

Errata

After Publication, we found a few errors in Figures and text from *How Are Manitoba's Children Doing?*.

The distribution of neighbourhood average income quintile ranges in Manitoba, Winnipeg, and Brandon were represented incorrectly in the income quintile maps. Figure 1.1: Distribution of Rural and Urban Neighbourhood Income Quintiles in Manitoba, 2006 Census Data Dissemination Areas and Figure 1.2: Distribution of Urban Income Quintiles in Winnipeg, 2006 Census Data Dissemination Area (pages 3-4) were incorrect. The numbers quoted in the text were correct.

Glossary terms have been changed. These were:

- Bentler and Bonnet's Normed Fit Index (NFI) (Reference added) (page 287)
- MCHP Research Registry (Updated glossary term) (page 303)
- Mood and Anxiety Disorders (Updated glossary term) (page 304)
- Non-Normed Fit Index (NNFI) (reference added) (page 305)

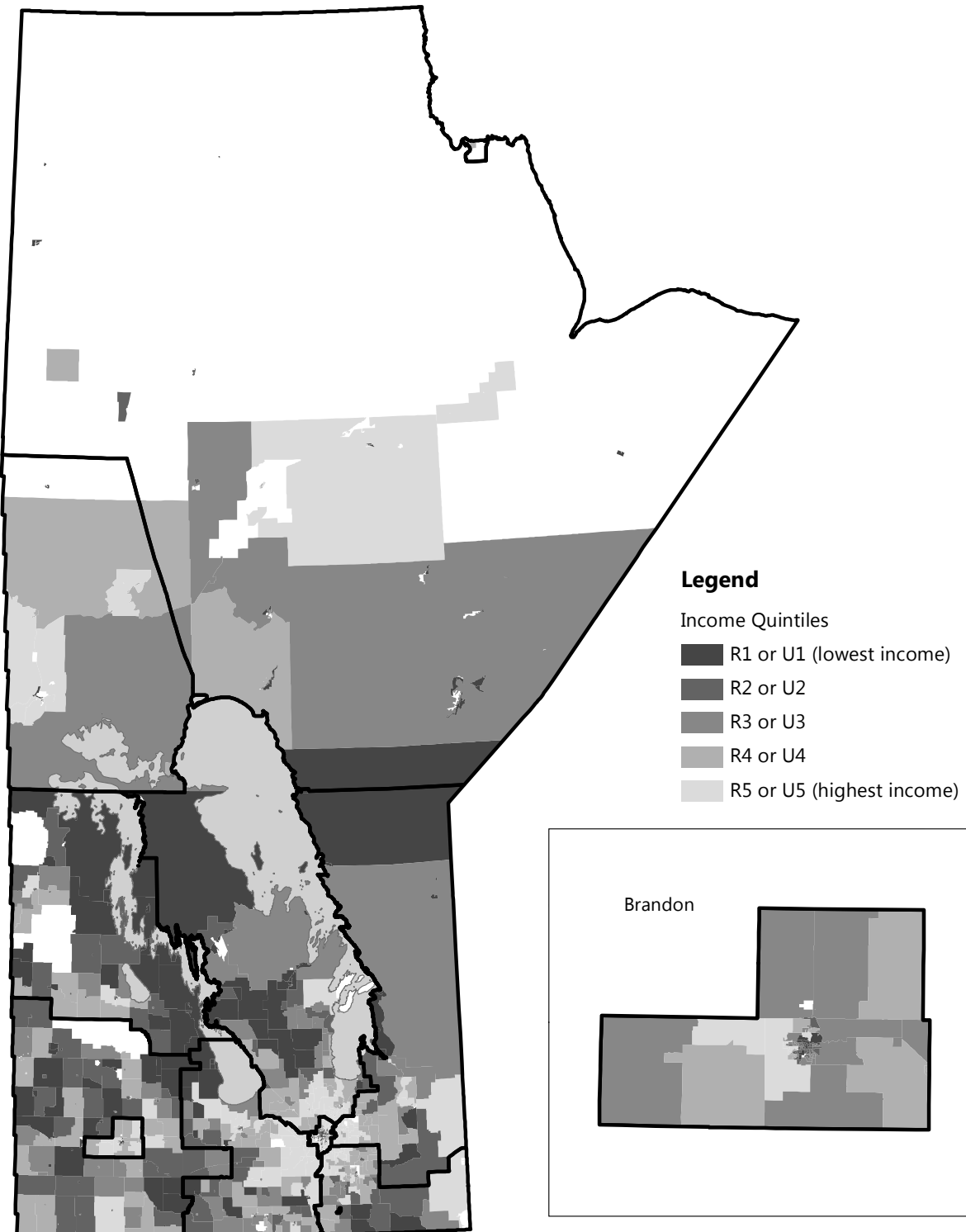
Appendix Figure A8.1: High School Completion Rates by Aggregate Region for Students Enrolled in Grade 9 in 2007/08, Measured Using Cross-Sectional and Cohort Methods; and Appendix Figure A8.2: High School Completion Rates by Income Quintile for Students Enrolled in Grade 9 in 2007/08, Measured Using Cross-Sectional and Cohort Methods (page 338) were incorrect. The figure titles and data for the six-year cohort method did not match the report text. The numbers quoted in the text were correct.

