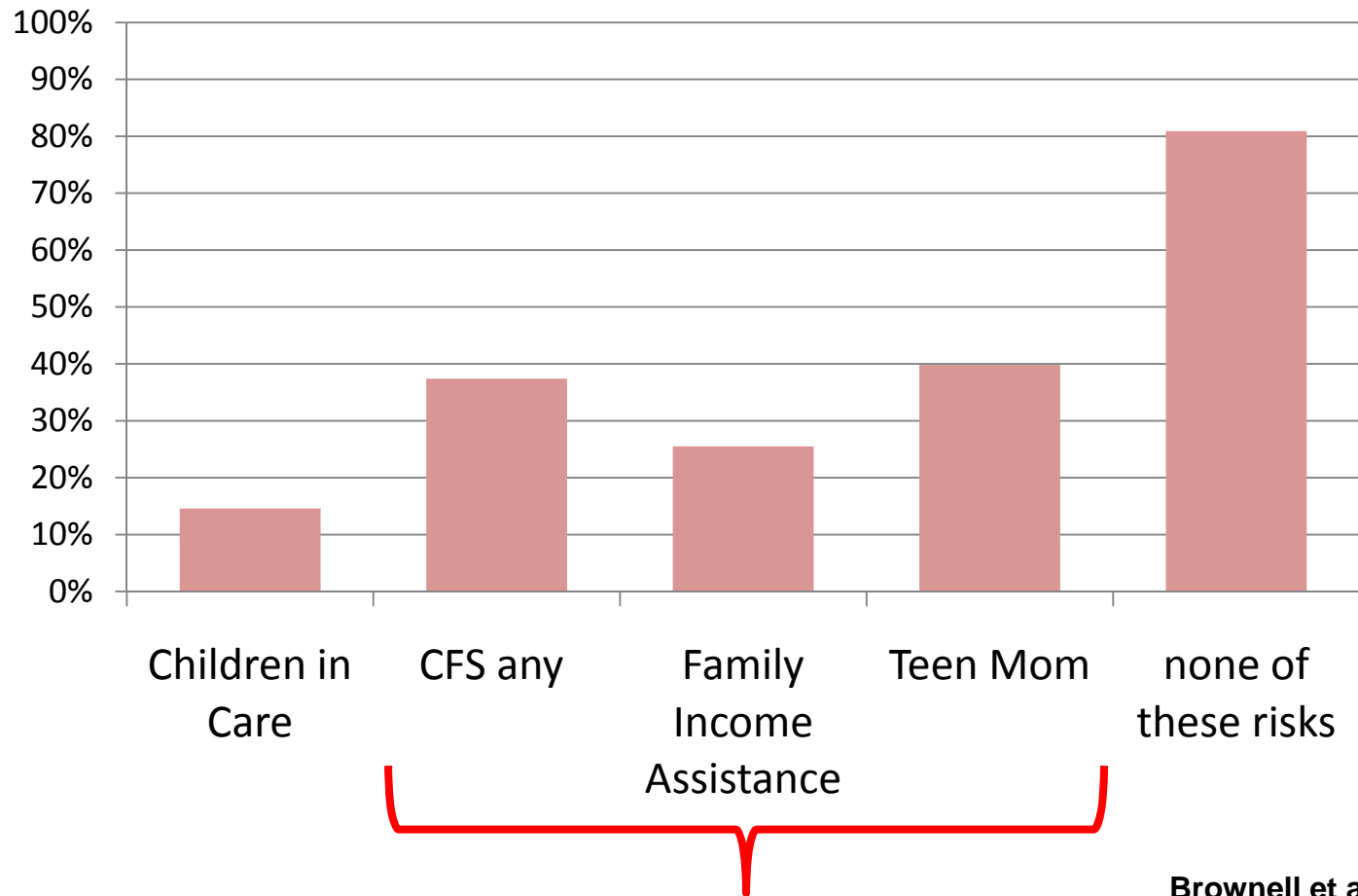
At all stages: health status (hospitalizations, doctor visits, medications prescribed, FASD), residence (area-level income, number of moves), family or youth receipt of income assistance, involvement with child welfare, family composition (marital status, number of siblings)

