

ADVENTURER EXPLORER TRAILBLAZER REBEL PIONEER CREATOR DEFENDER ADVENTURER EXPLORER TRAILBLAZER
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An Hommage to Clyde Hertzman's Legacy: Using Population-Level Data to Monitor Child Development



Marni D. Brownell, PhD
Social Policy and Health Inequalities: An
International Perspective
Montreal, QC: May 7, 2014



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CHAPTER 5

Equity from the start

“Each one of you is your own person, endowed with rights, worthy of respect and dignity. Each one of you deserves to have the best possible start in life, to complete a basic education of the highest quality, to be allowed to develop your full potential and provided the opportunities for meaningful participation in your communities.”

Nelson Mandela and Graça Machel (UNICEF, 2000)

EARLY CHILD DEVELOPMENT AND EDUCATION – POWERFUL EQUALIZERS

Worldwide, 10 million children die each year before their fifth birthday (Black, Morris & Bryce, 2003). The vast majority of these deaths occur among children born in low- or

within countries and
ons, supported by WHO,
g of health inequity and the
ction. Creating the

children of primary-
Educational attainment
partly through its eff
living conditions (R
2006; Bloom, 2007).
– educational attain
health, survival, and
Cleland & Van Ginn

in countries and
, supported by WHO,
f health inequity and the
n. Creating the
raining of policy-makers
stres a stronger focus on

Many challenges in
years of life, includir
obesity, heart disease
in early childhood a
literacy and numerac

EARLY CHILDHOOD LEARNING

Knowledge Centre



The World's Best Infrastructure for Child Development Statistics in Canada

Strategies for Federal-Provincial-Territorial Collaboration

Document prepared by the Monitoring Committee of the Early Childhood Learning Knowledge Centre

June 2009

Prepared by the monitoring committees of the Canadian Council on Learning's Early Childhood Learning Knowledge Centre.

AUTHORS

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MONITORING COMMITTEE

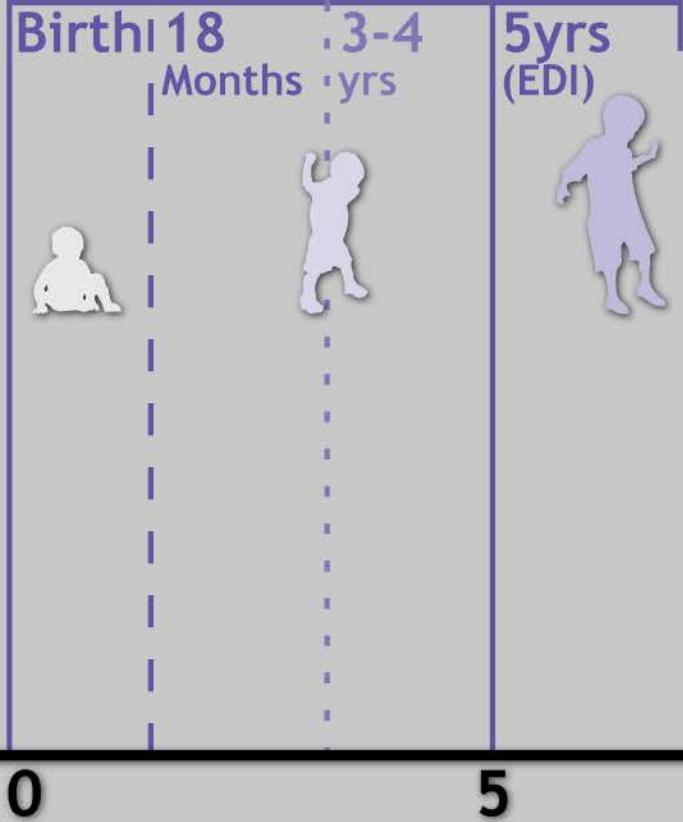
- **Clyde Hertzman**, Committee Co-Chair, Human Early Learning Partnership, University of British Columbia
- **Richard E. Tremblay**, Committee Co-Chair, Centre of Excellence for Early Childhood Development Research Unit on Children's Psycho-Social Maladjustment, Université de Montréal, McGill University, Université Laval
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- **John LeBlanc**, Faculty of Medicine, Departments of Pediatrics, Psychiatry, Community Health & Epidemiology, Dalhousie University
- **Robin Williams**, Medical Officer of Health, Niagara Region Public Health, Department of Pediatrics, McMaster University