The new updated deliverable pages are attached.

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Figure 1.1: Distribution of Rural and Urban Income Quintiles in Manitoba
2006 Census Dissemination Areas

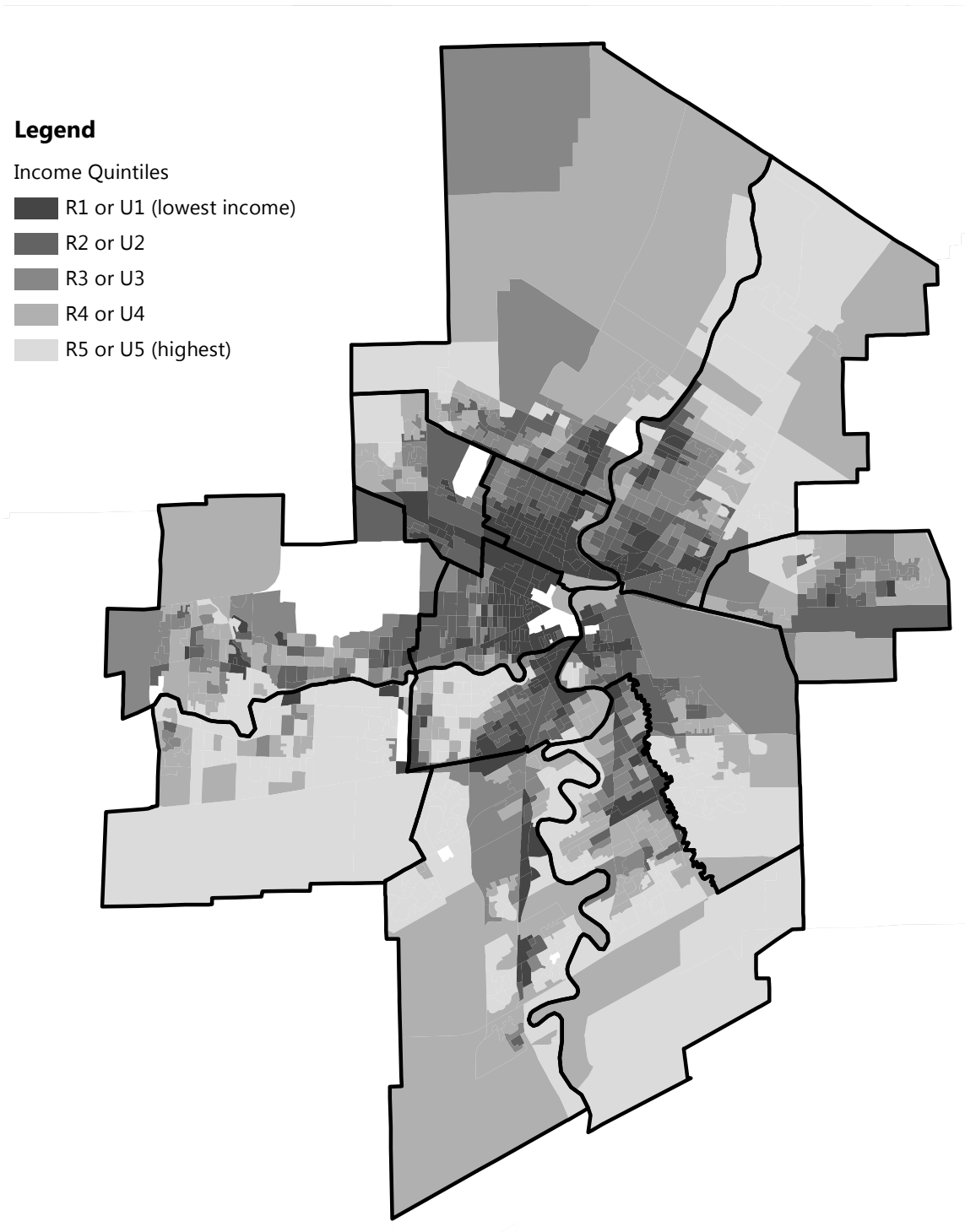


Charles Burchill, Manitoba Centre for Health Policy. January 2009
Based on 20% Population groups of Average Household Income
by Census Dissemination Areas. Census of Canada 2006.

Note: White areas in map indicate Census areas which are not enumerated (such as parks), are suppressed due to small numbers, or have not been reported for other reasons.

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Figure 1.2: Distribution of Urban Income Quintiles in Winnipeg
2006 Census Dissemination Areas



Charles Burchill, Manitoba Centre for Health Policy. January 2009
Based on 20% Population groups of Average Household Income
by Census Dissemination Areas. Census of Canada 2006.

Note: White areas in map indicate Census areas which are not
enumerated (such as parks), are suppressed due to small numbers,
or have not been reported for other reasons.

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Bentler and Bonnet's Normed Fit Index (NFI)

Also called Bentler–Bonett Normed Fit Index, NFI is an incremental measure of goodness of fit for a statistical model, which is not affected by the number of parameters/variables in the model. Goodness of fit is measured through a comparison of the model of interest to a model of completely uncorrelated variables.