High school graduation rates for kids in certain risk groups

Brownell et al., 2007



High school graduation rates for kids in certain risk groups

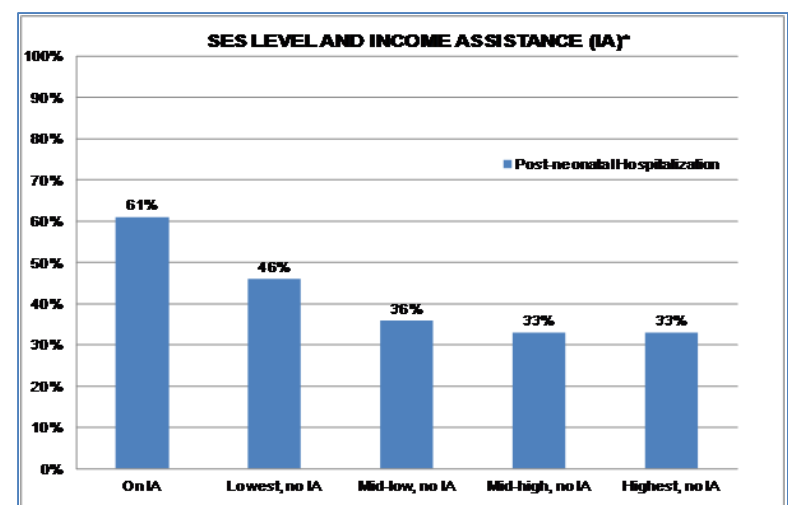
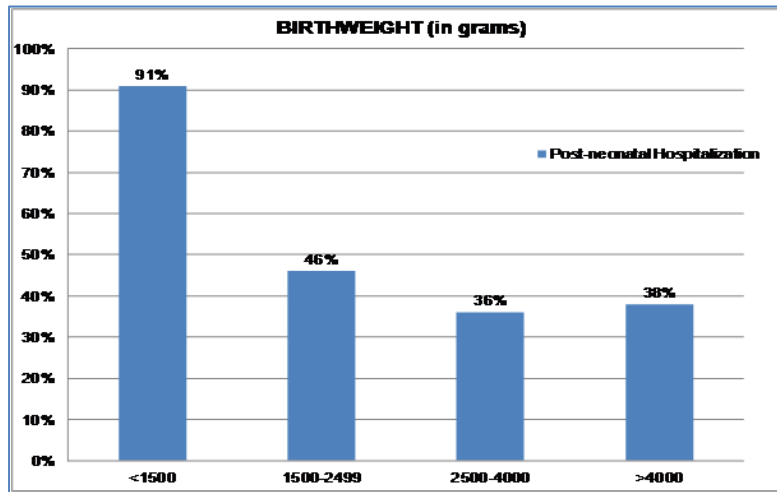
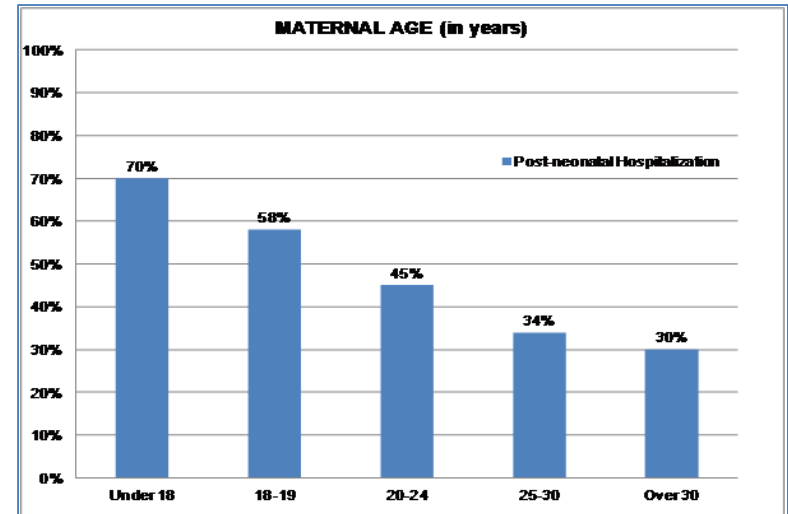
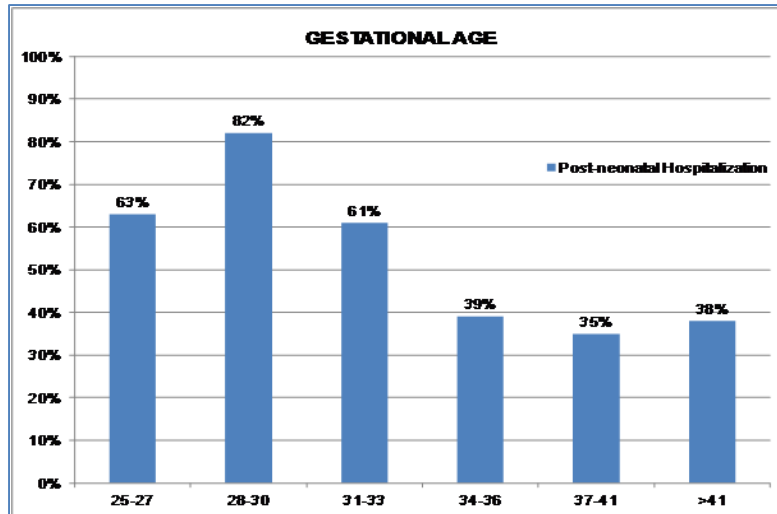