A Comprehensive Child Development Monitoring System

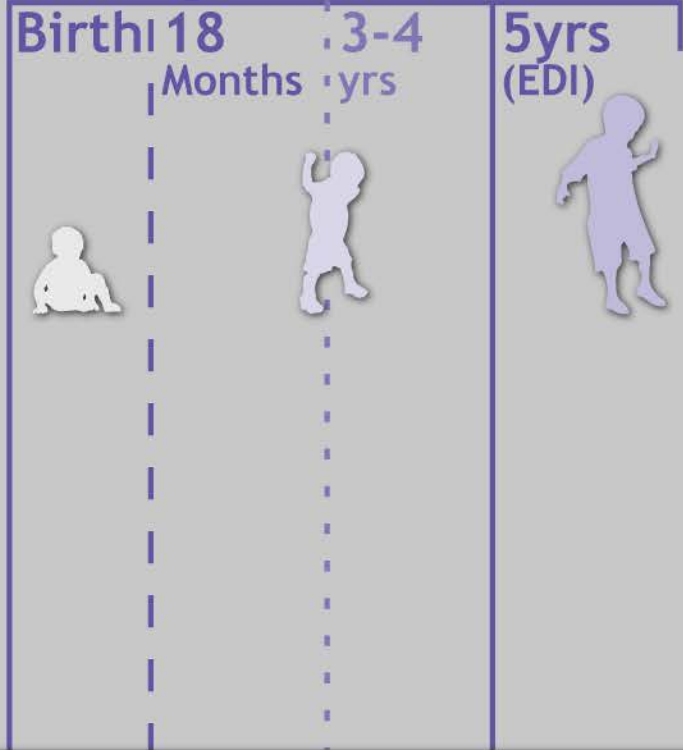
0 5 10 18 YEARS

A horizontal timeline axis is shown at the bottom of the page. It consists of a solid black line with four major tick marks labeled '0', '5', '10', and '18 YEARS'. The '18 YEARS' label is positioned at the far right end of the line, which is also marked with a dashed line.

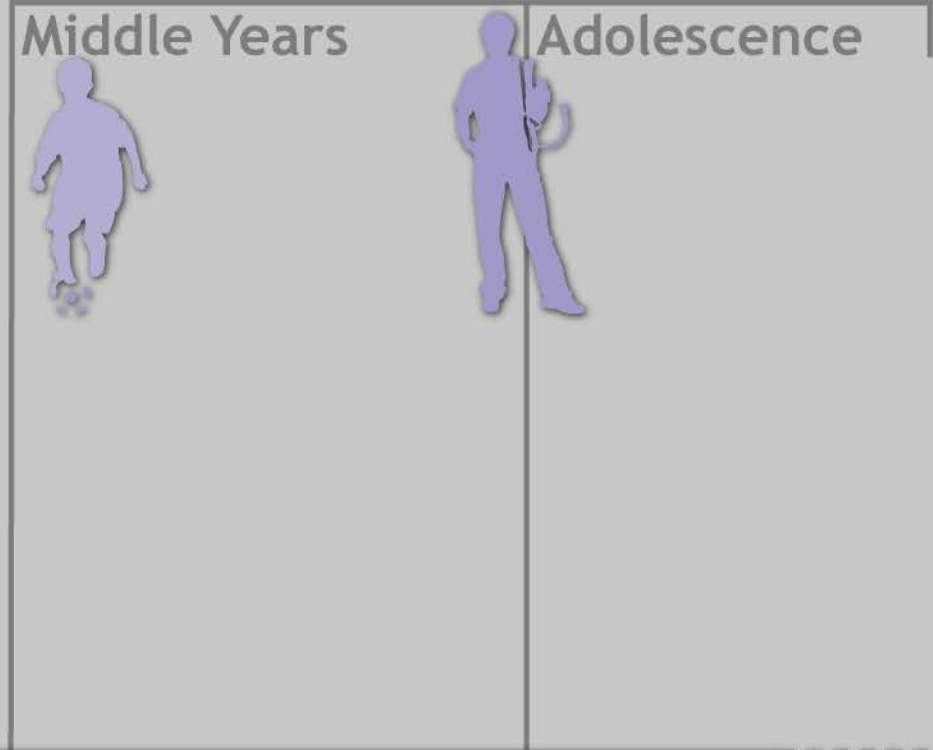
Early Years



Early Years



Later Life Course



0 5 10 18 YEARS

Longitudinal Studies

Early Years

Later Life Course

Birth | 18 Months | 3-4 yrs | 5yrs (EDI)