Statsoft Inc. Other indices of fit – Bentler Fit - Bentler-Bonett Normed Fit Index. 2012. <http://documentation.statsoft.com/STATISTICAHelp.aspx?path=SEPATH/Sepath/Notes/Technical/OtherIndicesofFitBentlerBonettNormedFitIndex>. Accessed October 12, 2012

Ullman JB. Structural equation modeling. In: Tabachnick BG, Fidell LS, eds. *Using Multivariate Statistics*. 5th ed. Boston, MA: Pearson Education Inc.; 1996: 676-780.

Bollen's Normed Index (Rho1)

Incremental measure of goodness of fit for a statistical model, the normed index (also known as relative fit index) is similar to **Normed Fit Index** with the exception that the fit is affected by each additional parameter or variable in the model.

StatSoft Inc. Other indices of fit - Bollen's Rho. 2012. <http://documentation.statsoft.com/STATISTICAHelp.aspx?path=SEPATH/Sepath/Notes/Technical/OtherIndicesofFitBollensRho>. Accessed October 12, 2012

Widaman KF, Thompson JS. On specifying the null model for incremental fit indices in structural equation modeling. *Psychological Methods* 2003;8(1): 16-37.

Bootstrap

"A technique for estimating the variance and the bias of an estimator by repeatedly drawing random samples with replacement from the observations at hand. One applies the estimator to each sample drawn, thus obtaining a set of estimates. The observed variance of this set is the bootstrap estimate of variance. The difference between the average of the set of estimates and the original estimate is the bootstrap estimate of bias" (Last, 1995).