Brownell et al., 2007

30% of cohort

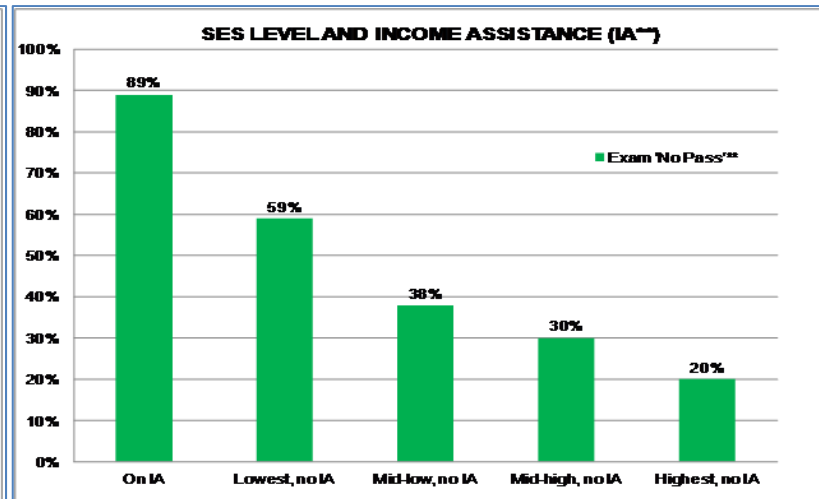
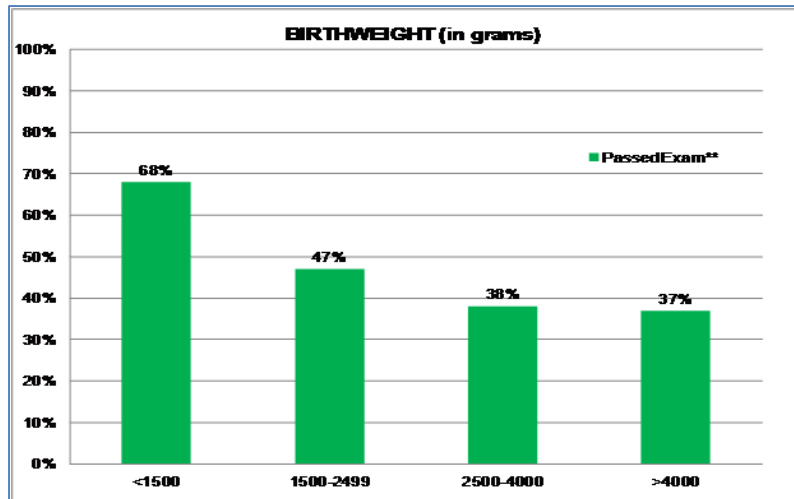
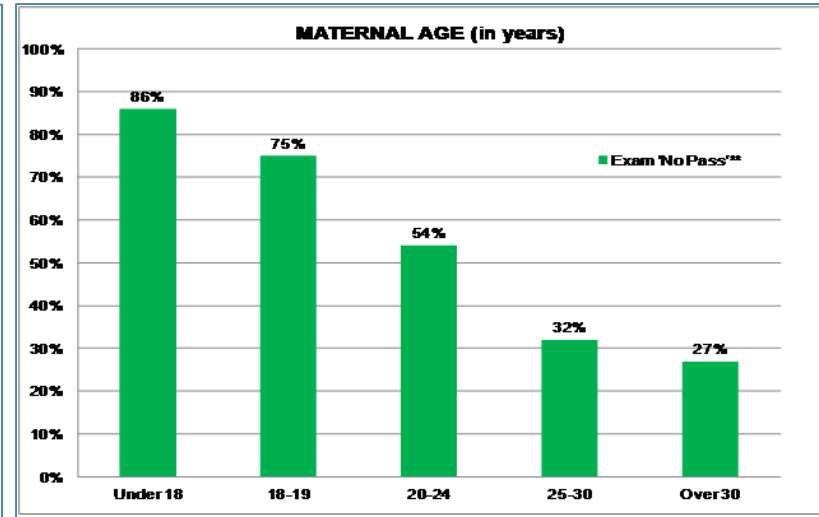
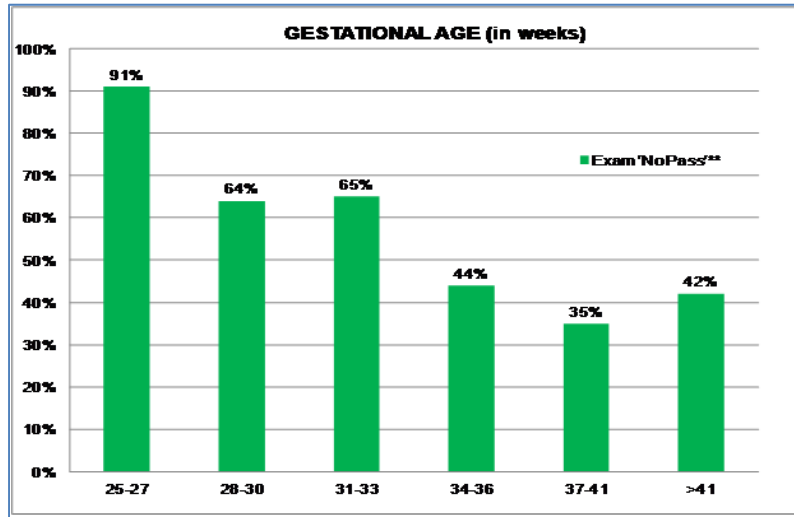


Impact of Biological and Social Risk Factors on Childhood Hospitalization



Jutte et al., in press

Impact of Biological and Social Risk Factors on Academic Performance



Jutte et al., in press

Manitoba Centre for Health Policy

Thank you!

Marni_Brownell@cpe.umanitoba.ca

www.umanitoba.ca/centres/mchp/