Middle Years | Adolescence

Population Measures

Birth/Health/Education Linkages

0

5

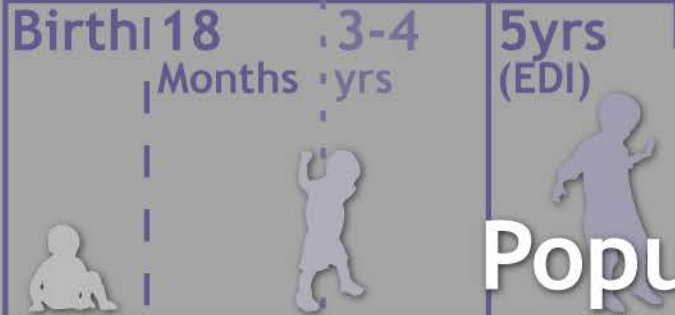
10

18 YEARS

Social Indicators

Longitudinal Studies

Early Years



Later Life Course



Population Measures

Birth/Health/Education Linkages

ECD Policy & Program Databases

0

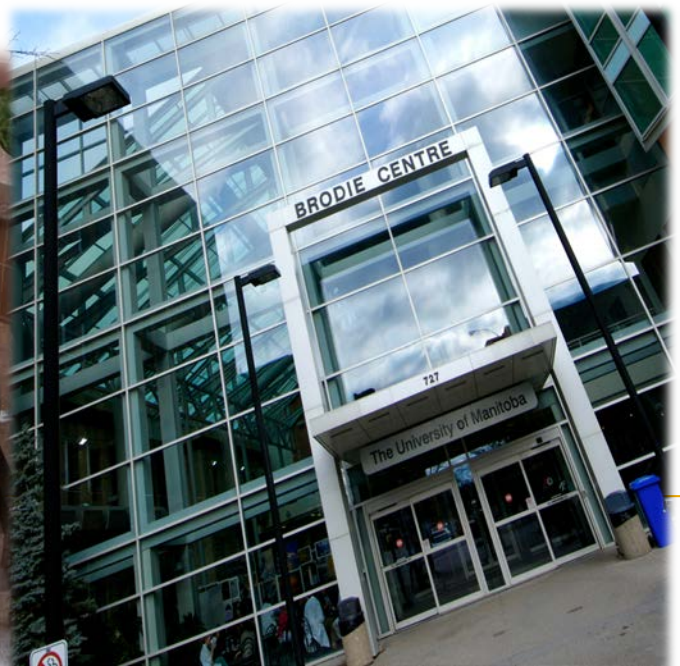
5

10

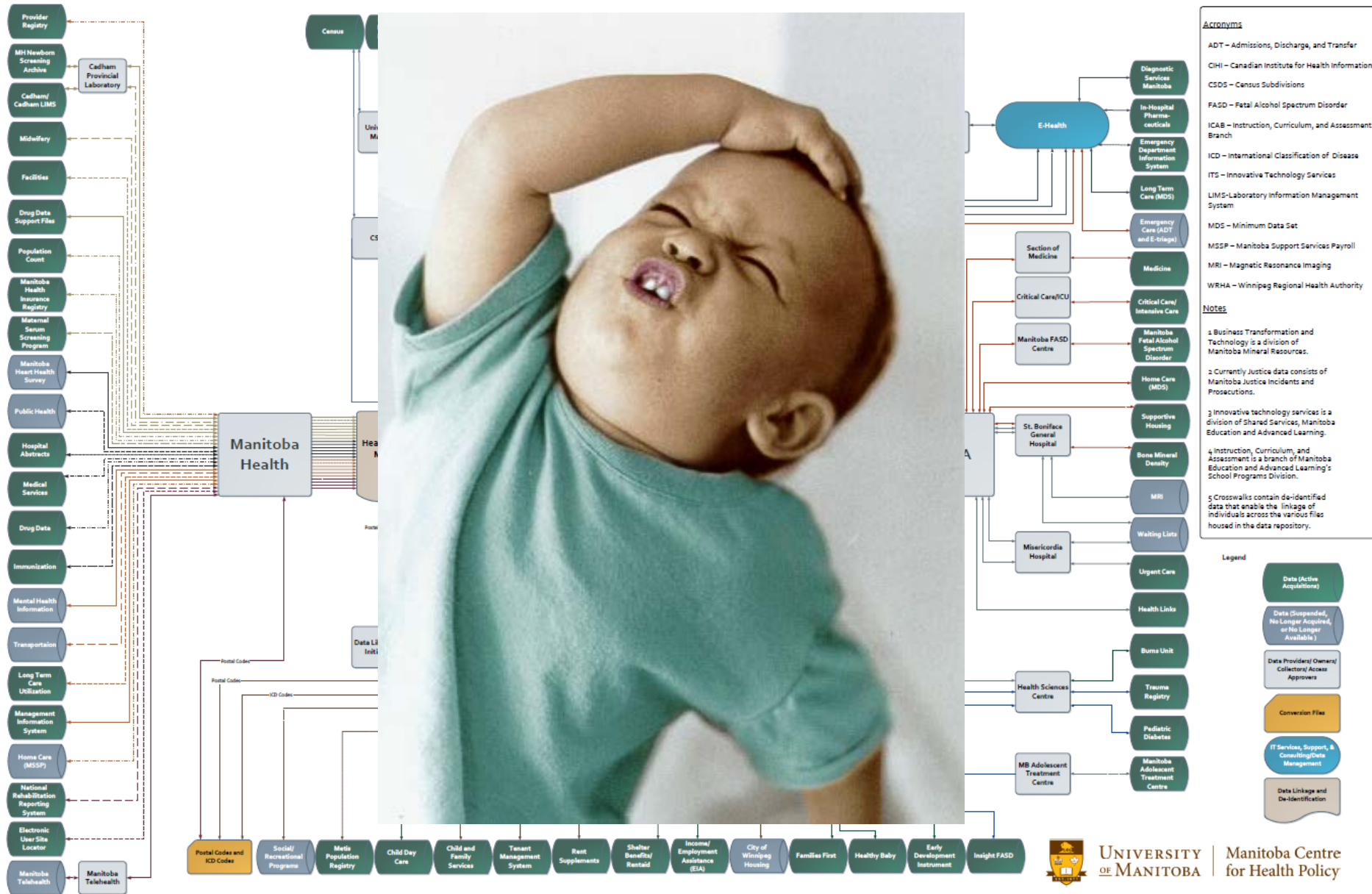
18 YEARS

Manitoba Centre for Health Policy (MCHP)

- University of Manitoba, Faculty of Health Sciences, College of Medicine, Department of Community Health Sciences
- Use a Repository of datasets to study health services, population and public health
- support the development of evidence-informed policy, programs and services that maintain and improve the health and well-being of Manitobans.