Last JM. *A Dictionary of Epidemiology*. New York, NY: Oxford University Press; 1995.

Cadham Provincial Laboratory Database

An administrative health database containing information about the services provided by the Cadham Provincial Laboratory, including public health laboratory services (microbiology, serology, parasitology, and virology) and reference services for identification and typing of microorganisms. Request for these services (from health practitioners) are captured in this database, as well as the results of the requests. Patient information and clinical information are also provided.

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Manitoba Health Insurance Registry

A longitudinal population-based registry of all individuals who have been registered with **Manitoba Health** at some point since 1970. It includes date fields for registration, birth, entry into province, migration in/out of province, and death. It provides the needed follow-up information to track residents for longitudinal and intergenerational analyses. Primary identification is achieved by two numbers: every family in Manitoba is assigned a family registration number and every individual is assigned a unique **Personal Health Identification Number (PHIN)** by the Ministry of Health. These components are also included in the Manitoba Health Insurance Registry. The PHIN is encrypted in the registry data received by the Manitoba Centre for Health Policy (MCHP) so that individuals cannot be identified. Individuals moving into the province and not yet eligible for coverage, families of military personnel (insured federally), and members of the RCMP (insured federally) are not included in the registry. "Snapshot files" of the Manitoba Health Insurance Registry data, received semi-annually at MCHP from Manitoba Health, are used to create and maintain information in the **MCHP Research Registry**.

Maternal Depression

A measure of whether a mother was depressed at any point from the child's birth to the child's fourth birthday. In this study, depression was defined as a mother with at least one of the following:

- a. physician visit with an ICD-9-CM code of 311 (depressive disorder), 296 (affective psychoses), or 309 (adjustment reaction)
- b. physician visit with an ICD-9-CM code of 300 (neurotic disorders) in conjunction with a prescription for an antidepressant medication or mood stabilizer (excluding anti-anxiety medications)
- c. hospitalization with an ICD-9-CM code of 296.2-296.8, 300.4, 300, 309, or 311, in conjunction with a prescription for an antidepressant medication or mood stabilizer (excluding anti-anxiety medications)

This definition includes, but is not limited to, post-partum depression. See online appendix for a list of relevant **Anatomical Therapeutic Chemical (ATC)** drug codes and **Drug Identification Numbers (DIN)**.

MCHP Research Registry (Research Registry)

A longitudinal population-based research registry that is derived from data in the **Manitoba Health Insurance Registry** and other data files in the MCHP Data Repository. "Snapshot files" of the Manitoba Health Insurance Registry data, received semi-annually at the Manitoba Centre for Health Policy (MCHP) from **Manitoba Health**, are integrated with historical registry data at MCHP to maintain the MCHP Research Registry. Consistent programming efforts are applied to the repository data files in order to provide value-added data from the MCHP Research Registry. The Research Registry is a key resource for the research conducted at MCHP and is central to the use of the **Population Health Research Data Repository**.

Medical Claims

Provider (hospital/physician) claims for services submitted to the provincial government for payment. For further information, see **Physician Billings**.

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Mid

An aggregate geography, which includes all of the **Regional Health Authorities (RHAs)** in central Manitoba: Interlake, North Eastman, and Parkland⁴⁶.

Mood and Anxiety Disorders

Mood disorder is the term given for a group of diagnoses in the Diagnostic and Statistical Manual of Mental Disorders classification system where a disturbance in the person's mood is hypothesized to be the main underlying feature. Anxiety disorder is a group of diagnoses in this classification system that includes one or more anxiety disorders as the main diagnosis.