Manitoba Centre for Health Policy – Data Flow Diagram



Using data in MCHP Repository to study child health and development

Early Years

Later Life Course

Prenatal:

FF screen
Prenatal care
Maternal serum screen

At birth:

Birth weight
Gestational age
Apgar scores
Breastfeeding
Complications
FF screen

Preschool:

Child care

School Entry:

EDI

School enrolment
Special needs

(age 8)

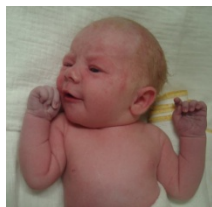
Grade 3 assessment
School enrolment
Grade retention
Special needs

(ages 11-13)

Grade 7/8 assessments
School enrolment
Grade retention
Special needs

(ages 14-19)

Grade 12 assessments
High school marks
Special needs
High school completion



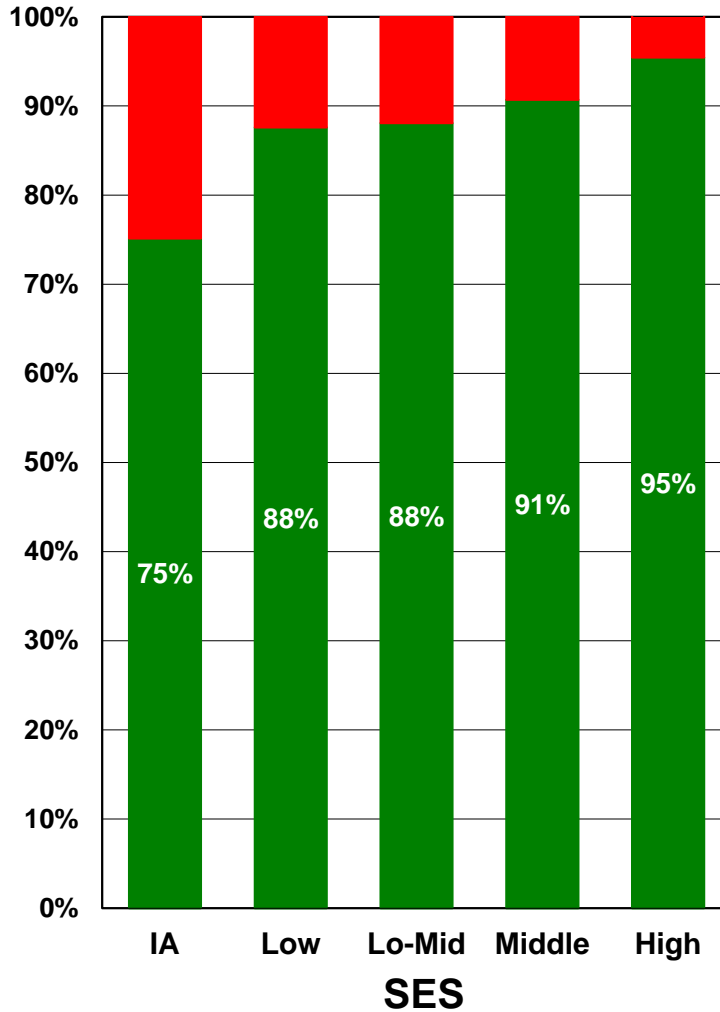
Birth/Health/Education Linkages

At all stages: health status (hospitalizations, doctor visits, medications prescribed), immunization, residence (area-level measures; region, number of moves), family composition (marital status, number of siblings), family or youth receipt of income assistance, involvement with child welfare, clinical datasets (e.g., FASD)

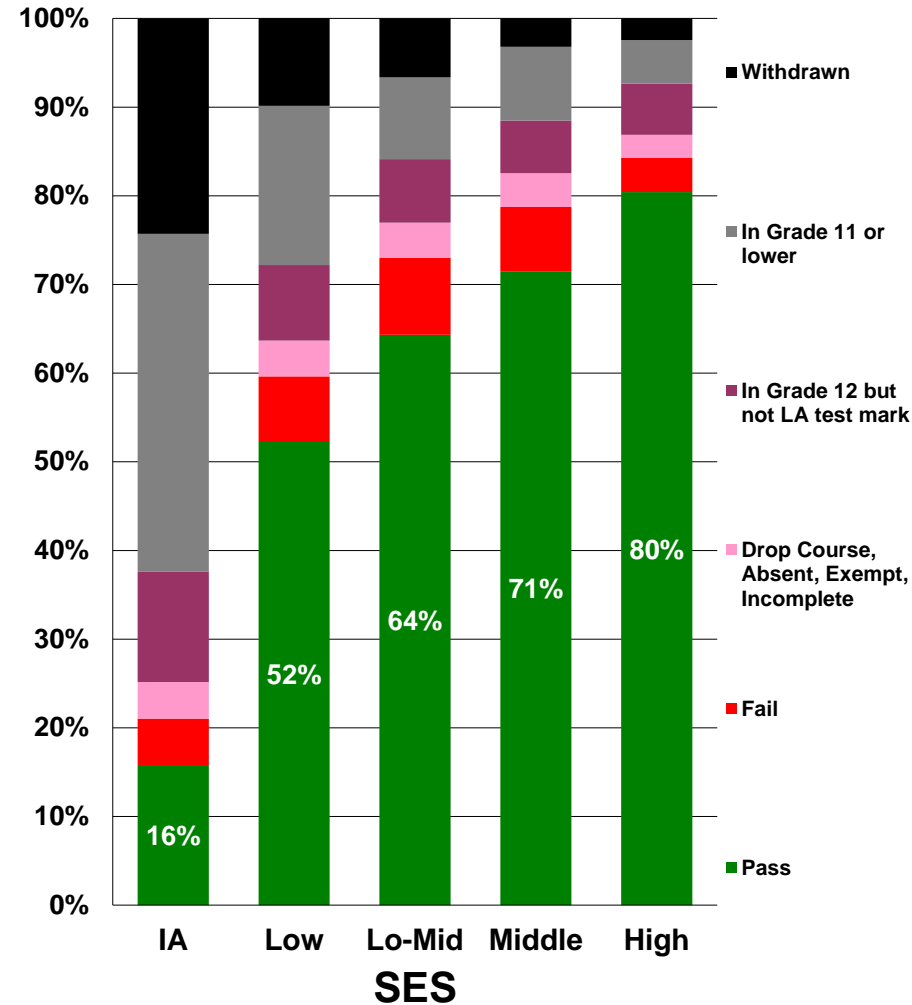
Grade 12 Performance by Socioeconomic Status (SES)

Language Arts Standards Test

Pass/Fail rates of test writers



17/18 year olds who should have written



PATHS Equity: Pathways To Health and Social Equity



- Multi-disciplinary, cross-sector collaboration
- Integrated KT
- Use Repository to evaluate programs in childhood
 - Did the program work?
 - Did the program reduce inequities?
- 14 separate sub-projects; integrative projects



PATHS Equity for Children



CIHR IRSC

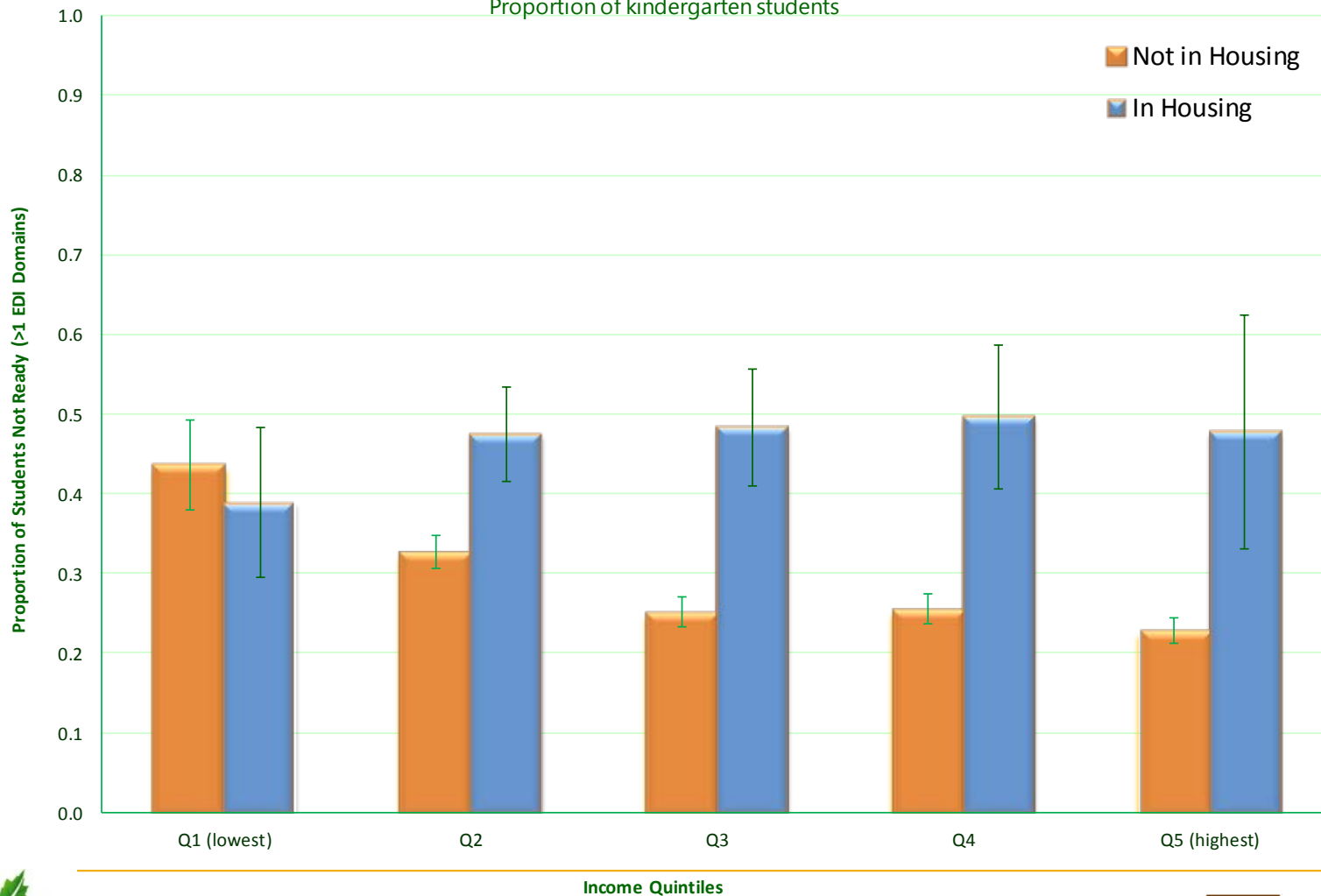
Category of research	Childhood developmental stages				
	Prenatal	Birth	Early childhood	Early and middle school (K-Gr.8)	Adolescence, high school (Gr. 9-12)
Government health policy	Baby Friendly Hospital Initiative (BFHI)				
Health care services			ADHD program		EPPIS (early psychosis prevention and intervention services); In-School Clinics ¹ to reduce teen pregnancy and STIs
Community services	Primary care (Physician Integrated Network project to increase quality of care)				
	Healthy Baby (HB) Program (Prenatal Benefit programs); Families First (FF) Home Visiting		Community support	Community School Investigator's (CSI) Summer Learning Enrichment Program	
	Social housing				
School-based services				Healthy Buddies; Roots of Empathy; Full-day kindergarten;	
				PAX Good Behavior Game	
Assessing the gap	Post-analysis: qualitative case study (Winnipeg RHA) to determine how selected programs increased or decreased inequity through complex interactions of various levels of government or departments that influence the program				
Adding to new methodologies	Establish longitudinal cohorts of children within families and communities to enrich the analyses above Is there an ACSC (ambulatory care sensitive condition – used in primary care evaluations) equivalent in public health – a PHSC (Public Health Sensitive Condition) composite measure indicator of public health and population health outcomes, sensitive to public health and social programs and policies? Can this be used to measure policy or program success?				