In this study, mood and anxiety disorders are defined as a person having at least one of the following within a designated five-year time period:

- a. one or more hospitalizations with a diagnosis for depressive disorder, affective psychoses, neurotic depression or adjustment reaction: ICD-9-CM codes 296.2–296.8, 300.4, 309 or 311; ICD-10-CA codes F31, F32, F33, F341, F38.0, F38.1, F41.2, F43.1, F43.2, F43.8, F53.0, F93.0 or with a diagnosis for a manic disorder, anxiety state, phobic disorders, obsessive-compulsive disorders or hypochondriasis: ICD-9-CM codes 296.1, 300.0, 300.2, 300.3, 300.7; ICD-10-CA codes F40, F41.0, F41.1, F41.3, F41.8, F41.9, F42
- b. one or more hospitalizations with a diagnosis for anxiety disorders: ICD-9-CM code 300; ICD-10-CA codes F32, F341, F40, F41, F42, F44, F45.0, F45.1, F45.2, F48, F68.0, or F99 AND one or more prescriptions for an antidepressant, anxiolytic or mood stabilizer: ATC codes N05AN01, N05BA, N06A
- c. one or more physician visits with a diagnosis for depressive disorder or affective psychoses: ICD-9-CM codes 296, 311
- d. one or more physician visits with a diagnosis for anxiety disorders: ICD-9-CM code 300 AND one or more prescriptions for an antidepressant, anxiolytic or mood stabilizer: ATC codes N05AN01, N05BA, N06A
- e. three or more physician visits with a diagnosis for anxiety disorders or adjustment reaction: ICD-9-CM code 300, 309

See online appendix for a list of relevant **Anatomical Therapeutic Chemical (ATC)** drug codes and **Drug Identification Numbers (DIN)**.

Multinomial Regression

A statistical analysis that estimates the probability of an event occurring as a function of other factors. Multinomial regression may be used on an outcome with more than two levels or categories (Chan, 2005). This statistical analysis is constrained by the ability to identify an "association" between the explanatory and the outcome variables that is not necessarily a causal relationship.

Chan YH. Biostatistics 305. Multinomial logistic regression. *Singapore Med J.* 2005;46(6):259–268.

Negative Binomial Distribution

A discrete probability distribution appropriate for analyzing count data when an event is relatively rare, but is highly variable over the entire population. The negative binomial distribution is often employed in regression analyses when the data are over-dispersed.

⁴⁶ On June 1, 2012, the RHAs were amalgamated into larger regions, which do not correspond to the aggregate regions in this report.

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Non–Normed Fit Index (NNFI)

Incremental measure of goodness of fit for a statistical model, which takes into account the size of the correlations in the data and the number of parameters in the model. This index provides an adjustment to the Normative Fit Index that incorporates the degrees of freedom in the model.

StatSoft Inc. Single sample goodness of fit indices. 2012. <http://documentation.statsoft.com/STATISTICAHelp.aspx?path=SEPATH/Sepath/Notes/SingleSampleGoodnessofFitIndices> Accessed. Accessed October 12, 2012.

Ullman JB. Structural equation modeling. In: Tabachnick BG, Fidell LS, eds. *Using Multivariate Statistics*. 5th ed. Boston, MA: Pearson Education Inc.; 1996: 676-780.

North

An aggregate geography area, which includes all of the **Regional Health Authorities (RHAs)** in northern Manitoba: Burntwood, Nor–Man, and Churchill.⁴⁷

Odds Ratio

The ratio of the odds (likelihood) of an event occurring in one group to the odds of it occurring in another group or to a data–based estimate of that ratio. These groups might be men and women, an experimental group and a control group, or any other dichotomous classification.

Personal Health Information Number (PHIN)

A unique numeric identifier assigned by **Manitoba Health** to every person registered for health insurance in Manitoba and to non–residents who are treated at facilities that submit claims electronically. Introduced as a linkage key in 1984, it was issued to the public in 1994 as the basic access identifier for the Pharmacare/**Drug Programs Information Network (DPIN)**. At the Manitoba Centre for Health Policy (MCHP), the PHIN is a scrambled (encrypted) version of the Manitoba Health PHIN assigned via the Research Registry. Unique numeric identifiers are assigned to individuals who do not have scrambled numeric PHINs.