Social Housing: Does Neighbourhood SES Make a Difference to Children's Outcomes?

- Differences in health and educational outcomes depending on:
 - Social housing versus not in social housing
 - Where social housing located

Not Ready in 1+ Early Development Instrument (EDI) Domains In Housing and Not In Housing in Winnipeg by Income Quintile, 2005/06 - 2006/07

Proportion of kindergarten students



Preliminary, not for circulation

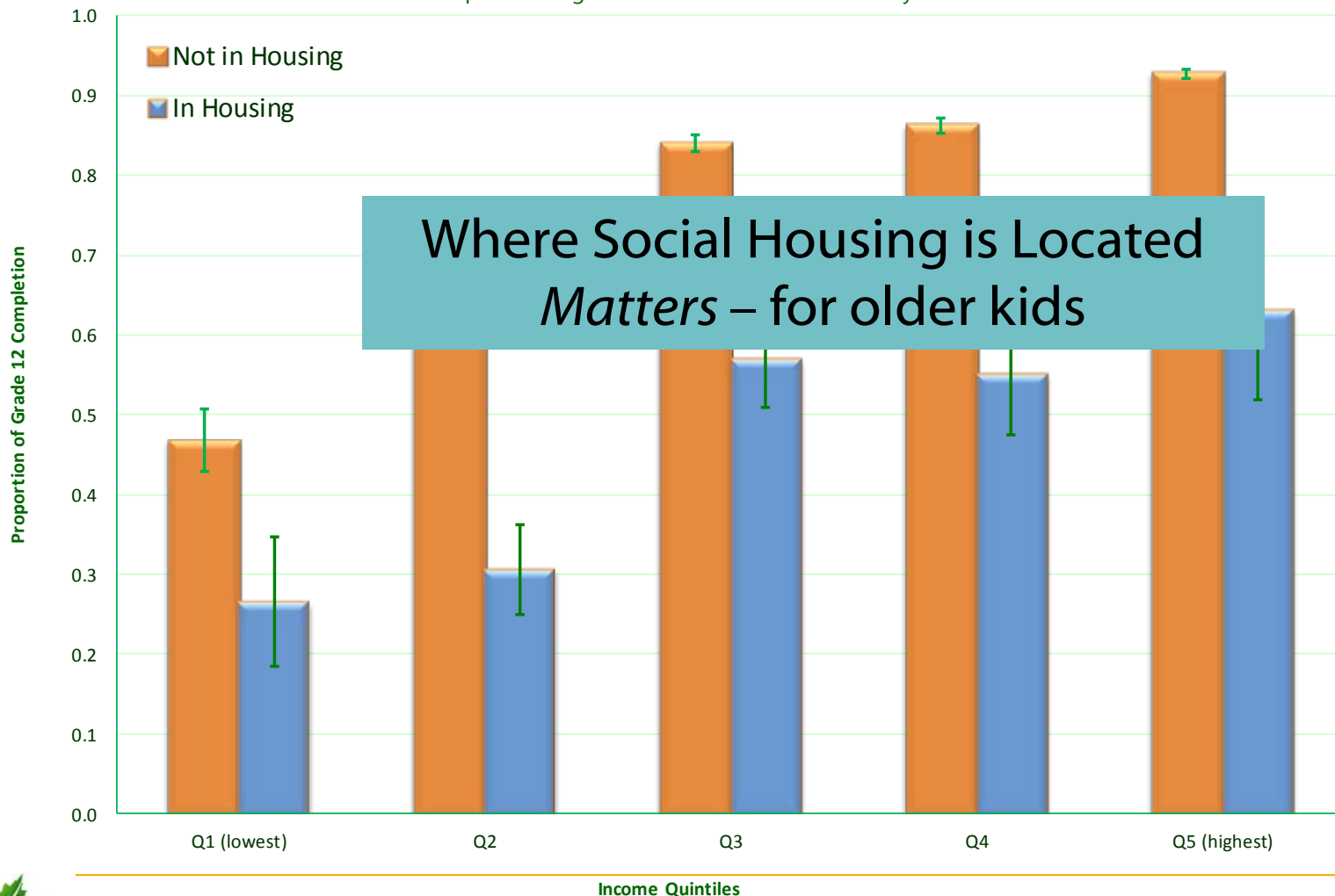
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High School Completion in Housing and not in Housing in Winnipeg by Income, Quintile 2006/07 - 2008/09

Crude percent of grade 9 students followed for six years



Preliminary, not for circulation

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PATHS Equity for Children



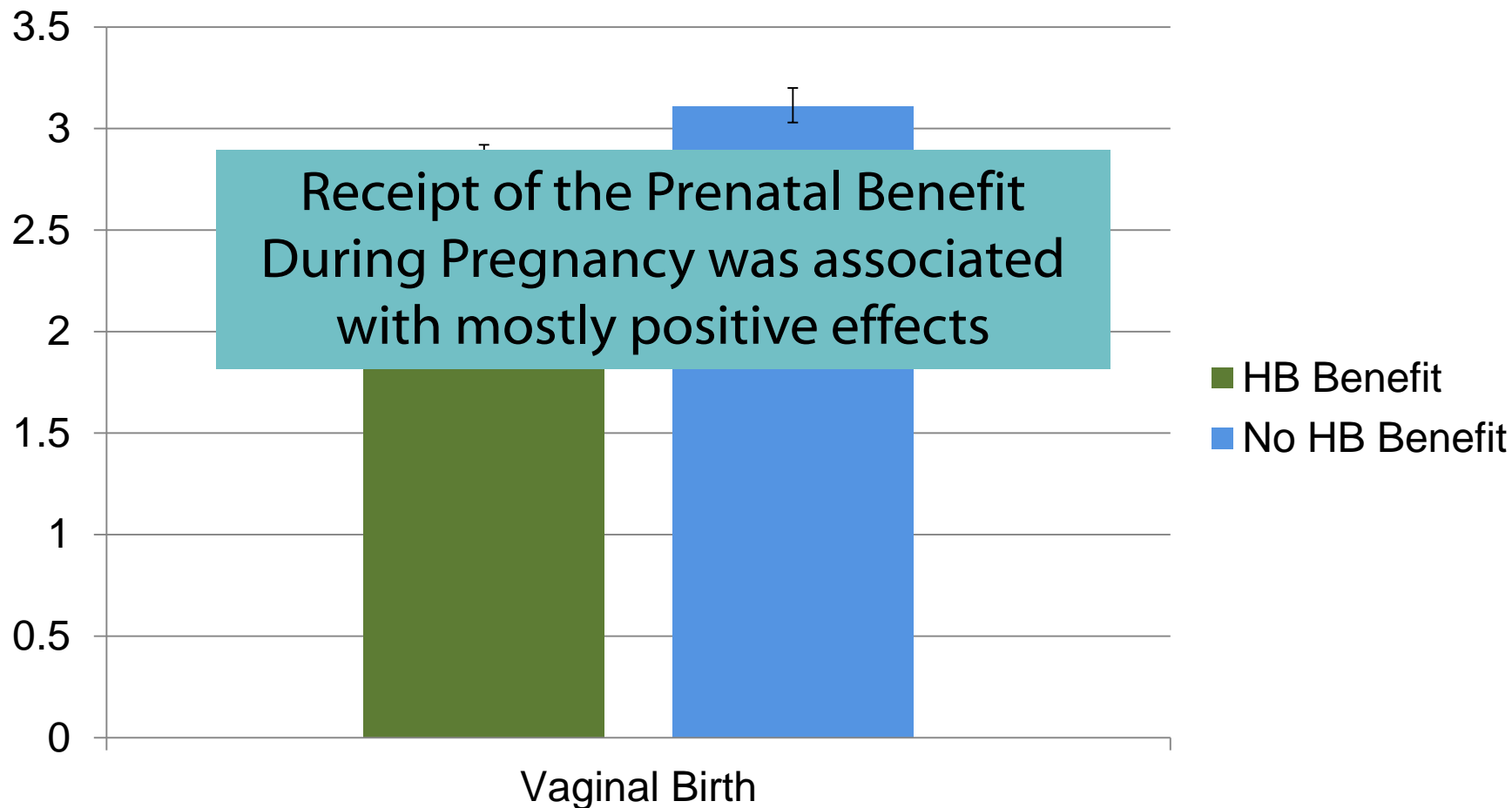
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Manitoba Healthy Baby Program: Does receipt of a prenatal income supplement improve birth outcomes?