Pharmaceutical Claims

Drug prescription claims submitted for reimbursed to Manitoba's Pharmacare and Family Services drug insurance programs by federal drug insurance programs, such as Health Canada and Veteran Affairs and by private drug insurance programs. For further information, see **Drug Program Information Network (DPIN)**.

Physical Health and Well–Being

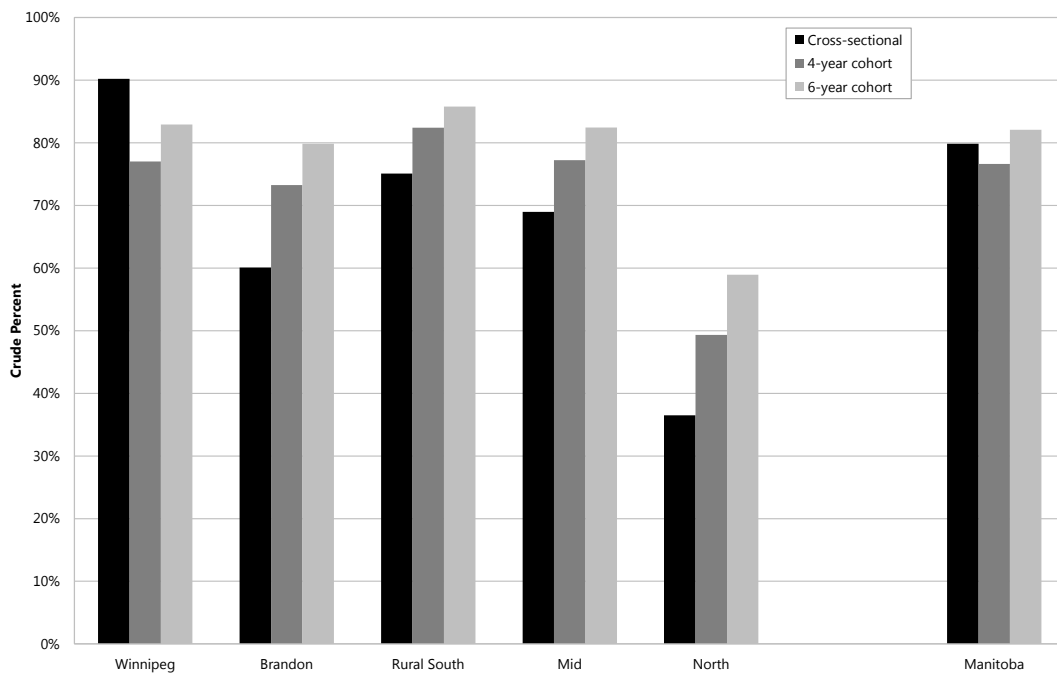
A set of 13 items on the **Early Development Instrument (EDI)** used to assess a Kindergarten child's readiness for school in terms of their "physical independence, general health, gross and fine motor skills" and other similar characteristics (Offord Centre for Child Studies, 2010).

Offord Centre for Child Studies. *The Early Development Instrument (EDI) Guide*. 2010. http://www.offordcentre.com/readiness/files/EDI_Guide_2010-2011_EN.pdf. Accessed August 15, 2012.

47 See note 46.

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Appendix Figure A8.1: High School Completion Rates by Aggregate Region for Students Enrolled in Grade 9 in 2004/05*, Measured Using Cross-Sectional and Cohort Methods
Crude percent of Grade 9 students completing high school



* Grade 9 enrolment year 2004/05 corresponds to graduation year 2007/08 for the cross-sectional and 4-year cohort methods, and to graduation year 2009/10 for the 6-year cohort method

Appendix Figure A8.2: High School Completion Rates by Income Quintile for Students Enrolled in Grade 9 in 2004/05*, Measured Using Cross-Sectional and Cohort Methods
Crude percent of Grade 9 students completing high school