- Compared low income women receiving benefit to those not receiving
- Propensity Scoring used to ensure comparability of groups

Average Length of Birth Hospital Stay



Thank You / Questions

- umanitoba.ca/centres/mchp
- facebook.com/mchp.umanitoba
- twitter.com/mchp_umanitoba (@mchp_umanitoba)

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REBEL ADVENTURER TRAILBLAZER

INNOVATOR CHALLENGER REBEL VISIONARY

REBEL PIONEER CREATOR EXPLORER TRAILBLAZER INNOVATOR

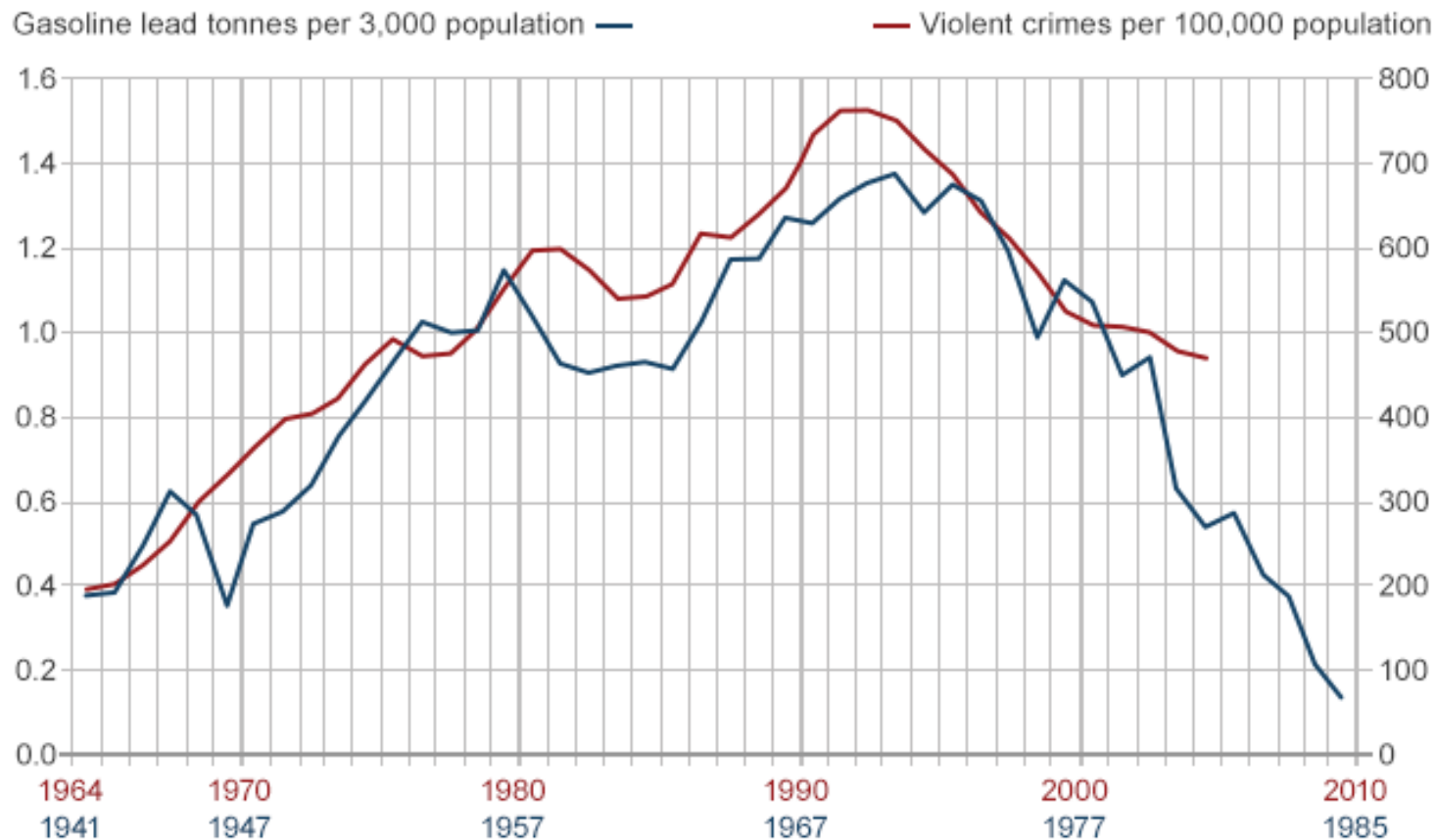
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Lead exposure and violent crime, USA



Source: R. Nevin



Water Consumption in Edmonton During Olympic Gold Medal Hockey Game

2010

